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In pursuit of innocence: A study of race and ethnicity differences in time to exoneration.

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IN PURSUIT OF INNOCENCE: A STUDY OF RACE AND ETHNICITY
DIFFERENCES IN TIME-TO-EXONERATION

By

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M.S., University of Louisville, 2014

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DEDICATION

This dissertation is dedicated to my five children: Jessica, Joshua, Andrew, Sara, and Noah. You are the beat of my heart, the air that I breathe. Your presence has challenged me to leave no effort unspent, to face forward, and to press on in the face of overwhelming obstacles. It is my deepest hope that this will serve as proof of what is possible when you refuse to give up and provide you with courage and inspiration when you need it most, as you have done for me time and time again.

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ABSTRACT

IN PURSUIT OF INNOCENCE: A STUDY OF RACE AND ETHNICITY
DIFFERENCES IN TIME-TO-EXONERATION

Virginia E. Braden

March 31, 2021

Wrongful convictions take years from an individual's life, rob them of the comfort and presence of their family, rip them from their place in the community, and subject them to the harsh pains of imprisonment. Exonerees can spend years and even decades in the pursuit of proving innocence and obtaining an exoneration. The purpose of this study is to examine the impact of race and ethnicity upon time-to-exoneration through the lens of focal concerns theory. Focal concerns theory has been used to demonstrate that criminal justice actors are influenced by legal and extralegal factors in decision making and rely on stereotypes to assess blameworthiness, protection of the community, and in navigating practical constraints and consequences. Utilizing data obtained from the National Registry of Exonerations (N =507) survival analysis was performed. The findings indicate that black exonerees experienced a longer time-to-exoneration than did white exonerees and that Hispanic exonerees experienced the shortest time-to-exoneration of all. The legal components of a case were found to affect time-to-exoneration. The impact of these factors affected the racial and ethnic groups differently, resulting in detrimental impact to minorities. The findings offer support for focal concerns theory in the demonstration that racial and ethnic differences are present in time to exoneration resulting in disparities which disadvantage minorities. Further

support for focal concerns theory is found in that the legal components of a case are

shown to be associated with racial and ethnic differences in time-to-exoneration.

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CHAPTER 1 INTRODUCTION

An exoneration occurs when an individual who has been convicted of a crime is officially cleared based on new evidence of innocence with no unexplained physical evidence of that individual's guilt remaining (Gross & Shaffer, 2012; NRE, 2019, para 1). Exoneration is a process spanning from the wrongful conviction of an innocent defendant to an official declaration of the defendant's innocence (Rafail & Mahoney, 2019). An exoneration may occur while a person is living or be awarded posthumously. No guidelines exist that are provided by law that establish an exact route to an exoneration. Consequently, the journey to exoneration may take years and even decades to complete and present significant obstacles (Gould & Leo, 2015).

After having been convicted, there are three legal processes that may be undertaken by an individual seeking to be exonerated. Namely, defendants seeking exoneration may file a motion for a new trial based on new evidence, they may file a direct appeal, or they may request a post-conviction review (Mostaghel, 2011). Each of these avenues is fraught with restrictions and formidable obstacles. As a result, an individual seeking an exoneration finds themselves substantially limited in their chances of obtaining an exoneration (Chinn & Ratliff, 2008; King, 2019).

As an awareness of the plight of the wrongfully convicted has become more and more mainstream, some progress has been made in addressing access to an exoneration. Many of these avenues, however, carry stipulations that effectively bar an innocent inmate from utilizing them (Garrett, 2011). In short, an individual seeking exoneration

faces an uphill battle with a system that is markedly hesitant to admit and take

responsibility for error (Gould & Leo, 2015; Gutman, 2017). Currently, the most

comprehensive research on all known exonerations in the U.S. is conducted by the

National Registry of Exonerations (Garrett, 2017, Rafail & Mahoney, 2019). The data

they have compiled shows the number of exonerations has increased dramatically in

recent decades (NRE, 2020). Much of this increase corresponds with advancements in

DNA technology and forensic capabilities (Gross et al., 2018). As of the time of this

writing, the total number of exonerations granted between 1989 and July 2020 is 2,631

with over 23,000 years of wrongful incarceration served before being exonerated (NRE,

2020).

Data collected on exonerations reveals great variance in terms of the number of

exonerations arising from various types of crimes (Gross et al., 2017). Some of this

disparity arises from the likelihood of the presence of physical evidence making those

cases more conducive to review as forensic testing capabilities have increased. For

example, data indicates that over half of all exonerations are for the crimes of murder and

sexual assault (Garret, 2017; Gross & Shaffer, 2012). By comparison, felony assault

convictions, which occur much more frequently than do homicide and sexual assault

convictions, result in only about 1% of all violent crimes exonerations (Gross, 2016;

Gross & Shaffer, 2012). Similarly, robbery convictions, which also occur at a much

higher rate than homicide and rape convictions, account for only about 5% of all violent

crimes exonerations (Gross & Shaffer, 2012).

The empirical literature on exonerations provides information regarding factors

arising as contributing causes to the plight of innocent but convicted defendants (Beadau

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& Radelet, 1987; Drizin & Leo, 2003; Gould & Leo, 2010; Gould et al., 2012). Scholarly

research indicates the factors accompanying cases ending in exoneration are: eyewitness

misidentification, false confessions, misconduct by police or prosecutors, perjury,

inadequate defense, the use of informants, and false or misleading forensic evidence

(Acker et al., 2015; Borchard, 1961; Gould & Leo, 2010; LaPorte, 2017). The vast

majority of exonerations have more than one factor present (Gross & O'Brien, 2007).

Data shows that perjury, false accusations, and eyewitness misidentification are

the three most prevalent factors across all types of cases resulting in exoneration (Gould

& Leo, 2010; Norris et al., 2020). Perjury and false accusation have been shown to be

present in 70% of homicide exonerations and in about 85% of all child sexual abuse cases

(Norris et al., 2020). Eyewitness misidentification of the perpetrator occurs in over 75%

of all exoneration cases (Gould & Leo, 2010). Research shows that approximately 25%

of these eyewitness misidentifications were not mistaken identifications but deliberate

(Gross & Shaffer, 2012).

When considering race and ethnicity, in two ways, analysis of the current data

regarding exonerations reveals differences are present (Free & Ruesink, 2018; Gross et

al, 2017; NRE, 2018). First, though blacks comprise about 13% of the US population,

they make up 57% of all exonerations and 61% of exonerations won as a result of DNA

testing (Bronson & Carson, 2019; Gross et al., 2017; Innocence Project, 2018). Research

on exoneration data also reveals evidence of racial disparity in that blacks are even more

greatly overrepresented among exonerated defendants than they are in the prison

population (Smith & Hattery, 2011). In some categories of crimes, such as homicides and

sexual assaults or rape the disparity is far greater than in others (Gross & Shaffer, 2012).

Second, the race and ethnicity of the victim has importance and has been shown to be a factor in wrongful conviction cases concluding in an exoneration (Gross et al., 2017; Harmon, 2004; Johnson et al., 2013; O'Brien et al., 2019). Research reveals a far greater exoneration rate for minority innocent defendants of any race or ethnicity who were convicted of killing a white victim than for white innocent defendants convicted of killing a white victim (Harmon, 2004). In violent crime exonerations as a whole, there is a much higher rate of exonerations for minority defendants wrongfully convicted of crimes against a white victim (Gross et al., 2017; Smith & Hattery, 2011).

A review of the exoneration data maintained by the National Registry of Exonerations (NRE) indicates racial and ethnic differences in time-to-exoneration exist. The data compiled shows that black innocent defendants spend 45% more time wrongfully imprisoned before being exonerated than do white innocent defendants (NRE, 2018). Data on wrongfully convicted Hispanics is scant. However, what data is available on the exonerations of Hispanics shows evidence of disparity in time-to-exoneration when compared to white exonerees in some categories of crimes (Gross et al., 2017; NRE, 2018; Olney & Bonn, 2015).

An examination of the empirical literature regarding time-to-exoneration reveals there is a dearth of scholarly attention to this particular topic. The few studies that do exist regarding time to exoneration do not focus on race or ethnicity as the central issue but include it as a control variable (Gould & Leo, 2015; Olney & Bonn, 2015; Rafail & Mahoney, 2019). Additionally, none of the empirical literature regarding race and ethnicity and time to exoneration provides a theoretical premise for their research.

A theory is important in providing context for the results of empirical study (Higgins et al., 2012; Norris et al, 2020). Theories provide an explanation for the relationship between two or more factors or events (Akers, 1999). The lack of theoretical premise in this area demonstrates a critical gap in the literature because the results only demonstrate correlates or factors that may be related to time-to-exoneration. This study aims to overcome this limitation present in the literature. A theoretical premise provides a richer understanding that leads to policy and programming development.

In the present study, Focal Concerns Theory (FCT) serves as a theoretical framework. FCT has been utilized in the scholarly examination of the impact of race and ethnicity in a broad range of arenas within our justice system (Albonetti & Hepburn, 1996; Steffensmeier & Demuth, 2001; Steffensmeier et al. 2017; Vito et al., 2018). Focal concerns theory posits that judges and other actors within the justice system utilize heuristics and stereotypes to assist them in making decisions (Steffensmeier, 1980). This template, as it were, becomes a default mechanism by which determinations are made regarding individuals based on both legal and non-legal factors. In this manner, stereotypical beliefs, such as young black males are more prone to criminality, impact the decisions and outcomes for this population within our justice system (Hartley et al., 2007; Steffensmeier et al., 1998).

Focal concerns theory has been used in the study of the impact of race and ethnicity on the decision making of police, prosecutors, and judges, among others (Franklin, 2010; Higgins et al., 2012; Logan et al., 2017). Additionally, it has been utilized to provide context in the analysis of outcomes across a diverse range of legal processes and in a wide range of court settings (Hartley, et al., 2007). However, focal

concerns theory has not been utilized in examining the impact of race and ethnicity on time-to-exoneration. Since theory provides an avenue for the rational organization of empirical data and aids in understanding how two or more factors are related, the application of focal concerns theory to this topic is logical and can be expected to further our understanding of this important issue. Applying FCT to the study of race and ethnicity on time-to-exoneration will fill a gap in the current literature.

The purpose of this dissertation is to examine racial and ethnic differences in time-to-exoneration applying Focal Concerns Theory using data obtained from the National Registry of Exonerations (N =507). Survival analysis was performed to address the possibility of racial and ethnic disparities in time-to-exoneration within the context of focal concerns theory. Specifically, the analysis was used to examine the likelihood that black and Hispanic individuals experience greater time-to-exoneration when compared to white individuals. Using survival analysis, Focal Concerns Theory is utilized as the theoretical premise to contextualize the likelihood of racial and ethnic differences in time-to-exoneration. The ability to understand time-to-exoneration using FCT and survival analysis provides insight into how blameworthiness, protection of the community, and practical constraints affect racial and ethnic differences in time-to-exoneration that have not been previously tested.

The following chapters expand upon arguments presented in this chapter. In Chapter 2, relevant literature is discussed in three general areas: defining exonerations, the making of an exoneration, general percentages of exonerations, correlates of exonerations, racial and ethnic differences in exonerations, time-to-exoneration, and Focal Concerns Theory. Chapter 2 helped in the development of the conceptual design

and hypotheses for this dissertation. Data used for this study is discussed in Chapter 3.

Chapter 4, presents the results as well as the interpretation of the study findings. The final

chapter includes a discussion of the results as well as some potential policy and

programming based on these results. Additionally, Chapter 5 also includes the potential

limitations, prospects for future research, and the conclusion.

CHAPTER 2

LITERATURE REVIEW

The literature review begins with an understanding of exonerations, the impact of race and ethnicity on exonerations, and covers the limited literature regarding time-to-exonerations. Next, the literature review presents the actions necessary for a convicted innocent defendant to be exonerated. Then, the literature review presents the basic statistics on exonerations. This is followed by a presentation of the correlates to exonerations from the empirical literature. The literature review then moves to present the racial and ethnic differences in exonerations. Next, the literature review moves to the time-to-exoneration literature. Lastly, the literature review presents Steffensmeier's (1998) version of focal concerns theory. Here, the literature review shows that this theoretical premise has been used to contextualize racial and ethnic differences in multiple parts of criminal justice, but not to contextualize the racial and ethnic differences in time-to-exonerations.

Defining Exonerations

The literature review for exonerations begins by creating some common understanding through a discussion of varied definitions of exonerations and finally, adopting a definition of exoneration for this study. Some scholars reserve the term exoneration for only those cases of wrongful conviction in which a defendant has

provided proof of innocence by virtue of DNA (Hessick, 2017). However, recent research has primarily defined an exoneration as a legal determination occurring when an individual is relieved of all legal consequences of a criminal act he or she was previously convicted of as result of the presentation of evidence of his or her actual innocence in any form (Garrett, 2017; Leo & Gould, 2009).

An exoneration also been defined as the decision to vacate a conviction by a court or executive pardon arising from proof of innocence of the crime for which the individual was convicted that was not presented at time of conviction and for which the defendant was not re-tried (Garrett, 2007). Similarly, Gross and Ellsworth (2012, p.164) defined an exoneration as "an official act-a pardon, a dismissal or an acquittal declaring a defendant not guilty of a crime for which he or she had been convicted, because new evidence of innocence that was not presented at trial required reconsideration of the case." In the context adopted by the research of recent years, the decision to exonerate does not arise from procedural or legal error but is predicated on the court's move to eradicate the conviction based upon factual innocence of the convicted person and evidence he or she was not involved or that a crime did not occur (Gould & Leo, 2015; Leo, 2016; Risinger, 2006; Zalman, 2010). This dissertation will use the National Registry of Exonerations (NRE) definition of exoneration. The National Registry of Exonerations provides a broad definition of exoneration as well as a very precise and detailed definition. This paper will utilize the broad definition of exoneration as put forth by the National Registry of Exonerations and held as criteria for inclusion in their database (NRE, 2019). The National Registry of Exonerations (2019, para 1) broadly defines an exoneration as occurring "when a person who has been convicted of a crime is officially cleared based

on new evidence of innocence." Furthermore, the NRE's definition stipulates that no unexplained physical evidence of that person's guilt may remain (Gross & Shaffer, 2012; NRE, 2019).

The Making of an Exoneration

An exoneration occurs when an individual who has been convicted of a crime is later found to be innocent of that crime and relieved of all legal consequences of that conviction by an authority with the power to do so, based on new evidence of his or her innocence (Gross & Shaffer, 2012). This may happen while the individual is alive or deceased. Though there is a known and established process of law by which an individual can be convicted and found guilty of a crime, there is no process set by law that lays forth how a convicted individual may be proven innocent. An individual seeking an exoneration faces significant obstacles which arise from procedural restrictions, as well as the reluctance of the justice system to admit error (Gould & Leo, 2015; Gutman, 2017).

Generally, states allow for three types of legal action an individual may take in hopes of establishing innocence and obtaining an exoneration (Mostaghel, 2011). A convicted individual may file a motion for a new trial based on new evidence not presented at the original trial. Additionally, he or she may file a direct appeal. Lastly, the convicted individual may file a request for a postconviction review using grounds that could not have been raised on direct appeal.

Major and substantial restrictions and requirements exist regarding these post-conviction legal measures, often resulting in the failure of the courts to accurately recognize innocence. For example, in filing motions for a new trial based on new

evidence, many states limit the time period in which a motion for a new trial may be filed. This time limit may vary from a few months to a few years (King, 2019). In the state of Ohio, for instance, except in the instance of a Brady violation[1], an inmate must file a motion for a new trial within 120 days of the jury verdict (M. Thomas, personal communication, October 7, 2019). Minnesota allows just 15 days from the date of the verdict while other states such as Alabama have time limits of up to 60 days (White, 2000). In contrast, the state of Kansas provides a period of two years from the date of the final judgment to file a motion for a new trial based on newly discovered evidence (KS Stat § 22-3501, 2019). Approximately one-third of states allot a time period of between one and three years to file a motion for a new trail based upon the discovery of new evidence (White, 2000). Since most new evidence does not come to light until long after the original trial, and quite often only after an investigation has been undertaken, few who have been wrongfully convicted and imprisoned have the ability to provide evidence of their innocence within this time frame. Other formidable barriers may be present as well such as the requirement to prove the new evidence could not have been discovered earlier, and the burden of showing that the evidence would rise to a standard that would reasonably assure an acquittal at trial (Chinn & Ratliff, 2008; Mostaghel, 2011). Winning

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[1] In 2006 the Supreme Court defined a Brady violation as: "A Brady violation occurs when the government fails to disclose evidence materially favorable to the accused. This Court has held that the *Brady* duty to disclose extends to impeachment evidence as well as exculpatory evidence, and *Brady* suppression occurs when the government fails to turn over even evidence that is 'known only to police investigator and not to the prosecutor.' 'Such evidence is material if "there is a reasonable possibility that had the evidence been disclosed to the defense, the result of the proceeding would have been different",' although a 'showing of materiality does not require demonstration by a preponderance of the evidence that disclosure of the suppressed evidence would have resulted ultimately in the defendant's acquittal.' The reversal of a conviction is required upon a 'showing that the favorable evidence could reasonably be taken to put the whole case in such a different light as to undermine confidence in the verdict."

a new trial does not guarantee the individual will be found innocent but it affords the defendant a second chance at presenting his or her case.

