POST EXONERATION OFFENDING

by

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ABSTRACT

POST-EXONERATION OFFENDING AND ASSESSING THE RELIABILITY OF EXONERATIONS

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Much is known about risk posed by releasees who are returned to society after having fulfilled their obligation. Additionally, a few qualitative studies have explored the negative effects of being wrongfully imprisoned. Social scientists know very little, by contrast, about the post-release behavior and risk posed by exonerees.

Drawing on prior research on the effects of incarceration, the effects of exoneration and risk posed by commutes, this study makes a unique contribution to the literature. This study is the first to examine post-exoneration offending and the risk exonerees pose.

The findings illustrate the need for additional research in this area and provide an understanding of the implications of being wrongfully convicted. Furthermore, findings can help inform policy and procedure.

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Chapter I- Introduction

This project will examine the post-release offending behavior of wrongfully-convicted individuals, and the risk they pose. Scholars have devoted a great deal of attention to research on factors that contribute to wrongful convictions- such as eyewitness mistakes, false confessions and "junk" science, but little attention has been paid to the post-release behavior of individuals after exoneration.[1]

The only prior relevant study is Marquart and Sorensen (1989), who studied institutional and post-release behavior of 558 individuals following *Furman v. Georgia* and found that this population posed no exceptional risk.[2] *Furman v. Georgia*, 408 U.S. 238 (1972)[3] gave the unique opportunity for a social experiment on the risk posed by defendants whose sentences were commuted. Their sample consisted of 558 formerly condemned inmates in 30 legal jurisdictions whose sentences were commuted. They found that these 558 offenders committed six homicides while incarcerated (four inmates and two correctional officers) but that the majority of inmates served their sentences with few incidents of violence. Of those individuals who were paroled after *Furman v. Georgia*, nearly 80 percent did not commit another felony (after a five-year follow up) and less than twenty percent were returned to prison. Marquart and Sorensen utilized variables such as current status, prior felony convictions, prison disciplinary history, victim information, and whether the crime was committed in the commission of a felony

[1] The term exoneration will be used to describe an official act declaring a defendant not guilty of a crime for which he or she had previously been convicted. Later in the paper I distinguish among the different types of events that may qualify as exoneration.

[2] Marquart and Sorensen's population was not presumed innocent. Their study included incarcerated individuals whose sentence had been adjusted by an official to make the sentence less severe by reducing imprisonment. These sentences were reduced after *Furman v Georgia* (408 U.S. 238, 1972) in which the Supreme Court struck down the capital sentencing statutes of Georgia and Texas deeming it unconstitutional.

[3] *Furman v. Georgia*, 408 U.S. 238 (1972) was a United States Supreme Court decision that ruled on the requirement for a degree of consistency in the application of the death penalty. The court ruled that the arbitrary and inconsistent imposition of the death penalty violated the Eighth and Fourteenth Amendments, as it constituted cruel and unusual punishment. This case led to a moratorium on capital punishment throughout the United States, resulting in the invalidation of hundreds of inmates awaiting execution in thirty states and the District of Columbia. The individuals affected by this decision had their death sentences commuted to life imprisonment and served the remainder of their sentence in the general prison population (Meltsner, 1973).

to analyze the rates of violence in prison. Ultimately, Marquart and Sorensen concluded that *Furman* inmates, as compared with a life sentence cohort, posed no exceptional threat as indicated by involvement in serious offenses. The current study will similarly look at post-release behavior by gathering state level data on formerly incarcerated individuals. However, this study isn't truly analogous because *Furman* did not really question the reliability of the convictions and, most importantly; the sample was never exonerated for the crime for which they were originally convicted. The current research will examine post-release behavior of exonerees, differing from Marquart and Sorensen's (1989) population in that these individuals have been deemed innocent of the crimes they committed. Both studies however, are concerned with post-release risk.

The data for this research is publicly available from the Center on Wrongful Convictions (CWC), at the Bluhm Legal Clinic at Northwestern University Law School. This research focused on individuals exonerated and released between 1999 and 2009 in four states: Florida (17), Illinois (31), New York (24) and Texas (30). Each exoneration file at the Bluhm Clinic contains specific information regarding the exoneration, including a case chronology, legal citations and original case materials, allowing for the evaluation of various aspects of the exoneration and their potential link to post-exoneration offending. The variables of interest include nature of offense (for which exonerated), subject's age at time of offense, prior criminal record (before wrongful conviction arrest), the evidentiary basis for the exoneration (DNA or non-DNA), whether compensation was received and expungement status.

Exoneree record of post-exoneration offending (as defined by conviction) was obtained through public record searches using the assistance of a commercial data provider. With information on prior offending, obtained from both the case files at CWC and public records, I

was able to assess the possible effect of pre-wrongful conviction behavior on post-release behavior.

Research questions include: How do post-release offending rates among exonerees compare to other prison releasees? Does post-exoneration offending (PEO) vary by conviction type? Does PEO vary by length of incarceration or by age at incarceration? Do prior convictions have any relationship to post-release behavior? Does individual post-release behavior vary depending on demographic variables, such as age race, gender or age at release? Does PEO vary by nature of exonerating evidence i.e., whether based on DNA evidence? How do these findings compare with the Marquart and Sorensen's (1989) study of Furman releasees?[4] Lastly, does post-release behavior vary depending on compensation and expungement after exoneration?

The majority of research available on wrongful convictions focuses solely on DNA exonerations, thereby ignoring the hundreds of cases that do not involve DNA. Studies suggest that for every DNA exoneree there exist hundreds, if not thousands, of wrongfully convicted individuals whose cases do not contain biological evidence that can be used to prove their innocence (Garber & Vaughan, 2008; Garrett, 2008; Gross, Jacoby, Matheson, Montgomery & Patil, 2005; Liptak, 2007). This study includes both DNA and non-DNA wrongful conviction cases.

Much is known about risk posed by releasees who are returned to society after having fulfilled their obligation. Within three years of release, most releasees will be returned to prison, with a high probability of committing a felony or a serious misdemeanor (Beck & Shipley, 1989; Langan & Levin, 2002). This high recidivism rate has been explained under various

[4] Marquart and Sorenson (1989) will be used as a reference group because this study similarly examined the post release behavior of formerly incarcerated individuals**.** However, it is important to recognize that many of the behaviors exhibited by their sample included technical/parole violations, which is not relevant to this study.

frameworks. For example, research has demonstrated that the effects of prison on future offending may be contingent upon prior incarceration, age, characteristics of the offender, institution time served in, and length of imprisonment, to name a few (Beck & Shipley, 1989; Nagin & Paternoster, 1991; Langin and Levin, 2002; Nagin, Cullen & Jonson, 2008).

Abundant research also supports the idea that imprisonment affects reoffending. If an individual commits a crime once, he or she will do it again (Gendreau, Goggin & Cullen 1999; Villettaz, Killias & Zoder, 2006). One possible explanation for this is that the negative prison environment teaches inmates skills that can contribute to re-offending. A long prison sentence, in most cases, is intended to rehabilitate. Prison often, however, does the opposite. By exposing individuals to criminal behavior and decreasing exposure to pro social behavior prison provides a criminogenic environment (Nagin, et. al., 2008). Furthermore, studies on prisons have revealed an inmate subculture (Clemmer, 1940; Sykes, 1958) and while incarcerated, an inmate often adopts specific roles and learns criminogenic behavior from their peers (Jacobs, 1977; Irwin, 1980, 2005; Carroll, 1988; Wacquant, 2001).

Criminological research has also emphasized the strong relationship between age and crime, with involvement in most crimes peaking in adolescence and then declining (Hirschi & Gottfredson, 1983). One explanation for this relationship is the strength of a person's bonds to society; social bonds in adulthood stemming from life events explain persistence in and desistance from crime, despite early childhood propensities or antisocial behavior (Laub, Nagin, & Sampson, 1998).

By contrast, social scientists know very little about the post-release behavior and risk posed by exonerees. There is reason to believe that these individuals fare worse after release. A few qualitative studies have explored the negative effects of being wrongfully imprisoned and

found that these individuals experience psychological illness, stigmatization, lack of support and difficulty obtaining gainful employment. These issues, among others, may lead to future offending among this group.

This study is of interest for two reasons. This study can provide useful insight into post-release behavior and risk of this unique population. Second, findings may offer a renewed understanding of the effect of prison on prisoners. This study is the first of its kind. Understanding the implications of being wrongfully convicted and the risk posed by this unique group can help inform policy and procedures in the criminal justice system.

Chapter II- Literature Review

2.1 Defining Important Terms

Post-Exoneration Offending (PEO)

It's crucial to be clear at the outset that post-exoneration offenders are not recidivists in any conventional sense. These individuals have been exonerated of the crime for which they were imprisoned. This study will use the term 'post-exoneration offending' to refer to the post release behavior of a defendant who was officially absolved of a crime for which he or she had previously been convicted. This differs greatly from 'recidivism', which is a term used to explain repeated criminal behavior, after being found guilty and sanctioned for a particular offense.

Recidivism itself has been defined in several different ways. Matza (2001) comprehensively reviewed over 90 articles and identified nine commonly used definitions of recidivism. Some studies even use more than one definition. Matza concluded that the three definitions of recidivism most often used were: arrest (number of arrests; recorded police contact; court appearance), return to prison (incarceration) and reconviction (jail or prison sentence; felony or less). Many studies also used technical violation (parole or probation violation) as a measure of recidivism. Matza suggests measuring recidivism in terms of time intervals between time of release and time of recidivism. Currently no standardized operational definition of recidivism exists. Although arrest is typically a better indicator of post-release conduct (Matza, 2001; Blumstein & Cohen, 1979), due to limitations of public data, the current study will be looking at conviction data to measure post-release behavior. I made this choice because arrest data is not available for all four states and technical violations are not relevant to this population.

"Innocence" and Wrongful Conviction

It is important to distinguish between factual/actual and legal/procedural innocence. The former means that someone else committed the crime, whereas the latter involves the overturning of a conviction on the basis of a procedural error by the police and/or the courts. In law, a wrongful conviction is often considered "legal" innocence and often results from an appellate court reversal based on procedural error (Zalman, Smith & Kiger, 2008). However, many researchers focus on the idea of "actual" innocence, a situation in which an individual did not commit the acts underlying the conviction. It is possible for an exoneration to fall into both categories. For example, perhaps there was a DNA match to another person and there was also a procedural error.

When defining 'innocence', one major issue is whether to use an objective standard, which applies a strict criteria, or a subjective standard, which considers facts about the case but is open to interpretation (Zalman et.al., 2008). The objective definition often includes: pardons or court dismissals based on factual innocence, acquittals or reversals, and posthumous acknowledgement of innocence (Gross, et.al., 2005). A subjective account sheds more light on the factors that led to the wrongful conviction and increases our understanding of errors (Leo & Ofshe, 1998), which may include examining eyewitness accounts or looking at the circumstances surrounding a confession.

The definition of wrongful conviction is even more complicated and researchers have yet to agree on a definition. This study will be operationalizing "wrongfully convicted" by using both innocence definitions. Each case will be coded as exoneration based on 'legal innocence' and/or 'actual innocence' depending on the facts of the case. For example, if there DNA evidence belonging to someone else or if there was a procedural error during trial, or both. It is important

to recognize that this study will be examining the risk posed by exonerees, independent of whether or not they were actually innocent or guilty of the crime.[5]

In a comprehensive study, Gross, Jacoby, Matheson, Montgomery and Patil (2005) used the term 'exoneration' to describe an official act declaring a defendant not guilty of a crime for which he or she had previously been convicted. The exonerations they studied occurred in four ways: (1) In 42 cases governors (or other appropriate executive officers) issued pardons based on evidence of the defendants' innocence, (2) In 263 cases criminal charges were dismissed by courts after new evidence of innocence emerged, such as DNA, (3) In 31 cases the defendants were acquitted at a retrial on the basis of evidence that they had no role in the crimes for which they were originally convicted, (4) In four cases, states posthumously acknowledged the innocence of defendants who had already died in prison. This study will use similar criteria; however will not include cases in which an individual expired.[6]

No national registry or centralized database of wrongful conviction cases exists. This makes research in this area challenging. Without a generally accepted definition of innocence researchers often draw upon prior studies, but ultimately must define the problem on their own. The discussion will now turn to the prevalence of wrongful convictions.

2.2 The Prevalence of Wrongful Convictions

The United States has the highest documented incarceration rate in the world, estimated at over 497 inmates per 100,000 people (Guerino, Harrison & Sabol, 2011). Between 1971 and 2002, the prison population in the United States increased 400 percent (Beck, Karberg, &

[5] This sample may include individuals who, although exonerated, did in fact commit the crime they were convicted of. There is no way to know if, and at what rate, this occurs.

[6] Although this case of Frank Lee Smith fit all other inclusion criteria for this study (exonerated in Florida in 2000) it was excluded. In December 2000, after spending fourteen years on Florida's death row, Frank Lee Smith was cleared of the rape and murder of a child. Smith's exoneration came as a result of DNA testing unavailable when he was first convicted. Ten months before the DNA results proved his innocence, Smith died of cancer in prison.

Harrison). This mass imprisonment has been recognized as one of the most staggering changes facing the U.S. (Pattillio, Weiman, & Western, 2004). In 2010, there was a decline in U.S. prison populations for the first time since 1972 (Guerino, Harrison & Sabol, 2011). The numbers, however, are still staggering. One in every 100 residents in the U.S are currently behind bars (Pew Center on the State, 2010). According to the Bureau of Justice Statistics, in 2009 State and Federal authorities had legal authority over 1.6 million prisoners (Guerino, Harrison & Sabol, 2011).

Not all of these individuals are actually guilty. It is almost impossible to know exactly how many innocent people are, or have been, in prison. For over two decades, researchers have been attempting to quantify the problem of wrongful convictions.

Estimating the incidence of wrongful convictions has proven to be difficult. Despite the numerous studies regarding wrongful convictions, debate surrounds the extent of the problem. Some scholars suggest that the rate of error in the criminal justice system is "unknown and unknowable" (Simon, 2006). This is partially due to the complexity of cases and the difficulty defining exonerations. Furthermore, many convicts who make claims of innocence do not have the resources to bring their cases to light. Some attempts to quantify wrongful convictions have included justice official estimates, prisoner self-report, and the use of official data on capital cases. Different methods have produced varying rates of wrongful convictions.

In 1986, Huff, Rattner and Sagarin surveyed 353 justice officials, which included judges, prosecutors, public defenders, sheriffs and police chiefs, asking their estimate of wrongful convictions. Twenty-percent of their respondents rated the frequency at one to five percent of cases, two percent of their sample said errors occurred between five and ten percent of the time, and six percent of respondents denied that wrongful convictions occur. The authors concluded

that the frequency of wrongful convictions was less than one percent and used a summary figure of half a percent to estimate the percentage of wrongful convictions that occur, concluding there were approximately 6,000 annually (Zalman, Smith & Kiger, 2008, page 80).

In 2007, Ramsey and Frank replicated the study by Huff et. al. (1986) and found that respondents (criminal justice officials) estimated a one percent to three percent wrongful conviction rate for the United States. This is higher than the one percent rate Huff et.al. found in their 1986 study. The sample size in this study was almost three times larger than the Huff et.al study (1,500 versus 353), making the findings more reliable. However, it is important to note that these findings are based on perceptions, not the reality of the occurrence and therefore could indicate either an increase in the problem or simply over-reporting and/or exaggeration.

Not surprisingly, the prevalence of wrongful convictions as measured by inmates' self-report is significantly higher. In 2001, Poveda estimated wrongful convictions, based on a RAND self-report study of prisoners and found that over 15 percent of the 1,282 prison inmates sampled claimed that they were innocent of the crime in which they were convicted. One possible explanation, as described by Poveda, is that even though the respondents have been convicted and imprisoned, some inmates still may have forthcoming appeals, and therefore, in spite of the confidentiality of a survey, have a personal stake in minimizing their involvement in the conviction crime (page 703). Results also showed that inmates reported a higher number of arrests and prior convictions than found in official data. As with all self-report data respondents may lie or exaggerate, thus findings should be read with caution.

Other researchers have used official data to estimate the prevalence of wrongful convictions. For example, in 2007 Risinger estimated that among capital rape-murder cases in the 1980's between three percent and five percent of convictions were wrongful. This estimate

was found based on eleven rape-murder convictions that were tried between 1982 and 1989 and later found to be wrong based on post-conviction DNA testing. Despite the strong belief that DNA exonerations exclude the possibility of masking a wrongful acquittal, Risinger used a numerator of 10.5 instead of 11 to satisfy the doubts of innocence critics (Zalman, 2011). The denominator of 319 was determined by estimating the number of those sentenced to death for rape-murders in the same time frame when the exonerees were convicted, discounted by the rate of similar cases where no usable DNA was available. These findings cannot be generalized to all wrongful conviction cases because only capital cases were considered.

The Innocence Project, one of a number of non-profit legal organizations dedicated to proving the innocence of wrongly convicted people through the use of DNA testing, has an index of all DNA cases that have occurred in the United States since 1992. Since January 2012, there have been 289 persons exonerated of crimes (www.innocenceproject.org). While this number is startling, there is reason to believe that this number underestimates the incidences of wrongful conviction. Studies suggest that for every DNA exoneree there exists hundreds, if not thousands, of wrongfully convicted individuals whose cases do not contain biological evidence that can be used to prove their innocence (Garber & Vaughan, 2008; Garrett, 2008; Gross et.al, 2005; Liptak, 2007). Since the Innocence Project only handles cases in which DNA evidence is available to test, even less is known about the prevalence non-DNA exoneration cases.

The majority of data available on wrongful convictions focuses solely on DNA exonerations, thereby ignoring the hundreds of cases that do not involve DNA. The only known exception is The Center on Wrongful Convictions at the Bluhm Legal Clinic at Northwestern University in Chicago. The Center catalogues all known exoneration cases, both DNA and non-DNA, and currently has a record of over 1,200 cases of wrongful conviction.

Empirical research has virtually ignored these cases (non-DNA) as well, with the exception of Samuel Gross and colleagues at the University of Michigan Law School. In 2005 Gross et.al. published a comprehensive report on exonerations between 1989 and 2003. This study had a total sample of 340 exonerations. The authors defined exoneration as an official act declaring a defendant not guilty of a crime for which he or she had previously been convicted. These researchers compiled a database of all known exonerations. They gathered their information from various sources, such as The Innocence Project, The Death Penalty Information Center, and The Center on Wrongful Convictions. Additionally, they conducted independent searches to gather information on the exoneration cases that met their criteria. Gross and his team reported that the rate of exonerations has increased sharply over the fifteen-year period of their study, from an average of twelve a year from 1989 through 1994, to an average of forty-two a year since 2000 (page 527). Ninety-six percent of the sample was exonerated for either murder or for rape/sexual assault (60 percent and 36 percent, respectively). Additionally, the study found that exonerations are geographically situated, with more than 40 percent occurring in four states—Illinois, New York, Texas and California, and two-thirds of exonerations occurring in ten states (those four previously mentioned, plus Florida, Massachusetts, Louisiana, Pennsylvania, Oklahoma and Missouri). These numbers are, in part, consistent with state prison populations. For example, Florida, California and Texas are among the top five states with the highest prison populations (Sabol, West & Cooper, 2009). State-specific innocence reforms may also contribute; New York and Illinois were the first states to allow post-exoneration DNA testing. It is also likely that New York and Illinois are the leaders in exoneration due to an increased media and advocacy interest in wrongful conviction cases (Gross, et.al, 2005).