An examination of the direct appeal process and the post-conviction review reveals problems with the utility of these means in obtaining an exoneration. Demanding standards of review, limited access for various reasons, and a demonstrated lack of willingness to address "trial errors" such as eyewitness identification unless there is other evidence supporting innocence, are generally held as common barriers to proving innocence postconviction (King, 2019). Demonstrating this, research that examined outcomes of 250 cases in which DNA ultimately proved the defendant innocent showed that 90% of those defendants failed in challenging their convictions utilizing one or more of judicial processes outlined above (Garrett, 2011). This points to a judicial system that is virtually unable to detect innocence in the aftermath of a wrongful conviction.

In recent years, as states have been willing to examine the legal hurdles that have blocked the establishment of innocence postconviction, several new options have been added that may be utilized by individuals claiming innocence and seeking an exoneration. First, all states now have statutes that allow a convicted individual to request access to DNA testing. It is important to note that while all states have DNA testing access statutes, some present significant hurdles that prevent the convicted individual from being able to access DNA testing (McGlynn, 2019). For example, in an in-depth analysis of DNA exonerations Garrett (2011) found that prosecutors opposed DNA testing in 1 out of 5 cases. Further, in some cases, prosecutors have made waivers of the right to seek DNA a condition of the plea deal (Wiseman, 2012). Therefore, an individual may not in fact be able to access critical DNA testing which could definitively prove innocence and

exonerate him or her. Further, even defendants who are eventually able to secure DNA

testing, often face lengthy delays due to opposition from prosecutors which significantly

impacts the length of time it takes to be exonerated (Sheck, et al., 2000).

Second, some states have established Conviction Integrity Units, which are

typically housed within the prosecutor's office, and are charged with preventing,

identifying, and correcting wrongful convictions. Though this fundamental change in

addressing wrongful convictions would seem to indicate a shift in attitudes of

government actors, many remain skeptical that the process of conviction review is in

large part held in name only (Holloway, 2016). The latest data available shows the rate of

exonerations procured by Conviction Integrity Units is increasing yearly (Norris et al,.

2020). However, research on specialized units shows wide and varied impact and range

of activity and it is generally acknowledged that, for many of the units, it is too soon to

assess their effectiveness (Scheck, 2017).

Only after having accessed one or more of the aforementioned legal options and

having been successful in proving innocence, may a wrongfully convicted person may be

exonerated of the crime for which he or she was convicted. Procedurally an exoneration

may happen by means of a pardon, a dismissal of charges by the courts in light of the

newly presented evidence that was not previously presented at the original trial, as an

acquittal after being granted a new trial, by issue of a certificate of innocence, or by

posthumous exoneration (Gross & Shaffer, 2012). The exoneration may include more

than one of these elements in the process of the exoneration. For example, a convicted

individual who has been acquitted after being granted a new trial may also have a pardon

issued by the governor or other state entity.

General Exoneration Statistics

In the past two decades, concerted efforts aimed at the comprehensive collection of data on exonerations have been initiated. Data regarding exonerations is largely compiled by organizations such as Innocence Project organizations and the National Registry of Exonerations (Hampikian et al., 2011). Some bodies of research focus solely on post-conviction DNA exonerations. Specifically, these are exonerations in which DNA evidence was the basis of proof of innocence that resulted in the conviction being vacated or the indictment dismissed (West & Meterko, 2015). In contrast, other bodies of research study all known exonerations in which innocence was proven regardless of the presence of DNA evidence. The most well-known research that examines and reports on all known exonerations in the U.S. is that conducted by the National Registry of Exonerations (Garrett, 2017, Rafail & Mahoney, 2019)[2].

The data on exonerations points to substantial growth in the number of exonerations over the past decades. For example, research aimed at identifying historical exonerations shows that between 1980 and 1988, 73 individuals were exonerated (Gross et al., 2018). From 1989 to 2003 the number of exonerations increased from approximately 8 per year to 33 per year, which is a 312% increase per year (Gross et al., 2005; Gross & Shaffer, 2012). The increase for this time period corresponded with advancements in DNA technology and the rise of organizations, such as the Innocence

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[2]It is widely acknowledged that capturing the true number of exonerations is an unattainable goal as there simply exists no mechanism to capture them (Gross & Ellsworth; 2012; Gross, 2013). Without the publicity of an innocence organization's involvement or the visibility of high profile case exonerations can and do go unnoticed (Gross & Shaffer, 2012). The efforts to collect data on exonerations is ongoing with new and historical cases routinely added as they come to light (Gross, 2016). Despite the limitations, the data which has been collected on known exonerations provides us with critical insights.

Project, which is dedicated to reviewing cases of possible wrongful conviction and seeking exonerations on behalf of their clients (Gross, et al., 2018).

The ability of DNA testing to prove innocence and win exonerations also had the result of birthing an "innocence consciousness" in the public, attuning them to the need for continued efforts to exonerate innocent defendants and resulting in a willingness to address the errors that led to the wrongful conviction (Zalman, 2010). Each decade since has yielded dramatic increases in the numbers of exonerations. By the year 2012 there were 1,301 known exonerations. By 2015, exonerations occurred at a rate of nearly three per week (Gross, 2016).

The number of exonerations and the statistics compiled regarding the aspects of all exonerations are fluid and fluctuate as the number of exonerations continues to increase. Though advances in DNA testing were responsible for the initial dramatic increase in exonerations, the data shows that the majority of exonerations have been won through proof of innocence that did not include DNA evidence. This is not surprising as 80% to 90% of cases do not contain biological evidence conducive to DNA testing (Sheck, 2007). Additionally, the available data shows many of the known exonerations have been achieved through the efforts of organizations and agencies that work solely on procuring exonerations (Norris et al., 2020). To summarize, according to the National Registry of Exonerations (2020) as of June 2020, there have been 2,631 total exonerations since 1989, totaling more than 23,000 years lost. DNA exonerations have accounted for 716 (27.2%) of the 2,631 exonerations.

Second, the data suggests the type of offense for which someone was wrongfully convicted has importance for exoneration. The overwhelming majority of exonerations

occur in wrongful convictions of violent crimes, specifically murder and rape/sexual assault or a combination of the two (Gross & Shaffer, 2012; Garret, 2017). Data shows that over half of all exonerations are in homicide and sexual assault cases though these two crimes comprise only about 2 % of all convictions (Gross, 2013; Gross & Shaffer, 2012). About 5% of violent crime exonerations come from robbery crimes (Gross, 2016). Non-violent crimes cases such as drug crimes account for about 7% of exonerations (Gross & Shaffer, 2012). A study of DNA exonerations specifically found that 91% of all exonerations included a sexual assault component (West & Meterko, 2015). Additionally, it was found that roughly three quarters of exonerations were in cases where the victim and offender were strangers (West & Meterko, 2015).

Research indicates that capital cases where the death sentence has been imparted yielded an exoneration rate that is nine times greater than for all homicide convictions and 140 times greater than that of other felony convictions (Gross & O'Brien, 2007; Gross & Shaffer, 2012). One study that examined exonerations from 1989 to 2012 found that death sentence exonerations accounted for 12% of all exonerations, though death sentences accounted for less than a tenth of 1% of all sentences meted out (Gross et al., 2014). According to the findings of other research between 2.3% to 3.3% of death sentences since 1973 have resulted in an exoneration (Gross, 2013). The Death Penalty Information Center (2020), which maintains a database on death sentence exonerations, reports that since 01/01/1973, 185 death-row inmates have been exonerated.

Exonerations on murder and rape cases happen at higher rates for several reasons. First, murder and rape cases are more likely to yield biological evidence than other types of crimes (Gross & Shaffer, 2012; Gross, 2013). Second, serious crimes such as

homicide, and especially those that result in a death sentence, are more likely to gather attention post-conviction and have significant resources committed to them (Gross, 2013). Third, the substantial difficulties posed for an innocent defendant in proving his or her innocence mean that significant amounts of time are expended in unsuccessful efforts. It is likely that a defendant who is serving time for a crime that yielded a lesser sentence will serve out the full sentence before making any headway in the exoneration process, if he or she even attempts an innocence claim (Gross & Shaffer, 2012; West & Meterko, 2015).

Data shows felonious assault cases account for about half of all violent felony convictions in the U.S. but only 1% of exonerations (Gross & Shaffer, 2012). The low number of exonerations in relation to the high incidence of convictions is likely due to the fact that these cases are less likely to have DNA, and, therefore, it is more difficult to prove the innocence of the convicted defendant. Additionally, felonious assault cases routinely yield shorter sentences than homicide and rape cases, providing less time and motivation for the innocent defendant to acquire assistance with an innocence claim. Lastly, several organizations working to exonerate innocent defendants have stipulations that must be met in order to take the case such as that all appeals must have been exhausted (Gross & Shaffer, 2012). Tragically, the data shows that exoneration efforts came far too late for at least 22 innocent defendants who have been exonerated posthumously (NRE, 2020).

A special type of exoneration has been termed group exoneration (Gross, et al., 2017; West & Meterko, 2015). These are aggregations of exonerations that occur as a result of a large scale corruption of justice officials such as police and/or prosecutors. In

Los Angeles, California for example, 156 individuals, nearly all Hispanic, had their convictions vacated and dismissed between 1999 and 2000 when it was discovered that a group of officers from the Rampart division had routinely and systematically lied in reports and planted evidence. Most of the innocent defendants had pled guilty.

In East Cleveland, Ohio the exposure of the actions of three police officers who routinely framed innocent defendants resulted in the convictions of 43 defendants being vacated from 2016-2017. All of the innocent defendants target by the East Cleveland police officers were black. In Baltimore, Maryland over 130 defendants had their convictions dismissed when it was discovered that fifteen members of a task force had engaged in systematic corruption which included making false arrests, and stealing property and narcotics. The investigation is still ongoing with thousands of cases still to be reviewed.

Since 1989 2,500 innocent defendants have been exonerated in 17 group exonerations (Gross, 2018). In every single instance, the groups of innocent defendants had been wrongfully convicted due to large scale police perjury and corruption. The groups were exonerated as the result of the corruption coming to light.

Group exonerations differ fundamentally from individual exonerations and because of this, researchers have routinely elected to study them separately (Gross, 2018). The primary difference between individual exonerations and group exonerations is the unit of observation. In individual exonerations, the unit of observation is the defendant and the facts of that specific case. There is an investigation of the facts of the case and an establishment of the actual innocence of the defendant. In group exonerations however, the unit of observation is a pattern of corruption or conspiracy by a justice

official, such as framing innocent defendants and perjury (Gross et al., 2017). Once the pattern of corruption is exposed, there may be little investigation of the facts of the individual cases and the dismissal of convictions happens rapidly. In many cases the wrongful convictions are for relatively minor charges resulting in sentences of a few months to a few years and the expense of an investigation of each individual case is not warranted nor feasible.

The manner in which group exonerations are handled prevents an understanding of the individual elements present in each case and makes it impossible to glean information regarding the specific aspects of each individual wrongful conviction and exoneration. Though both types of exonerations are important to study, due to the fundamental difference in the way they are enacted, these two types of exonerations are best studied separately (Gross, 2018). For this reason, group exonerations are not included in this study.

Correlates of Exonerations

Studies of exonerations are present in empirical literature and these researchers provide some evidence of correlates of exoneration. Research demonstrates there are certain distinctive factors present in cases that end in the exoneration of a wrongfully convicted innocent defendant (Gould & Leo, 2010; Gould et al., 2012). These contributing factors or correlates are widely held to be eyewitness misidentification, false confessions, misconduct by police or prosecutors, perjury, inadequate defense, the use of

informants, and false or misleading forensic evidence[3] (Acker et al., 2015; Beadau & Radelet, 1987; Borchard, 1961; Gould & Leo, 2010; LaPorte, 2017).

Additional factors that have been shown to be present in cases that resulted in exoneration include a younger defendant, defendants residing in states with a punitive culture, defendants with a criminal history, tunnel vision by investigators and prosecutors, and the defendant using a family member as a witness, (Gould & Leo, 2010; Gould & Leo, 2015; Gould et al., 2012). Research shows that most cases have multiple contributing factors present (Gross & O'Brien, 2007). Some of these factors are more difficult to study than others and further, the presence of multiple factors can make it difficult to isolate them in the study of exoneration cases (Yaroshefsky & Shaefer, 2014).

According to data gathered by the National Registry of Exonerations (NRE), perjury and false accusations are the leading factors in cases in which innocent defendants were convicted and then later exonerated (Norris et al., 2020). Perjury and false accusations occurred in 85% of all child sexual abuse cases contained within the NRE database and in 70% of all homicide cases. Perjury and false accusations encompass any lies by a victim, witness, or informant (West & Meterko, 2015). This includes deliberate lies about the identity of the perpetrator as well as fabrication of crimes (Gross & Shaffer, 2012; West & Meterko, 2015). Research shows that nearly 25% of exonerations included deliberate misidentification of the perpetrator and approximately 11% of all exonerations were for crimes that never occurred (Gross & Shaffer, 2012).

Misidentification of the perpetrator is present in over 75% of all exoneration cases and is considered the most prevalent factor in DNA exonerations (Gould & Leo, 2010;

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[3] See Appendix

Norris et al., 2020). Eyewitness errors occur as a natural product of the psychological processes of human memory and recall (Loftus, 1975). Research indicates eyewitness error is present in over 88% of rape exonerations and 50% of murder exonerations (Gross & O'Brien, 2007). One study of death sentence exonerations found that eyewitness misidentification played a role in over half of the cases (Warden, 2001). Misidentifications in exonerations cases often involve cross racial identifications (Gross & Shaffer, 2012). Cross racial identifications have been shown to be particularly unreliable (Meissner & Brigham, 2001).

Over several decades of both DNA and non-DNA exonerations, false confessions has also emerged as a leading factor (Gross & Shaffer, 2012). Research shows it is a factor in 15%- 25% of all exonerations and present in 30% of DNA exonerations (Drizin & Leo, 2003; Hampikian et al., 2011). These false confessions are primarily police induced and have been found to be a result of misclassification, coercion, or contamination (Leo, 2009).

Garrett (2015) examined exonerations that were won on the basis of DNA evidence from the years 1989-2014 and found that 66 of the exonerated defendants had falsely confessed. When a study of both DNA and non-DNA exonerations for a similar time frame of 1989-2012 was undertaken, the analysis showed that a false confession was a factor in 135 (15.4%) of the 874 cases. In 87% of those cases the false confession was made by the defendant and in 13% of the cases it was an accomplice who offered it (Gross & Shaffer, 2012). Additionally, research shows that cases in which an innocent defendant pled guilty often included a false confession by the innocent defendant (West & Meterko, 2015).

Misconduct by criminal justice officials such as police and prosecutors has been found to be present in nearly half of all exonerations (Norris et al., 2020). Exonerations of homicides show the greatest percentages of official misconduct occurrences (Gross & Shaffer, 2012). Further, research that has studied group exonerations indicates that misconduct by police and prosecutors is the primary factor in these cases (Gross et al., 2017).

The use of informants, especially those who are incentivized by promise of sentence reductions or monetary gains, has also been linked to criminal convictions that later resulted in exoneration (Garrett, 2008; Garrett, 2011; Joy, 2006; Raeder, 2007). Research collected by the Innocence Project (2018) reveals that the use of informants was a factor in 20% of DNA-based exonerations. Research on capital case exonerations shows that more than 45% of those cases utilized a police informant (Natapoff, 2006).

Recent decades have seen the evolution of forensic capabilities that have been utilized in the course of investigations both to identify the perpetrator and eliminate suspects. However, research indicates that false and misleading forensic testimony and what is often termed "junk science" is often present in cases that resulted in an exoneration after a wrongful conviction (Garrett & Neufeld, 2009; Gross & Shaffer, 2012; West & Meterko, 2015). Illustrating this, a review of 156 DNA exonerations in which forensic testimony had been given at the initial trial found that in 60% of the cases forensic analysts had provided testimony that was erroneous and/or not supported by empirical data (Garrett & Neufeld, 2009).

Research shows that misuse of forensic evidence is most likely to be found in cases of sexual assault, homicide, and child sex abuse, occurring in 37%, 23%, and 21%

of the cases respectively (Gross & Shaffer, 2012). The types of forensics most often associated with cases that result in an exoneration are serology, microscopic hair analysis, and bite marks (LaPorte, 2017). Additionally, the language utilized by forensic experts in relaying the reliability and accuracy of testing has been found to play a role in exoneration cases (Hampikian et al., 2011).

As a case in point, in the trial of Gary Dotson, the first individual exonerated by DNA evidence, a forensic expert for the state had testified that both Dotson and the semen donor had blood type B. He further communicated that blood type B is found in only about 11% of the Caucasian population. This implied that Dotson was included in the 11% of the population who could have been the offender and that 89% of the population was excluded. However, the expert failed to inform that jury that victim also had type B blood and that her fluids were mixed in the sample, which meant all of the B markers could have come from the victim and could have masked those from the semen of the offender. This meant it was possible for any male of any blood type to have been the donor (Garrett & Neufeld, 2009).

Inadequate defense or "bad lawyering" has also been linked to cases that have resulted in post-conviction exoneration (Gould et al., 2012; Leo & Gould, 2009). According to research about a quarter of all DNA exonerees had ineffective or inadequate defense counsel (Berry, 2003). Other research indicates that 80% of innocent defendants who are later exonerated are unsuccessful in raising the issue of ineffective counsel in their attempts at appeal (West, 2010). Circumstances commonly held as illustrating ineffective counsel are: failure to communicate with the client, or communicating in a hurried, callous, or dismissive manner, little to no attempts given towards discovery, little

to no investigation, failing to secure needed forensic experts, failure to test physical evidence, negligible preparation, perfunctory cross-examination and feeble trial advocacy (Berry, 2003).

Racial and ethnic differences in exonerations

Available information on exonerations demonstrates racial and ethnic differences are present in all major categories of crimes for which data is collected (Free & Ruesink, 2012, 2018; Gross et al, 2017; Parker et al., 2003; Rizer, 2003; Smith & Hattery, 2011). Though blacks represent 13% of the US population and roughly 33% of the prison population, they comprise 47% of all exonerations and 61% of DNA exonerations (Bronson & Carson, 2019; Gross et al., 2017; IP, 2018). When comparing prison population to black and white defendants who have been exonerated, we find that black defendants make up a substantially higher percentage of those who are exonerated than are incarcerated and that the opposite is true for white defendants (Smith & Hattery, 2011).

In some categories of crime, the difference is even more marked. The data on sexual assault shows that blacks comprise 25% of all prisoners convicted of sexual assault but make up 63% of exonerees (Gross & Shaffer, 2012). A black defendant serving time for rape is three and a half times more likely to be found innocent than a white defendant serving time for sexual assault (Gross et al., 2017).

Similarly, black defendants make up 40% of those incarcerated for homicide but comprise 50% of homicide exonerations and 53% of those defendants who had been given a death sentence (Gross et al. 2017). Innocent black defendants charged with murder are seven times more likely to be wrongfully convicted of murder than are

innocent whites and blacks convicted of murder are 50% more likely to be innocent than other convicted murderers (Gross et al. 2017).

In the category of drug crimes exonerations we find racial disparities as well. Data shows that whites use drugs at higher rates than blacks, but black and Hispanic defendants are much more likely to go to prison for drug possession (Gross et al., 2017; Gross & Shaffer, 2012; SAMHSA, 2019). Data on exonerations of drug crimes reveals that black convicts serving time for drug crimes are about 12 times more likely to be innocent of the drug crime than a white convict serving time for drug crimes (Gross et al., 2017).

Data shows that exonerations of black defendants are more likely to contain justice official misconduct. Specifically, 70% of the exonerations of a black defendant for murder crimes included official misconduct that resulted in the wrongful conviction compared to 63% of white innocent defendants (Gross et al., 2017). Overall, exonerations of black defendants are 22 % more likely to have had the element of police misconduct in their wrongful conviction (Gross et al., 2017). Further, research demonstrates exonerees of group exonerations arising from the misconduct of police and prosecutors are overwhelmingly black and/or Hispanic (Gross et al., 2017).

As previously mentioned, data on Hispanics is nearly non-existent due to the disturbing and persistent flaws in how data on race and ethnicity is collected at many levels of the justice system. This makes it impossible to capture actual arrest, conviction, and imprisonment data that is needed to fully explore the topic of disparities in wrongful convictions and exonerations of Hispanics (Gross et al., 2017; O'Brien et al., 2019; Rizer, 2003). However, the current data indicates that approximately 12% of all exonerees are

Hispanic (Gross et al., 2017; Gross & Shaffer, 2012). Current research indicates that many Hispanics face unique challenges in regards to wrongful conviction and exoneration due to language barriers and the threat of deportation (O'Brien et al., 2019). The majority of exonerations of Hispanics are found in the category of drug crimes, followed by robbery (Gross et al., 2017).

The race of the innocent defendant and the race of the victim have also been found to be a factor in exonerations (Gross et al., 2017; Harmon, 2004; Johnson et al., 2013; Smith & Hattery, 2011). Research indicates the rate of exoneration for innocent minority defendants of any race or ethnicity convicted of killing a white victim is twice as great as for that of an innocent white defendant convicted of killing a white victim (Harmon, 2004). Research also shows homicide exonerations of black innocent defendants with a white victim constitute 31% of homicide exonerations though only about 15% of murders by blacks have white victims (Gross et al., 2017). Stated another way, exonerations for murder with a black defendant and white victim occurs double the number of times for all murders.

Similarly, the majority of blacks who have been exonerated for sexual assault had been wrongfully convicted of raping a victim who was white (Gross et al., 2017). An empirical analysis of DNA exonerations found that 78% of the exonerations in rape cases were of a black defendant with a white victim, though crime demographics showed black men commit just 16% of all rapes against white women (Smith & Hattery, 2011). Another study that examined all known exonerations found that black men convicted of raping a white woman accounted for over half of all rape exonerations, though this specific inter-racial combination occurred in less than 11% of all rapes (Gross et al.,

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2017). Further, the data on exonerations shows that a black defendant convicted of raping a white woman is about eight times more likely to be innocent than a white defendant convicted of raping a white woman (Gross et al, 2017).

Researchers point out that cross-racial identification, a known factor in convictions that result in exonerations, likely plays a role in the race based disparities found in these exonerations (Gross et al., 2017; Johnson et al., 2013). However, black innocent defendants account for 40% of all rape exonerations in which eye witness misidentification was not present (Grosset.al, 2017). Additionally, murder investigations of black defendants later exonerated of killing white victims have been shown to be less accurate even without erroneous eye witness identification (Gould & Leo, 2015; Gross et al., 2017; Olney & Bonn, 2015; Rafail & Mahoney, 2019). With all of the information on exonerations in general and by racial and ethnic differences, less is known about time-to-exoneration.

Time-to-Exoneration

Empirical research examining any aspect of time-to-exoneration is virtually non-existent. A review of the available empirical literature finds that only four studies have reviewed time-to-exoneration on any level. Three of those four studies examined time-to-exoneration and its relationship to race and/or ethnicity. However, in those three studies race or ethnicity was included as a part of an examination of the impact of a variety of other legal and non-legal factors and was not the primary focus. In short, there is a marked deficit in scholarly research on time-to-exoneration and race and ethnicity though a review of the data maintained by the National Registry of Exonerations indicates racial

and ethnic differences are present in time-to-exoneration. Specifically, the data indicates that for all offense types the average time served is 10.7 years for black exonerees, 7.2 years for Hispanic exonerees, and 7.2 years for white exonerees (NRE, 2018). Additionally, this data showed that in the category of drug crimes, child sexual abuse, and sexual assaults, Hispanic innocent defendants serve more time before exoneration than did white innocent defendants but less than black innocent defendants. These statistics point to a similar pattern in that white innocent defendants took less time to be exonerated than did Hispanic and black innocent defendants.

Gross et al. (2017) reviewed over 1,900 exonerations and examined the relationship of race to various aspects of exonerations, including time-to-exoneration. The findings revealed that black innocent defendants spend more time wrongfully imprisoned than white innocent defendants in every single category of crimes for which exoneration data was collected. Additionally, the study assessed the data in greater detail for the categories of murder, sexual assault, and drug crimes as those three categories yield the highest number of exonerations.

In examining murder exonerations Gross et al.'s (2017) study showed that black innocent defendants incarcerated for murder spent three years longer in prison than did white innocent defendants. The analysis also revealed that black innocent defendants serving time for sexual assault spent 4.5 years more before being exonerated than did white innocent defendants serving time for sexual assault. Lastly, the study revealed that black innocent defendants make up a large portion of the innocent defendants who were incarcerated for 25 years or longer for murder or sexual assault.

Olney and Bonn (2015) examined the impact of race and ethnicity as a non-legal factor and the presence of DNA evidence as a legal factor on the wrongful conviction outcome and exoneration process. They found that the availability of DNA testing increased the chances of exoneration for violent crimes for all races. However, their findings indicated that being black produced a higher chance of being exonerated for murder and sexual assault crimes, even when controlling for the factor of DNA testing. Additionally, they found that black innocent defendants experienced the longest time-to-exoneration relative to defendants of all other races.

Rafail and Mahoney (2019) focused specifically on time-to-exoneration in what they termed the "exoneration pipeline" and found significant differences arising from race, evidentiary content, and place. They concluded that the time-to-exoneration was impacted by state level characteristics, DNA testing, advocacy by an innocence organization, and race. Their findings on the impact of race pointed to significant disadvantage for black exonerees as evidenced in longer periods of time spent wrongfully incarcerated before being exonerated than innocent defendants of other races. However, their study failed to provide a theoretical construct in examining the relationship of race to time-to-exoneration.

While these three studies do examine time-to-exoneration with a racial and ethnic focus, they do not do so through the lens of a theoretical premise. Leo (2005, p. 213) argued scholarship on innocence is "theoretically impoverished". The review of the literature shows a deficit in the application of theory in the time-to-exoneration from a racial and ethnic perspective. This represents a gap in the existing literature.

The application of theory is critical in providing context for the results (Higgins et al., 2012; Norris et al, 2020). Theory provides the framework for the rational organization of empirical data, aids in exposing patterns, and promotes understanding of how factors and events are connected to each other (Akers, 1999; Fuller, 2009; Higgins, 2005). When a study lacks a theoretical framework, relevant predictors may not be included in the analysis and there is no basis for the determination of variables to be included (Vito, 2015). The application of theory makes it possible to understand why certain behaviors and outcomes are occurring (Higgins, 2005). Focal concerns theory provides the context to understand racial and ethnic differences in time-to-exoneration. Further, focal concerns theory may provide some foundation for practice and policy recommendations.

Focal Concerns Theory

Focal concerns theory originally emerged as a theoretical model within the scholarly exploration of gender differences in sentencing (Steffensmeier, 1980). This early application of the theory posited that judicial decision making assessing blameworthiness was based upon stereotypical beliefs regarding gender. Specifically, Steffensmeier's study found females were seen by judges as less blameworthy, and therefore less deserving of harsh punishments than males, based upon a belief that females commit less serious crimes than males and have less extensive criminal history. According to Steffensmeier (1980) the judge's biased perception of female offenders by judges resulted in sentencing disparities between genders.

In later years, Steffensmeier et al., (1998) reformulated the theory to include Albonetti's (1991) premise that judges may be influenced by various cultural stereotypes in arriving at their decisions and he expanded the theory to include other social characteristics such as race, ethnicity, and age. Steffensmeier and colleagues found support for the premise that stereotypical perceptions consistent with young black males as a "dangerous class" influenced judicial decision making. Specifically, the analysis examined the influence of race, age, and gender on two sentencing outcomes, namely, decision to incarcerate and length of sentence. The study controlled for the legal variables often associated with stricter and harsher sentencing. Additionally, the analysis implemented controls for additional factors associated with sentencing outcomes such as mode of conviction, court size, and factors specific to the county (Steffensmeier, et al.,1998).

The independent effects of each of the variables of race, gender, and age upon sentencing was examined, then the race-age data was disaggregated by gender for both males and females. The findings indicated that young black males were more severely sentenced than any other group and that race was more influential in the sentencing of younger male defendants than in the sentencing of older male defendants. It was also found that age was more influential in sentencing of male defendants than it was when the female defendants' sentencing outcomes were examined. Finally, the interaction of age, race, gender, was found to be greater than the impact of race and gender alone.

Steffensmeier proposed specific mechanisms by which the interaction of social characteristics, such as the defendant's race, ethnicity, age, and gender, influence decision making regarding punishment to the advantage of some and the disadvantage of

others (Steffensmeier et al., 2017). The theory's "key notion" is that judges and other

court actors are guided by three focal concerns in reaching sentencing decisions:

blameworthiness, protection of the community, and practical implications of the resulting

decision" (Steffensmeier et al., 2017, p. 813). In focal concerns theory, the social

characteristics of the defendant are understood to influence the decision making process

as these three focal concerns are assessed, resulting in disparities in the outcomes

(Steffensmeier et al., 1998).

Blameworthiness and the degree of harm that was inflicted upon the victim can be

understood as relevant in that sentencing severity is indicated by law to be commiserate

with the degree of severity of the harm to the victim (Steffensmeier et al., 1998).

Similarly, the *protection of the community* is of exigent concern as a judge must weigh

the risk an offender might pose to society in the future. This necessitates consideration of

such elements as prior criminal history, prior victimization, the nature of the crime, and

socioeconomic characteristics of the defendant (Steffensmeier et al., 1998). Lastly,

practical constraints and consequences address the necessity of the consideration of

items that impact both the organizations and the individuals within the organizations.

This encompasses the maintenance of working relationships between the criminal justice

actors, concerns with timely processing of cases, consideration of factors such as jail and

prison overcrowding, and reaction from the community (Steffensmeier et al., 1998).

Focal concerns theory draws upon and integrates elements of conflict theory,

racial/group threat theory, and organizational efficiency theory. Additionally, it is

strongly influenced by sociological theory, particularly as it pertains to the origins of

bias, and incorporates tenets of both attribution and labeling theories (Steffensmeier,

2017). These theories inform the processes by which we explain the behavior of others which result in bias and argue that perception of an individual as belonging to a certain group gives rise to labeling and results in the individual being assigned the expectations and scripts associated with the group (Becker, 2008; Harvey & Weary, 1984).

A guiding principle of focal concerns theory is the understanding that judges and other justice decision makers often face situations where they either do not have enough information to arrive at a rational decision, or, conversely, have an overwhelming amount of information and often a short amount of time in which to consider it. In these circumstances, focal concerns theory argues that these decision makers resort to heuristics to guide their decisions about how dangerous the offender is and how likely he or she is to continue to offend.

These scripts, which are largely unconscious, are heavily dependent on social beliefs that posit certain races and ethnicities are more prone to criminal behavior. (Hartley et al., 2007). The heuristics incorporate stereotypical interpretations of personal characteristics such as gender, race/ethnicity, age, and social class in making determinations (Harris, 2009; Spohn & Holleran, 2000; Steffensmeier et al., 1998). Once established and reinforced through use, the heuristics function as a default mechanism that guides decision making, is resistant to change, and provides insight into how aspects of the person such as race, gender, and ethnicity impact decision making in the criminal justice arena (Tillyer & Hartley, 2010).

Ideally, the assessment of the focal concerns would be applied with consistency across all individuals. However, research has consistently shown that factors such as race, gender, and age impact the assessment of these concerns and impact the final decision.

For example, it has been demonstrated that minority defendants are stereotyped and are more likely to be seen as more blameworthy, more dangerous, more deserving of punishment and less likely to be able to be reformed than other offenders (Bridges & Steen, 1998; Carnevale & Stone, 1995; Spohn & Holleran, 2000; Spohn & Sample, 2013; Steen et al., 2005; Steffensmeier et al., 1998).

Though originally designed to explore gender disparities in sentencing, in recent years, scholars have applied focal concerns theory to a variety of settings and actors within the criminal justice system such as prosecutorial decision making (Beichner & Spohn, 2012; Franklin, 2010; Harris, 2009; Ulmer et al., 2007), police decision making (Crow & Adrion, 2011; Higgins et al., 2012; Ishoy & Dabney, 2018; Vito et al., 2018) decisions made by corrections officers (Logan et al., 2017) and parole officers, (Huebner & Bynum, 2006), as well as the decisions made by judges at all stages of the legal process (Crow & Bales, 2006; Freiburger, 2009; Freiburger et al., 2010; Hartley et al., 2007; Pierce, 2012; Sharp et al., 2000; Spohn & Holleran, 2000; Steffensmeier & Demuth, 2001). Focal concerns theory has also been utilized to investigate racial disparities in sentencing across different modes of conviction as well as across a variety of crime types and levels of severity (Demuth & Steffensmeier, 2004; Erickson & Eckberg, 2016; Higgins, et al., 2013; Johnson, 2003: Leiber & Blowers, 2003; Ray & Dollar, 2013; Schlesinger, 2005; Sharp et al., 2000).

Empirical literature on the effects of race and ethnicity upon sentencing outcomes consistently finds evidence of bias in that blacks and Hispanics are shown to be more likely to be incarcerated then whites and receive longer sentences than comparable whites for similar crimes (Albonetti, 1997; Bishop, et al., 2020; Brennan & Spohn, 2008;

Crawford, et al., 1998; Kramer & Steffensmeier, 1993; Mitchell & MacKenzie, 2004; Petersilia, 1983; Pratt, 1998; Rehavi & Starr, 2014; Spohn, 2000). The focal concerns framework sees these disparities as the outcome of a reliance on attributions and stereotypes which judges and other criminal justice decision makers employ to navigate in an environment which holds marked uncertainty and complexity (Steffensmeier, et al., 2017). Due to the perception of certain groups as having extra-legal characteristics associated with criminality, focal concerns posits that certain defendants are more likely to experience harsher outcomes than those not associated with criminality. Scholarly literature which utilizes focal concerns to examine decision making within the criminal justice system supports the argument that the outcomes of these stereotypical heuristics are often detrimental to minority defendants.

Take for example, Bridges & Steen (1998) whose findings indicated that probation officers differed significantly in their assessments of attributions about the causes of criminality when assessing white and minority juvenile offenders. The analysis revealed that blacks were more often assessed an internal attribution as a cause of criminal activity while white juveniles were more often assessed an external attribution. Further, their findings indicated that even when controlling for the legal variables of seriousness of the offense and the criminal history of the offender, the differences in attributions impacted the risk assessments of the offenders. Namely, black juvenile offenders were held to be more at risk for re-offending than were white juvenile offenders.

Higgins and his colleagues highlighted the use of stereotypically based heuristics by prosecutors when making the decision to incarcerate.

Propensity score matching was utilized to ascertain the impact of race upon prosecutorial decision making in regards to juvenile offenders. They found that race was a "single, isolated cause" of the decision to incarcerate. Specifically, the findings indicated that black defendants were 1.28 times more likely to be incarcerated than were their white counterparts (Higgins et al., 2013).