Although the actual incidences of wrongful convictions have been debated, the most

recent estimate suggests that upwards of three percent of felony convictions end in exoneration (Leo & Gould, 2009). As these authors point out, there were 15 million felony convictions between the years 1989 and 2003, about one million per year, suggesting an error rate of about 30,000 wrongful convictions a year.[7] Although this number is just a small proportion of all cases that pass through the system, these cases not only disrupt an individual's life, but also undermine public confidence in the criminal justice system. The discussion will now turn to ordinary releasees and the risk they pose after incarceration.

2.3 Risk Posed by Releasees

To better understand the findings that will be presented a point of comparison is essential. Much is known about risk posed by releasees who are returned to society after having fulfilled their obligation. Social scientists know very little, by contrast, about the risk posed by exonerees. I will first briefly discuss recidivism and risk assessment in general before examining risk posed by ordinary releasees, including known predictors of recidivism. I will then discuss prior efforts to measure risk posed by commutees.

A. Assessing Recidivism and Risk

The purpose of risk assessment is to predict future behavior while managing an offender's risk during and after their involvement in the criminal justice system. Eight major risk/need factors have been identified by researchers (Andrews, Bonta & Wormith, 2006): history of antisocial behavior, antisocial personality pattern, antisocial cognition, antisocial associates, personal relationships, professional affiliations (such as work or school), leisure activities and substance abuse. Researchers have divided several key elements into static and dynamic factors.

[7] These authors used the felony sentencing data sets compiled by the Bureau of Justice Statistics to arrive at these numbers, *available at:* http://bjs.ojp.usdoj.gov/index.cfm?ty=dcdetail&iid=241.

Static factors are historical and unchangeable. For example, severity of offense, escape history, and prior felonies are each considered static factors. A number of instruments rely on static factors when predicting offender misconduct during institutionalization (Van Voorhis, Braswell & Lester, 2007). These factors are easy to obtain as they are available from criminal records and existing files.

Dynamic factors are factors that change over time. These are also referred to as criminogenic needs. In other words, crime producing factors that are strongly correlated with risk (Andrews & Dowden, 2007). Criminogenic risks are those characteristics of offenders that make them less likely to succeed in traditional forms of rehabilitation and thus more likely to return to crime. These factors are often assessed in order to accurately place offenders to ensure they will receive the correct levels of supervision and/or assistance. Dynamic factors include educational level, drug abuse, antisocial beliefs and employment. Instruments that rely on dynamic factors, at least in part, are able to reassess offenders without having to change the instrument from one assessment to the next.

Dynamic factors are further divided into stable and acute factors. Stable dynamic factors, such as gender and criminal record, are expected to remain unchanged for months, or even years. These factors are often used for evaluating long-term risk potential (Hepburn & Griffin, 2002). The other type of dynamic factors, acute dynamic factors, change rapidly (Hepburn & Griffin, 2002), perhaps by the day or even by the hour, and include factors such as negative mood or alcohol intoxication (Hanson & Harris, 2000). These factors are often used for risk monitoring during community supervision. While there is consensus surrounding what factors are associated with risk, there is less consistency when it comes to methods for measuring risk or how to weigh various factors.

Some debate surrounds risk assessment and the reliability of instruments used. Some researchers suggest that offender risk assessment should be based on actuarial measures of risk and not based solely on clinical measures of risk (Bonta, 2002; Grove & Meehl, 1996). Clinical risk assessment refers to assessing violence risk on an individual basis, using a case formulation approach, referred to as 'unaided clinical judgment' (Dolan & Doyle, 2000). The clinical judgment approach to risk assessment has been criticized on a number of grounds, including low inter-rater reliability, a failure to specify the decision-making process (Monahan & Steadman, 1994), and inferior predictive validity compared to actuarial predictions (Meehl, 1954; Mossman, 1994).

Actuarial methods, on the other hand, require no clinical input, just a translation of the relevant material from the records to calculate the risk score. Several risk scales based on actuarial measures of risk have been specifically designed to predict recidivism and are used by members of the criminal justice field; for example, the Level of Service Inventory-Revised (LSI-R; Andrews & Bonta, 1995; 2003), Correctional Offender Management Profile for Alternative Sanctions (COMPAS; Brennan & Oliver, 2000), the Violence Risk Appraisal Guide (VRAG; Quincy, Harris, Rice & Cormier, 1998), and the Wisconsin Risk Instrument (WRN or DOC 502). These instruments are comprised of both static and dynamic risk assessment measures and have been shown to reflect recidivism risk even among special offender populations, such as the mentally ill or sexual offenders (Andrews & Bonta, 2003; Bonta, 2002). Using just one instrument, or several instruments utilizing the same method, introduces error into the testing that could alter the results (Bonta, 2002). Researchers and practitioners have attempted to address these, and other, shortcomings.

In an effort to resolve the issue of unreliable risk assessment many have adopted a proxy

risk score assessment method. A proxy tool is used to pre-screen offenders for risk to re-offend. The proxy is a three-item instrument that includes current age, age at first arrest and number of prior arrest to classify offenders into low risk, medium risk and high risk. The proxy score generated by the pre-screen provides a method of separating higher-risk offenders from lower-risk offenders, making this a cost-effective alternative for agencies (Bogue, Woodward & Joplin, 2005); however some still prefer other methods.

In 1990, Andrews, Bonta and Hoge first introduced the risk-need-responsivity model (RNR), which has since been elaborated on and perfected (Andrews & Bonta, 2006). This model has been widely regarded as the premier model for guiding offender assessment and treatment (Andrews, Bonta & Wormith, 2011). This model was developed by Andrews and Bonta who stated that the risk and needs of an incarcerated individual should determine the strategies appropriate for addressing that individual's criminogenic factors before and after release (2007). This model is based on three principles. The first, the risk principle, explains that it is crucial to match level of service to an offender's risk of reoffending, based on static factors (e.g., age at first arrest, gender) and dynamic factors (e.g., substance abuse, antisocial attitudes). Second, the needs principle focuses on assessing the criminogenic needs of a particular offender and tailoring treatment to meet those needs (e.g., high risk offenders receive more intense treatment than low risk offenders). The last principle, the responsivity principle, maximizes an offender's ability to learn from and respond to rehabilitation by providing cognitive behavioral treatment and tailoring the intervention to the individual (by assessing strengths and weaknesses and motivation/abilities). Many positive developments in the field of risk-assessment have been greatly influenced by the RNR model. Nonetheless, some practitioners still face challenges transferring the principles to "real world" settings (Bonta & Andrews, 2007).

The current study will only include some of these aspects, as not all are publicly available or possible to obtain. Pedigree and criminal history information is available for this sample; however employment, education and release plan, to name a few, are not. The absence of this information would make the use of a risk scale unreliable, an issue that will be revisited in chapter three. The next section will discuss post-release behavior and predictors of recidivism.

B. Post-Release Behavior by Ordinary Releasees (Recidivism)

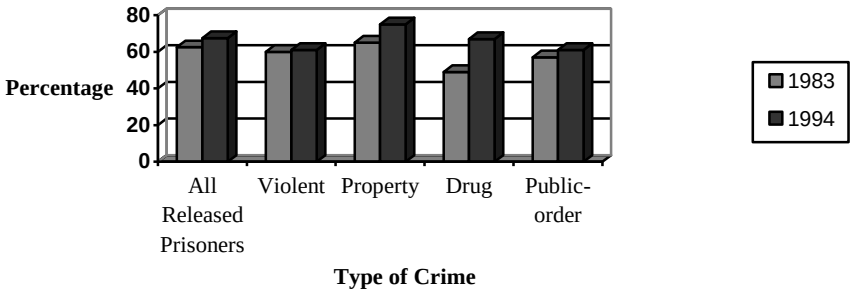
A baseline in which to measure exoneree behavior against is necessary in order to understand what, if any, differences exist between ordinary releasees and exonerated releasees. Within three years of release, most releasees will be returned to prison, with a high probability of committing a felony or a serious misdemeanor (Beck & Shipley, 1989; Langan & Levin, 2002). Before recidivism literature is discussed, it is worth noting again that one must be cautious when reading this literature as several definitions of recidivism are used, making it difficult to compare rates across studies.

In an analysis consisting of the criminal records of more than 16,000 men and women, representing the almost 109,000 offenders who were released from prisons in eleven states during 1983, Beck and Shipley (1989) reported that more than two-thirds (36.6 percent) of released prisoners were rearrested for a new crime within three years of release. Approximately 47 percent of the former prisoners were convicted of a new crime and 41 percent were sent back to prison or jail. In this investigation, more than 68 percent of the prisoners released for property offenses were rearrested within three years. This is compared to 59 percent of violent offenders, 54 percent of public-order offenders, and 50 percent of drug offenders.

In 2002, Langan and Levin updated Beck and Shipley's (1989) recidivism findings. This study is among the most influential studies of recidivism. Langan and Levin's investigation

included a national study of the rearrest, reconviction, and reincarceration of prisoners. These authors tracked 272,111 former inmates for three years after their release in 1994. Almost 68 percent of the prisoners were rearrested for a new offense (almost exclusively a felony or a serious misdemeanor), 46 percent were convicted of a new crime, over 25 percent were sentenced to prison for a new crime, and 52 percent were back in prison, serving time for a new prison sentence or for a technical violation of their release, such as failing a drug test or missing an appointment with their parole officer. Released prisoners with the highest rearrest rates were motor vehicle thieves (78.8 percent), those in prison for possessing or selling stolen property (77.4 percent), larcenists (74.6 percent), burglars (74.0 percent), robbers (70.2 percent), and those in prison for possessing, using, or selling illegal weapons (70.2 percent). Released prisoners with the lowest rearrest rates were those in prison for driving under the influence (51.5 percent), rape (46.0 percent), other sexual assault (41.4 percent), and homicide (40.7 percent). Within three years, 2.5 percent of released rapists were arrested for another rape, and 1.2 percent of those who had served time for homicide were arrested for another homicide. Figure 2.1 illustrates the rearrests among releasees within three years of release, by type of offense. As shown, the recidivism rate slightly increased between 1983 and 1994 across all crimes. The 1994 findings concluded that property offenders are expected to have the highest rearrest rate, followed by drug offenders (73.8 percent and 66.7 percent, respectively). This data can be useful in determining a baseline rate in which to compare post-exoneration offending.

Figure 2.1: Percent of Released Prisoners Re-Arrested within 3 years, by Offense, 1983 and 1994



Source: Langan, P., and Levin, D. (2002). "Recidivism of Prisoners Released in 1994." *Bureau of Justice Statistics. Special Report*. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

Recently (2010), recidivism data was compiled by the Pew Research Center in collaboration with the Association of State Correctional Administrators (ASCA). These researchers collected state recidivism data, as defined as return to prison, between 1999 and 2004 using a three year follow-up period. Using the 1999 release cohort, they found that 45 percent of offenders were reincarcerated within three years for either a technical violation or for committing a new crime. Recidivism rates changed little between the 1999 and 2004 release cohorts; the 2004 release cohort's recidivism rate was 43 percent. These numbers suggest a decrease in recidivism rates (from the 2002 Langan and Levin study), however these studies should be not be directly compared as different methodology was employed.

Predictors of Recidivism

Research has demonstrated that the effects of prison on future offending may be contingent upon prior incarceration, age (at arrest and release from prison), characteristics of the offender, institution type, and length of imprisonment, among other factors. (Nagin, et., al, 2008). Some researchers have also suggested examining a subject's past aggression in an attempt to predict risk and recidivism (Monahan, 1981, 1996), which may include a defendant's history,

behavior pattern and disposition (Cunningham & Reidy, 1998). Perhaps, the two best predictors of recidivism are prior record and age at release (Beck & Shipley, 1989; Nagin & Paternoster, 1991; Langin & Levin, 2002), which will be discussed here, respectively.

Effect of (Prior) Incarceration on Recidivism

Abundant research supports the idea that imprisonment affects reoffending; if an individual commits a crime once, they will do it again (Gendreau, Goggin & Cullen 1999; Villettaz, Killias & Zoder, 2006). For example, some research estimates that between 30 and 60 percent of juvenile delinquents go on to have at least one adult offense (Farrington, 1987; Brame, Bushway & Paternoster, 2003). Analysis of recidivism data in several cohorts reported by Blumstein, Farrington and Moitra (1985) reveal that the majority of individuals with past records of offending end up offending again in the future. Besides prior criminality, some research suggests that the prison environment itself can contribute to re-offending.

The negative impact of incarceration has been observed for decades. Clemmer (1940) hypothesized that during imprisonment inmates learn the norms of the antisocial subculture from other prisoners, a process known as prisonization. The longer an offender stays in prison, the theory states, the higher their degree of prisonization. Thus there is a greater likelihood of re-offending. A long prison sentence, in most cases, is intended to rehabilitate an individual thus ending criminal involvement, however prison often does the opposite and provides a criminogenic environment by exposing individuals to criminal behavior and decreasing exposure to pro-social behavior (Nagin, et al, 2008). Additionally, studies on prisons have revealed an inmate subculture (Clemmer, 1940; Sykes, 1958) and while incarcerated, an inmate often adopts specific roles and learns criminogenic behavior from his peers (Jacobs, 1977; Irwin, 1980, 2005; Carroll, 1988; Wacquant, 2001). This phenomenon can be partially explained by social learning

theory. This theory was developed as a result of Edwin Sutherland's (1947) differential association theory, which proposed that criminal behavior is learned through interactions. Social learning theory suggests that human behavior is the result of learning from others who already possess certain behaviors (Akers, 1973). Throughout the social learning experience, individuals adjust their behavior in response to the actions of others then copy and reproduce behaviors. A large body of statistically significant literature demonstrates a strong relationship between social learning variables and crime and delinquency (Akers 1998; Akers & Jensen, 2003; Akers & Sellers, 2004).

When discussing the effects of incarceration it is important to acknowledge three widely accepted theoretical models: deprivation, Importation and Situational. According to the deprivation model, prison is a total institution completely cut off from the free world (Goffman, 1961). Furthermore, this environment encourages the process of prisonization through adaptation and losses, also known as the "pains of imprisonment" (Skyes, 1958; Sykes & Messinger, 1960). In contrast, the importation model focuses on an individual's pre-prison socialization and experiences. This model argues that an inmates' own distinct traits and background largely determine the way he or she experiences prison (Irwin, 1981). Both of these models were scrutinized by correctional researchers (Goodstein & Wright, 1989), helping pave the way for the situational model, which takes situational characteristics into account by probing "where, when and whom" (Steinke, 1991). This model assumes that the sources for initiation and direction of behavior come primarily from situational factors (Endler & Magnusson, 1976).

Some research suggests that prison may also negatively affect one's psychological health and well-being. A body of research has focused on the psychological effects of long-term imprisonment, reporting mixed findings. Some researchers have concluded that imprisonment

does not generally lead to personality or psychological issues (Walker 1987; Wormith, 1984), while others have reported that individuals released from prison are "developmentally frozen" (Zamble & Porporino, 1984). Formerly incarcerated people may also develop mental illnesses including post-traumatic stress disorder, depressive disorders and panic disorders. The prevalence of certain mental health disorders in inmate populations is significantly greater than that of the general population (National Commission on Correctional Healthcare, 2002). Substance abuse is also a problem among incarcerated individuals. In 1999, twenty-one percent of all state prisoners had a drug conviction as their most current offense (Petersilia, 2003). Substance abuse problems and mental disorders often go hand in hand, particularly in correctional settings. It is estimated that 13 percent of the prison population has both a substance abuse and a mental health problem (Petersilia, 2003). In addition, there are physical health implications of incarceration, an area that will be re-visited in the last section of this chapter. These statistics illustrate the fact that prison can be a dangerous environment.

Prison places individuals in a unique social situation that restructures their life from one of freedom to constraint (Nagin, et. al., 2008). The prison culture often teaches inmates how to survive in a prison environment, skills that are counter-productive outside of prison. Although some behaviors may be adaptive in prison, they may be exactly the opposite in relation to re-entry and reintegration (Grounds, 2004). This can also affect employment after incarceration. Behaviors such as aggression and withdrawal, which are adaptive in prison, are inconsistent with how one needs to behave in a work environment (Western, 2006). Additionally, when an individual is in prison their social capital decreases. When they return to society they often get low paying jobs due to poor skills (which also reduces human capital), a lack of work experience and/or stigmatization (Western, 2006). This environment can hinder a successful reintegration

process, and the longer an individual is exposed to this environment the greater the negative effects can be.

Research suggests that the length of incarceration may have an effect on successful reintegration and the likelihood of recidivism. In 1973, Gottfredson, Neithercutt, Nuffield and O'Leary studied 104,182 American male prisoners who were paroled for the first time between 1965 and 1970. The follow-up time was one year, with recidivism defined as a return to prison. These researchers concluded that while on parole, offenders who had served the longest time in prison had higher recidivism rates than offenders with the shortest time served. There are a few explanations for why this occurs. One is the diminishing strength of an incarcerated individual's link to society. The longer a person is removed from society, the weaker his or her social bonds. (Orsagh & Chen, 1988). These bonds include interpersonal, familial, work place, and economic relationships. Weakened social bonds resulting from incarceration are likely to increase an offender's propensity to commit new crimes after release. Orsagh and Chen wrote:

> *As the sentence becomes longer, expected legitimate earnings and employment opportunities decrease because of the loss of contact with the job market, expected earnings and employment in illegitimate activity increase (assuming that prison is a school for crime), and the distaste or unwillingness to engage in 8 hours per day, 5 days per week work activity increases as one becomes accustomed to the inactivity of prison life. All of these effects enhance post-prison criminal propensities.*

Orsagh and Chen (1988) also tested the theory that there exists an optimum sentence length, which minimizes recidivism rates. These researchers studied 1,425 offenders released from a North Carolina prison in 1980. Of the total sample, 40 percent had been incarcerated for robbery or burglary. These offenders were followed for two years and recidivism was defined as a post release arrest. After controlling for the potential effects of age, race, marital status, employment, and criminal history, they found a positive correlation between that amount of time

served in prison and recidivism. However, they added that the effect of longer prison sentences on recidivism is complex and is likely to vary based on the specifics of an offender.