Other research supports differential assessments of dangerousness and risk to the community which are impacted by race. As a case in point, one examination of juvenile diversionary outcomes showed that minority defendants were significantly less likely to be given diversion by police than were white juvenile arrestees race (Ericson & Eckberg 2016). This resulted in minority arrestees entering the juvenile court system earlier than the white arrestees. Additionally, non-white defendants were more likely to be charged rather than diverted by prosecutors, especially in theft cases. Further, it was shown that the extra-legal variables associated with socioeconomic status significantly impacted the decision to charge. Specifically, defendants with an inner city offense location, a single parent household, and a lower household income were more likely to be charged regardless of race.

Results consistent with bias in outcomes for minorities have also been found in the pre-trial processing of adult felony defendants. Take for example, Schlesinger's (2005) findings that being black or Hispanic increased the odds of being denied bail by about 25%. The analysis showed that when bail was granted, bail amounts between blacks and whites were fairly equal, while the amount imposed upon Hispanics was found to be about 12% higher than for whites. Further it was found that the odds of pre-trial incarceration for Hispanics was double that of whites while black defendants faced

odds that were 87% greater than whites. Legal variables related to the severity of the crime, status within the justice system at time of arrest, and the number of charges were also found to be significant predictors of outcomes.

Similar results have been found when examining the impact of ethnicity and race on severity of punishment. Research indicates that Hispanic defendants are sentenced more in line with the outcomes of black defendants, that both black and Hispanic defendants are more likely to receive harsher punishments than white defendants, and that in some cases, Hispanic defendants receive the harshest treatment of all (Demuth & Steffensmeier, 2004; Spohn & Holleran, 2000; Steffensmeier & Demuth, 2000; Steffensmeier & Demuth, 2001). Demuth and Steffensmeier (2004) additionally found that the effects of ethnicity were largest in the cases involving drugs and that race effects were strongest in cases involving property crimes.

Leiber and Blowers (2003) substantiate differential assessments of dangerousness and threat to the community predicated on race. Their analysis showed that in cases with elements indicating a more serious nature, such as assault, black defendants were more likely to be prioritized as serious offenses by prosecutors than were similar cases with white defendants. Additionally, black defendants were less likely to be granted a continuance by judges than were similar serious cases with white defendants. Their research indicated that these two discretionary decisions by judges and prosecutors increased the chances of conviction and incarceration for black defendants in these types of cases.

The literature demonstrates support for focal concerns and consequent disparities based on race even when accounting for different modes of conviction and varying types

of prosecutorial and judicial discretion. Johnson's (2003) analysis found that extralegal factors of race and ethnicity had a greater impact on sentencing outcomes than did legal factors. Specifically, it was found that across all modes of convictions, minorities were less likely to be sentenced at below the recommended guidelines and more likely to be sentenced above the recommended guidelines than were white defendants (Johnson, 2004).

In short, empirical investigation of the disparities in pre-trial and sentencing outcomes consistently shows that factors consistent with focal concerns theory, including extralegal factors such as race, ethnicity, age, and gender, do impact decision making. Further, the literature shows that the bias arising from reliance on stereotypical attributions does result in harsher sanctions such as incarceration and longer sentences for some defendants. Research shows it is often blacks and Hispanics that are disadvantaged.

In recent years, scholars have also elected examine the intersection of legal factors and the combined impact of multiple non-legal characteristics utilizing a focal concerns theory perspective. Support has been found for combined effects of the interaction of extra-legal factors such as race, ethnicity, gender, age, employment, and education, in decision making (Steffensmeier, et al., 2017). The literature shows that net of legal factors, the impact of these interactions often disadvantages blacks and Hispanics in the outcomes realized (Doerner & Demuth, 2010; Feldmeyer, et al., 2015; Spohn & Holleran, 2000; Steffensmeier, et al., 2017; Warren, et al., 2012).

For example, Steffensmeier and Demuth (2000) examined the sentencing outcomes for over 89,000 male defendants and found that the interaction of legal and extralegal factors influenced sentencing severity. The results showed that white male

defendants were treated most leniently, followed by Hispanic, and then black male

defendants. This was found to be especially true in drug cases. Additionally, the impact

of legal factors such as offense severity, and prior record as well as the extralegal factors

of age and education were found to effect the harshness of the outcome.

In a similar fashion, Munoz and Freng (2008) demonstrated the interaction of

race, age, and gender upon misdemeanor sentencing. They found that whites were more

likely to be convicted of traffic offenses and that defendants of other races were more

likely to be convicted of other types of offenses. Their findings also revealed that while

most defendants received a fine, young adult and adult minority males were more likely

to have other punitive sanctions levied at them instead of or in addition to fines.

Sharp et al., (2000) probed the outcomes in drug court for black and white female

defendants and found support for an "evil black woman" stereotype. Specifically, it was

found that prior convictions and employment were predictors of sentence length for white

offenders. However, for black offenders, it was self-reported use of crack cocaine that

predicted sentence length in spite of the fact that both white and black offenders were

nearly equally as likely to report crack cocaine use. Additionally, trial by jury was found

to increase the length of the sentence more significantly for black offenders than for

white offenders.

In exploring the outcomes of mental health courts, Ray and Dollar (2013)

identified significant effects for the interaction of gender and race. Their findings

revealed that white females were significantly less likely to be terminated from the

program than any other defendants. Based on their observations and analysis they

concluded that the mental health court facilitators relied on a "perceptual shorthand" in

assessing the defendant's culpability and blameworthiness for non-compliant behaviors as well as dangerousness.

Steffensmeier et al., (2017) set out to examine how the age of a defendant might contextualize the impact of gender, race and ethnicity on sentencing outcomes. The results showed that legal factors such as past criminal history and the current crime were the primary predictors of sentencing but that race/ethnicity, age, and gender combinations resulted in varying disparities for different group members. Young black males ages 18-34 and Hispanic males of any age were found to receive the harshest sentences. It was also shown that combinations of extra-legal factors yielded substantial differences in sentencing outcomes. For example, young adult minority males were shown to have approximately a 25% greater chance of being incarcerated than the oldest white females and about a 30% greater chance than the youngest white, black, and Hispanic females.

In a similar exploration of the combined impact of extralegal variables, Warren and colleagues (Warren, et al., 2012) focused attention on young black and Hispanic males due to their perceived association with drugs, violence, and crime in general which is commonly portrayed through popular media in our society. The study used multinomial logistic regression to ascertain the likelihood of the three outcomes of community supervision, jail sentence, and prison sentence. The researchers controlled for factors known to be associated with sentence severity. Specifically, they controlled for current offence, prior criminal record, whether or not the case went to trial. Additionally, control measures for year of sentencing and jurisdiction were also utilized. The results showed that for more serious types of crime, the seriousness of the crime and prior records, not the demographics of the offender drove the sentencing outcomes. However,

for lesser crimes and especially for drug crimes, young black males were found to be at a significant disadvantage.

Freiburger, et al., (2010) analyzed the impact of race and gender upon pre-trial decisions within the frame work of focal concerns. Specifically, they explored the impact of race upon a judge's decision to release the defendant on their own recognizance as well as on the amount of bail imposed. The findings indicated that black defendants were approximately 80% less likely to be released on their own recognizance than were white defendants and more likely to be detained prior to trial. Race was not found to have an impact on the amount of bail that was given, but the extra-legal variable of gender had an impact in that females received significantly less bail amounts. The extra-legal variable of employment was found to have the effect of increasing the likelihood of the defendant being released on their own recognizance. These findings are consistent with the premise of focal concerns theory and the reliance on stereotypes regarding race, gender, community ties, and criminality.

In an attempt to extricate the elements of stereotypes relating to crime and race and ethnicity, Spohn and Sample (2013) explored the impact associations with dangerousness and threat have upon sentencing. They conceptualized the elements of the stereotype of a dangerous drug offender as being an offender with a prior conviction and who had used a weapon in the commission of the current crime. In their analysis of federal sentencing data of white, black, and Hispanic drug offenders, they found that the elements associated with the image of dangerous federal drug offender resulted in lengthier sentences for black offenders but not for white or Hispanic offenders. This was especially true for those black offenders who offense included crack cocaine. Further, the

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lengthiest sentences were given to black offenders who met all of the elements of the stereotypical dangerous drug offender.

Freiburger (2009) examined disparities in sentencing outcomes for drug offenders through the lens of focal concerns. The study results indicated that the interaction of legal and non-legal factors such as seriousness of the crime, prior felony convictions, race and educational attainment, influenced the decisions of judges to incarcerate the offender. Additionally, it was found that white women were less likely to be incarcerated and that employment status more heavily impacted the decision to incarcerate black women than it did white women. The results are consistent with the predictions of outcomes based on focal concerns theory which posits that characteristics of the defendant such as race, gender, and ties to the community, are embedded in the "perceptual shorthand" utilized in judicial decision making (Albonetti, 1991; Steffensmeier, et al., 1998; Ulmer & Johnson, 2004).

In summary, judges and prosecutors utilize discretion in their capacity as decision makers in regards to many aspects of punishment, including imprisonment and type and length of sentence (Fontaine & Emily, 1978; Kramer & Steffensmeier, 1993; Steffensmeier et al., 1998). Scholarly research further demonstrates in order to facilitate the decision-making process, judges and prosecutors resort to heuristics that incorporate stereotypical beliefs regarding characteristics of the individual such as their race or ethnicity in considering blameworthiness, protection of the community, and practical constraints and consequences (Albonetti, 1991; Ford, 2009; Freiburger, 2009: Johnson, 2003; Leibers & Blowers, 2003; Steffensmeier et al., 2001; Warren et al., 2012). Further, this has been shown to result in disparities in the outcomes such as the decision to

incarcerate and lengthier sentences and these disparities often negatively impact minorities (Bridges & Steen, 1998; Demuth & Steffensmeier, 2004; Doerner & Demuth, 2010; Sharp, et al., 2000; Spohn & Sample, 2013; Steffensmeier, et al., 2017; Steen, et al., 2005).

The application of focal concerns theory to time-to-exoneration is logical. Following Steffensmeier (1980), judges and prosecutors are likely to harbor racial and ethnic stereotypes. These stereotypes provide them a basis for the determination that minorities are more likely to be involved in criminality and therefore less likely to be innocent, are able to serve out their time better than whites, and that the community needs to be protected from blacks and Hispanics. Because of this logic, blacks and Hispanics are not likely to be exonerated in a similar amount of time as whites. Operating with these stereotypes, judges, prosecutors, and other justice decision makers are likely to treat whites, blacks, and Hispanics differently resulting in differences in the time that it takes for an exoneration.

The literature review indicates this version of focal concerns theory is valid when trying to understand criminal justice actor decision-making. It is reasonable to apply focal concerns to the topic of time-to-exoneration based on the large body of literature which finds evidence of bias at every stage of contact with the criminal justice system. Further, there is an ample body of research which applies focal concerns theory to a wide range of decision making and outcomes within the criminal justice arena which supports the legitimacy of the application of this theory to the decision to exonerate.

Scholarly literature which assesses the impact of race and ethnicity on time-to-exoneration is scant. The studies which do exist point to significant disparities. Gross et

al., (2017) found that black exonerees spent more time in prison than white exonerees in every category of crime for which data was collected. Similarly, in their examination of the impact of DNA on exonerations, Olney and Bonn (2015) also found that black exonerees encounter the longest time to exoneration. Lastly, utilizing survival analysis, Rafail and Mahoney (2019) focused on the length of time it takes for exonerees to complete the process of exoneration. Their findings exposed significant differences arising from factors of place, evidence type, and race. Further, the temporal gap in achieving exoneration was found to disadvantage black exonerees. None of these studies, however, apply the theoretical context of focal concerns theory to racial and ethnic differences in time-to-exoneration. This type of logic and a study that examines this issue is lacking from the literature leaving a gap that is a relevant and critical area of empirical exploration.

Purpose of the Study

The purpose of this study is to examine exoneration data to determine and contextualize racial and ethnic differences among those who have been wrongfully convicted. Specifically, the data was examined for evidence of racial and ethnic differences in time-to-exoneration. Additionally, time to exoneration was examined in the context of focal concerns theory.

The study utilizes focal concerns theory as the context, as demonstrated in the hypotheses below, to guide in greater understanding of disparities found between racial and ethnic groups. This study expands previous literature on focal concerns by applying it to exoneration data, to determine the racial and ethnic differences in time to exoneration.

The study addresses two hypotheses derived from the focal concerns theoretical perspective.

Hypothesis 1: Racial and ethnic differences are present in length of time-to-exoneration.

Specifically, it is expected that the length of time-to-exoneration will be greater for blacks and Hispanics than for whites. This takes place because non-whites are more likely to be considered crime-prone, more aggressive, and more "streetwise" than whites (Devine & Elliot, 1995; Mann & Zatz, 2002; Steffensmeier, 1980; Steffensmeier et al., 1998; Steffensmeier & Demuth, 2001). In other words, judges, prosecutors, and other criminal justice actors who have the authority to make decisions which impact time-to-exoneration are likely to be utilizing stereotypes to assist in making their decisions (Albonetti, 1991; Steffensmeier et al., 1998).

Hypothesis 2: The legal components of a case are associated with the racial and ethnic differences in the length-of-time to exoneration.

The legal aspects of a case (e.g., offense severity, type of crime, false accusation, etc.) will result in both positive and negative impacts on time-to-exoneration depending on the specific legal aspect (Albonetti, 1991; Gross & Shaffer, 2012; Olney & Bonn, 2015; Steffensmeier et al., 1998). It is expected that beneficial factors (non-violent offenses, older age, etc.) will yield greater benefit in regards to shortening time-to-exoneration for whites than for blacks and Hispanics. Similarly, it is expected that negative factors (violent offense, official misconduct, younger age, etc.) will yield greater negative impact in lengthening time-to-exoneration for innocent blacks and Hispanics

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defendants than for innocent whites defendants. Central to this is the judicial concern about the blameworthiness of the individual and the potential protection of the community (Albonetti, 1991; Steffensmeier et al., 1998.) In other words, the legal factors will illuminate why racial differences in the length-of-time to exoneration exist. Specifically, legal factors such as severity of the crime, will have an impact on the assessment of the dangerousness of the convicted defendant, as well as impact concerns with the threat to the community. Additionally, non-white offenders are likely to be seen as more dangerous and as more able to cope with incarceration. Due to this, legal factors will have a differing impact on defendants based upon race and ethnicity and this is consistent with focal concerns theory.

CHAPTER 3

METHODS

The data utilized in this study comes from a comprehensive database maintained

by the National Registry of Exonerations (NRE). The NRE is a collaborative effort

between the Newkirk Center for Science and Society at University of California Irvine,

University of Michigan Law School, and the Michigan State University College of Law

in conjunction with the Center for Wrongful Convictions at Northwestern University

School of Law. The registry collects, analyzes, and disseminates information on all

known wrongful convictions and exonerations of innocent defendants from 1989

forward. The NRE defines an exoneration as occurring when "a person who has been

convicted of a crime is officially cleared based on new evidence of innocence." (National

Registry of Exonerations, 2020, para 1). The NRE relies entirely on public information.

The data for this study used a subsample (N= 489) of the larger data set of exonerations

from the NRE.[4] The data used were of exonerations which occurred from the years 2008

to 2018. This was done to provide a manageable subsample of the population and still

provide a decade's worth of exoneration information.

Measures

To address the hypotheses, a number of measures were used in the present study. These

measures include the days to exoneration, whether an exoneration took place within a

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[4] The original sample (N = 507) contained 18 exonerees whose race or ethnicity was not white, black, or Hispanic. Those 18 exonerees were excluded from the sample, resulting in the sample size N = 489.

specified number of days, as well as extralegal and legal factors that are associated with studies of focal concerns theory.

Days-to-exoneration

A central measure to this study is capturing the number of days that it takes an individual to be exonerated (Kleinbaum & Klein, 2010). To calculate this measure, two data points are present in the data. The two data points are the date of conviction and the date of exoneration. These two data points allow for the precise measure of days-to-exoneration. To arrive at this precise measure the following calculation was performed: exoneration date - conviction date. This provided the exact number of days-to-exoneration.

Exoneration Event

Another key measure is whether an exoneration took place in a specified amount of time (Kartsonaki, 2016). In other words, this provides a specific time of occurrence for the study. Two measures were utilized for the exoneration event (i.e., median days-to-exoneration). For the median of days, the exoneration event was coded as 1 for above the median and 0 for below the median.

Focal Concerns Theory Measures

The literature is diverse when it comes to measuring the different aspects of this version of Focal Concerns Theory (FCT). For instance, the policing literature provides detailed measures for each of the FCT concepts (Albonetti & Hepburn, 1996; Kramer & Ulmer, 2002; Spohn & Holleran, 2000; Steffensmeier & Demuth, 2000). In the sentencing literature the measurement of these concepts is generalized around extralegal and legal factors (Albonetti, 1991; Steffensmeier et al.,1998; Steffensmeier & Demuth,

2001). This dissertation follows the sentencing literature and groups the measures that are available in the data into the context of extralegal and legal factors.

Extralegal Factors

The available extralegal factors that exist in the data are: age, race, and biological sex. **Age** is captured in years at the time of crime commission. **Race** is captured as a nominal level measure. Specifically, black, Hispanic, Native American (includes Alaska Native), Other (includes native Hawaiians and Pacific Islanders), Caucasian (refers to White Americans), Asian (includes all peoples on the Asian continent including Indian, Filipinos, and Indonesians but not Russians), and Don't Know. In this study, White refers to non-Hispanic Whites and Blacks refer to non-Hispanic blacks. Due to potential data constraints (i.e., small n's within categories), three dummy codes for race were used, and they are as follows: 1 = White and 0 = other, 1= Black and 0 = other, 1 = Hispanic and 0 = other. For the purposes of survival analysis, race was coded 0 = White and 1= Black and 0 = White and 1 = Hispanic. Coding race in this way facilitates two comparative analyses of days-to-exoneration.[5] The first analysis compares whites to blacks, and the second analysis compares whites to Hispanics. Additionally, multivariate analyses compared subsamples differentiated by race.