Other researchers have found that individuals who serve especially long sentences may have lower recidivism rates. While we know that long sentences disrupt the life course of normal events, such as marriage, raising a family and participating in the workforce (Jewkes, 2005), these disruptions do not always lead to recidivism. A large body of literature on "lifers" has generally found lower rates of violent recidivism for this group (Langan & Levi, 2002; Roberts, Zgoba & Shahidullah, 2007). Lifer is a term used to describe an individual who has been sentenced to life in prison (although these inmates can receive parole for various reasons). A recent study found that between 1994 and 2009 only 117 released former lifers (about eight per year) were reconvicted of a violent offense (Ruddell, Broom & Young, 2010). This could be due to a number of factors. For example, these offenders may be better prepared for release. Or, perhaps they are more closely supervised when released (Ruddell, Broom & Young, 2010). It may also be that some of these individuals "aged-out" of crime, a framework that will now be discussed. It is important to note that these explanations are not mutually exclusive.

Effect of Age on Recidivism

Criminological research has emphasized the strong relationship between age and crime. Involvement in most crimes peaks in adolescence, and then declines. Academics generally agree that the younger a person is at release, the more likely he or she will commit an offense after release. For example, the aforementioned recidivism study (Langan & Levin, 2002) found that over 80 percent of those who were under 18 were rearrested. This compares to 45 percent of those who were 45 or older. Several researchers have looked at this age-crime relationship. Findings have been mixed.

In 1983, Hirschi and Gottfredson developed a theoretical explanation of desistance focusing on the natural aging out of criminal behavior. They show that the age distributions of a variety of behaviors such as arrests, convictions, prison infractions, and motor vehicle accidents are all similar. In each of the behaviors examined, the rate of the behavior peaked when individuals were in their late teens to early twenties and steadily declined as they reached their sixties and seventies. Based on these distributions, Gottfredson and Hirschi speculated that the age-crime curve is invariant across time and social conditions.

In *Crime in the Making*, Sampson and Laub (1993) extended this life course framework and presented their age-graded theory of informal social control, which emphasizes the strength of a person's bond to social institutions—such as family, school, and work—as a predictor of criminal involvement. They theorize that social bonds, despite early childhood propensities or antisocial behavior, in adulthood stemming from life events explain persistence in and desistance from crime (Laub, Nagin, & Sampson, 1998). Specifically their theory, and supporting empirical research, answers the question of why offenders stop offending in adulthood by emphasizing social bonds stemming from marriage, employment, and military service.

An important counterargument to the age-crime relation finding is that only about five to ten percent of young offenders actually become "chronic" criminals (Moffitt, 1993). This finding indicates that people with a criminal justice contact at some point early in life pose little or no risk of active, long-term criminal careers. Moffitt explains adolescent deviant behavior as an effect of peer group influences and family environment, not necessarily related to age alone.

Maturational theory also links age and crime. Sampson and Laub (1999) credit the Gluecks with the most convincing theory of maturation and desistance. Glueck and Glueck (1974) suggest that there are no neurological or biological defects, individuals mature mentally

and physically and, as such, break from offending. In other words, those who continue to offend later in life simply have not yet matured.

C. Risked Posed by Commutees

As noted earlier, no known research to date has examined the post-release behavior of exonerees. As such, the discussion will turn to research on the risk posed by commutees.[8]

Although different from this study in a few notable ways, a relevant analog is Marquart and Sorensen's seminal study of the post-release behavior of 31 *Furman* commutees in Texas over a 14-year period (1988). *Furman v. Georgia*, 408 U.S. 238 (1972) gave the unique opportunity for a social experiment on the risk posed by defendants whose sentences were commuted. The majority of individuals affected by *Furman* had their death sentences commuted to life imprisonment. Most served the remainder of their sentence in the general prison population (Meltsner, 1973). Eventually, however, some were released to the generally community. Marquart and Sorensen's sample consisted of 31 inmates who were released to the community. Twenty-eight were paroled, one was discharged, one was pardoned and one had their case dismissed. Results indicated that *Furman* inmates, as compared with a life sentence cohort, posed no exceptional threat as indicated by involvement in serious offenses. It is important to note, however, that the *Furman* group had a higher mean age at release as compared to the life sentence cohort (32.2 years and 29.9 years, respectively). Although this is a slight difference it is important to consider age when assessing risk, for the reasons discussed earlier.

Similarly using a *Furman* sample, Vito and Wilson (1988) tracked 17 Kentucky inmates who were eventually paroled after the commutation of their death sentence. Data for this study was obtained from the Kentucky Criminal Justice Statistical Center (SAC), and some

[8] A commutation is the act of reducing a criminal sentence, in most cases death penalty sentences, to life imprisonment (in some case with the possibility of parole). Unlike a pardon, a commutation does not nullify the conviction and is often conditional.

information was obtained from institutional files. The authors found that sixty-five percent of these (n = 11) were compliant on parole and, as a result, placed on inactive supervision. Only four inmates were rearrested and convicted. None of these rearrests were for an additional homicide. There was an even divide between robbery, burglary and drug possession (some being convicted of more than one offense type). One of these four re-offenders was sentenced to prison. Three were returned to prison on a new conviction, suggesting that capital punishment doesn't act as a deterrent as evident by re-offending and that these individuals pose a lower risk than initially believed. It is important to acknowledge the small size of the sample in this study.

Marquart and Sorensen (1989) later conducted another study using *Furman* commutees. This time they used a more representative sample consisting of 558 formerly condemned inmates in 30 legal jurisdictions whose sentences were commuted. After examining the disciplinary records of these post-*Furman* inmates, the authors concluded that these inmates committed only a few serious violent prison misconduct incidents (1989). They found that these 558 offenders committed six homicides while incarcerated (four inmates and two correctional officers). However, the majority of inmates served their sentences with few incidents of violence. Slightly less than one-third of former death row inmates committed serious prison rule violations, and half were only involved in one incident. Of those individuals who were paroled after *Furman v. Georgia*, nearly 80 percent did not commit another felony (after a five year follow-up). Less than twenty percent were returned to prison. After release from prison, only twelve percent of the formerly condemned offenders committed new felonies and one committed an additional homicide. These findings suggest that the future dangerousness of capital offenders was exaggerated. Marquart and Sorensen's variables included current status, prior felony convictions, prison disciplinary history, victim information, and whether the crime was

committed in the commission of a felony. These variables were used to assess the rates of violence in prison. Ultimately, Marquart and Sorensen concluded that the *Furman* releasees posed no distinct risk. As with their previous study, it is important to recognize the effect of age. Similar to their 1989 study, the commutees as a group were older upon release to the community.

The current study will similarly look at post-release behavior by gathering state level on data on formerly incarcerated individuals. However, even these studies aren't truly analogous because *Furman* did not call into question the reliability of the convictions. The sample Marquart and Sorensen used was never exonerated for the crime in which they were originally convicted. The current sample includes people who were deemed innocent for crimes in which they were convicted of, not released on the basis of a changing law.

Many studies on risk often rely on death row samples and use prison behavior as a measure of risk. In 1998, Cunningham and Reidy used Texas Department of Corrections data and compared base rates of violence of released death row inmates (commuted to general population), inmates serving life sentences, high security inmates and other inmates. These researchers found that formerly condemned offenders (death row inmates) behaved the best, having the lowest involvement in serious prison rule violations. Inmates who were serving life in prison and high security inmates posed a greater threat. The authors concluded that the majority of death row inmates do not exhibit serious violence within the structured context of institutional confinement.

Finally, Reidy and colleagues (2001) retrospectively studied the prison misconduct careers of 39 Indiana inmates whose death sentences were reduced to life between 1972 and 1999. They found that the prevalence rate of violence in prison for these former death row inmates was over 20 percent. Moreover, they found that 60 percent of the formerly condemned

offenders were never placed in administrative segregation for committing serious violations during their stay in the general prison population. The authors concluded that, contrary to the public perception of their future dangerousness, most death row inmates were cooperative and rather manageable.

Although these studies, for the most part, looked at individuals whose sentences were reduced, not overturned, they can still provide valuable information regarding the post-release behavior of exonerees. Since little is empirically known about the risk posed by exonerees, the discussion turns to what is known about the effects of exoneration.

2.4 After Exoneration

Although no research to date has examined the risk posed by exonerees, there have been qualitative studies that explore some of the negative effects of being wrongfully imprisoned. In addition, a few empirical studies have examined prison and reentry experiences of those who were wrongfully convicted. These studies provide invaluable insight into this under-studied population.

In 2001, Westervelt and Cook interviewed 18 death row exonerees and found that these individuals had difficulty adapting to outside life. Similarly, in 2004 Campbell and Denov conducted a qualitative review of wrongfully incarcerated individuals and found that the impact of imprisonment on these individuals is worsened by the "unjust nature of the situation."

Although not fully understood, wrongfully convicted individuals experience imprisonment in a significantly different way than other inmates (Campbell & Denov, 2004). Those who claim they are innocent often do not express remorse and, as a result, are considered more dangerous and more likely to re-offend (Campbell & Denov, 2004; Weisman, 2004). In addition, they are less likely to be granted parole, participate in programming, and often

experience uncertainty about their release date (Weisman, 2004). When exonerees are released it is often sudden and without preparation, support or supervision (Grounds, 2004). These are just a few of the implications of being wrongfully convicted. The following sections will discuss additional issues faced by exonerees, including psychological and physical illness, stigmatization, difficulty obtaining gainful employment and lack of support. This chapter will conclude with exoneree needs and accessible services.

A. Physical and Mental Health Effects

Prisoners generally have more medical and mental health problems then the general population. The health of an average 50 year who is incarcerated is that of a 65 year old (Pertersilia, 2003). More than 16 percent of prisoners report either a mental condition or staying overnight in a mental hospital (Petersilia, 2003). These negative health outcomes are likely to affect all incarcerated individuals, regardless of actual guilt.

Physical Health

Exonerees often go into prison healthy and come out unhealthy. This is partially due to substandard prison healthcare (Innocence Project, 2009). In addition, health issues may arise from unsanitary and crowded prison conditions and/or exposure to sick inmates. Studies on health issues of inmates has found that two to three percent of inmates are HIV positive or have AIDS, a rate that is five times higher than the general population. Eighteen percent of inmates are infected with hepatitis C, a rate almost ten times that of the general population (Hammett, Harmon & Maruschak, 1999). Although, by law, inmates are entitled to health care in prison, they are often denied access to specialists, technologically advanced diagnostic techniques and the latest medications and procedures (Pertersilia, 2003).

Westervelt and Cook (2010) reported that most exonerees have health problems, such as

malnutrition, asthma, arthritis, diabetes, hepatitis and digestive and skin disorders. Some exonerees have even passed away shortly after their release due to an illness they incurred while in prison.[9] To date, no other studies have examined the health effects of incarceration on exonerees. It is likely that some physical health issues stem from the psychological issues reported by exonerees, which will now be explored.

Mental/Psychological Health

In 1993, Simon investigated five cases in which an individual was wrongfully arrested and released within 24 hours. This author found the even this brief experience psychologically traumatized the arrestees. Although this experience is significantly different than most cases of wrongful conviction, where the average time spent incarcerated is 13 years, the findings still demonstrate that even short-term wrongful confinement can have adverse effects.

In 2004, Adrian Grounds studied exonerees, some of who have spent as long as nineteen years in prison. He concluded that "those released following wrongful conviction and imprisonment may have significant psychiatric and adjustment difficulties of the kind described in other groups of people who have suffered chronic psychological trauma." (page, 175). This research was based on interviews and psychological assessments of 18 exonerees and found that the overwhelming majority suffered from personality changes (n=14), PTSD (n=12), depressive disorders (n=10), panic disorders (n=5), and paranoid symptoms (n=4). As a consequence of these ailments, exonerees reported difficulty sleeping, irritability and moodiness, symptoms that can make life in prison even more arduous.

A qualitative study of five Canadian exonerees revealed difficulties coping, which lead to isolation and withdrawal (Campbell & Denov, 2004). Withdrawal may manifest through forms

[9] For example, Ron Williamson died of Cirrhosis of the liver five years after being exonerated for a murder/rape and serving 14 years on death row. (*The Innocent Man*, John Grisham. Doubleday, 2006).

of depression, self-mutilation and suicide (Matthews, 1999). Campbell and Denov (2004) reported that all five of the exonerees in their investigation had, at some time during their incarceration, contemplated suicide and one made an actual suicide attempt (pg. 149). It's important to note that these findings are based on a very narrow subset of wrongfully convicted individuals.

Most recently, in 2011, Wildeman, Costelloe and Schehr interviewed 55 exonerees and found that 22 percent suffered from anxiety, depression, PTSD or a combination of these. The results also suggest that employment may have a mediating effect on psychological illness. However, finding and maintaining meaningful employment, however, is often difficult for individuals reentering society (Grounds & Jamieson, 2003).

B. Stigmatization

Physical and mental health problems aside, exonerees often face stigma. Having a disabling physical or psychological illness may contribute to social isolation and stigmatization. "The most damaging injury inflicted upon the wrongfully convicted is not necessarily the time lost behind bars, but the stigma that follows them for the rest of their lives" (Lopez, 2002, p.720). The trial and exonerations of some prisoners receive substantial publicity. These individuals may face a higher degree of stigma than those who were exonerated of less well-known crimes or who had less publicity associated with their wrongful conviction (Martin, 2006).

Few studies have examined the social consequences of being wrongfully convicted. In 2009, Clow and Leach had participants read a newspaper article about an exoneree, and then measured participants' perception of the exoneree (compared to other conditions). They found that exonerees are perceived as having low levels of competency and warmth, and also viewed as undesirable friends, neighbors, business partners or spouses. Thompson & Everett (2010)

concluded that individuals do not desire to have personal relationships with exonerees. Although limited, these findings illustrate the publics' negative perception of wrongfully convicted individuals.

Westervelt and Cook (forthcoming) also report that some exonerees felt that they were not accepted upon return to their community and that some people in their community continued to believe they were guilty. This stigma can make reentry more difficult for exonerees.

C. Expungement and Employment

Stigma can lead to difficulty obtaining gainful employment. Finding, and maintaining, a job is a critical step towards erasing the stigma of incarceration (Haney, 2002). In addition, employment often provides economic security to those reentering into society. Having gainful employment can help an individual pay their bills, support their family, obtain housing, and secure medical care.

Exonerees, particularly those who were incarcerated for a long period of time, lack education, job skills and preparation for reentry into society. Lack of training combined with long gaps in employment and public perception make it extremely difficult for these individuals to find and keep a job. While this problem is not uncommon for all releasees, it may be more difficult since exonerees are often ineligible for job training and vocational services, services and opportunities that are often made available to parolees (Scheck, Neufeld & Dwyer, 2000; Grounds, 2004).

A criminal conviction, whether the individual is in fact innocent or not, scars an individual for life. Even after exoneration the wrongful conviction often remains on an individual's record (Shlosberg, Mandery & West, 2012). Expunging the record of a wrongful conviction cannot only reduce stigma, it can increase employability (Westervelt & Cook,

forthcoming). Having a criminal record has far reaching consequences that often includes inability to obtain employment.

Ample evidence supports that fact that individuals with a prior criminal record are less likely to be hired for a position. For example, a national survey of 600 businesses revealed that employers are reluctant to hire ex-convicts, reporting they fear liability if a new crime is committed (Wirthlin Worldwide, 2000). Other researchers have found that employers are less likely to hire ex-convicts as compared to those who provide no information (left question blank) on their application form (Western, Kling & Weiman, 2001). In 2002, Holzer, Rapharl and Stoll conducted a survey of 3,000 employers from four large cities and similarly found that the majority of employers are unwilling to hire an applicant with a criminal record; sixty percent indicated that they would "probably not" or "definitely not". In addition, these researchers found that about 63 percent of employers "always" or "sometimes" checked the criminal backgrounds of potential employees, as compared to 48 percent in 1994.

Many exonerees are released with nothing and, just like parolees, they are subject to a background check that can reveal a criminal record. Making matters worse, when exonerees explain that their gap in employment was caused by a wrongful incarceration, employers are often reluctant to hire them (Armour, 2004).

It is very difficult to move beyond the stigmatizing effects of having a criminal record. As previously discussed, research consistently shows that having a criminal record has negative consequences, which continue long after a sentence has been served (Petersilia, 2003). These effects may be more profound when the criminal record is for a crime the individual did not commit. They should have never had the criminal record to begin with.

D. Exoneree Support

There is very little support, if any, for most exonerees. The Life After Exoneration program (LAEP), a national organization dedicated to helping survivors of wrongful conviction re-enter society and rebuild their lives, reports that half of exonerees are living with family members and two-thirds are not financially independent (www.exonerated.org). Although exonerees seek financial relief and service assistance, many report that they want recognition of the harm done to them (Cook & Westervelt, *forthcoming*) and they want their reputation restored (Campbell & Denov, 2004). Because they usually do not receive an apology or any acknowledgement of wrongdoing, exonerees often experience an increased intolerance of injustice and desire for government to acknowledge the error and compensate them for the harm endured (Campbell & Denov, 2004).

Without assistance or guidance throughout the reentry process, exonerees are likely to seek compensation to help restore their lives (Martin, 2006). Financial compensation can help exonerees in several ways. Exonerees can currently receive compensation for their wrongful conviction in one of three ways: litigation/lawsuits, private bills or compensation statutes.

Tort Claims

Some wrongfully convicted individuals have successfully sued authorities under 42 U.S.C § 1983, which essentially makes relief, in the form of money damages, available to those whose constitutional rights had been violated by an actor acting under State authority. Lawsuits are for the few exonerees who can prove that they were victims of intentional government misconduct. Some examples include cases in which police officers intentionally fabricated evidence, coerced a confession or intentionally withheld evidence from prosecutors. Under this statute an individual can bring a lawsuit for damages against any official who, acting under the

color of state law, deprives that individual of a constitutional right; however it is not that easy.

A suit under this statute is difficult to successfully pursue and only a small minority of cases qualify for this type of relief. For one, in most cases there is no intentional misconduct, and even if there was, it is very difficult to prove malicious conduct by government officials. What's more, the action is not allowed against all officials due to the strict immunity doctrine, which provides protection from lawsuit for certain government officials. This doctrine protects anything they do in their official capacity, such as deciding whether to prosecute or what evidence/witnesses to include (Innocence Project, 2010). This immunity helps ensure that people in these professions can adequately do their job without fear of legal implications yet makes a civil suit unlikely.

The small numbers of exonerees who do receive compensation through this avenue often receive higher financial awards than what is typically available through state statutes (Innocence Project, 2010).[10] However, these legal proceedings are often costly in themselves and time-consuming.