Biological sex is captured as the biological sex of the individual at the time of the crime. The measure was recoded so that 0 = female and 1 = male.

Legal Factors

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[5] The number defendants that were of a race or ethnicity other than black, Hispanic, or white due was so small (n = 18) that they were excluded from this study.

A number of legal factors were used in this analysis. They are as described below.

False or misleading forensic evidence: False or misleading forensic evidence was considered a legal factor in the case as well. This means the individual's conviction was based at least in part on forensic information that was (1) caused by errors in forensic testing, (2) based on unreliable or unproven methods, (3) expressed with exaggerated and misleading confidence, or (4) fraudulent (LaPorte, 2017; NRE, 2019). This measure was coded as 0 = no and 1 = yes.

Perjury or False Accusation: Perjury or false accusation was considered a legal factor as well. A person other than the individual committed perjury by making a false statement under oath that incriminated the individual in the crime for which the individual was later exonerated or made a similar unsworn statement that would have been perjury if made under oath (Gould & Leo, 2010; NRE, 2019). This measure was coded as 0 = no and 1 = yes.

Mistaken Eyewitness ID: Whether there was a mistaken eyewitness identification. This refers to at least one eyewitness affirmatively and mistakenly said that he or she saw the individual commit the crime or saw the individual under circumstances that suggest that the individual participated in the crime (e.g. Witness claims he saw Individual flee from the scene) (Gould et al., 2012; NRE, 2019). This measure was coded as 0 = no and 1 = yes.

Official Misconduct: Another legal factor is whether official misconduct in the case took place. Police, prosecutors, or other government officials significantly abused

their authority or the judicial process in a manner that contributed to the individual's conviction (Joy, 2006; NRE, 2019). The measure was coded as 0 = no and 1 = yes.

Inadequate Legal Defense: Another legal factor is whether the legal defense was inadequate. This means the individual's lawyer at trial provided obviously and grossly inadequate representation (Sharp et al., 2000; NRE, 2019). This was coded as 0 = no and 1 = yes.

Drug Offense: Whether the offense was a drug related offense was considered a legal factor (ADD CITES!). The measure was coded as 0 = no and 1 = yes.

Violent Offense: Whether the offense was violent was considered a legal factor (Steffensmeier, et al., 2017; Steffensmeier & Demuth, 2000). The measure was coded as 0 = no and 1 = yes.

Data Analysis Plan

The data analysis occurred in a series of steps. Step one was a presentation of the overall descriptive statistics namely, the mean, standard deviation, skewness, kurtosis, and range. By utilizing univariate statistics, this step offers a brief description of the distribution of the sample while providing an indication of variation in the measures.

Step two was a presentation of the bivariate correlations. This step is important because it shows how much variation the measures share (Lee & Nicewander, 1988). Further, it shows the strength and direction of the shared variation (Taylor, 1990). While the shared variation between all of the measures is important, particular attention was paid to the shared variation between the legal factors used in this study. Because of the

large number of legal factors, the possibility of multicollinearity was present, and the bivariate correlations were helpful in determining the presence of this issue. In the event multicollinearity had been detected, multiple remedies were held in consideration. First, combining the measures was considered. Second, alternative modeling was considered. Third, dropping measures was considered. Through these methods, the possibility of multicollinearity was handled.

Step three was a presentation of the survival analysis. Survival analysis is a family of techniques designed to model the time it takes for an event to occur when there is a possibility that the event will not occur for all in a given sample (Cox, 1972; Cox & Oakes, 1984). This type of data is often non-normal. This is because of censoring, a common feature of survival analysis (Leung et al., 1997).

Censoring occurs when some of the information regarding survival time is known, but not the exact survival time (Singh & Mukhopadhyay, 2011). Censored data can be left censored or right censored. The most common type of censoring encountered is right censoring. Right censoring occurs when the period of observation comes to an end or an individual left the study before the event is experienced (Fox & Weisberg, 2011). This is the type of censoring that occurred in this study. Left censoring occurs when the event being examined happened prior to the commencement of the study period (Singh, & Mukhopadhyay, 2011). Because of the non-normality distribution of these data, techniques like ANOVA and OLS may not be used because the normality assumption would be violated (Cox, 1972; Hosmer & Lemeshow, 1999; Prinja et al., 2010).

In the present study, the main event is exoneration. The time of interest is the median length of time it takes for a person to receive an exoneration after being

wrongfully convicted. The study period spans 2008- 2018. At the end of the study

period, all individuals will have been exonerated since the data for this study is for

completed exonerations. Therefore, in order to examine whether or not racial and ethnic

bias exists in the time it takes to become exonerated, the median time to exoneration was

established. This provides the variation needed to allow for an examination of the impact

of race and ethnicity on time-to-exoneration. To address time in this manner, two

techniques were used to examine the time-to-exoneration.

The Kaplan-Meier technique was used to determine the proportion of individuals

who were exonerated by the median time to exoneration established. In this study time is

measured in days. This technique provides a method of estimating the length of time that

it will take for someone to be exonerated (Kaplan & Meier, 1958; Klein & Moeschberger,

1997; Kleinbaum & Klein, 2010).   The Kaplan-Meier technique performs this type of

assessment by generating two functions (Cox & Oakes, 1984; Singh, & Mukhopadhyay,

2011). The first is the survival function. The survival function is the probability of

exoneration occurring at a specified time (Goel et al., 2010; Klein & Moeschberger,

1997; Kleinbaum & Klein, 2010). The time period being utilized for this study is the

days-to-exoneration for the eleven years spanning 2008-2018. The second function is the

hazard function. The hazard function is simply the risk of the exoneration occurring after

the median days-to-exoneration (Hosmer & Lemeshow, 1999; Singh, & Mukhopadhyay,

2011; Spruance et al., 2004). The survival and hazard functions are presented graphically.

The Kaplan-Meier, also allowed for a direct test of the difference of these

functions by groups. In the present study, the groups were differentiated by race (i.e.,

whites vs. blacks and whites vs. Hispanics). The comparison of the groups took place

using the log rank test. Applied to this study, the log rank test allowed for the examination of the survival and hazard functions of exoneration by race (Kaplan & Meier, 1958; Cox & Oaks, 1984; Singh, & Mukhopadhyay, 2011). To do this, the log rank test allows the survival and hazard functions to be weighted equally with time. This provided the opportunity for a chi-square test of difference between exoneration by racial group.

Step four consisted of logistic regression. This form of regression is important because of the dichotomous nature of the dependent measure. Specifically, the median time to exoneration was dummy coded "0" for exonerated before the median time of 1,000 days and "1" for exonerated after the median time to exoneration. The logistic regression model allowed for a dichotomous dependent variable while examining the impact of multiple predictor variables. In the logistic regression model, the model fit is determined by the chi-square statistic. Specifically, the chi-square statistic is to be statistically significant to indicate a good fitting model by comparing and empirically examining the improvement between a null model (i.e., a model without the legal and extralegal factors) and a complete model (i.e., a model with the legal and extralegal factors) (Bewick et al., 2004; Fox, 2002; Parzen & Lipsitz, 1999). When interpreting the coefficients in this form of regression, it is important to understand the coefficients represent a link between the covariates and the odds of for falling into the group of exonerees who were not exonerated by the median time to exonerations. The interpretation of the dummy variables indicated either an increased or decreased likelihood of being exonerated by the median time for that variable. The interpretation of the continuous variable of age showed when coefficients were positive, higher values

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indicated greater days-to-exoneration, and when the coefficients were negative, higher values indicated fewer days-to-exoneration (Clark et al., 2003; Singh & Mukhopadhyay, 2011).

The effect size for this form of logistic regression is the Exp(b). In this form of regression, the Exp(b) is interpreted as an odds ratio (Cox & Oakes, 1984; Fox, 2002; Harre et al., 1988; Singh & Mukhopadhyay 2011). In the present dissertation, this form of binomial logistic regression allowed for the proper modeling of the dichotomous dependent measure, days-to-exoneration, and the legal and extralegal measures representing the focal concerns theory to address the hypotheses of interest. Specifically, five models were estimated. The first model consisted of all the data and the legal and extralegal measures for a subsample that included only black and white exonerees. The second model was comprised of all the data and the legal and extralegal measures for a subsample which included only Hispanic and white exonerees. The third model was for the data for white exonerees. The fourth model was for the data for black exonerees. The fifth model consisted of the data for Hispanic exonerees.

To address the hypothesis that there are racial differences in the focal concern measures, the Paternoster et al. (1998) z-score was applied to the slopes and standard errors of the white, black, and Hispanic models. Applying the z-score allowed for the understanding of whether the focal concern measures are equal across the racial groups. For clarity, Table 1 maps the connection between the steps of the analysis, the statistical test, and the hypotheses that were examined.

Table 1. Data Analysis Plan.

Analysis Step	Hypothesis	Statistical Test	Statistical Package
1	Normality of Data	Mean, Standard Deviation, Skewness, and Kurtosis	SPSS
2	Shared Variation	Correlation	SPSS
3	Racial and ethnic differences are present in the length-of-time to exoneration	Kaplan-Meier Test	SPSS
4	The legal components of a case are associated with the racial and ethnic differences in the length-of-time to exoneration.	Logistic Regression Models 1 and 2: comparison groups Models 3, 4, 5 individual race	SPSS
5	The legal components of a case are associated with the racial and ethnic differences in the length-of-time to exoneration.	Paternoster et al. Z-score to assess the equality of the slopes	Excel

CHAPTER 4

RESULTS

The current study is designed to provide an understanding of time-to-exoneration (i.e., days-to-exoneration). To provide this understanding of time-to-exoneration, the study makes use of focal concerns theory. The results of the study take place in a series of steps.

Step 1
The first step is a presentation of the descriptive statistics. The results from the descriptive statistics measure are shown in Table 2. Black exonerees comprised 46% of the sample, white exonerees 41%, and Hispanic exonerees made up the remaining 13%. The sample of exonerees was 85% male. This is in line with overall known statistics regarding gender and incarceration (Carson & Anderson, 2015). The average age of the exonerees was 32. 6 years old at time of crime commission. The youngest exoneree at time of crime commission was 13 years old and the oldest was 83 years old.

The mean time to exoneration was found to be 1,223.12 days. The median time to exoneration was 1,000 days. The shortest time to exoneration was 3 days and the longest time to exoneration in this study was 8,199 days. As expected, it was found that the exoneration event variable needed to be censored, pointing to the necessity for survival analysis.

Table 2. Descriptive Statistics of the Measures

Measure	Mean	Median	Standard Deviation	Min	Max
Biological Sex (Male)	.85	—		0	1
Age	32.60	—	11.44	13	83
Race/Ethnicity					
White	.41	—	—	0	1
Black	.46	—	—	0	1
Hispanic	.13	—	—	0	1
Official Misconduct	.35	—	—	0	1
Inadequate Legal Defense	.24	—	—	0	1
Drug Crime	.39	—	—	0	1
Violent Crime	.29	—	—	0	1
False/Misleading Forensic Evidence	.27	—	—	0	1
Mistaken Eyewitness ID	.10	—	—	0	1
Perjury or False Accusation	.40	—	—	0	1
Dependent Measure					
Time (days) to Exoneration	1223.12	1000	1013.823	3	8199

N = 489

According to the data, 29 % of the crimes for which wrongfully convicted inmates were eventually exonerated of were violent crimes. Drug related crimes comprised 39% of the exonerations. The data showed 40% of the cases had perjury or false accusation as

a factor. Additionally, 35% of the cases contained an instance of official misconduct in the wrongful conviction that ended in exoneration. Inadequate legal defense played a role in 24% of exonerations. False or misleading forensic evidence was a factor in 27% of the cases and mistaken eyewitness identification occurred in 10% of the cases. Further, these results indicated ample variation of these measures for further analysis.[6]

An examination of the descriptive statistics of the split sample reveals that 81% of white exonerees were male, while 88% of black exonerees and 85% of Hispanic exonerees were male[7]. The average age at time of crime commission for white exonerees was found to be 34.7. For black exonerees the average age at time of crime commission was 31.5 years and for Hispanic exonerees it was 29.9.

A slightly higher percentage of black exonerees (31%) had been convicted of a Violent Crime when compared to white exonerees (30%). Hispanic exonerees had the least percentage of Violent Crime convictions (21%). Additionally, a much higher percentage of blacks (47%) and Hispanics (49%) had been convicted of a Drug Crime than had white exonerees (26%). 18% of black exonerees had Eyewitness Misidentification as a factor in their wrongful conviction. This is compared to 3% of all white exonerees and 9% of Hispanic exonerees.

Across the board, the legal component most often found in the wrongful convictions of white, black, and Hispanic exonerees was Perjury and False Accusation.

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[6] The variables of fraud, firearms, DNA, false confession, guilty plea, sex crimes, and child victim were dropped from the study due to small numbers of occurrences across all race/ethnicities and extreme kurtosis and skewness that was not able to be remedied.

[7] See Table A2 in Appendix.

Additionally, about one third of each group had experienced Official Misconduct as a factor in their wrongful conviction. The data shows that 56% of black exonerees, 49.5% of white exonerees and 34% of Hispanic exonerees waited longer than the median time of approximately three years to be exonerated.

Step 2

The correlations showed ample shared variation between the extralegal, legal, the exoneration event, and time to exoneration. First, the results indicated that exonerees with Official Misconduct ($r = .14$; $p < .01$), Inadequate Legal Defense ($r = .21$; $p < .01$), or Perjury and False Accusation ($r = .10$; $p < .05$) as a factor in their case were more likely to be incarcerated longer than 1,000 days before being exonerated. Those innocent defendants who were convicted of a Drug Crime were more likely to experience a time to exoneration that was less than 1,000 days ($r = -.22$; $p < .01$). In contrast, those innocent defendants who were convicted of a Violent Crime were more likely to wait longer than 1,000 days to be exonerated ($r = -.26$; $p < .01$).

Additionally, the results of the analysis indicated that both legal and non-legal factors were associated with the number days to exoneration. Specifically, the legal variables of Official Misconduct ($r = .17$; $p < .01$), Inadequate Legal Defense ($r = .17$; $p < .01$), Violent Crime ($r = .17$; $p < .01$) and Perjury and False Accusation ($r = .10$; $p < .05$) were found to be associated with increased days to exoneration. The data shows that exonerees convicted of a Drug Crime ($r = - 13$; $p < .01$) spent less time incarcerated awaiting an exoneration. Additionally, the analysis revealed that on average, innocent male defendants had to wait longer to be exonerated than did innocent female defendants ($r = .14$; $p < .01$). Similarly, black innocent defendants endured longer periods of

incarceration before being exonerated ($r = .17$; p <.01) when compared to innocent white and Hispanic defendants ($r = -.16$; p <.01).

Among the legal factors the strongest positive associations were found between Official Misconduct and Perjury and False Accusation ($r = .49$; p <.01), Drug Crime and False and Misleading Forensic Evidence ($r = .49$; p <.01) and Violent Crime and Mistaken Eyewitness ID ($r = .40$; p <.01). The strongest negative associations among legal variables was found between Drug Crime and Violent Crime ($r = -.51$; p <.01), Perjury and False Accusation ($r = -.38$; p <.01), and Inadequate Legal Defense ($r = -.38$; p <.01).

The results indicated that race and ethnicity were associated with several legal and non-legal factors. A positive association was found between race variable of Black and Drug Crime ($r =.15$; p <.01) as well as the variable of Mistaken Eyewitness ID ($r = .23$; p <.01) and False and Misleading Forensic Evidence ($r = .13$; p <.01). A positive association was also found between the race variable of Black and biological sex ($r = .10$; p <.05).

A negative association was found for the variable capturing Hispanic ethnicity and age ($r = .10$; p <.05) while a positive association was found between the race variable White and age ($r =.15$; p <.01) Additionally, a positive association was found between White and Inadequate Legal Defense ($r = .10$; p <.01). The results indicated that there was a negative association between White and Drug Crimes ($r = -.21$; p <.01) and Mistaken Eyewitness Identification ($r = -.21$; p <.01).

The results revealed that the highest amount of shared variation was found within the legal factors. There were no issues with multi-collinearity found in the bivariate

results, but additional tests of for multi-collinearity were performed with the regressions.

The results of the bivariate analysis can be found in Table 3.

Table 3. Bivariate Correlations of the Measures (*n*= 489)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.Biological Sex (Male)	1													
2. Age	0.04	1												
3. Black	.10*	-0.8	1											
4. White	-.10*	.15**	-.76**	1										
5. Hispanic	.00	-.10*	-.37**	-.33**	1									
6. Days to Exoneration	.14**	0.06	.17**	-0.6	-.16**	1								
7. Median Days	.11*	0.02	.10*	-.01	-.13**	.78**	1							
8. Official Misconduct	0.08	0.02	-.01	.00	0.02	.17**	.14**	1						
9. Inadequate Legal Defense	0.08	0.06	-0.5	.10*	-0.07	.17**	.21**	0.02	1					
10. Drug Crime	-.16**	-.12**	.15**	-.21**	0.08	-.13**	-.22**	-.29**	-.38**	1				
11.Violent Crime	.09*	-.18**	0.04	0.01	-0.08	.17**	.26**	.26**	.29**	-.51**	1			
12. False/ Misleading Forensic Evi	-.12*	-.01	.13**	-0.8	-0.07	0.02	-0.01	-.28**	-.16**	.49**	-.17**	1		
13. Mistaken Eyewitness ID	.11*	-.10*	.23**	-.21**	-0.02	0.07	0.09	.12**	.17**	-.27**	.40**	-.16**	1	
14.Perjury/False Accusation	.15**	-.02	-0.7	0.09	-0.02	.10*	.10*	.49**	0.08	-.38**	.19**	-.36**	-.14**	1

* Correlation is significant at the 0.05 level (2-tailed).
** Correlation is significant at the 0.01 level (2-tailed).

Step 3

Next Kaplan Meier analysis was performed. The Kaplan-Meier analysis demonstrated that the survival and hazard functions do vary by race and ethnicity. The results can be seen in Figure 1 and Figure 2 below. Specifically, the chi-square statistic and the graphs from the Kaplan-Meier analysis provide evidence that there are differences in the survival and hazard functions of the comparison groups (i.e., whites vs. blacks and whites vs. Hispanics). The Chi-square statistic for this analysis indicates significant inter-group differences in the time to exoneration, when one's race is considered. The results of the Kaplan-Meier analysis showed that black exonerees experienced a longer time to exoneration than did white exonerees. These results provide supporting evidence for the first hypothesis that racial and ethnic differences exist in time-to-exoneration. Not only does this support the hypothesis, but it is the first supportive evidence for focal concerns theory in the context of time-to-exoneration.

The results of the second Kaplan-Meier analysis indicated that overall, Hispanic exonerees experienced a shorter time to exoneration than did white exonerees, though the Chi-square indicated the differences were not significant (see Figure 2 for specific information). This means there are no statistically significant differences among these groups.
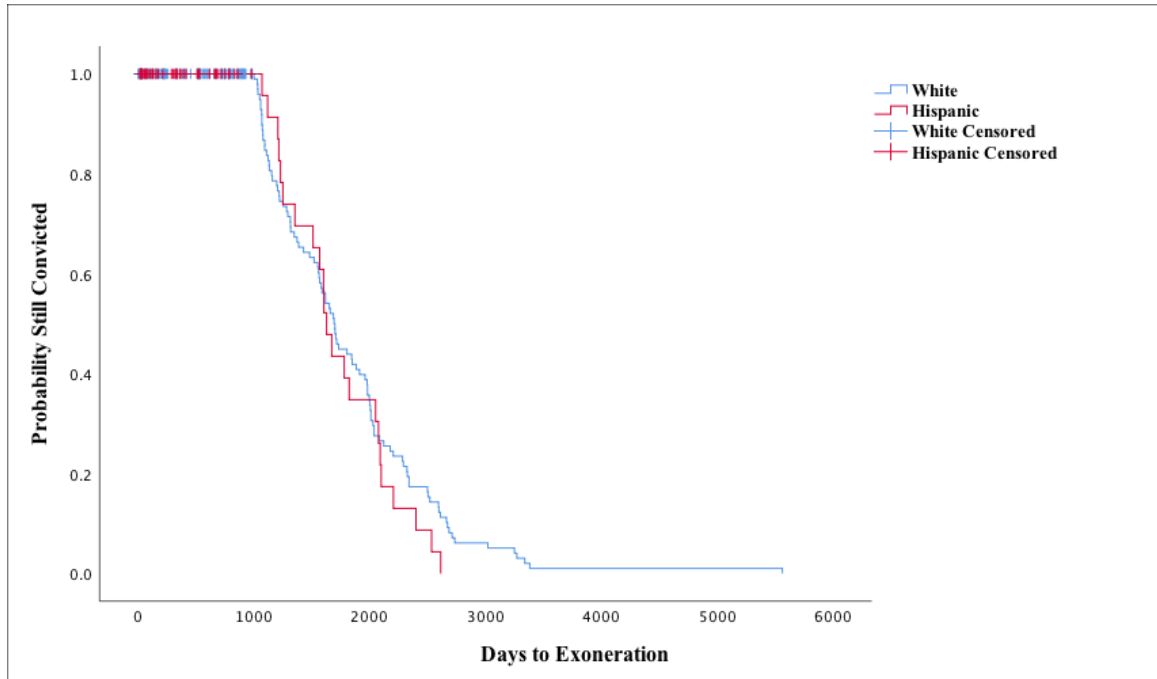
Figure 1

Survival Analysis Results of Blacks versus Whites Median Days to Exoneration
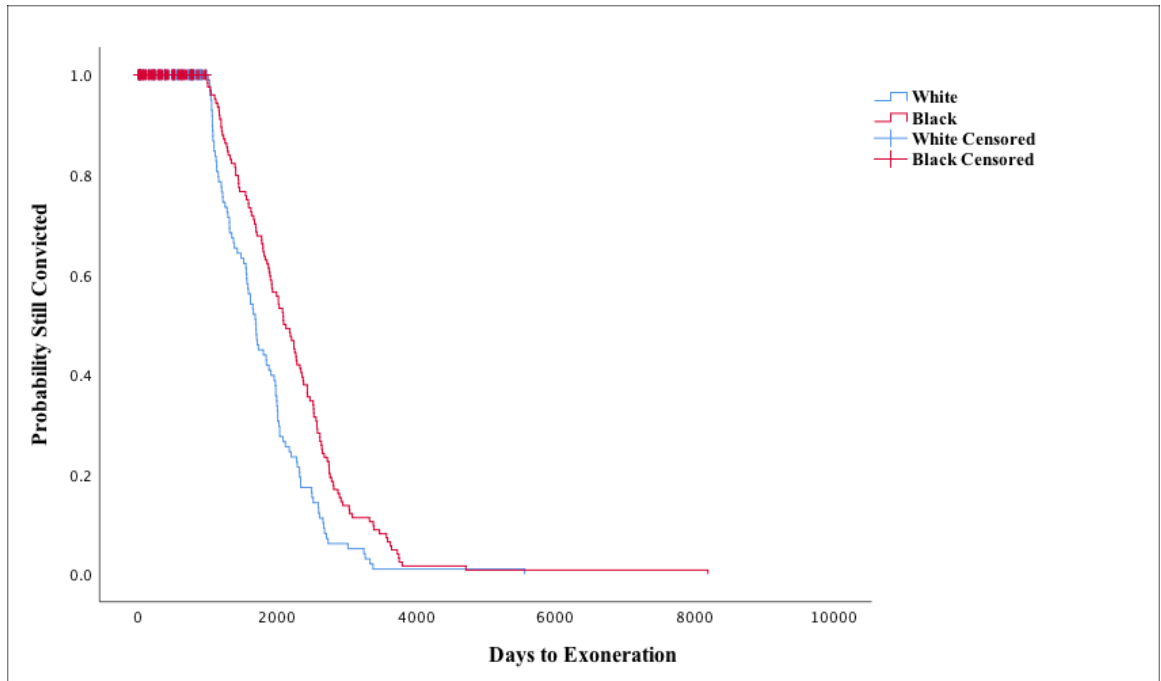
Chi-square = 14.75, 1 *df* *p = .000

Figure 2

Survival Analysis Results of Hispanics versus Whites Median Days to Exoneration

Chi-square = .610, 1 *df* p = .435

Step 4

Next logistic regression analysis was performed to explore how the extralegal and

legal measures are associated with the time-to-exoneration. This is important so as to gain

an understanding of how the extralegal and legal factors may affect time-to-exoneration

for each racial and ethnic group. [8] In this study, logistic regression was performed on two

comparison groups. Specifically, logistic regression was performed first on one group

which included only black exonerees with white exonerees as the comparison. Then

logistic regression was performed on the second group, which included only Hispanic

exonerees with white exonerees as the comparison.

Black vs. white defendants: Inter-group comparisons in time-to-exoneration

The results of the logistic regression analysis performed for the comparison group

of blacks vs whites show that for black exonerees the odds of being exonerated after

1,000 days were about 50% higher (b=405, Exp(b) =1.499, p <.10) than for white

exonerees when controlling for other variables in the model. The results also indicated

that male exonerees were 1.7 times more likely (b= .533, Exp(b) = 1.704, p < .10) to be

exonerated after the median exoneration time of 1,000 days than female exonerees.

Additionally, when the legal variables of Official Misconduct (b =.477, Exp(b) =1.612 , p

< .10) or Inadequate Legal Defense (b = .580, Exp(b) = 1.787 , p <.05) were present in a

case, those exonerees were significantly more likely to experience longer times of

incarceration before being exonerated than exonerees who did not have these elements

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[8] Cox Proportional Hazard Regression was attempted but due to lack of occurrences or extreme low
occurrences within the racial groups for certain crime types the results were non-sensical. A log
transformation was performed and this did not resolve the issue. Therefore, logistic regression was utilized.

present. The results also showed that exonerees in this group who had been wrongfully convicted of a violent crime were 2.095 times more likely (b= .739, Exp(b) = 2.095, p < .01) to be exonerated after the median time to exoneration than exonerees convicted of any other type of crime other than a drug offense.

These results showed that the effect of being black rather than white is approaching significance, suggesting a racial effect is possible (p <.10). This provides tentative support for the first hypothesis that racial differences do exist in time to exoneration. Further, these results also show support for the second hypotheses in that it demonstrates the legal factors of a case had an impact on time to exoneration. Specifically, the legal factors of Official Misconduct and Inadequate Legal Defense were shown to impact time to exoneration. Of these two, Inadequate Legal Defense had the great impact on the length of time-to-exoneration. Additionally, Violent Crime, a legal measure which Focal Concerns theory posits is likely to impact decision making, was shown to have a significant impact on the length of time an exoneree in this group experienced before being exonerated. This supports the premise of Focal Concerns that the severity of the crime is of importance to decision makers and is considered as they perform their assessments and arrive at their judgments (Steffensmeier et al., 1998).

Similarly, support for Focal Concerns was also found in the results which illustrated the non-legal variable of being black had an impact on the length of time to exoneration. This is in line with Focal Concerns theory in its assertion that judges and other justice officials rely on stereotypes, such as a young black predator and inherent criminality, in arriving at their decisions (Albonetti, 1991; Bridges & Steen, 1998; Fontaine & Emily 1978; Steffensmeier et al., 1998).

For this group, the results also indicated that the non-legal variable of biological sex impacted the likelihood of being exonerated after the median time to exoneration. The results showed that males were more likely to be exonerated after the median time than were female exonerees in this group. This again supports Focal Concerns theory in that decision makers rely on stereotypes, in this instance, relating to gender and criminality (Albonetti, 1991; Steffensmeier et al., 1998). The results of the logistic regression analysis performed for the comparison group of blacks vs whites are illustrated in Table 4.

Table 4. Black and White Group Exonerees Logistic Regression Analysis N= 421

Measure	B	SE	Exp (B)	Tolerance
Biological Sex (Male)	.533*	.302	1.704	.933
Age	.008	.010	1.008	.858
Race/Ethnicity (Black)	.405*	.228	1.499	.828
Official Misconduct	.477*	.261	1.612	.709
Inadequate Legal Defense	.580**	.267	1.787	.830
Drug Crime	-.526	.330	.591	.416
Violent Crime	.739***	.298	2.095	.568
False/Misleading Forensic Evidence	.422	.297	1.524	.620
Mistaken Eyewitness ID	-.449	.421	.639	.659
Perjury or False Accusation	-.168	.276	.845	.584
-2logliklihood = 539.378				
Nagelkerke R^2 = .130				
Cox & Snell R^2 = .097				
Chi-square = 42.994 p =.000				

  *p<.10   **p <.05   ***p <.01

Hispanic vs. white defendants: Inter-group comparisons in time-to-exoneration.

The results of the analysis for the second comparison group, Hispanics vs whites, are illustrated in Table 5. The results of this analysis indicated that exonerees in this group who had Inadequate Legal Defense present in their wrongful conviction were 1.810 times more likely (b= 593, Exp(b) = 1.810 , p < .10) to be exonerated after the median time of 1,000 days than those exonerees who had access to adequate legal defense. The presence of False or Misleading Forensic Evidence was found to result in an exoneree being 2.823 times more likely (b= 1.038, Exp(b) = 2.823 , p < .01) to be exonerated after the median time than those exonerees who did not have this factor. Those exonerees in this comparison group who had been wrongfully convicted of a Violent Crime were 2.491 times more likely (b= .913, Exp(b) = 2.491 , p < .01) to be exonerated after the median time to exoneration than those convicted of any other type of crime, other than a drug crime. Exonerees who had been convicted of a Drug Crime were shown to be 64.1 % less likely (b= - 1.025, Exp(b) = .359, p < .05) to be exonerated after 1,000 days than those who had been convicted of other types of offenses.

Table 5. Hispanic and White Group Exonerees Logistic Regression Analysis N= 266

Measure	B	SE	Exp (B)	Tolerance
Biological Sex (Male)	.157	.380	1.170	.929
Age	.001	.012	1.001	.824
Race/Ethnicity (Hispanic)	-.390	.338	.677	.885
Official Misconduct	.105	.326	1.110	.724
Inadequate Legal Defense	.593*	.332	1.810	.836
Drug Crime	-1.025**	.431	.359	.510
Violent Crime	.913***	.345	2.491	.730
False/Misleading Forensic Evidence	1.038***	.400	2.823	.798
Mistaken Eyewitness ID	.580	.711	1.786	.885
Perjury or False Accusation	.276	.332	1.318	.657

-2logliklihood = 316.370

Nagelkerke R^2 = .230

Cox & Snell R^2 = .172

Chi-square = 50.216

p =.000

*p<.10   **p <.05   ***p <.01

The results of this group comparison are not supportive of the first hypothesis that there are racial and ethnic differences in time to exoneration in that the results of the analysis for this particular group, Hispanic vs white, did not show race/ethnicity to be a significant

factor in time to exoneration. However, the results were supportive of the second

hypothesis that the legal components of a case are associated with the racial and ethnic

differences in the length-of-time to exoneration. Specifically, the legal variables of

Inadequate Legal Defense, Drug Crime, Violent Crime, and False or Misleading Forensic

Evidence were found to impact time to exoneration. Additionally, these findings

demonstrate support for focal concerns theory which proposes legal factors do wield

influence on outcomes.

Probing this for racial and ethnic differences among the focal concerns theory

concepts, next logistic regression analysis was re-estimated for each race and ethnicity

(i.e., whites, blacks, and Hispanics). After the estimation of this regression, the

Paternoster et al. (1998) z-score was applied in order to assess any racial differences that

occur in the measures of focal concerns as they relate to time-to-exoneration. This is an

important step in exploring the data for support of the second hypothesis, that the legal

components of a case are associated with the racial and ethnic differences in the length-

of-time to exoneration. Further, this is also a necessary step in determining if there is

support for the expectation that the extralegal and legal measures, which represent the

focal concerns measures, are more important for blacks and Hispanics than for whites.

The results of the regression analysis and z-scores for the whole sample are depicted in

Table 6.

Table 6. Logistic Regression Analysis of Exonerees by Race/Ethnicity

	White			Black			Hispanic			Black/White	Hispanic/White
Measure	B	SE	Exp (B)	B	SE	Exp (B)	B	SE	Exp (B)	Z- Score	Z-score
Biological Sex(Male)	.271	.415	1.311	.813*	.474	2.255	-.302	1.159	.739	.63	.47
Age	.007	.014	1.007	.011	.014	1.011	-.082**	.041	.921	.20	2.1**
Official Misconduct	.078	.363	1.081	.825**	.407	2.283	1.025	.984	2.787	.55	1.1
Inad Legal Defense	.286	.359	1.331	.907**	.419	2.477	4.749****	1.604	115.45	1.13	3.1**
Drug Crime	-1.315**	.545	.268	-.055	.457	.947	1.106	1.176	3.022	-1.77	-1.9
Violent Crime	.712*	.386	2.037	.841*	.499	2.319	3.733***	1.437	41.801	-.20	-2.0**
False/Mis Forensic Ev	1.035**	.488	2.816	-.033	.404	.968	2.770***	1.098	15.956	1.69	-1.4
Mistaken Eyewit ID	1.166	1.158	3.208	-.838	.557	.433	1.130	1.981	3.095	1.56	.02
Perjury/False Accus	.019	.370	1.020	-.516	.441	.597	1.861*	1.059	6.429	.93	-1.6

-2logliklihood =	246.085			= 282.711			= 49.145	
Nagelkerke R^2 =	.178			= .135			= .592	
Cox & Snell R^2 =	.134			= .101			= .427	
Chi-square =	28.381			= 23.624			= 37.876	
	p =.001			p = .005			p =.000	
	N = 198			N=223			N=68	

*p<.10 **p <.05 ***p <.01 ****p <.000

White exonerees: Predictors of exoneration length

The data shows that 49.5% of white exonerees experienced a time to exoneration that exceeded 1,000 days. An examination of the findings for the regression analysis of each race and ethnicity shows that for white exonerees, the legal variables of False and Misleading Forensic Evidence, Violent Crime, and Drug Crime did have an impact on time to exoneration. Specifically, white exonerees who had False or Misleading Forensic Evidence in their case were 2.81 times more likely (b= 1.035, Exp(b) = 2.816 , p < .05) to be exonerated after the median time to exoneration than those who did not have False or Misleading Forensic Evidence present in their wrongful conviction. Those who had been wrongfully convicted of a Violent Crime were 2.037 times more likely (b= .712, Exp(b) = 2.037 , p < .05) to experience a time to exoneration which was longer than 1,000 days than those exonerees wrongfully convicted of any other type of crime, other than drug crimes. For those white exonerees convicted of a Drug Crime, the odds of having to wait longer than 1,000 days to be exonerated were 73% lower than for those white exonerees convicted of any other type of crime, other than a Violent Crime. These results are supportive of the focal concerns theory in that that the legal measures of a case were found to have an impact on time to exoneration.