Private Bills

Private bills allow for direct compensation to exonerees from the state. Some states permit legislators to enact legislation with the sole and exclusive function of making a monetary award (using the state's money) to an exoneree (Bernhard, 1999). This approach has its own difficulties. Who receives money, and how much they receive, partly depends on the state's budget and how many other applicants there are. Many exonerees lack the political connections

[10] For example, New York exoneree Jeffrey Deskovic received a $6.5 million dollar settlement from Westchester County for the 15 years he served for rape and murder. *See* New York Times, April 12, 2011, "$6.5 Million Settlement in Wrongful Conviction" http://www.nytimes.com/2011/04/13/nyregion/13settle.html
In New York State, the statute allows compensation amount to be determined by the Court of Claims based on what amount will "fairly and reasonably compensate the wrongfully convicted person". *New York Court of Claims-8-b*

necessary to make their voices heard (Innocence Project, 2010). It may also be difficult for an exoneree to lobby on their own behalf and convince a legislator to support them. Moreover, in many situations the only individuals that can successfully receive private bills are those with a legislator of a well-connected lawyer (Lopez, 2002). Private bills may become a "popularity contest" (Innocence Project, 2010) overshadowing the merit of the case. Lastly, exonerees often have very little political clout and need money immediately, making it difficult for them to receive compensation by these means (Ambrust, 2004).

Receiving compensation through private bills is the least likely remedy for the wrongfully convicted (Innocence Project, 2010). It is also not generally lucrative with amounts ranging from $1,600 a year wrongfully imprisoned to nearly $300,000 per year.

Statutes

Compensation statutes provide a uniform amount of financial assistance to anyone who can show that he or she was innocent of a crime and wrongfully convicted. Compensation statutes are the most equitable and comprehensive form of compensation for exonerees (Innocence Project, 2010). Exonerees who apply for compensation this way often receive funds sooner than they would if they were filling a lawsuit. In addition, each qualified applicant is, or should be, treated equally so the support does not vary based on "popularity." In other words, this method provides a clear standard for exonerees. However, this method is not without its challenges.

Unfortunately, only twenty-nine states, and the District of Columbia, have enacted statutes that allow for compensation for the wrongfully convicted. These laws have different daunting eligibility requirements. In many states, exonerees may not seek compensation if they somehow contributed to their conviction (for example, pleading guilty to the crime). In other

states, only those with an official pardon from the government may seek compensation. In others, only those who were exonerated with DNA evidence are eligible. Additionally, some states apply time constraints. For example, in California the period is merely six months for filing claims (Burnett, 2005).

The federal government passed a wrongful conviction compensation statute in 1938. The original statute allocated only $5,000, regardless of time served. In 2004, as part of the Innocence Protection Act, Congress increased the amount to $50,000 per year of wrongful imprisonment. This Act also allows for up to $100,000 per year for wrongful imprisonment on death row.

Although many exonerees use compensation funds to help re-build their lives, not all of their problems can be solved by money. The last section of this chapter will provide a brief overview of exoneree needs and available services.

E. Exoneree Needs

Very few studies have examined what exonerees actually need upon release. In their qualitative study, Westervelt and Cook (forthcoming) report that exonerees need more than just financial compensation:

> *"The overarching element they wish for is restoration, restoration of the components of their financial, familial and emotional lives that they believe were destroyed by their wrongful conviction." (chp. 11, pg 237).*

These authors found that exonerees expressed hostility and frustration over the lack of recognition of their needs. The three greatest needs areas that emerged were healthcare (including mental health), financial (including counseling) and legal (assistance with compensation or expungment, for example). Very little support exists for exonerees upon release. There is no existing national social service program for exonerees and what exactly those needs

are is unclear.

Current Exoneree Services

Although there are currently no federal services available to exonerees, several states have non-profit organizations that offer resources to these individuals. The Life After Exoneration program (LAEP) provides support for exonerees through providing direct services, matching exonerees with pro bono legal assistance lobbying for legislative reform and creating a peer network of exonerees. Although LAEP has been able to help some exonerees (mainly in California where they are based) they have limited resources and rely on individual contributions.

The Innocence Network is an affiliation of organizations dedicated to providing pro bono legal and investigative services to individuals seeking to prove innocence of crimes for which they have been convicted. The network also works to address the causes of wrongful convictions. The organizations involved include various Innocence Projects from across the country, The Center on Wrongful Convictions, public defender offices, law school clinics and international organizations. Each of these offers varying degrees of support and services for exonerees. For example, the New York Innocence Project, the first and largest of all the Innocence Projects nationwide, provides direct services to exonerees after release. However, they only have two social workers on staff. Other Innocence Projects do not have the necessary resources for support services.

Looking at the body of past research, this dissertation adds to the theoretical understanding of wrongful convictions by examining factors that are related to the success, as measured by post-exoneration offending, of exonerees post-release and the risk they pose. This is the first research of its kind and results can help provide a better understanding surrounding

exoneree needs and how services can be put in place to support these individuals upon reentry.

Chapter III- Methods

3.1 Hypotheses

This study investigates factors that may contribute to post-exoneration offending among individuals who have been exonerated. This research also looks at the risk posed by this unique group. This study can reflect upon risk in neither, either or both of two ways: 1) Post-release offending could suggest inherent criminality or the unreliability of exonerations; 2) It might demonstrate the effect of incarceration as these wrongfully convicted persons should pose no special risk.

H_1: Individuals who have been wrongfully convicted and incarcerated will have rates of post-release offending comparable to recidivism rates found by Langan and Levin (2002). Non-violent property and drug offenses will be more prevalent offering support for the prisonization theory.

H_2: Offenses committed by non-DNA exonerees are more likely to be similar in nature to the crime for which the prisoner was originally convicted than offenses committed by DNA exonerees. This would suggest suggesting that the exoneration was unreliable or that the exoneree nevertheless poses a substantial risk. Likewise, individuals who were exonerated on the basis of DNA testing will be less likely to offend after exoneration. These individuals' innocence was scientifically proved suggesting they did not in fact commit the crime they were wrongful incarcerated for (more reliable).

H_3: Length of time wrongfully imprisoned will be positively associated with post-exoneration offending. This offers support for prisonization.

H_4: Prior conviction(s) will be positively associated with post-exoneration offending. Those who have prior offenses (before being wrongfully convicted) will be more likely to offend after exoneration. This would suggest prior criminality contributes to post-release behavior.

$H_{5:}$ The younger an individual is at release, the higher the incidence of post-exoneration offending. This would offer support for Hirschi and Gottfredson's (1983) age-crime theory.

$H_{6:}$ Compensation amount will be negatively associated with post-exoneration offending; the more compensation (in dollars) received the less likely an individual will have a post-exoneration offense. The monetary reward will reduce strain on individuals reentering society and the likelihood they will gravitate toward criminal behaviors to reduce that strain (Agnew, 1993).

$H_{7:}$ Individuals whose records have NOT been expunged will be more likely to offend post-exoneration. Having a criminal record has negative consequences, such as stigmatization and community isolation that continue long after a sentence has been served, which can hinder future success (Petersilia, 2003) and lead to post-exoneration offending.

3.2 Data

Data was gathered from two main sources. Data on exonerations was obtained from the Center on Wrongful Convictions (CWC), at the Bluhm Legal Clinic at Northwestern University Law School. Data on post exoneration offending was obtained from a commercial data provider. Information on post release behavior is only available from 1999 onward. Therefore, this study focused on cases in which an individual was exonerated and released between 1999 and 2009. The latter date was chosen to enable a one to three year follow-up period.[11]

The Center on Wrongful Convictions (CWC) maintains records for over 1,200 exonerations, including both DNA and non-DNA cases. CWC maintains a state-by-state list of all known exonerations. Inclusion criteria for CWC cases includes: cases in which a sentence was long enough to be reviewed on appeal, cases that have been reviewed, and cases that have

[11] Research in criminal justice often evaluates recidivism by tracking releasees at year one (most recidivism occurs within one year of release; Langan & Levin, 2002), year two and year three (Glaser, 1969; Beck & Shipley, 1989; Langan & Levin, 2002).

available exculpatory evidence. Each exoneration on file at the Bluhm Clinic contains specific information regarding the exoneration, including a case chronology, legal citations and original case materials. These files are compiled by law students and then fact-checked and maintained by the Center's staff, which consists essentially of lawyers and academics. Although the Center catalogues exonerations that occur in all 50 states and the District of Columbia, this study only focuses on four states: Florida, Illinois, New York and Texas. Among the records at the Center, 186 cases fit the research criteria: individuals who were exonerated between 1999 and 2009 in one of the four aforementioned states.

More than two-thirds of exonerations occur in ten states (Gross, et.al, 2005). The seven leading states for exonerations of falsely convicted defendants are Illinois, New York, Texas, California, Louisiana, Massachusetts and Florida. This ranking corresponds, at least in part, to the state prison populations. For example, Florida, California and Texas are among the top five states with the highest prison populations (Sabol, West & Cooper, 2009). Also, it is likely that New York and Illinois are in the top seven due to an increased media and advocacy interest in wrongful conviction cases (Gross, et.al, 2005). State reforms may also contribute. For example, New York and Illinois were the first states to allow post-exoneration DNA testing.

Included in this sample are exonerees from only four of the seven aforementioned states: Florida, Illinois, New York and Texas. Criminal history data from California[12], Louisiana[13] and Massachusetts[14] are not publicly available, and thus were not be included in the study. While the

[12] Access to criminal history summary records maintained by the DOJ is restricted by law to legitimate law enforcement purposes and authorized applicant agencies. However, individuals have the right to request a copy of their own criminal history record from the Department to review for accuracy and completeness. Requests from third parties are not authorized and will not be processed. *See* http://oag.ca.gov/fingerprints/security

[13] Louisiana is a closed record state and only conducts background requests for agencies that are authorized to receive that information under RS 15:587. *See* https://laapps.dps.louisiana.gov/faq.aspx

[14] Most organizations must become CORI (Criminal Offender Record Information) certified before they can request CORI reports. Only all criminal justice agencies, such as police, judges, and prosecutors, can a CORI at any time. *See* http://www.massresources.org/cori.html#seecori

information for the remaining four states is publicly available, it could only be obtained through each individual state.[15] States differ by the type of information they provide publicly. And while all states require that individuals in custody be made public, some states do not publish arrest records.[16] Post-release behavior was measured by examining conviction and current incarceration data, as all four states provide this information. The sample used included all known exonerees in these four states for which post-release information could be obtained. See Appendix A for a complete explanation of procedures by state.

To assess post-exoneration offending, I used data on prior and post release offenses. As mentioned, CWC provides information regarding offenses prior to exoneration, however they do not maintain records on post-exoneration offenses. A commercial data supplier, Maximum Reports, Inc., provided this information. Maximum Reports, Inc. is a national backgrounds checks company that performs state and county- specific criminal background searches for a nominal fee.[17]

In order to obtain a criminal history background check, a date of birth must be provided for each individual in the sample. From the data gathered from CWC, dates of birth were included for about one-third of the sample. The remaining DOB's were gathered using several different methods, including sex offender registries, attorney contacts, recorded court decisions, Lexis-Nexis and Westlaw searches for media coverage, and general Internet searches. If a date of birth could not to be located that case was excluded from the study. As such, the final analyses did not include all 186 cases. I found dates of birth for 118 cases: Florida (17), Illinois

[15] The FBI requires that all public requests for national criminal check include a fingerprint for the person for whom information is sought; the U.S. Department of Justice Order 556-73 establishes rules and regulations for the subject of an FBI Criminal Justice Information Record to obtain a copy of his or her own record for review. The FBI's Criminal Justice Information Services (CJIS) Division processes these requests.

[16] For example, New York and Florida both provide arrest data, however Illinois does not and Texas only does select counties (Harris and El Paso counties do not provide arrest information).

[17] For a schedule of services and fees, *see* http://maximumreports.com/index.cfm?fuseaction=Content.ServicesFees

(31), New York (24) and Texas (46). This comprised the sample before the Tulia aggregate (which will be discussed shortly). The final sample included 101 cases: Florida (17), Illinois (30), New York (24) and Texas (30). Once a DOB was obtained, identifying information was provided to Maximum reports, Inc, and a full criminal history report was acquired. This process occurred over a five-month period (January 2011 – June 2011). As such, all criminal history reports were not obtained at the same time.

Each state report is unique in the kind of information it provides and each state differs in how it obtains the information. For example, a search in Florida yields county-specific information on arrest, conviction and incarceration. Florida also includes agency, disposition and sentencing information. Illinois, on the other hand, only provides court-specific information regarding convictions (not juvenile). However, Illinois does include detailed disposition information and specific charge information (i.e, blood alcohol level for a DWI case). New York provides court-specific records on convictions, which includes disposition and sentence (in most cases). Texas criminal records include agency-specific arrest and conviction details including information on the prosecutor, disposition, court fines, sentence, plea deals and sentencing (including diversion such as drug treatment and community service).

Table 3.1 displays the distributions of individuals, by state, who had at least one prior conviction (before the wrongful conviction) on their record. Among the Florida exonerees, 41.2 percent (n=7) had no prior convictions while 58.8 percent (n=10) had at least one prior conviction. In Illinois there was an even split (50%) between both categories (n=15 for each). In New York 29.2 percent (n=7) had at least one prior conviction, while the majority (70.8%, n=17) had no prior convictions. In Texas the majority of individuals had at least one prior conviction (76.7 %, n=23), while 23.3 percent (n=7) did not have any priors. A chi-square test revealed a

significant relationship between state and prior conviction ($x^2(3) = 12.527$, $p<.01$).

The numbers change a bit when looking at post-exoneration offenses by state. Table 3.2 displays the distribution of individuals by state who had a conviction after the date of release (for the exoneration crime). In Florida, the split stayed the same; among the seventeen exonerees, 41.2 percent (n=7) had no post-exoneration conviction while 58.8 percent (n=10) had at least one post conviction. In Illinois, 61.3 percent (n=19) of individuals did not have a post-exoneration conviction, while 38.7 percent (n=12) had at least one post-exoneration conviction. In New York, only 8.3 percent (n=2) had a post-exoneration offense, while almost all (91.7 %, n=22) had no post-exoneration offense. In Texas, 33.3 percent (n=10) had at least one post-exoneration offense and 66.7 percent (n=20) had no post-exoneration offense. A chi-square test revealed a significant relationship between state and post-exoneration conviction ($x^2(3) = 12.124$, $p<.01$).

Table 3.1 Number of Prior Convictions by State

Prior Conviction % (n)	FL	IL	NY	TX	Total
No	41.2 (7)	50 (15)	70.8 (17)	23.3 (7)	45.5 (46)
Yes	58.8 (10)	50 (15)	29.2 (7)	76.7 (23)	54.5 (55)
Total	16.8 (17)	29.7 (30)	23.8 (24)	29.7 (30)	101

$x^2 (3)=12.527, p<.01$

Table 3.2 Number of Post-Exoneration Convictions by State

Post-Exoneration Conviction % (n)	FL	IL	NY	TX	Total
No	41.2 (7)	61.3 (19)	91.7 (22)	66.7 (20)	66.7 (68)
Yes	58.8 (10)	38.7 (12)	8.3 (2)	33.3 (10)	33.3 (34)
Total	16.7 (17)	30.4 (31)	23.5 (24)	29.4 (30)	102

x^2 (3)=12.124, p<.01

It is important to note that criminal history background checks were performed in the state in which the wrongful conviction and exoneration occurred. However, two cases media reports indicated that an exoneree no longer lived in the 'exoneration' state. For these two cases a criminal history report was obtained in two different states. One of the two cases revealed a post-exoneration conviction that occurred in a different state than the exoneration. This case was included in the final analysis as a 'post-exoneration offense'.

In three cases an individual changed their name, or had a known alias, and thus a search was performed on both names. In these instances, knowledge of alias name was obtained through media accounts and court records. Two of these searches yielded a post-exoneration conviction and thus were included in the final analysis. Two other cases in the sample were excluded due to method inconsistency.[18]

[18] According to media reports two individuals were convicted post-exoneration but the criminal search, for whatever reason, did not reflect the conviction. Scott Fappiano, an exoneree from New York who served 21 years for rape before being exonerated in 2006, is currently in prison on extortion charges. This conviction did not appear on the criminal history search, however several media reports confirm this information. *See* Daily News, July 19, 2011. "*Mobster Scott Fappiano freed after wrongful rape conviction pleads guilty to extortion scheme.*" Ernest Ray Willis, an exoneree from Texas who served five years on death row for murder before being exonerated in 2004, is currently serving time for forcible rape in New Hampshire. See ABC news, (20/20), August 27, 2011. *"New Hampshire man found guilty of rape of Tina Anderson."* Again, this information did not appear in the criminal history background search. Because of the use of inconsistent methodology, these cases were *not* included in the final analysis among those who had a post-exoneration offense.

I examined post-exoneration offending, as represented by future offending, by coding for a host of factors that might contribute to post-release offending. These factors were: nature of offense (for which the offender was exonerated), age at time of arrest/conviction, record preceding offense, the evidentiary basis for the exoneration (whether it was based on DNA evidence), compensation (was money received, and if so, how much), record expungement (was there evidence of the wrongful conviction offense on the criminal record), age at release/exoneration and length of time wrongfully imprisoned.

Inclusion of non-DNA Cases

Few studies have examined wrongful conviction cases in which there was no DNA evidence. Moreover, media coverage usually ignores non-DNA exoneration cases. This is problematic as these cases are not rare. Studies suggest that for every DNA exoneree there exists hundreds, if not thousands, of wrongfully convicted individuals whose cases do not contain biological evidence that can be used to prove their innocence (Garber & Vaughan, 2008; Garrett, 2008; Gross et.al, 2005; Liptak, 2007). Without biological evidence it is often hard to prove innocence unless other exonerating evidence emerges, such as a confession from the actual perpetrator or a witness recanting testimony.

The majority of what we know about exonerees comes from the Innocence Project, a non-profit organization that assists prisoners who could be proven innocent through DNA testing. According to the Innocence Project, as of January 2012 there have been 289 exonerations based on DNA testing. Cases in which DNA is available to test are just a small subset of the number of innocent people who are convicted and incarcerated. Even in cases where DNA is available, access is often blocked by courts and procedures (Garrett, 2008 pg. 116). The current study examined both DNA (n=60, 58.8%) and non-DNA (n=42, 41.2%) cases. This is only the second

study to include non-DNA cases in an empirical review of exoneration. The other is Samuel Gross and colleagues in 2005.

Mass Exonerations

The original sample included 17 cases where innocent defendants were falsely convicted as a result of large-scale patterns of policy perjury and/or corruption, also known as mass exonerations. This particular mass exoneration occurred in Tulia, Texas in 2003. In 1999 and 2000, thirty-nine defendants were convicted of drug offenses solely on the uncorroborated word of a single undercover narcotics officer. In 2003, almost all (35 of the 39 convicted) were pardoned after it was discovered that the officer had lied about the cases and charged the defendants with drug crimes that never occurred. There is some debate in the academic community about how to deal with these cases. Gross et.al. did not include this group of exonerees in their 2005 paper. They only included defendants who were exonerated based on evidence of innocence that focused on their individual cases. Gross contended that including mass exoneration cases would distort the results as these cases are fundamentally different (page 535). Taking this concern into account I created a Tulia aggregate variable. This method allowed me to aggregate the 17 Tulia cases into a single case and then add that new case to my file (n=102 after removing the 17 cases and adding the one aggregate case). In addition, I performed all analyses with (n=118) and without (n=101) these 17 cases. The findings from these analyses can be found in Appendix B and C, respectively.

3.3 Variables

A. Dependent Variables

The goal of this study was to determine the post-exoneration behavior of exonerees, examining various factors related to the individuals' case. The dependent variable for this

project was post-exoneration offending, and was measured both as a dichomotous variable (yes/no), and an interval variable (number of times). Although the dependent variable differs from recidivism, similar methodology was used. Scholars suggest that when studying post-release offending one should consider three measures of recidivism; re-arrest, re-conviction and re-sentence to prison (Maltz, 1984). Not all individuals who are re-arrested are convicted, and of those only a small are returned to prison (McGovern, Demuth & Jacoby, 2009). Therefore using all three measures will produce the most accurate picture of recidivism. This study only used conviction and incarceration data due to the availability of data.

Length of time between exoneration and post-release offense was measured as days between conviction and release.[19] In addition, type of post-exoneration offense was included in some models and was coded into categories consisting of murder/manslaughter, rape/sexual assault, property crimes, drug crimes, and 'other'. 'Other' offenses include: resisting/evading arrest, weapon possession, equipment violation, driving without a valid license, gambling, obstruction of justice and fraud. Post-release offenses were also coded as violent/non-violent. Additionally, cases were coded as same offense (yes/no) as wrongful conviction crime. This variable was created to speak to the reliability of the exoneration.

B. Independent Variables

The CWC database includes both demographic and legal information, which were used to construct independent variables. The majority of cases were not electronic at the time of coding, and thus were aggregated using paper files. Once the paper files were located and photocopied, the coding process began. See Appendix D for coding sheet.

I coded for the following demographic variables: age (in years, as a continuous variable),

[19] Release date was used because in some cases exoneration date was several years after the individual was released. For example, in one case an exoneree was released in 1993 but was not exonerated until 2007.

which is one of the strongest predictors of post-release offending and gender, a dichotomous variable recorded as (0) male and (1) female. Although research suggests that males are more likely to committ a crime post-release than females (Deschenes, Owen & Crow, 2006) due to a small sample (females make up only 2.9 percent, n=3, of the sample) this will not be examined. Race was measured as (1) White, (2) African-American, (3) Hispanic, (4) Asian and (6) Other. Race was also recoded as a dichotomous variable (0) White and (1) non-white for some models and recoded as (0) White, (1) African-American and (2) Hispanic for other models. Research shows that African-Americans and Hispanics pose higher recidivism risk than Whites.

It is important to consider an individual's prior record and prior offense severity when examining post-release behavior. Prior record was coded as dichotomous (yes/no) and continuous (number of priors) and by what type (violent, property or drug). Another measure of prior offense included type of offense coded into categories consisting of murder/manslaughter, rape/sexual assault, property crimes, drug crimes, and 'other'. Age at first arrest, in other words the start of one's crime career, is of utmost importance when examining post-release behavior. However, this information is not available for my sample and thus cannot be included in the analysis.

I also coded for other legal indicators that may be relevant to post-exoneration offending. These variables included: nature of offense (for which the offenders was exonerated), age at time of arrest and conviction, the procedural posture of the exoneration (was there a pardon), and factors that led to the wrongful conviction (eyewitness error, false confession, snitch testimony, junk science and/or official misconduct).

Compensation was also included in analyses; however this information was not available in the CWC data. Thus, Internet and Lexis-Nexis searches were conducted to include this

information. All four states (IL, FL, NY, TX) included in this study have compensation statutes. See Appendix E for state-specific compensation statutes. Compensation was measured dichotomously (yes/no), and also as an interval level variable (amount in dollars) to test the association between amount of compensation and post-exoneration offending. Additionally, date of compensation was included to assess the amount of time between release and compensation, as well as the amount of time between compensation and post-exoneration offense (if relevant). Within this sample 57.8 percent (n=59) received compensation, and 42.2 percent (n=43) have not received any compensation (this includes those 'pending'). Compensation amount ranged from $100.00 to $18.5 million. Since there was such variation in compensation a cut-off point of $500,000 was established. This number was calculated by removing the cases that received no compensation and then finding the median point of the remaining cases. Almost one-third (n=32) of the individuals in this sample were compensated $500,000 or more and a quarter (n=26) were compensated less than $500,000.

Lastly, record expungement was included. Expungement is the process by which a record of criminal conviction is destroyed or sealed from the state or Federal repository. Expungement is important to consider when examining post-release offending. A criminal record can lead to stigma and difficulty gaining employment. In instances where a former defendant is exonerated, expungement is sometimes part of the relief granted. In most cases, however, it must be secured in a separate civil action. Expungement was coded as a dichotomous variable (yes/no). Cases in which the wrongful conviction crime was listed but indicated 'pardoned', 'dismissed' or 'charges dropped' were included in the "no expungement" group. This decision was made because there should be no indication of the crime left on an exonerees record in order for the crime to be considered expunged, or "erased". In this sample, 63.7 percent (n=65) have had their record

expunged and 33.3 percent (n=34) have a criminal record of the crime for which they were exonerated for. Some variation is due to a difference in state expungement procedures. For state specific expungement explanations see Appendix F.

For a complete chart of variable descriptions and codes see Appendix G.

3.4 Data Analysis Strategy

Several analyses were employed in this study to measure the factors associated with post-exoneration offending. Chi Square tests were used to test whether there is a relationship between PEO and conviction type and PEO nature of exonerating evidence. Chi Square tests use nominal or ordinal data and frequencies in order to test a relationship by measuring expected and observed values to determine how well a hypothesis fits the data. This method will test my null hypothesis: There is no difference between the two groups (DNA/non-DNA, Priors/No Priors and PEO/no PEO).

An independent t-test was used. This test is a method used to compare the mean scores of two groups on a given variable using an interval level dependant variable and a nominal or ordinal independent variable. The results will determine whether mean number days wrongfully incarcerated is significantly different among those who have a post-exoneration offense and those that do not. An independent t-test will also be used to assess mean difference in number of prior convictions comparing those with and without a post-exoneration offense.

Logistic regression was utilized for many of the analyses. This method was selected for a number of reasons: First the single dependent variable examined in this study is dichotomous (success/failure as defined by post-exoneration offense), while the multitude of independent variables used in the analysis are both categorical and continuous, permitting the use of this method **(**Mertler & Vannatta, 2005). The main objective of this study is to predict the probability

of an individual offending post-exoneration, and logistic regression allows for the prediction of a discrete outcome from a set of variables while controlling for other known covariates. Findings allowed prediction of an individuals' propensity to offend after exoneration. Several logistic models were used to analyze the findings.

Cox regression, a type of survival analysis, was used to further assess post-exoneration offending. Because recidivism is highly influenced by the length of the follow-up period, recidivism probabilities are often estimated using survival analysis (Allison, 1984; Soothill & Gibbens, 1978). Stollmack and Harris (1974) explained the utility of applying these techniques to the study of recidivism and paved the way for extensive work by researchers using this method to understand timing of recidivism (Maltz, 1981; Schmidt & Witte, 1980). Survival analysis calculates the probability of recidivating for each time period given that the offender has not yet reoffended. Some researchers have also focused on distinguishing the characteristics of successful and unsuccessful releasees by attempting to determine the correlates of 'early failures', 'mid-term failures', and 'late failures' (Schmidt and White, 1980). Survival analysis is also able to estimate year-by-year recidivism. Survival models were used to predict how long a person is out of prison before re-offending in monthly (when data was available) and yearly intervals. See Table 3.3 for a complete list of analyses.

Missing Date Fields

There were several missing fields in the date variables. For example, seven cases were missing exact day and month of arrest, 20 cases were missing exact day and month of conviction, eight cases were missing the exact day and month of release and six cases were missing the exact day and month of exoneration. In these cases only the year was available in official records. In order to include these cases in the analysis, an estimate date was inserted. A missing day became

the 15th and a missing month became June (the 6th of 12 months in a year).

Use of Proxy

In an effort to resolve the issue of unreliable risk assessment many have adopted a proxy risk score assessment method, as was discussed in chapter two. The proxy is a three-item instrument that includes current age, age at first arrest and number of prior arrest to classify offenders into low risk, medium risk and high risk (Bogue, Woodward & Joplin, 2005). The risk score is then used to determine likelihood of re-offending. The current study will only include some of these aspects, as not all are publicly available or possible to obtain. Age at first arrest is not available for all cases, nor is the number of prior arrests. Illinois and Texas do not provide arrest data. Even in those cases that do provide arrest data (Florida and New York), there is no way to obtain juvenile record, hence age at first arrest would still be unknown. Although the use of a proxy would be preferential, the absence of these data points would make the use of a risk scale incomplete and unreliable.

TABLE 3.3: List of Analyses

	Statistical Test	Independent Variable	Dependent Variable
Model 1	Independent T-Test	Days wrongfully incarcerated	Post-release offense, as defined as conviction- yes or no
Model 2	Independent T-Test	Number of prior convictions	Post-release offense, as defined as conviction- yes or no
Model 3	Chi Square	Prior conviction, defined Yes/No	Post-release offense, as defined as conviction- yes or no
Model 4	Chi Square	Basis of exoneration; DNA/Non-DNA	Post-release offense, as defined as conviction- yes or no
Model 5	Survival Analysis/ Hazard Model	Length of time imprisoned, in years Length of time between release and record search, in years	Post-release offense, as defined as conviction- yes or no
Model 6	Logistic Regression	Number of prior	Post-release offense, as

		convictions Age at arrest (in years) Age at release (in years) Compensation (in dollars) Expunged (yes/no) Race- white/non-white	defined as conviction- yes or no
Model 7	Logistic Regression	Number of prior offenses Days Incarcerated Compensation (in dollars) Expunged (yes/no) Race- (white/non-white)	Post-release offense, as defined as conviction- yes or no
Model 8	Logistic Regression	Compensation (in dollars) Expunged (yes/no)	Post-release offense, as defined as conviction- yes or no
Model 9	Logistic Regression	Number of prior convictions Age at release (in years)	Post-release offense, as defined as conviction- yes or no
Model 10	Logistic Regression	Number of prior convictions Days Incarcerated	Post-release offense, as defined as conviction- yes or no
Model 11	Logistic Regression	Number of prior convictions Days Incarcerated Compensation (in dollars)	Post-release offense, as defined as conviction- yes or no

3.5 Description of the Sample

Table 3.4 displays descriptive statistics for the variables included in the final analyses. The majority (96.1%) of the sample is comprised of males (n= 99), with only three females (3.9%). More than two-thirds (66.4%) of the individuals in this sample are ethnic minorities (n= 67); 54.5 percent (n=55) are African-Americans and 11.9 percent (n= 12) are Hispanic). Approximately 31 percent of the sample is White (n= 32). The average age at arrest in this sample is 26.9 years and the average age at conviction is 27.8 years. These numbers are slightly higher than would be expected; research has established an age-crime curve which supports the notion that as individuals age they are less likely to offend (peaks around age 20 and then declines; Hirschi and Gottfredson, 1983). Additionally, a recent study found that by age 23 more

than two-thirds of Americans have been arrested (Brame, Turner, Paternoster & Bushway, 2012). The age of arrest and conviction in this sample are higher than would be expected, however this could possibly be explained by prior arrests. In other words, the wrongful arrest was perhaps not an individual's first arrest. More than half (53.9 %, n=55) of the individuals in this sample had a prior conviction, however prior arrest information is not known. As such, it is not possible to know the actual age of first arrest or inception of criminal behavior.

More than half (55.9%) of the sample had a top offense type of murder/manslaughter (n= 57), and almost a third (32.4%, n=33) had a top offense of rape/sexual assault. This is what would be expected since we know the most about crimes in which DNA evidence is often available (Gross et.al., 2003; Garrett, 2008). The remaining offenses included property crimes (4.9%, n= 5), drug crimes (2.0%, n= 2), and other (4.9%, n= 5). The offenses in the 'other' category consisted of two assault charges, two attempted murder charges and one kidnapping charge. The majority of individuals in the sample (60.8%, n= 62) were given a custodial sentence, which takes into account any sentence that included imprisonment other than life-without-parole (LWOP) or death. Approximately 22 percent of individuals were sentenced to LWOP (n= 22) and about 17 percent (n= 17) were sentenced to death. The average time between conviction and release was 12.6 years and the mean age of both release and exoneration was approximately 40 years of age.

Eyewitness mistakes were the most common factor contributing to the wrongful conviction (67.7%, n= 69). False confessions were a factor in almost a quarter of cases (23.5%, n=24), and more than one-third (43.2%, n=43) of cases contained either a snitch, informant or perjury, all of which are consistent with the literature (Scheck, Neufeld & Dwyer, 2001; Gross et.al., 2005; Garret, 2008). The remainder of factors leading to a wrongful conviction included:

'bad' lawyering (5.9%, n= 6), government misconduct (7.8%, n= 8) and junk science (6.9%, n= 7). These numbers add up to more than 100 percent because most cases cite multiple factors that contributed to their wrongful conviction.

DNA cases make up more than half (58.8%, n=60) of the cases in this sample and non-DNA cases make up the remaining 41.2 percent (n=542). In 32.4 percent (n=37) of cases a pardon was granted, which refers to the action of an executive official of the government that mitigates or sets aside the punishment for a crime, and in 55.9 percent (n= 57) there was no pardon.

More than one-third (33.3%, n= 34) of the individuals in the sample had a post-exoneration offense, as measured by conviction after release date. Almost all individuals in the sample were released and exonerated simultaneously. In three cases, however, an individual was exonerated long after their release. As such, using exoneration date would have not captured some offenses. For example, in one case an exoneree was released in 1993 but was not exonerated until 2007.

More than half (57.8%, n= 59) of individuals in the sample received compensation by means of either a civil suit or state legislation. Approximately 42 percent (n=43) have not received compensation (including those cases that are 'pending').[20] There is a very large range in amount received; compensation amount ranged from $100.00 to $18.5 million. Since there was such variation in compensation a cut-off point of $500,000 was established. This number was calculated by removing the cases that received no compensation and then finding the median point of the remaining cases. Almost one-third (31.4%, n=32) were compensated $500,000 or more and about 25 percent (n=26) were compensated less than $500,000.

[20] These numbers reflect the status of an individual's compensation as of December 2011. It is possible that pending cases have been resolved by the writing of this paper. Likewise, it is possible that those who had not received compensation have now received compensation.

More than half (63.7%, n= 65) of individuals in the sample have had their record expunged, in other words, there is no evidence of the 'wrongful conviction' offense when running a state criminal history search (as of October 2011). Approximately 33 percent (n= 34) of individuals had evidence of the 'wrongful conviction' offense on their record (no-expungement). Cases in which the wrongful conviction crime was listed but indicated 'pardoned', 'dismissed' or 'charges dropped' were included in the "no expungement" group. This decision was made because there should be no indication of the crime left on an exonerees record in order for the crime to be considered expunged, or "erased".

A small percentage (11.8 %, n=12) of the exonerees in this sample are currently incarcerated for a post-exoneration offense. Of these individuals one is serving time in New York, two in Florida, four in Texas and five in Illinois. Only two of these individuals had a post-exoneration offense that was similar in nature to their wrongful conviction offense. However, one was retried for the same crime based on additional evidence supporting guilt and was found guilty. The other individual was originally exonerated for a rape and property crime and his post-exoneration offense was a property crime.

Table 3.4: Variable descriptions (N=102)

Name	Coding	N	%	M	SD
Gender	0= Male	99	96.1		
	1= Female	3	3.9		
Race	1= White	32	31.4		
	2= African-American	55	54.5		
	3= Hispanic	12	11.9		
	4= Other	2	2.0		
Age at Arrest	In Years			26.9	7.7
Top Offense Type	1= Murder/Manslaughter	57	55.9		
	2= Rape/Sexual Assault	33	32.4		
	3= Property Crime	5	4.9		
	4= Drug Crime	2	2.0		
	5= Other	5	4.9		

Prior Conviction(s)	0= No 1= Yes	46 55	45.1 53.9		
Number of Prior Convictions				1.8	2.5
Sentence	1= LWOP 2= Death 3= Custodial	22 17 62	21.6 16.7 60.8		
Cause(s) of Wrongful Conviction*	1= Eyewitness Error 2= False Confession 3= Informant/Snitch/Perjury 4= 'Bad' Lawyering 5= Government Misconduct 6= Junk Science	69 24 43 6 8 7	67.7 23.5 43.2 5.9 7.8 6.9		
Age at Conviction	In Years			27.8	7.6
Length of Incarceration	Time between conviction and Release in years			12.6	6.8
Age at Release	In Years			40.4	9.2
Age at Exoneration	In Years			41.2	9.0
DNA Exoneration	0= No 1= Yes	42 60	41.2 58.8		
Pardon	0= No 1= Yes	57 33	55.9 32.4		
Conviction(s) After Release (PEO)	0= No 1= Yes	68 34	66.7 33.3		
Compensation	0= No/Pending 1= Yes	43 59	42.2 57.8		
Compensation	0=No comp 1= 499K or less 2= 500k or more	43 26 32	42.2 25.5 31.4		
Expungement	0= No 1= Yes	34 65	33.3 63.7		
Currently Incarcerated	0= No 1= Yes	88 12	86.3 11.8		

* Columns in this category add up to more than 100 percent because most cases had multiple causes/factors that contributed to their wrongful conviction.

Chapter IV- Results

Several analyses were used to explore the relationship between various demographic and legal indicators and the dependent variable, post-exoneration offending (PEO). As the results below will indicate, several of my hypotheses were supported, however some require additional investigation.

4.1 Bivariate Results

Table 1 displays a bivariate analysis of PEO by sample characteristics and is followed by a bivariate analysis of the relationship between prior conviction(s), age at arrest and number of prior convictions (table 2). Tables three through eight present the findings from logistic regression models. Concluding this chapter, survival analysis results are discussed.