Black exonerees: Predictors of exoneration length

The data reveals that 56% of black exonerees experienced a time to exoneration that was greater than approximately three years. In evaluating the results of the regression analysis for the black exonerees in this sample, it was found that the non-legal variable of biological sex did have an impact on time to exoneration which approached significance.

Specifically, black males were 2.255 times more likely (b= .813, Exp(b) = 2.255 , p < .10) to be exonerated after the median time to exoneration than black females. Biological sex was not found to be a factor impacting time to exoneration for whites or Hispanics, pointing to support for the elements of focal concerns impacting time to exoneration for black male exonerees.

The legal variable of Official Misconduct was found to impact time to exoneration for black exonerees. Those black exonerees who had Official Misconduct in their case were found to be 2.283 times more likely (b= .825, Exp(b) = 2.283, p < .05) to experience a time to exoneration longer than 1,000 days than black exonerees who did not have Official Misconduct as a factor in their wrongful conviction. Similarly, the legal variable of Inadequate Legal Defense was also predictive of longer time to exoneration. Specifically, the results showed that black exonerees who had Inadequate Legal Defense were 2.477 times more likely (b=.907, Exp(b) = 2.477, p < .05) to be exonerated beyond the median time of 1,000 days than black exonerees whose cases did not include Inadequate Legal Defense. As with white exonerees, being convicted of a Violent Crime did impact time to exoneration. Specifically, the results indicated that black exonerees who had been convicted of a Violent Crime were 2.319 times more likely (b= .841, Exp(b) = 2.319, p < .10) to be incarcerated longer than approximately three years while awaiting exoneration than black exonerees convicted of any other type of crime, other than a drug crime. These results demonstrate outcomes which provide support for the second hypothesis as well as for the focal concerns measures in that the both legal and non-legal measures were found to affect the time to exoneration experienced by black exonerees.

Hispanic exonerees: Predictors of exoneration length

The data shows that 34% of Hispanic exonerees were incarcerated more than approximately three years while waiting to be exonerated. An examination of the regression analysis for Hispanic exonerees revealed that both legal and non-legal variables had an impact on time to exoneration. The greatest number of significant predictors was found in the group of Hispanic exonerees when compared to black or white exonerees. First, it was found that for every one unit increase in the age of the exoneree at the time of crime commission, there was a decrease of 7.9% (b = -.082, Exp(b) = .921, p <.05) in the likelihood of being exonerated after 1,000 days. Next the results demonstrated that those Hispanic exonerees who had Inadequate Legal Defense as a factor in their wrongful conviction were significantly more likely (b= 4.749, Exp(b) = 115.45 , p < .000) to spend longer times incarcerated before being exonerated than Hispanic exonerees who had access to adequate legal defense. Additionally, it was also found that a Violent Crime conviction resulted in a Hispanic exoneree being 41.801 times more likely (b= 3.733, Exp(b) = 41.801 , p < .01) to spend more than 3 years incarcerated before being exonerated than Hispanic exonerees who had been convicted of any other type of crime.

The legal variable of False or Misleading Forensic Evidence was also predictive of longer time to exoneration. Hispanic exonerees with False or Misleading Forensic Evidence in their case were 15.956 times more likely (b= 2.770, Exp(b) = 15.956, p < .01) to have to wait longer than 1,000 days to be exonerated than those Hispanic exonerees whose did not have False or Misleading Forensic Evidence as a factor. Lastly, the legal variable of Perjury and False Accusation was also shown to impact the length of

time a Hispanic exoneree experienced before being exonerated. The results demonstrated that those Hispanic exonerees who had Perjury or False Accusation as a factor in their wrongful conviction were 6.429 times more likely (b= 1.861, Exp(b) = 6.429, p < .10) to spend longer than 1000 days incarcerated before being exonerated than Hispanic exonerees for whom Perjury or False Accusation was not present. The findings for the Hispanic exonerees demonstrate support for the second hypotheses that the legal measures representing focal concerns are associated with racial and ethnic differences in time to exoneration.

The results of the logistic regression analysis within each racial and ethnic group provide support for the second hypothesis that the legal components of a case are associated with racial and ethnic differences in time to exoneration. Further, support for the influence of both the legal and non-legal measures which represent the focal concerns measures is demonstrated in the results. Specifically, the results indicated that the impact of these variables on time to exoneration was greater for blacks and Hispanics than for whites.

Next, in order to establish whether these disparities between racial and ethnic groups was statistically significant, the Paternoster et al. (1998) z-score was applied. The results of this analysis can be seen in Table 5. The results of the application of the z-scores showed that there were no differences in the impact on time to exoneration rising to the level of significance when comparing the disparities in the focal concerns measures between white exonerees and black exonerees. However, there were several disparities between the Hispanic and white exonerees which were found to be significant. Namely, the differences in the slopes of the extra-legal measure of age, and the legal measures of

Inadequate Legal Defense and Violent Crime were found to be statistically significant. The results indicate that the impact of being younger at the time of conviction was stronger (p <.05) for Hispanics than for white exonerees, resulting in greater time to exoneration for younger wrongfully convicted Hispanics than for younger wrongfully convicted white exonerees. Similarly, the detriment to Hispanic exonerees who had Inadequate Legal Defense in their case, was greater (p <.05) than it was for white exonerees who also had Inadequate Legal Defense as a factor in their case. This increased the likelihood that innocent Hispanic defendants with this factor would spend longer than approximately three years incarcerated before being exonerated when compared to white innocent defendants with this same factor. Lastly, the impact of being convicted of a Violent Crime was greater for Hispanic exonerees (p <.05) than it was for white exonerees who had been convicted of a violent crime, resulting in significantly greater likelihood for Hispanic exonerees of experiencing a time to exoneration which exceeded 1,000 days.

CHAPTER 5

DISCUSSION

The research on time-to-exoneration is sparse. The results from this study make a modest contribution to the literature on the racial and ethnic differences in time-to-exoneration. Moreover, there is little theoretical driven research in this area, and this study has shed some light on how Focal Concerns Theory can help explain the racial and ethnic differences in time-to-exoneration.

This study aimed to answer whether or not there are racial and ethnic differences present in time to exoneration. Additionally, this study purposed to answer whether or not the legal components of a case are associated with racial and ethnic differences in time to exoneration. In regards to the first hypothesis, the results of this study demonstrate that racial and ethnic differences do occur in days-to-exoneration. The results of this study indicated that Black individuals were more likely to have to wait longer for exonerations than white and Hispanic individuals. Specifically, 56% of black exonerees experienced a time to exoneration that exceeded 1,000 days, or approximately three years. In contrast, 49.5% of white exonerees and 38% of Hispanic exonerees spent longer than 1,000 days incarcerated before being exonerated. Additionally, black exonerees spent an average of 1,414.95 days incarcerated awaiting an exoneration while white exonerees and Hispanic exonerees experienced 1,146.14 and 818 days respectively.

In regards to the second hypothesis, the results of this study do show that the legal components of a case are associated with racial and ethnic differences in time to

exoneration. Illustrating this, while overall as a group Hispanics were not shown to spend more time before being exonerated than whites or Blacks, it was demonstrated that certain legal and non-legal variables did result in Hispanics being more likely to experience longer times to exoneration than white exonerees with the same factors present. Additionally, it was shown that these differences rose to the level of significance.

For example, it was demonstrated that younger (at the time of conviction) Hispanics were less likely to be exonerated before spending approximately three years in prison. Additionally, though both Blacks and Hispanics who were convicted of a violent crime experienced a longer time to exoneration than did whites convicted of a violent crime, the z scores revealed the difference was significant for Hispanics when compared to white exonerees. This means that the negative impact of being convicted of a violent crime was greater for innocent Hispanic exonerees (p <.05) than for innocent white exonerees also convicted of a violent crime, resulting in longer times to exoneration. Similarly, wrongfully convicted blacks and Hispanics who had Inadequate Legal Defense as a factor, both experienced a longer time to exoneration than did whites with this factor. However, as with the legal variable of Violent Crime, the z scores revealed this difference was significant (p <.05) for innocent Hispanics who did not have access to adequate legal defense when compared to innocent white exonerees who also lacked adequate legal defense. This finding suggests inequity in the way this particular factor affected the different racial and ethnic groups. These findings do support the second hypothesis, demonstrating that the legal components of a case are associated with racial and ethnic differences in time to exoneration.

These results provide additional evidence of another area of the criminal justice system where racial and ethnic disparities exist. For black and Hispanic innocent defendants the travesty of the wrongful conviction is compounded by the impact of longer time spent incarcerated before being exonerated. In short, the remedy to the injustice of wrongful conviction is itself applied in a manner that is unjust and that disadvantages wrongfully convicted black and Hispanic defendants.

In addition to these results, the focal concerns measures do provide a theoretical understanding of the expected racial and ethnic differences, but first it is important to gain an understanding of the efficacy of theory, in this context. The results do indicate greater time-to-exoneration was associated with several measures which are posited by Focal Concerns theory to have an impact on outcomes. For example, research has consistently shown that the severity of the crime impacts sentencing outcomes (Kramer & Steffensmeier, 1993; Steffensmeier et al., 1998; Ulmer & Johnson, 2004). This was found to be the case in this study. This study therefore provides support for the focal concerns premise that severity of the crime does indeed impact outcomes. In this study, those wrongfully convicted of a violent crime did experience longer time to exoneration. However, racial and ethnic differences were still found in the outcomes associated with being convicted of a violent crime and the length of time experienced until exoneration. In other words, it was illustrated that the level of the severity of the crime did not impact all races and ethnicities in the same manner.

The study also illustrated that the legal variable of Inadequate Legal Defense, resulted in longer time to exoneration for both black and Hispanic exonerees but did not increase time to exoneration for white exonerees. However, it most impacted Hispanics

and the difference reached statistical significance. This again illustrates support for Focal Concerns theory in that it illustrates how stereotypes surrounding minorities and proclivity for criminal activity may impact access to adequate legal resources and result in detriment to certain racial and ethnic groups. Additionally, this particular finding may indicate bias towards minorities who are non-English speaking, impacting their ability to secure adequate legal defense.

Research indicates that forensic evidence carries a great deal of weight in court settings and has a known impact on wrongful convictions (Cooley & Oberfield, 2007; Gould et al., 2012). The results of this study found that the presence of False or Misleading Forensic Evidence impacted time-to-exoneration differently for whites and Hispanics. Though the level of difference did not reach statistical significance, the findings indicated that Hispanic exonerees with this factor in their case were more likely to experience a longer time to exoneration than whites whose cases also included this factor.

Additionally, it was illustrated that across the three groups, black exonerees were the only group where biological sex of the wrongfully convicted defendant impacted the time to exoneration. Specifically, black males were more likely than black females to experience a longer time to exoneration. There were no significant differences resulting from biological sex in time to exoneration for either Whites or Hispanics, suggesting that black males are disadvantaged in a way that others are not when it comes to length of time to exoneration. This supports the Focal Concerns theoretical concepts in that it points to a reliance on the stereotypical ideology of a young black predatory male that society must be protected from (Fontaine & Emily 1978; Johnson et al. 2008;

Steffensmeier et al., 1998). Similarly, the non-legal measure of age was found to be significant for Hispanic exonerees but not for black or White exonerees. Specifically, the younger an innocent Hispanic defendant was at the time of crime commission, the more likely they were to spend more time incarcerated before being exonerated.

In other words, non-whites in this study were more likely to be considered more blameworthy, as posing a danger the community must be protected from, and as associated with more practical constraints and consequences than whites (Bishop, et al., 2020; Johnson et al. 2008; Liebman et al., 2002; Steffensmeier, 1980; Steffensmeier et al., 1998). This was found to be statistically significant in some instances, and in others, approached significance.

Research indicates that even when controlling for other relevant legal and extralegal variables, which are empirically associated with harsher outcomes, racial and ethnic disparities are still present (Freiburger, 2009; Freiburger & Romain, 2018; Higgins et al., 2013; Kamalu et al., 2010; Steffensmeier et al., 1998; Steffensmeier & Demuth, 2000; Ulmer & Johnson, 2004). This is seen in the results of the analysis from this study in the finding that black exonerees experienced a greater time-to-exoneration than whites. The inter-group difference was evident when controls were not used but decreased after controls were implemented. When controls were utilized, the results showed that certain factors had a stronger impact time to exoneration for black innocent defendants than for white innocent defendants and were significant ($p < .05$) for Official Misconduct and Inadequate Legal Defense and approached significance ($p < .10$) for Violent Crime.

While innocent Hispanics did not spend longer times incarcerated than innocent whites, certain legal factors were found to have impact which resulted in Hispanic

exonerees being more likely to spend longer than 1,000 days before being exonerated when compared to white exonerees with these same factors. These differences were approached significance (p <.10) for Perjury and False Accusation. The differences were significant (p <.01) for the legal factors of False and Misleading Forensic Evidence and Violent Crime as well as for Inadequate Legal Defense (p <.000).

In summary, despite small differences in the time to exoneration between white exonerees and black and Hispanic exonerees, the findings show that certain legal factors, such as Inadequate Legal Defense, Official Misconduct, False and Misleading Forensic Evidence, Perjury and False Accusation, and being convicted of a Violent Crime did have a stronger impact on the likelihood of experiencing a time to exoneration that exceeded 1,000 days for innocent minority defendants than it did for white innocent defendants with those same factors present. Further, when the z-scores were applied, the factors of Age (younger at time of crime commission), Inadequate Legal Defense, and Violent Crime were found to be significant at p <.05, resulting in longer times to exoneration for innocent Hispanic defendants with these factors present than for innocent white defendants with these same factors.

Though there are few studies which examine this topic, the results of this study echo the findings of other studies which have examined race and time to exoneration. Take for instance Olney & Bonn, (2015) who found that black innocent defendants endured the longest time to exoneration when compared to all other races. Additionally, they found that even when controlling for other factors, being convicted of a violent crime had a greater impact on black innocent defendants than on innocent defendants of other races. Gross, et al., (2017) also found that black innocent defendants spent more

time wrongfully incarcerated before being exonerated than any other race. This held true across every category of crimes that was present in the data.

This study finds results that are in line with the results of Rafail and Mahoney (2019) in their examination of the exoneration pipeline. Specifically, their findings indicated that severity of the crime, inadequate legal defense, and official misconduct had the effect of lengthening time-to-exoneration. Further, the results of their analysis showed that blacks were at a significant disadvantage in length of time to exoneration when compared to all other races.

The results of this study point to racial and ethnic differences in time to exoneration which disadvantages minorities. Additionally, this study demonstrates that legal components of a case do impact the racial and ethnic groups differently in regards to time to exoneration. This suggests a disparity which harms blacks and Hispanics in the exoneration process within the criminal justice system. Further, these results support the Focal Concerns theoretical premise that this is as a result of a reliance on stereotypes that suppose criminality to be a persistent attribute of non-whites (Albonetti, 1991; Bridges & Steen, 1998; Fontaine & Emily 1978; Steffensmeier et al., 1998).

Policy and Programming

It is widely acknowledged that in order for justice policy and programming to be effective, empirical study must go beyond informing on the state of the issue at hand and provide the critical link between research and practice (Andrews & Bonta, 2010; Bennett, 2004; Gregrich, 2003; Mears, 2007; Mears & Bacon, 2009). Therefore, an exploration of patent solutions as well as lessons learned from previous experiences is presented here. Additionally, suggestions for solutions that are likely to be effective based on what is

known about the scope of the problem and what has worked in other arenas are presented as well.

The most obvious remedy to rectifying disparities in time-to-exoneration is to prevent the wrongful convictions that necessitate them. A wrongful conviction negatively impacts three spheres of our society (Norris et al., 2020). First, the wrongfully convicted individual who is torn from his family and community. Second, the community is placed at risk of continued wrongdoing by the guilty individual who has been allowed to go free. Third, the victim faces additional hardship and emotional turmoil when the truth comes to light and the realization sets in that the guilty party has not been held accountable.

As the public has become increasingly aware of these tragedies, the call for wide-spread reforms and measures to address wrongful convictions has been given consistent and persistent attention. Indeed, though the scope of what remains to be accomplished is considerable, and though deep-rooted resistance to change exists, progress has been made. Recent years have seen reforms in critical areas based on empirical findings (Garrett, 2017).

Decades of wrongful conviction research have stimulated reforms in police, prosecutorial, and judicial practices and policies (Acker et al., 2015; Gould & Leo, 2015). For example, legislation addressing the way in which police interrogations are conducted and that establishes standards for how police lineups are facilitated have been enacted in many states in recent years. Additionally, all fifty states now have statutes providing access to post-conviction DNA testing. However, the focus of this dissertation is explicitly the identification of racial and ethnic disparities in time-to-exoneration. Therefore, policy changes that would directly contribute to reducing racial and ethnic

disparities in time-to-exoneration while fully acknowledging empirically based work to reduce the occurrences of wrongful convictions overall is essential.

First, it is recommended that widespread training to address racial and ethnic stereotypes be implemented among the agencies and actors responsible for addressing claims of innocence. It is critical that the strategies implemented in the training be empirically based. Illustrating this, an analysis of hundreds of empirical studies, representing a diverse array of strategies and techniques to reduce and prevent prejudice, found only a few studies could convincingly argue for their effectiveness. (Paluck & Green, 2009). Namely, it was found that cooperative learning and certain forms of narrative and normative communications were the most effective in reducing and preventing prejudice. In particular, those strategies incorporating narrative persuasion, perspective taking, and empathy, as well as extended contact were found to be the most effective. These findings highlight that introducing strategies for reduction and prevention in racial and ethnic prejudice is a decision that must be based upon sound empirical evidence if the desired results are to be achieved.