Table 1- Bivariate Relationship Between Post-Exoneration Offending (PEO) and Sample Characteristics (n=101)

% (n)	**Success (no PEO) 66.7 (68)**	**Failure (PEO) 33.3 (34)**
Variable (n)	%	%
Gender		
Male (99)	66.3	33.7
Female (3)	100	0
Race		
African-American (55)	58.2	41.8
White (32)	81.3	18.8
Hispanic (12)	75.0	25.0
Other (2)	50.0	50.0
Age at Arrest (mean)	26.6	27.7
Age at Release	41.0	39.4
Prior Conviction(s)*		
No (46)	76.1	23.9
Yes (55)	58.2	41.8
Number of Prior Convictions (mean)***	1.27	2.78
Compensation		

No (inc. pending) (43)	65.1	34.9
Yes (59)	67.8	32.2
Compensation Amount*		
No Compensation (46)	65.1	34.9
499k or less (26)	50.0	50.0
500k or more (32)	81.3	18.8
Compensation Amount (mean in dollars)	1,700,000	740,375
DNA Exoneration		
No (42)	56.7	33.3
Yes (60)	66.7	33.3
Time Incarcerated (mean in years)*	13.9	9.9
Time Out (mean in years)	7.8	7.7
Record Expungement**		
No (34)	52.9	47.1
Yes (65)	76.9	23.1
WC Primary "Cause"		
Eyewitness Error (67)	64.2	35.8
Snitch/Informant (36)	69.4	30.6
False Confession (23)	69.6	30.4
Official Misconduct (9)	55.6	44.4
Junk Science* (7)	28.6	71.4
Bad 'Lawyering' (6)	50.0	50.0
***p< .05 , **p< .01, ***p< .001**		
Chi square significance variables and independent t-test for interval/ratio variables test was used for nominal		

A bivariate analysis (see table 1) of post-exoneration by sample characteristics revealed a few statistically significant relationships. Number of prior convictions was significant at the .01 level. Individuals with no prior convictions (n=46) were more likely to be successful after exoneration (no PEO) (76.1%) as compared to those with a prior conviction (n=55, 58.2%). Among the individuals who had a post-exoneration conviction, almost half (41.8%) had at least one prior offense, compared to the 23.9 percent who did not have a prior conviction. The mean

number of prior convictions was also statistically significant at the .001 level; individuals with a post-exoneration offense (n=34) had an average of 2.78 prior convictions, whereas those who did not have a post-exoneration offense (n=68) averaged 1.27 prior convictions. This finding was expected. Abundant research supports the idea that imprisonment affects reoffending. It is important to recognize that the wrongful conviction event is not the "prior" that is being considered here. Prior conviction(s) refers to cases in which an exoneree had a prior conviction before they were wrongfully convicted.

At the bivariate level, expungement status was also significant ($p<.05$) when examining post-exoneration offending. More than three-fourths (76.9 %) of those who were successful post-exoneration had no evidence of the wrongful conviction on their record, as compared to approximately 23 percent who had a post-exoneration offense. Based on what we know about the negative effects of a criminal record this would be expected. An expunged record reduces stigma and, most importantly for reentry, increases the likelihood of obtaining gainful employment and, hence, reduces the likelihood of reoffending. Interestingly, however, those who did not have their record expunged (n=34) were split more evenly among success and failure (52.9 % and 47.1%, respectively). This suggests that record expungement can have a positive effect. Hence, the 76.9 percent who did not offend post-exoneration. However, evidence of a wrongful conviction (no expungement) does not necessarily negatively affect one's propensity to offend post-exoneration.

It is important to consider the factor(s) that led to the wrongful conviction. As expected, the majority of cases (n=67) included an eyewitness error. The next most common factors were snitch/informant (n=36) and false confessions (n=23). None of the factors were significant at the bivariate level, besides 'junk science' (n=7). Junk science includes forensic techniques such as hair microscopy, bite mark comparisons and shoe print comparisons that have never been

subjected to rigorous scientific evaluation. In more than 50 percent of DNA exonerations, invalidated or improper forensic science contributed to the wrongful conviction (Innocence Project). Among the few cases in which junk science was cited as a factor (n=7), almost all (71.4%) had a post-exoneration offense. This may suggest that the exoneration was based on a procedural mistake rather than actual innocence. However, without additional information on these cases no reliable conclusion can be made.

Those exonerees who received compensation (n=59) were less likely to have a post-exoneration offense (67.8% were successful), although not statistically significant. The mean amount of compensation for those with no post-exoneration offense was $1.7 million, as compared to $740,375 for those who had at least one post exoneration offense. This suggests that compensation has a positive effect on exonerees; the more they are compensated the less likely they are to offend post-exoneration. Statistical significance emerges when examining the amount of compensation. Those who received more than $500,000 were more likely to succeed (81.3 % had no PEO and only 18.8 % had a PEO) than those who received less than $500,000 (split evenly between both; 50% had a PEO and 50% did not). This finding was significant at the .01 level. This suggests that only substantial compensation mitigates risk. Many states provide a cap on compensation that is substantially lower than this $500,000 threshold.[21] This has important policy implications which will be discussed in the succeeding chapter.

At the bivariate level post-exoneration offending and DNA/non-DNA was not significant. It was hypothesized that DNA exonerees' innocence was scientifically proven suggesting they did not in fact commit the crime they were wrongful incarcerated for. In other words, DNA exonerations would be more reliable. However, there is not a significant difference among post-

[21] For example, Louisiana has a compensation ceiling of $150,000 (15:§572.8), Maine allows a maximum of $300,000 (14:§8241) and Oklahoma caps compensation at $175,000 (51:§154).

exoneration offending among DNA and non-DNA exonerees. This suggests that non-DNA exonerations are as reliable as DNA exonerations.

The amount of time incarcerated was also significantly related to post-exoneration offending ($p<.01$). Interestingly, the average years incarcerated was higher for those who were successful post-release. Those with no post-exoneration offense served an average of 13.9 years in prison, compared to 9.9 years for those who had a post-exoneration offense. This is slightly counterintuitive to the vast literature on the effects of incarceration. However, some researchers have found that individuals who serve lengthy sentences may have lower recidivism rates. The logistic regression models in the next section control for other variables and thus provide more insight into the relationship between time spent incarcerated and post-release offending.

Table 2- Bivariate Relationship Between Prior Conviction(s) and Age at Arrest, Number of Post-Exoneration Convictions and Age at Post-Exoneration Offense (PEO)

	No Prior Conviction	**Prior Conviction(s)**
Age at WC Arrest (mean)* **	23.8	29.3
Number of Post Convictions*	.48	1.27
Age at PEO	35.4	43.6
***p< .05 , **p< .01, ***p< .001**		

Since there was such a strong bivariate relationship between prior number of convictions ($p<.001$) and post-exoneration offending further examination was necessary. It is crucial to look at age when examining re-offending. Table 2 details the relationship between prior conviction(s), age and post-offending. As expected, there is an age effect. Those who had no prior offenses were significantly ($p<.001$) younger (23.8 years) at the time of the arrest (that led to wrongful conviction) than those who had a prior conviction(s) (29.3 years). In addition, individuals in the

sample who had a prior conviction had a significantly higher ($p<.05$) mean number of post-exoneration conviction, as compared to those with no prior conviction(s) (.48 and 1.27, respectively). Although not statistically significant, those with no priors were younger, on average, at time of post-exoneration offense as compared to those who had a prior conviction (35.4 years and 43.6 years, respectively).

4.2 Multivariate Results

Logistic regression was performed to assess the impact of a number of factors on the likelihood of post-exoneration offending (PEO) as defined by reconviction after release date (yes/no). The dependent variable remained the same in all of the logistic regression models.

Table 3- Logistic Regression Analysis: All Predictors (age at arrest/release), n=82

	B	SE	Wald	Exp(B)
Prior # Convictions	.267	.141	3.609	1.306*
WC Expunged (Yes)	-.507	.567	.802	.602
Total Compensation	-9.87	1.65	.358	1.000
Age at Arrest (in years)	.067	.055	1.472	1.069
Age at Release (in years)	-.073	.042	2.931	.930
Race (white)	.709	.644	1.214	2.033
Constant	-.365	1.350	.073	.694
Model X^2 = 14.526*				
-2LL = 86.234				
Nagelkerke R^2 = .229				
Reference category in parentheses				
***p< .05 , **p< .01, ***p< .001**				

The first logistic regression model (table 3) contained all predictors: prior number of convictions, expungement (yes/no), total compensation (in dollars), age at arrest (in years), age at release (in years) and race (white/non-white). The full model containing all predictors was

statistically significant X^2 (6, 82)= 14.526, p<.05. The model as a whole explained between 16.2 percent (Cox and Snell R square) and 22.9 percent (Nagelkerke R square) of the variance in post-exoneration offending. As shown in the table, only one of the independent variables made a statistically significant contribution to the model. The strongest, and only, predictor of having a post-exoneration offense (with all predictors included) was number of prior convictions, with an odds ratio of 1.306. This indicates that the odds of having a post-exoneration offense increases 1.306 with each additional prior conviction. Again, this is not surprising given that the majority of individuals with past records of offending end up offending again in the future (Blumstein et al., 1985).

Table 4- Logistic Regression Analysis: All Predictors (time in), n=81

	B	SE	Wald	Exp(B)
Prior # Convictions	.260	.129	4.078	1.297*
WC Expunged (Yes)	-.518	.568	.831	.596
Total Compensation	-7.64	1.59	.229	1.000
Time Incarcerated (in days)	-2.45	1.20	4.187	1.000*
Race (white)	.811	.641	1.603	2.251
Constant	-.455	.783	.337	.635
Model X^2 = 15.667 **-2LL = 84.450** **Nagelkerke R^2 = .248** **Reference category in parentheses** ***p< .05 , **p< .01, ***p< .001**				

The second logistic regression model (table 4) also contained all predictors, however, instead of age at arrest (in years) and age at release (in years), time incarcerated was included. Having all three variables in a model would have violated the assumption of mullicollinearity since time incarcerated was computed using date of arrest and date of release. Theoretically it is

important to have age at release and time incarcerated in one model, however using even two of the three still violated the assumption (the two were strongly correlated (-.63). As such, different models were run for each (see table 3). This model included the following variables: prior number of convictions, expungement (yes/no), totals compensation (in dollars), time incarcerated (in days) and race (white/non-white). The full model containing all predictors was statistically significant X^2 (5, 81)= 14.667, p<.051. The model as a whole explained between 17.6 percent (Cox and Snell R square) and 24.8 percent (Nagelkerke R square) of the variance in post-exoneration offending. As shown in the table, two of the independent variables made a statistically significant contribution to the model. The strongest predictor of having a post-exoneration offense was time incarcerated (Wald=4.187), with an odds ratio of 1.000. This indicates that the odds of having a post-exoneration offense increases 1.000 with each additional day spent incarcerated. The other significant predictor in this model was prior convictions (Wald=4.078), with an odds ratio of 1.297. This indicates that the odds of having a post-exoneration offense increases 1.297 with each additional prior conviction.

Table 5- Logistic Regression Analysis: Compensation and Expungement, n=98

	B	**SE**	**Wald**	**Exp(B)**
WC Expunged (Yes)	-1.000	.457	4.780	.368*
Total Compensation	-1.14	1.06	1.157	1.000
Constant	-.025	.355	.005	.975
Model X^2 = 7.078*				
-2LL = 115.239				
Nagelkerke R^2 = .098				
Reference category in parentheses				
***p< .05 , **p< .01, ***p< .001**				

The third logistic regression model (table 5) contained two predictors: expungement (yes/no) and total compensation (in dollars). The models presented in tables 3 and 4 included all possible predictors of post-exoneration offending; however, the next four models tested specific hypotheses. This model tested the following two hypotheses:

$H_{6:}$ Compensation amount will be negatively associated with post-exoneration offending. The more compensation (in dollars) received the less likely an individual will have a post-exoneration offense.

$H_{8:}$ Individuals whose records have NOT been expunged will be more likely to offend post-exoneration.

Success upon reentry is dependent upon several factors. As explored in chapter two, compensation and expungement of criminal record are two factors that can contribute to a successful reentry. The full model containing both predictors was statistically significant X^2 (2, 98) = 7.078, $p<.05$. The model as a whole explained between 7.0 percent (Cox and Snell R square) and 9.8 percent (Nagelkerke R square) of the variance in post-exoneration offending. As shown in the table, only one of the independent variables made a statistically significant contribution to the model. The strongest, and only, predictor of having a post-exoneration offense was record expunction, with an odds ratio of .368. This indicates that the odds of having a post-exoneration offense decrease .368 with expungement of record of wrongful conviction offense. Based on these findings the following conclusions were drawn:

$H_{6:}$ Fail to reject the null hypothesis. The amount of compensation received was not significantly related to post-exoneration offense. Given that monetary reward will reduce strain on individuals reentering society and the likelihood they will gravitate toward criminal behaviors to reduce that strain (Agnew, 1993) this relationship was expected to be significant. As reported,

table 1 shows a strong bivariate relationship between compensation and post-exoneration offending. However, at the multivariate level this relationship was no longer significant.

$H_{8:}$ Reject the null hypothesis. There is a difference in post-exoneration offending among those who have their records expunged and those who do not. Individuals that have their records expunged are less likely to have a post-exoneration offense. Having a criminal record has negative consequences, such as stigmatization and community isolation, which continue long after a sentence has been served. This can hinder future success (Petersilia, 2003) and lead to post-exoneration offending, as was seen in this sample.

Table 6- Logistic Regression Analysis: Age at Release and Priors, n=87

	B	SE	Wald	Exp(B)
Prior Number of Convictions	.345	.122	7.996	1.412**
Age at Release (in years)	.041	.027	2.277	.960
Constant	.324	1.053	.095	1.383
Model X^2 = 11.292 **-2LL = 99.462** **Nagelkerke R^2 = .169** ***p< .05 , **p< .01, ***p< .001**				

Table 6 reports the results of a logistic regression model that contained two predictors: prior number of convictions and age at release (in years). Research on recidivism and prisonization has competing theories regarding the relationship between age at release and effects of prison/prior criminality. This model tested the following hypotheses:

H_4: Prior conviction(s) will be positively associated with post-exoneration offending. Those who have prior offenses (before being wrongfully convicted) will be more likely to offend after exoneration.

$H_{5:}$ The younger an individual is at release, the higher the incidence of post-exoneration offending.

The full model containing both predictors was statistically significant X^2 (2, 87) = 11.292, p<.01. The model as a whole explained between 12.2 percent (Cox and Snell R square) and 16.9 percent (Nagelkerke R square) of the variance in post-exoneration offending. As shown in the table, only one of the independent variables made a statistically significant contribution to the model. The strongest, and only, predictor of having a post-exoneration offense was prior record, with an odds ratio of 1.412. This indicates that the odds of having a post-exoneration offense increases 1.412 with each additional prior conviction. These results are similar to the model presented in table 3. Based on these findings the following conclusions were drawn:

H_4: Reject the null hypothesis. There is a positive association between prior conviction(s) and post-exoneration offending. The more prior convictions an individual has, the more likely there will be a post-exoneration offense, suggesting prior criminality contributes to post-release behavior.

$H_{5:}$ Fail to reject the null hypothesis. There is no relationship between age at release and post-exoneration offending. These findings do not show support for Hirschi and Gottfredson's (1983) age-crime theory. This finding was surprising as age is one of the most important variables in recidivism studies.

Table 7- Logistic Regression Analysis: Time in and Priors, n=86

	B	SE	Wald	Exp(B)
Prior Number of Convictions	.305	.116	6.883	1.357**
Time Incarcerated (in days)	-2.33	1.08	4.654	1.000*
Constant	-.242	.522	.215	.785
Model X^2 = 13.755 **-2LL = 96.182** **Nagelkerke R^2 = .205** ***p< .05 , **p< .01, ***p< .001**				

Since age at release was not significant in the prior model, time incarcerated was added in its place. Table 7 reports the results of a logistic regression model that contained two predictors: prior number of convictions and time incarcerated (in days). This model tested the following hypotheses:

H_3: Length of time wrongfully imprisoned will be positively associated with post-exoneration offending. The longer an individual is incarcerated the more post release offenses they will have.

H_4: Prior incarceration will be positively associated with post-exoneration offending. Those who have prior offenses (before being wrongfully convicted) will be more likely to offend after exoneration.

The full model containing both predictors was statistically significant X^2 (2, 86) = 13.755, p<.001. The model as a whole explained between 14.8 percent (Cox and Snell R square) and 20.5 percent (Nagelkerke R square) of the variance in post-exoneration offending. As shown in the table, both of the independent variables made a statistically significant contribution to the model. The strongest predictor of having a post-exoneration offense was prior record

(Wald=6.883), with an odds ratio of 1.357. This indicates that the odds of having a post-exoneration offense increases 1.357 with each additional prior conviction. Time incarcerated was also significant (Wald=4.654) with an odds ratio of 1.000 indicating that the odds of having a post-exoneration offense increase 1.000 with each additional day of incarceration. Based on these findings the following conclusions were drawn:

H_3: Reject the null hypothesis. Length of time wrongfully incarcerated is positively associated with post-exoneration offending. The longer an individual is incarcerated the more likely they are to have a post-exoneration offense. This would suggest the negative effects of incarceration.

H_4: As was found in table 6, reject the null hypothesis. There is a positive association between prior conviction(s) and post-exoneration offending. The more prior convictions an individual has, the more likely there will be a post-exoneration offense, suggesting prior criminality contributes to post-release behavior.

Table 8- Logistic Regression Analysis: Time in, Priors and Compensation, n=85

	B	SE	Wald	Exp(B)
Prior Number of Convictions	.313	.122	6.569	1.368**
Time Incarcerated (in days)	-2.30	1.11	4.295	1.000*
Total Compensation	-4.75	1.46	.106	1.000
Constant	-.200	.528	.144	.705
Model X^2 = 14.513 **-2LL = 94.595** **Nagelkerke R^2 = .217** ***p< .05 , **p< .01, ***p< .001**				

Since prior conviction and time incarcerated were both significant (table 7), one additional variable was added to the model. Table 8 reports the results of a logistic regression

model that contained three predictors: prior number of convictions, time incarcerated (in days) and total compensation (in dollars). This model tested the hypotheses:

H_3: Length of time wrongfully imprisoned will be positively associated with post-exoneration offending. The longer an individual is incarcerated the more post release offenses they will have.

H_4: Prior incarceration will be positively associated with post-exoneration offending. Those who have prior offenses (before being wrongfully convicted) will be more likely to offend after exoneration.

$H_{6:}$ Compensation amount will be negatively associated with post-exoneration offending. The more compensation (in dollars) received the less likely an individual will have a post-exoneration offense.

The full model containing all predictors was statistically significant X^2 (3, 85)= 14.513, $p<.01$. The model as a whole explained between 15.7 percent (Cox and Snell R square) and 21.7 percent (Nagelkerke R square) of the variance in post-exoneration offending. As shown in the table, two of the independent variables made a statistically significant contribution to the model. The two significant predictors were the same as the previous table indicating that compensation did not change the relationship between prior convictions, time incarceration and post-exoneration offending. The strongest predictor of having a post-exoneration offense was still prior record (Wald=6.569), with an odds ratio of 1.368. This indicates that the odds of having a post-exoneration offense increases 1.368 with each additional prior conviction. Time incarcerated was also significant (Wald=4.295) with an odds ratio of 1.000 indicating that the odds of having a post-exoneration offense increase 1.000 with each additional day of incarceration. Based on these findings the following conclusions were drawn:

H_3: Reject the null hypothesis. Length of time wrongfully incarcerated is positively associated with post-exoneration offending. The longer an individual is incarcerated the more likely they are to have a post-exoneration offense. This again would suggest the negative effects of incarceration.

H_4: Reject the null hypothesis. There is a positive association between prior conviction(s) and post-exoneration offending. The more prior convictions an individual has, the more likely there will be a post-exoneration offense, suggesting prior criminality contributes to post-release behavior.

H_6: Fail to reject the null hypothesis. The amount of compensation received was not significantly related to post-exoneration offense. Given that monetary reward will reduce strain on individuals reentering society and the likelihood they will gravitate toward criminal behaviors to reduce that strain (Agnew, 1993) this relationship was expected to be significant. As reported, table 1 shows a strong bivariate relationship between compensation and post-exoneration offending. However, at the multivariate level this relationship is no longer significant.

4.3 Survival Analysis Results

As explained in chapter three, cox regression was used to predict how long a person is out of prison before 'failing'. In this study a failure was defined as post-exoneration conviction. The mean time to failure was 35 months (2.9 years) with a standard deviation of 31 months (in line with prior research on recidivism- these are no different than ordinary releases). The median time to failure was 27 months with a range of 14 days to 10 years. There were 65 censored cases in the analysis (these people did not fail). Included in the analysis were 32 (31.4 %) cases. These are the cases that included a post-exoneration offense, in other words these are the failures. Age at release, days wrongfully convicted and compensation amount were included as covariates,

however, none of these variables were significant.

Chapter V- Discussion and Conclusion

5.1 Key Findings

This research on post-exoneration offending is the first of its kind, and many surprising findings emerged. My focus here will be on a few especially interesting results and what the findings have to contribute to some important theoretical discussions regarding re-entry and exoneration. First, I discuss an interesting subset of the population, those with no prior offenses. Second, I discuss compensation and how it relates to post-exoneration offending. Third, the implications of record expungement are discussed. Lastly, I provide a brief discussion regarding general offending by exonerees. This section is followed by a discussion of policy implications, limitations and directions for future research.

A. Exonerees Without Prior Criminality

In this study forty-six individuals had no prior record. An interesting subset of this group is the eleven individuals who offended post-exoneration. Since these individuals did not have a prior record, their post-release behavior cannot be explained using the prior criminality framework. Two possible explanations for criminality among this cohort are prisonization and procedural justice. These will be discussed consecutively.

Prisonization

As previous sections have detailed, a large body of literature suggests that prison negatively influences post-release criminality (Clemmer, 1940). Prison creates a criminogenic environment by exposing individuals to criminal behavior and decreasing exposure to pro-social behavior (Nagin, et al, 2008). This subset of the population offers a unique test of this hypothesis. Post-release risk should not be exceptional for those exonerees without a prior record.

Post-exoneration offending among this cohort suggests that otherwise law-abiding

citizens (as evidenced by no priors) were "turned" criminal by their experience of wrongful conviction. If not wrongfully incarcerated, these individuals would have likely continued to live a crime-free life. An assumption of prisonization theory is that inmates experience a mixture of frustration, deprivation and mortification resulting from living in a "total institution" (Goffman, 1961; Sykes 1958). These effects may be more profound for an individual who is innocent. Because of their insistence of innocence exonerees may be mistreated by inmates and correctional staff (Campbell & Denov, 2004). Moreover, innocent prisoners may have a tougher time adapting to the criminogenic surroundings of prison. The longer an individual is incarcerated, the more they are exposed to this environment. This cohort of exonerees served an average of almost nine years incarcerated. This is longer than the average sentence for ordinary prisoners.[22]

Procedural Justice

Procedural justice theory may offer another plausible explanation as to why individuals offend post-exoneration. Procedural fairness is a central problem with respect to exonerees. Wrongful convictions are often times accompanied by unfair or unjust procedures, a conclusion supported by exoneree interviews (Grounds 2004). In some cases, the very people who are responsible for ensuring truth and justice, such as law enforcement officials and prosecutors, lose sight of these obligations and instead focus solely on securing convictions. Campbell and Denov (2004) noted that, upon release, exonerees exhibited a "profound cynicism and mistrust regarding the fairness and legitimacy of authority figures" (p. 155). It is likely that if exonerees hold negative views about the fairness of the criminal justice system, they will be less likely to

[22] For example, the average time served for those convicted of rape in the United States is 117 months. For crimes of sexual assault, the average sentence is 72 months. *(Greenfeld, Lawrence A. (1995) "Prison Sentences and Time Served for Violence," page 1, Bureau of Justice Statistics, U.S. Department of Justice, Washington, D.C.)*

follow the law (Tyler, 1990), hence offend post-exoneration. Procedural justice theory will be discussed at length in following section on compensation.

B. Compensated Exonerees

As previously discussed, compensation potentially can decrease the likelihood of post-release offending. I found that compensation above $500,000 significantly reduces post-exoneration offending, while compensation below that threshold has no significant effect. This finding may be explained by the contribution compensation makes to re-entry, and by the enhanced sense of procedural justice that it produces. These are discussed below.

S*uccessful Reentry*

The barriers to successful re-entry are substantial for all prison releasees, causing most to return to prison within three years of their release (Langan & Levin, 2002). Although exonerees are not criminals, they face the same obstacles as ordinary releasees. The situation may even be worse for exonerees. The average time spent wrongfully incarcerated for this sample is more than twelve years. As discussed in chapter two, length of imprisonment is typically positively related to recidivism (Nagin, et. al., 2008). Furthermore, interviews with exonerees offer evidence that the experience of prison is often more troublesome for this group (Campbell & Denov, 2004). However, exonerees receive less support than other releasees. Exonerees do not qualify for ex-offender services because they are not technically ex-offenders or parolees (Burnett, 2005). This often leaves exonerees penniless as they attempt to reenter society.

It may be that a certain minimum amount of money is necessary for an exoneree to get his or her life on track. Those who do not need to worry about paying rent, feeding their families, and meeting basic needs have overcome the most substantial barriers to re-entry and will be less likely to resort to crime. It makes perfect sense that it takes hundreds of thousands of

dollars for them to establish a life where their risk of offending resembles ordinary citizens. While this perspective is compelling, it is not the only explanation.

Procedural Justice

The previously introduced theory of procedural justice provides another plausible explanation as to why substantial compensation is necessary for successful reintegration by exonerees.

Legitimacy is the central concept in procedural justice theory. When authorities act fairly, they create legitimacy and encourage law-abiding behavior (Jackson, Tyler, Bradford, Taylor & Shiner, 2010). General judgments about the fairness of authorities shape everyday compliance with the law and when people experience just treatment by authorities, they are more likely to view the law as legitimate and hence obey it.

The importance of compensation is supported by a common sentiment expressed by Campbell and Denov's (2004) interviewees. Of those who were pursuing compensation, many noted that the money itself was not their main reason for seeking compensation. They sought a formal apology or at least an admission of responsibility from the government. As Campbell and Denov (2004) observe, "it appears that the interviewees are seeking compensation more for its symbolic value rather than its actual value." (p. 155). This suggests that compensation does more for exonerees than just provide financial relief.

Perceptions of systemic procedural fairness affect criminal conduct. It may be that exonerees who receive substantial compensation feel more fairly treated by the system and thus offend less often. If compensated exonerees feel more valued than uncompensated exonerees, it is likely that highly compensated exonerees would feel more valued than minimally compensated exonerees. These restored perceptions of social value could potentially create increased

compliance with the law. Given the difficulties of securing compensation in the United States, it stands to reason too that a minimally compensated exoneree would feel unvalued. Given that this population is comprised of people who have experienced the most profound unfairness, it makes perfect sense that only substantial compensation can restore an exoneree's sense of value. The discussion will now turn to another variable, expungement, which is related to post-exoneration offending.

C. Exonerees Whose Records Have Been Expunged

This study tested the relationship between expungement and post-exoneration offending. It was shocking to discover that a third of the exonerees included in this sample had evidence of the wrongful conviction on their criminal record. Findings suggest that expungement may be crucial for successful exoneree reentry.

At the bivariate level, expungement was significantly predictive of post-release offending. Those who had their record expunged were more likely to be successful (no PEO). This suggests that expungement is an important aspect of keeping exonerees from offending after release. This finding was expected. Having a criminal history record has far-reaching consequences. When returning to the community, individuals leaving prison are often stigmatized and isolated. In addition, these individuals experience a loss of civil liberties, including the right to vote or hold public office. Other obstacles include obtaining employment, access to government benefits, and law enforcement bias. This situation is worse for an individual who was wrongfully convicted. They should have never had the criminal record to begin with.

In instances where a former defendant is exonerated, expungement is sometimes part of

the relief granted.[23] In most cases, however, expungement must be secured in a separate civil action. Exonerees often face obstacles when trying to secure an expungement. After exoneration an individual does not always have the resources, such as legal representation, necessary to pursue an expungement and often cannot afford to hire a lawyer to help get the record expunged (Cook & Westervelt, forthcoming).

When an individual is wrongfully convicted he or she is deprived of freedom and liberty. After release the exoneree needs to rebuild their life, a process made more difficult if court records related to the wrongful conviction are publicly available. Research consistently shows that having a criminal record has negative consequences that continue long after a sentence has been served and can hinder future success (Petersilia, 2003).

A job is essential for an exoneree trying to rebuild his or her lives. A criminal record often makes this challenging. Perhaps one of the most problematic implications of a criminal record is difficulty gaining employment. This area will now be discussed.

Employment Consequences

Individuals with a prior criminal record are less likely to be hired for a position (Wirthlin Worldwide, 2000) and are often restricted in their ability to obtain occupational and professional licenses (Western, Kling & Weiman, 2001). This creates a barrier for individuals who are trying to successfully reintegrate into society. Without employment an individual may be more likely to turn to crime for financial support. While it is generally illegal for employers to ban hiring ex-offenders, certain occupations mandate a background check for the safety of their clients (Petersilia, 2003). The most common jobs with this requirement are childcare, education, security and nursing. This can be especially troublesome for released offenders who once

[23] For example, New York permits the sealing of cases where charges were dismissed, vacated, set-aside, not filed, or otherwise terminated (New York Criminal Procedure Law 160.50).

worked in the aforementioned occupations. Employers outside of these occupations often ask about prior felony convictions, even if they are not permitted to do so. The repercussions of having a criminal record extend beyond employment difficulties.

Other Consequences

A criminal record not only makes obtaining employment difficult, but also housing, loans, and almost any service that requires an application or a background check. Although public housing is a viable option for individuals reentering the community, many find themselves barred as a consequence of their criminal conviction (Lonergan, 2008).

A criminal conviction, whether the individual is in fact innocent or not, scars an individual for life. It is very difficult to move beyond the stigmatizing effects of having a criminal record. When a criminal record is expunged, or erased, there will be no evidence that the crime ever occurred. Expungement clearly could help an exoneree make an easier transition back to society. The next section will discuss the reliability of exonerations.

D. A Test of the Reliability of Exonerations

Thirty-four cases in my sample involved a case in which an individual had post-exoneration conviction. Innocence critics will often express the sentiment that even if an individual was exonerated, they probably did the crime (or something else criminal). In other words, some people would argue that these people were erroneously exonerated. However, this does not seem to be the case. A post-exoneration offense committed by an exoneree can be explained in two ways. One, perhaps they did commit the crime in which they were wrongfully convicted for (suggesting an unreliable exoneration). Two, they may be the "usual suspect" and on the police's radar[24], which led to their arrest and ultimately their wrongful conviction. My findings suggest the latter.

[24] Almost half of the exonerees in the sample still have evidence of a wrongful conviction on their record.

In the study sample there was only one case in which a post-exoneration crime was of similar nature to the crime in which they were exonerated for. In this particular case, however, the individual was wrongfully convicted of aggravated rape and robbery and had only property offenses as post-exoneration crimes. This suggests a potentially unreliable exoneration for the robbery, however not for the sexual assault.

The remainder of exonerees in this subset committed a crime after exoneration that was not same as the crime for which they were exonerated. This suggests that these exonerations were reliable. Furthermore, the crimes committed post-exoneration were non-violent and were low-level offenses. Finally, none of these individuals were convicted for a sexual assault or rape post-exoneration. These findings suggest that these individuals were never a risk to begin with and that the exoneration was accurate. One exoneree in my sample committed a murder post-exoneration. This individual was exonerated for a rape crime. The remaining twenty-nine exonerees who had a post-exoneration offense had one or more of the following: property crime (including theft, burglary and larceny), drug crime (including distribution and possession), forgery, interfering with an emergency call, child endangerment, unlawful possession of a weapon, resisting arrest, domestic battery, and fraud.

E. General Offending by Exonerees

I hypothesized that individuals who have been wrongfully convicted and incarcerated will have rates of post-release offending comparable to recidivism rates found by Langan and Levin (2002) with non-violent property and drug offenses more prevalent. These authors found that within three years, 46 percent of releasees were convicted of a new crime.

Decades of research supports the notion that an individual leaving prison has a high likelihood of returning. As chapter two illustrated, various definitions of recidivism are often

used in the research. It is important to recognize this when comparing recidivism rates. This study only used reconviction data to measure post-exoneration offending. Limitations aside, the association between exonerees and ordinary releasees is one that must be considered. One-third (33.3) of my sample had a post-exoneration offense, independent of prior convictions. This number is slightly lower than the return rate of ordinary releasees. Langan and Levin (2002) found that within three years 46 percent were convicted of a new crime. Interestingly, my sample was older upon release from prison. The majority (69%) of their sample was released before the age of thirty-five. In my sample, the average age at release was forty years with the majority (72%) over the age of thirty-five at release. It is important to note, these researchers had a much greater sample size (n=272,111), among other methodological differences. As such, the studies cannot be accurately compared.

Within three years of release, most releasees will be returned to prison (Beck & Shipley, 1989; Langan & Levin, 2002). This study found a similar time to failure. In my sample, an exoneree was in the community for almost three years (35 months) before they had a post-exoneration conviction. This suggests that exonerees are no different than ordinary releasees in regard to 'time to failure'.

Prior Criminality

Some research argues that it may not be the prison environment that causes an individual to re-offend, but simply the fact that if someone commits a crime once, they are likely to do so again. Examining the subset of exonerees who had a prior conviction provides insight into this assumption. More than half of my sample had a prior conviction. The mean number of prior convictions was significantly higher among the individuals who had a post-exoneration offense. Those who had a post-exoneration offense had a mean close to three prior convictions. This

compares to an average closer to one prior conviction for those who were successful (no PEO). When controlling for other variables, number of prior convictions was consistently the strongest predictor of post-exoneration offending.

It is important to point out that a prior conviction does not necessarily indicate prior incarceration. As such, it is difficult to draw conclusion about this group in respect to prisonization. It is possible that this group re-offended because of inherent criminality. However, it is also possible that they were exposed to the criminogenic environment of prison in the past. Without knowing prior incarceration information there is no way to evaluate this potential relationship.

Caution must be used when drawing possible conclusions about this subgroup. It is impossible to know which, if any, of these factors were involved, and to what extent. Furthermore, a prior conviction does not make the wrongful conviction any less of an injustice. In fact, having a prior record often makes an individual more vulnerable to increased police suspicion and hence more prone to being wrongfully convicted. The discussion will now turn to policy implications.

5.2 Policy Implications

Currently, State and Federal authorities have legal authority of over 1.6 million prisoners (Guerino, Harrison & Sabol, 2011). These numbers are staggering, but as this, and other, research has illustrated, not all of these individuals are actually guilty. Although wrongful convictions may just be a small proportion of all cases that pass through the system, these massively disrupt an individual life, and undermine public confidence in the criminal justice system. In addition to these detrimental effects on individuals there is a public safety concern. When innocent individuals are imprisoned, the guilty ones may be large and may commit more

crimes.[25] This section will discuss policy implications in two main areas: expungement and compensation.

A. Improving Expungement Procedures

Having a clean record is crucial for the successful reentry of exonerees. There should be immediate automatic expungement in all cases of wrongful conviction, whether "innocence" was based on an acquittal, dismissal, pardon, or actual innocence. However, as findings reveal, this is not always the case.

As previously noted, each state has a unique procedure for expunging criminal records. Here, there is widespread variation. Some states do not allow certain records to be expunged, while other states allow records to be expunged under very limited circumstances. Additionally, expungement may also have different meanings in different states. This variation is apparent in my study. Results indicated that New York sufficiently expunges records of exonerees. New York law permits the sealing of cases where charges have been dismissed, vacated, set aside, not filed, or otherwise terminated. This procedure is seemingly automatic. In the three remaining states (FL, IL and TX), expungement is discretionary and even possibly irregular and random. For example, a third of exonerees in both Texas and Florida had the wrongful conviction crime on their record. In Illinois, more than a quarter of exonerees had record of their wrongful conviction still on their record. See Appendix F for a detailed account of state-specific expungement procedures.

It is important to note that the sealing of records is not an adequate substitute for expungement. Certain agencies, including the criminal justice system, law enforcement

[25] The Innocence Project has documented 47 rapes and 19 murders committed by people who remained at large because someone else had been wrongly convicted of their crimes. *See* Innocence by the Numbers: Real Perpetrators," *The Innocence Project in Print* 3, no. 2 (2007): 22, http://www.innocenceproject.org/Images/1037/ip_winter_newsletter_07.pdf.

agencies, some licensing agencies, and adoption agencies, continue to have access to sealed records (Mukamal, 2000). Expungement is the only way a record is completely destroyed.

Post-exoneration expungement is a complex problem that deserves the attention of lawmakers and government officials. Prompt and effective record expungement is the proper way to treat those whom our justice system has failed. The true effects of a wrongful conviction are not only the deprivation of liberty, but the reality of trying to rebuild a life. This process is already extremely difficult for most exonerees, but can be made near impossible if the arrest and court records related to their wrongful conviction remain public and continue to be used against them.

B. Compensation Remedies

All states should automatically compensate exonerees immediately after release, without any exclusions. This amount should be at least $50,000 per year of wrongful incarceration. Additionally, states should provide immediate aftercare services that include job training, educational, health and legal services.