Evidence based research from the field of social-cognitive psychology indicates it is possible to reduce unconscious bias and reliance on stereotypes through education and training. Specifically, it has been found that certain strategies and skills can be taught, which enable an individual to focus on a person's individual qualities and characteristics, rather than on the group they belong to (Blair, 2002; Burgess, et al., 2007; Divine, et al., 2002; Johnson & Frederickson, 2005; Pope, et al., 2014). These strategies are aimed at reducing the dependency on stereotypes in decision making that arise when an individual

lacks the time, cognitive ability, or relevant information needed to assess a situation (McIntosh, et al., 2014).

The framework for this training is multi-tiered and includes elements which address the motivation to respond without bias as well as educating individuals in the etiology of psychological bias and racism. This is partnered with skills training in empathy, perspective taking, regulating emotional responses, and increasing confidence in interactions with members of different races and ethnicities. Given the evidence-based success of this type of training, it is likely that when applied to decision makers within the criminal justice system it will result in a reduction of bias (Burgess, et al., 2007; Chapman, et al., 2014; McIntosh, et al., 2014; Stone & Moskowitz, 2007). While education and training measures aimed at reducing implicit bias would not yield instant results, as a part of comprehensive reform and when applied to all facets of our justice system, it is likely this would have a positive impact on reducing racial and ethnic disparities.

Second, it is recommended that research surrounding the effectiveness of Conviction Integrity Units (CIU's) be a priority. In the wake of the growing number of exonerations, some states have established Conviction Integrity Units (CIUs) that are models for internal regulation of prosecutors and seek to identify and prevent wrongful convictions (Scheck, 2017). Though at the outset, many were skeptical of the loyalties of units set up within the prosecutorial office, with each year that passes, CIUs are playing a decidedly more prominent role in exonerations (Norris, 2020). The most recent data indicates that many CIUs are even working in conjunction with professional exonerators, such as the Innocence Project (NRE, 2020).

Third, it is recommended that Congressional legislation be enacted that would require states to regularly assess racial and ethnic disparities in the post-conviction process and report the findings in order to qualify for available funding. This recommendation is based on a model of reforms within the juvenile justice system that were mandated by the Juvenile Justice Delinquency and Prevention Act (JJDPA). Drawing from this model, all states would be required to address racial and ethnic disparities in the post-conviction processes through identification of the points where racial and ethnic bias are present, the development of action plans, and by performing outcome-based evaluations. Additionally, states would be required to publish the results of the outcome based evaluations annually, promoting transparency. The states would also be required to establish or designate existing bodies comprised of diverse stakeholders to act in an advisory capacity towards the aims of reducing racial and ethnic bias.

In the context of the adult justice system, it is likely that such requirements would be effective for reducing racial and ethnic disparities in the time-to-exoneration of wrongfully convicted minorities. In particular, the following four practices have been shown to be effective in reducing disproportionate minority contact in the juvenile justice system and would also be relevant in the context of reducing racial and ethnic bias in the post-conviction process. 1. Data review and decision point-mapping, 2. Cultural competency training, 3. Removing decision making subjectivity, 4. Cultivating state leadership to legislate system wide change (Cabaniss et al., 2007). Additionally, state and community level subcommittees, in conjunction with other community stakeholders, would provide representatives and coordinators to assist in the evaluation and analysis of

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data, and generally with any activities necessary to achieve compliance with the core requirements (Leiber & Rodriguez, 2011).

This model described above employs aspects of the SARA model of community policing, which utilizes Scanning, Analysis, Response, and Assessment (Eck & Spelman, 1987). These steps as part of an overall strategy to reduce unwanted outcomes have proven beneficial (Weisburd et al., 2010). Additionally, these steps can provide information on areas where "hot spots" are occurring, allowing redress that is aimed at the specific location (Braga & Bond, 2008). It is likely that these steps, when undertaken as part of the larger coordinated efforts detailed above, would be beneficial as well in reducing racial and ethnic disparities in the exoneration process by identifying "hot spots" or consistently problematic agencies or policies that contribute to the disparities.

Fourth, research has repeatedly exposed the striking invisibility of Hispanic and Latino individuals in the criminal justice data (Arya et al., 2009; Shuck et al., 2004; Valencia, 1994). Capturing data is critical to transparency, to reform and to understanding what is working and what is not. The justice system is woefully lacking on consistent data leaving criminal justice actors very much in the dark and forced to rely on their own "gut" instinct in arriving at their decisions (Bergeron & Donnelly, 2020). Assessments of how race and ethnicity affect interactions with the justice system cannot be conducted without a consistent and accurate method of capturing ethnicity at all points in the justice system. Therefore, data collection guidelines and procedures that record ethnicity consistently throughout the justice system is of paramount importance in order to facilitate accurate analysis of criminal justice data and guide reforms that address

ethnic disparities (Epler-Estein et al.,2016; Pullman et al., 2013; Steffensmeier & Demuth, 2001).

Lastly, it is suggested that considerable attention be devoted to the problems inherent in communications with minorities who speak little to no English. Research shows language barriers pose significant hurdles for Hispanics and Latinos, which often impacts their ability to comprehend what is transpiring in the legal process at all stages Menjivar & Bejarano, 2012). This study illustrated the impact of certain factors which resulted in a longer time to on the length of time a Hispanic exoneree experienced, including inadequate legal defense. Problems with communication due to language barriers prevent non-English speaking defendants from accessing adequate representation, from responding to authorities in ways that could be beneficial to them, and from accessing information needed to pursue and exoneration (Reynoso, 2017; Urbina, 2004; IP, 2017). Therefore, it is recommended that policies be put in place that guarantee translation services that have been vetted will be provided to all individuals who require them. Furthermore, it is recommended that the appropriate steps be taken to ensure easy access to legal forms, transcripts, and other media that are written in the language of the individual seeking an exoneration.

- Limitations
While the current dissertation contributes to the criminological and legal literatures on time-to-exoneration, it is not without limitations. First, the study uses secondary data that does not directly or completely measure the concepts of focal concerns theory. Second, the possibility exists the data in the study are not accurate. The nature of archival data requires some judgements to be made, and these judgments are not

always accurate. To date, these data have been considered the most comprehensive and representative data on exonerations (Rafail & Mahoney, 2019).

Third, consistent with the biases of exonerations, which are more likely to occur with more severe crimes, violent crimes are overrepresented in the data which presents a statistical limitation. Fourth, the data considered Hispanic as a separate category but did not specify what races were captured within this category. It is therefore possible that race and ethnicity could be crossed (e.g., a person could be White Hispanic or Black Hispanic and so forth). Fifth, the number of Hispanic exonerees in this study was relatively small, which could impact the estimates. Sixth, the data on exonerations represented actual exonerations as captured by the NRE and, as such, was not equally distributed across geographical locations. This presents the possibility that factors associated with place could have an impact on the findings. Lastly, the data does not provide any measures on access to legal services and other support that may have an impact on time-to-exoneration.

Future research should address a number of issues. First, researchers should replicate this study by collecting their own quantitative data. This will allow the researchers to better measure the concepts of focal concerns theory. In addition, this will allow researchers to verify the validity of the data. Second, researchers should investigate the impact of other extralegal factors on time-to-exoneration such as the exoneree's level of education and whether or not the defendant pursued a claim of innocence in front of the same judge and/or prosecutor present in the original wrongful conviction. Additionally, researchers should collect data on what type of legal representation the wrongfully convicted defendant had when pursuing an innocence

claim, e.g. private attorney, Innocence Organization, or Conviction Integrity Unit. Third,

researchers should supplement their quantitative data by interviewing individuals and

criminal justice decision-makers about exonerations. This will provide much needed

context for the exonerations and the use of focal concerns theory in this area.

- Conclusions

This dissertation focused on examining the racial and ethnic differences in time-

to-exoneration using focal concerns theory. The results indicate racial and ethnic

disparities do exist in the time-to-exoneration. Further, the results illustrated racial and

ethnic differences in the focal concerns concepts in understanding time-to-exoneration.

These results are limited by their secondary nature, validity, and cross-sectional nature.

Despite these limitations, this dissertation is the first study to assess the time-to-

exoneration using a theoretical perspective via survival analysis among a national sample

of individuals and shows racial and ethnic disparities in exonerations do exist.

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Appendix

Table A1. Contributing Factors of Exonerations.

Contributing Factor	Percent Found in all Exonerations	Most Frequent Type of Crime	Empirical Literature
Perjury/False Accusation	58.4%	Child Sex Abuse	Norris et al., 2020; West & Meterko, 2015
Official Misconduct	53.9%.	Homicide	Gross & Shaffer, 2012; Gross et al., 2017; Norris et al., 2020
Mistaken Eye Witness ID	28.4%	Sexual Assault	Gould & Leo, 2010; Gross & O'Brien, 2007; Gross & Shaffer, 2012; Norris et al., 2020
Inadequate Legal Defense	26.2%	Homicide	Berry, 2003; Gould et al., 2012; Leo & Gould, 2009
False or Misleading Forensic Evidence	22.8%	Sexual Assault	Gross & Shaffer, 2012; Garrett & Neufeld, 2009; Hampikian et al., 2011; West & Meterko, 2015
False Confessions	12.1%	Homicide	Drizin & Leo, 2003; Garrett, 2015; Gross & Shaffer, 2012; Hampikian et al., 2011
Use of Police Informant	7.1%	Homicide	Garrett, 2008; Garrett, 2011; Joy, 2006; Natapoff, 2006; Raeder, 2007

Note. Due to the presence of multiple factors in exonerations the sum of the percentages is greater than 100.

Table A2. Split sample descriptive statistics with bivariate results.

Measure	White Mean	Black Mean	Hispanic Mean	B/W Cross-Tab	H/W Cross-Tab	t-Test
Median Days	.495	.56	.34	.210	.025	
Days to Exon	1146.14	1414.95	818.18			.007
Male	.808	.888	.853	.022	.407	
Age	34.7	31.5	29.9			.005
Off Misconduct	.343	.341	.368	.955	.718	
Inad Legal Def	.288	.211	.162	.067	.040	
Drug Crime	.263	.466	.485	.000	.001	
Violent Crime	.298	.314	.206	.724	.142	
False/Mislead Forensic Evid	.232	.336	.191	.019	.481	
Mistaken Eyewitness ID	.025	.179	.088	.000	.024	
Perj/False Acc	.455	.363	.382	.057	.300	
	n=198	n=223	n=68			

Note: B/W = Black vs. White, H/W = Hispanic vs. White

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Education

Ph.D., Criminal Justice
Graduation 5/6/21
University of Louisville
GPA 3.9

Master of Science, Administration of Justice
May 2014
University of Louisville
GPA: 3.9

Bachelor of Science, Administration of Justice
May 2010
University of Louisville
GPA: 3.3

Industry Designations, Certificates/Training, and Awards

• Certified Hostage Negotiator	2017, 2019
• Kentucky Women in Law Enforcement Benefactor Award	2017
• Liaison Officer with Kentucky Dept of Homeland Security	2016
• Ida B. Wells Award	2014
• Facial Action Coding System	2012
• American College of Forensic Examiners	2009 - 2014
• National Association of Fire Investigators	2009 - 2012
• Linguistic Statement Analysis	2011
• Sudden Unexplained Infant Death Syndrome	2010
• Offender Profiling: Statistical Basis for Arson Investigation	2009
• National Institute of Justice Scholarship Recipient	2009

- University of Louisville Women Alumni   2009
  Scholarship Recipient
- Death Investigations   2008
- Crime Scene Basics for Forensic Analysts   2008
- Evidence at the Crime Scene   2008
- Forensic Anthropology for Investigators   2008
- History and Types of DNA Testing   2008
- DNA Evidence and First Responders   2008
- Collecting DNA Evidence at Property Crimes   2008
- Profiling Serial Offenders   2007
- Violent Crimes Behavioral Analysis   2007
- Serial Killers   2007
- Victimology   2007
- Crime Scene Investigations and Blood Spatter   2007
  Interpretation
- Dean's Scholar   2005 – 2010

Publications

- LMPD Traffic Stops Report 2019
- Citizen and Police Attitudes Survey 2018
- LMPD Traffic Stops Report 2018
- Program Evaluation: Louisville Metro Police Department Real Time Crime Center 2017
- Program Evaluation: The Living Room Project 2017

Summary of Qualifications

- Proven experience in adult education as an Investigative Training Instructor
- Experienced lecturer with state level political advocacy experience
- Skilled investigator and behavioral profiler with high level expertise in cold case, death, and missing person investigations, and wrongful convictions cases
- Expert in non-verbal communication including body language and facial queues
- Proven dedication to the community shown through community care outreach at 7 Hills Church and pro bono work as victim's advocate and investigator
- Exemplary project-management and leadership skills developed through years of service with 7 Hills Church
- Skilled behavioral analyst working closely with individuals and families in crisis
- Experienced bereavement coach assisting individuals who have experienced a traumatic loss
- Experienced public speaker for various organizations, conferences, and events
- Author "Life is Hard…Here's Some Help"
- Author "Sanctuary: Musings, Prayers, and Affirmations to Soothe the Broken Heart

Work Experience

- Behavioral Profiler Analyst and Consultant- 2000 – 2021
- Consultant for local and state law enforcement agencies including:
- Florence Police, Butler County Sheriff, Las Vegas Metro Police, Clinton County Sheriff, Kentucky State Police, Michigan State Police, Warren County Sherriff, Indiana State Police, Boone County Sheriff
- Functioned as international liaison for overseas death investigations
- Coordinates strategies and techniques for person of interest interrogations
- Interprets non-verbal communication including body language and facial queues in context of video interviews & interrogations
- Analyzes past or previous witness and suspect interviews both written and verbal
- Develops new persons of interest
- Provides offender profiles and victimology assessments
- Identifies new approaches for dealing with old suspects
- Analyzes and interprets crime scenes
- Facilitated a monthly Grief Support group for members of community dealing the death of a loved one
- Worked with *America's Most Wanted* as liaison on a Kentucky cold case in 2007

- Licensed Private Investigator
  2006 – 2021
- Professional License Issued by the State of Kentucky 2006
- Investigates and analyzes cold cases, death, and missing person investigations for private sector clients and attorneys at law.
- Provides investigative and behavioral analysis services for the Ohio Innocence Project
- Provides investigative and behavioral analysis services for attorneys at law and private clients
- Constructs strategies and techniques for person of interest interviews and interrogations for Ohio Innocence Project , and attorneys at law
- Interprets and analyzes non-verbal communication including body language and facial queues
- Coordinates services to victims & their families
  - Founded StillTheySpeak.com: A website dedicated to giving a voice to the voiceless

Probono Services
2006- Present
- Provides investigative and behavioral analysis and consulting services pro-bono to law enforcement and National Innocence Project organizations as well as other non-profit organizations
- Provides victims advocacy services to victims of violent crimes and their families
- Provides investigative services to families of violent crime victims
- Provides grief support and bereavement services for individuals and agencies

Investigative Training Instructor
  2006 – 2019

- Conference Presenter- Victory Over Violence Conference
- Conference Presenter- 7th Annual Child Abuse Prevention Conference

- Conducted Statewide Training for Ky Cabinet for Health and Family Services
- Conducted Regional Training for Kentucky Family Resource Coordinators and Head Start coordinators
- Teaches courses on Non-Verbal Communication (Body Language Interpretation), Compassion Fatigue, Leadership for Crisis Service Providers, Domestic Violence, Workplace Violence, Interview and Interrogation Techniques, Serial Violent Offenders, General Investigative Technique, and Basic Forensic Investigation, Responding to Suicide Survivors (children & adult).
- Clients include Kentucky Cabinet for Health and Family Services, Kentucky Department of Community Based Services, Community Action Commission/Collaboration for Children, Kentucky Family Resource Coordinators, School Counselors, Attorneys, Politicians, Private Sector, Non-Profit Sector, Middle School & High School Students
- Taught Interview/Interrogation strategies, Loss Prevention and Body Language interpretation for private security firms and loss prevention coordinators and non-profit security management teams
- Taught with the Greater Joy Educational Co-Op program for home school students in 2011 and 2012

Community Care & Outreach Director, 7 Hills Church
2012 – 2017
- Ordained Minister responsible for coordination of all services to individuals and families in crisis
- Director of Services for Addiction & Recovery Ministry
- Director of Pastoral Care & Grief Services
- Provided Chaplain Services for local Fire and EMS personnel
- Coordinated and directed 6,000+ volunteers and 300+ community service projects annually
- Organized and managed 89,000+ volunteer hours in 2017
- Responsible for building and maintaining relationships with 200+ community non-profit & service agencies
- Responsible for media communications regarding community service including but not limited to television interviews
- Director of Safety Operations responsible for developing and implementing security practices, protocols, and trainings as well as managing security team personnel
- Served as liaison officer with the Kentucky Department of Homeland Security

-
- Director, Guardians of Our Children
2000 – 2006
- Directed and coordinated a community based service agency
- Promoted awareness and prevention of sexual abuse and domestic violence
- Interacted and advised community service providers, Kentucky State Legislators, and the general public
- Lectured on domestic violence and child predators
- Contributed and led a domestic violence prevention initiative with the Kentucky Lt. Governor's office

- Independent Victims Advocate
  2000 – 2012
- Provided advocacy services free of charge to victims of violent crimes and their families
- Worked with both state agencies and community organizations
- Represented victims in meetings with law enforcement
- Accompanied sexual assault and domestic violence victims to medical exams and court

References

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