Although several states have adopted compensation statutes the amount granted is very limited. Many state compensation statutes indicate a $50,000 reward for each year of wrongful imprisonment, however, according to the Innocence Project, the median amount actually awarded is approximately $24,000 per year wrongfully incarcerated. Additionally, some states set a maximum compensation amount. For example, in Wisconsin the maximum amount is $25,000 regardless of time served and New Hampshire caps compensation awards at $20,000.

Substantial compensation may considerably reduce post-release offending. Theory suggests that this is because compensation helps exonerees overcome the substantial barriers to re-entry that they face, and because it makes them feel valued by society. Findings suggest that

insubstantial compensation is of little benefit. Slight monetary restitution neither enables the exoneree to successfully re-enter society nor does it leave him feeling valued by the criminal justice system. Given how difficult it is to secure compensation, a trivial award may only add insult to injury. It is essential that the compensation amount awarded is enough for successful reentry. Any statute that sets compensation amounts must provide for a method of adjusting the figures to keep pace with inflation and the rises in costs of living (Lonergan, 2008).

Besides increasing payment, compensation statutes should remove exclusions and ease eligibility issues. With a few exceptions, many existing compensation statutes designate a burden of proof that requires clear and convincing evidence of the claimant's innocence. Additionally, some states deny compensation to exonerees who have a prior felony conviction. For example, in 2008 Florida passed a compensation statute that includes a "clean hands" provision. This statute bans anyone with a prior felony conviction from receiving compensation. This is troubling given that more than half of the exonerees in my sample had at least one prior conviction. Even if a claimant had a criminal record before his wrongful conviction, that does not make the wrongful conviction any less of an injustice. Lost years are lost years regardless of an individual's past history (Lonergan, 2008, pg.418). Moreover, this provision is unfair given that once an individual is released from prison and parole, he has served his debt to society and should no longer be punished (Kalt, 2003).

A false confession could also make an exoneree ineligible for compensation. This is concerning. More than a quarter of DNA exonerations contained a false confession (The Innocence Project). What's more, a false confession is often accompanied by a guilty plea. For example, the Innocence Project found that among defendants who gave false confessions, 23 pled guilty. These individuals were usually seeking to avoid the potential for a long sentence (or

a death sentence) for a crime they didn't commit. This only creates more issues for an exoneree. Many states expressly or implicitly bar compensation claims from exonerees who pled guilty to the crime in which they were wrongfully convicted. For example, Iowa, Massachusetts and Ohio do not offer compensation to those who plead guilty to the crime in which they were wrongfully convicted for. Even truly innocent defendants sometimes plead guilty, often at the urging of counselor to avoid the heavier sentence that could be imposed if found guilty at trial (Leo & Ofshe, 1998).

All of the aforementioned exclusions and provisions should be lifted to enable fair compensation for all exonerees. Furthermore, compensation statutes should provide more than just financial relief.

Inclusion of Aftercare Services

As of 2010, only ten states include provisions for services within their compensation statutes (Innocence Project, 2010). While financial compensation is crucial for exonerees, other provisions should be considered. As the Innocence Project recommends, states should provide immediate services to exonerees. These services should include housing, transportation, education, workforce development, physical and mental health care through the state employee's health care system and other transitional services.

Mental and physical health support is among the most crucial need areas. Over half of prison and jail inmates suffer from mental health problems (James & Glaze, 2006). Furthermore, HIV/AIDS is five times as prevalent in the incarcerated population, hepatitis C is nine to ten times as prevalent, and active tuberculosis is four to seventeen times as prevalent (National Commission on Correction Healthcare, 2002). All of these medical issues require regular care and medication. Particularly in the interim between exoneration and employment, the state

should provide access to medical care and counseling and the insurance to address these health issues (Lonergan, 2008).

Since individuals released from incarceration face numerous obstacles in obtaining employment, compensation statutes should also provide employment support. The Life After Exoneration Program (LAEP) conducted a study of sixty exonerees and found that two-thirds were not financially independent, a result that emphasizes the need for employment assistance (2005). At the very least, exonerees should have access to a continuum of employment assistance provided by corrections, parole, and community-based agencies (Rakis, 2005). The more support exonerees have upon release the more likely they will succeed.

5.3 Limitations

Since this research is the first of its kind, it is limited in several ways. Most importantly, the study suffers from a selection bias. Due to budgetary constraints the study only included four states (FL, IL, NY and TX). Non-random selection was used when compiling the sample, where only documented cases (in which post-release data is available) were included. Some individuals were not included because their date of birth was not located. Without a date of birth post-release data was not possible to obtain. Sixty-eight cases were omitted because a date of birth was unable to be located.

Another important limitation is the use of non-probability convenience sampling. This method creates a generalizability barrier. There is no way to know how well the sample represents the greater population of exonerees. Even under the best conditions the problem of generalizability exists and there will always be an unknown margin of error (Leo, 2005). The statistical gold standard for making inferences is a randomized experiment in which individuals are randomly assigned. However this is not ethical, nor plausible, for this type of research.

Limitations will be discussed by data source (CWC data and post-release data). The section will conclude with a discussion regarding missing data.

A. Data from The Center on Wrongful Convictions (CWC)

The majority of data was obtained from The Center on Wrongful Convictions. However, the CWC's list alone may not capture all cases of wrongful conviction. For example, eleven Florida exonerations listed by Gross et al. (2005) were not included on the Center's list as of December 2006 (Zalman, et al. 2008). Moreover, the number of wrongful convictions between 1999 and 2009 is most likely higher than reported in this study due to the exclusion of mass exonerations[26] and the omission of cases in which innocence is unclear.[27] It is likely that the collection of cases at CWC underestimates the actual incidences of wrongful convictions. Furthermore, as with any secondary data, level of accuracy is unknown. Although all case files at CWC are fact-checked by lawyers and academics there may be some inaccuracies.

B. Post-release Data

The accuracy of the post-release data is a liability that must be acknowledged. It is possible that, even with a date of birth, the wrong individual could be identified. It is hard to know if this occurs, and how often. Similarly, a date of birth could be incorrect.

The use of official data may also be problematic in that it may understate post-offending data. Information on offenses that do not result in an arrest is not available, nor is information on misdemeanor offenses or infractions. Additionally, it is possible that there are more cases of post-exoneration offending that my searches did not yield. According to media reports, two individuals were convicted post-exoneration but the criminal search, for whatever reason, did not reflect it. Because of the use of inconsistent methodology, these cases were *not* included in the

[26] Other than Tulia, another mass exoneration case in Texas referred to as the 'Rampart Scandal' involved 80 defendants whom were falsely charged with drug possession in 2002. These cases were not included.
[27] Cases in which individuals claim their innocence but there has yet to be an official exoneration.

final analysis among those who had a post-exoneration offense.

It cannot be assumed that complete information about an individual's involvement with the criminal justice system is available. In most states there is no single repository for such information (Matza, 2001). Data gathered did not account for individuals who were arrested but not convicted, or those arrested or convicted in another state. In addition, some individuals who profess their innocence simply do not have the opportunity to appeal before their sentence is over due to delays and other issues. It is not possible to know the exact figures of defendants in these situations.

As previously mentioned, scholars suggest that when studying recidivism one should consider three measures of recidivism; re-arrest, re-conviction and re-sentence to prison (Maltz, 1984). Not all individuals who are re-arrested are convicted, and of those only a small are returned to prison (McGovern, Demuth & Jacoby, 2009). Using all three measures will produce the most accurate picture of recidivism. However, this study only used reconviction and resentence data due to the availability of data. Arrest data would be most relevant, however this information is not available in every state (Illinois and Texas do not publish arrest data). As a result, conviction data was used to measure post-exoneration offending.

It is important to note that age at first arrest, in other words the start of one's crime career, is of utmost importance when examining post-release behavior. However, this information is not available for my sample and thus could not be included in the analysis.

Furthermore, the PEO conviction could have been wrongful. Especially for those thirty-four (33.3 %) exonerees who did not have their record expunged. Having a prior record means they are the usual suspects and may be on the police's radar. We know that individuals with a criminal history are more likely to have police interactions/encounters. Prosecutors may also be

more likely to prosecute individuals with a criminal history (Nagin & Cullen, 2008).

Lastly, it is possible that some individuals included in the sample were not out long enough to offend. Twelve (10.8 %) individuals were released in 2008 and one was released in 2009. It is possible that a criminal history search performed in 2011 was not enough follow-up time. Likewise, it is possible that an exoneree offended after June 2011 in which case my search would not have captured them.

C. Missing data

As discussed in chapter three, there are several missing date variables. An estimator date was used in these cases. For example, seven cases were missing exact day and month of arrest, twenty cases were missing exact day and month of conviction, eight cases were missing the exact day and month of release and six cases were missing the exact day and month of exoneration. In these cases only the year was available in records. In order to include these cases in the analysis, an estimate date was inserted. A missing day became the 15th and a missing month became June (the 6th of 12 months in a year).

In spite of these limitations, this study can provide useful information regarding the post-release behavior of exonerees, an area that has yet to be studied. The next section will outline future directions for research in this area.

5.4 Future Research

The writings in wrongful convictions have been dominated by lawyers, journalists and activists. However, within the last decade criminologists and other social scientists have begun to examine various aspects of exonerations (Leo, 2005). This study is an initial attempt to gain an understanding of exonerees, post-release. Additionally, this study provides insight into the risk posed by this unique group.

In order to develop this line of study, future research should adopt measures that better identify post-release offending. It is probable that exonerees left the state in which the exoneration took place. Out of state post-exoneration offenses were not captured in this study. Future research should attempt to gather multi-state criminal information. Public record searchers and exoneree self-report data could provide valuable information. Data on infractions and misdemeanors could further the understanding of exonerees post-release behavior. This information can be obtained by interviewing exonerees. This type of data could also provide information on arrests and any charges that may have been dropped or reduced.

From the literature we know that people's experiences in prison, and after release, are different dependent upon several factors. These factors include programming while in prison and after, substance use, mental health, family support, to name a few. It is likely that these variables contribute to post-release behavior. A severe limitation of this study is not having this information. Qualitative research would provide the information needed to examine individual circumstances after exoneration. Interviews with exonerees would provide invaluable information surrounding the unique circumstances of each case. Gathering prison records could also provide information regarding an inmate's correctional experience.

As discussed, age is a very important variable when examining post-release behavior. Future research should reevaluate the effect of age on post-exoneration offending. Exoneree interviews could also be useful in this regard. Moreover, researchers might consider obtaining juvenile records to try and identify the start of one's criminal career. Additionally, in order to better understand the age-crime relationship it is crucial to gather information about social bonds and maturity. Interviews could also provide this information. Future research should also attempt to match individuals in the sample to a comparison group by age.

Interviews with exonerees could also investigate the relative roles that the unfairness of the process and the unfairness of the outcome play in producing exonerees' procedural justice opinions. It is essential to understand how the exonerees perceive justice and fairness in their specific case. Future research could consider other possible ways to measure procedural justice. For example, certain variables could provide a proxy for procedural justice. Gathering additional information about each case would help examine the potential relationship between post-exoneration offending and views of legitimacy. Some variables that should be considered are: police corruption, false confession, tampering with evidence, perjury and racial profiling.

Finally, a major flaw in this study is the inability to generalize my findings to the universe of exonerees. Future researchers should attempt to draw a random sample of the population of known exonerees, rather than utilize a convenience sample. Replicating these findings using a bigger sample size, more states, a perhaps a larger time frame would provide a clearer picture of post-exoneration offending.

A substantial body of literature exists on the effects of incarceration and risk posed by releasees. Within the past decade researchers have also begun to examine the effects of exoneration. However, no research has addressed the area of post-exoneration offending. This study was conducted to fill in that gap in the research and to highlight the impact of wrongful conviction. The findings of this study have several implications for future research on the effects and the experience of wrongful conviction on exonerees. These findings are a substantial contribution to a very limited body of research. This article strives to encourage other social scientists to expand research on the effects of wrongful convictions and the potential risk posed by this unique group of releasees.

Appendices

Appendix A- State Background Search Methods

Although a commercial data provider supplied criminal histories, it is important to know the unique state-by-state methods.

The state of New York requires an application form be filled out and sent to the New York State Office of Court Administration (OCA), which provides a New York Statewide criminal history record search for a fee of $55.00 (http://www.nycourts.gov/apps/chrs/). The search results include public records relating to open/pending and convictions of criminal cases originating from County/Supreme, City, Town and Village courts of all 62 counties. Sealed records are not disclosed.

To obtain a criminal history report in the state of Florida, a request must be made to the Florida Department of Law Enforcement. The Florida Department of Law Enforcement (FDLE), Division of Criminal Justice Information Services (CJIS), is the central repository for criminal history information for the state of Florida (http://www.fdle.state.fl.us/content/getdoc/2952da22-ba08-4dfc-9e45-2d7932a803ea/Obtaining-Criminal-History-Information.aspx). In this state, it costs $24.00 a search and a request must be made both on the Internet and then followed up by phone. The search results include state criminal history record (includes arrests)

In Texas, the Code of Criminal Procedure (CCP) defines the Computerized Criminal History System (CCH) as the statewide repository of criminal history data reported to DPS by local criminal justice agencies in Texas. CCP requires that information on arrests, prosecutions and the disposition of the case for persons arrested for Class B misdemeanor or greater violation of Texas criminal statutes be included in CCH (https://records.txdps.state.tx.us/DPS_WEB/Cch/index.aspx). The search costs $15.00 and is obtained through the Texas Department of Public Safety.

In Illinois, Criminal History Records information is only available from the Illinois State Police by means of the Uniform Conviction Information Act (UCIA), which in 1991 became law in Illinois. This act mandates that all criminal history record conviction information collected and maintained by the Illinois State Police, Bureau of Identification, be made available to the public (http://www.isp.state.il.us/crimhistory/crimhistoryhome.cfm). This search costs $22.00 and is obtained through the Illinois State Police Department.

Appendix B- Tulia Findings (analyses with 17 Tulia cases included)

Bivariate Analysis of Post-Exoneration Offending (PEO) by Sample Characteristics (n=118)

% (n)	**Success (no PEO) 62.0 (73)**	**Failure (PEO) 38.0 (45)**
Variable (n)	%	%
Gender		
Male (113)	60.2	39.8
Female (5)	100	0
Race		
African-American (67)	53.7	46.3
White (39)	76.5	23.5
Hispanic (14)	71.4	28.6
Other (2)	50.0	50.0
Age at Arrest (mean)	26.7	26.9
Age at Release	40.5	38.0
Prior Conviction(s)**		
No (50)	72.0	28.0
Yes (67)	53.7	46.3
Number of Prior Convictions (mean)***	1.26	2.71
Compensation		
No (incl. pending)(45)	62.2	37.8
Yes (71)	63.3	36.6
Compensation Amount**		
No Compensation (44)	63.6	36.4
499k or less (33)	48.5	51.5
500k or more (33)	81.8	18.2
Compensation Amount (mean in dollars)	1,700,000	720,000
DNA Exoneration		
No (58)	56.9	43.1
Yes (60)	66.7	33.3
Time Out (mean in years)	7.6	7.9
Record Expungement*		
No (38)	50.0	50.0
Yes (78)	69.2	30.8

Tulia Case* **		
No (101)	67.3	32.7
Yes (17)	29.4	70.6
WC Primary "Cause"**		
Eyewitness Error (68)	67.6	32.4
Official Misconduct(19)	31.6	68.4
False Confession (18)	77.8	22.2
Snitch/Informant (10)	50.0	50.0
Years Wrongfully Incarcerated (mean)**	13.9	9.9
***p< .05 , **p< .01, ***p<.001** Chi square significance variables and independent t-test for interval/ratio variables test was used for nominal		

Bivariate relationship between prior conviction(s) and age at arrest, number of post-exoneration convictions and age at Post-Exoneration Offense (PEO)

	No Prior Conviction	Prior Conviction(s)
Age at WC Arrest (mean)* **	23.6	29.0
Number of Post Convictions*	.58	1.30
Age at PEO	33.6	40.3

Logistic Regression Analysis: All Predictors (age at arrest/release), n=92

	B	SE	Wald	Exp(B)
Prior # Convictions	.318	.136	5.461	1.374*
WC Expunged (Yes)	.490	.550	.796	1.633
Total Compensation	.000	.000	.467	1.000
Age at Arrest (in years)	.061	.050	1.517	1.063
Age at Release (in years)	-.086	.039	4.731	.918*
Race (white)	.739	.633	1.364	2.095
Constant	-.263	1.201	.048	.769

Model X^2 = 19.593**
-2LL = 97.982
Nagelkerke R^2 = .266
Reference category in parentheses
***p<.05 **p<.01 ***p<.001**

Logistic Regression Analysis: All Predictors (time in), n =93

	B	SE	Wald	Exp(B)
Prior # Convictions	.300	.125	5.804	1.350**
WC Expunged (Yes)	.522	.552	.895	1.686
Total Compensation	.000	.000	.427	1.000
Time Incarcerated (in days)	.000	.000	5.738	1.000**
Race (white)	.867	.628	1.903	2.380
Constant	-.976	.669	2.127	.377
Model X^2 = 21.739***				
-2LL = 97.990				
Nagelkerke R^2 = .288				
Reference category in parentheses				
***p<.05 **p<.01 ***p<.001**				

Logistic Regression Analysis: Compensation and Expunction, n=109

	B	SE	Wald	Exp(B)
WC Expunged (Yes)	-.808	.430	3.529	.446
Total Compensation	.000	.000	1.889	1.000
Constant	0.61	.350	.030	1.063
Model X^2 = 13.150*				
-2LL = 134.164				
Nagelkerke R^2 = .083				
Reference category in parentheses				
***p<.05 **p<.01 ***p<.001**				

Logistic Regression Analysis: Age at Release and Priors, n=103

	B	SE	Wald	Exp(B)
Prior Number of Convictions	.423	.124	11.713	1.526***
Age at Release (in years)	-.067	.024	7.552	.936**
Constant	1.328	.881	2.274	3.775
Model X^2 = 19.881* -2LL = 117.728 Nagelkerke R^2 = .238 *p<.05 **p<.01 ***p<.001**				

Logistic Regression Analysis: Time in and Priors, n=103

	B	SE	Wald	Exp(B)
Prior Number of Convictions	.348	.115	9.193	1.417**
Time Incarcerated (in days)	.000	.000	9.115	1.000**
Constant	-.008	.425	.000	.992
Model X^2 = 7.068* -2LL = 115.600 Nagelkerke R^2 = .261 *p<.05 **p<.01 ***p<.001**				

Logistic Regression Analysis: Time in, Priors and Compensation, n=96

	B	SE	Wald	Exp(B)
Prior Number of Convictions	.342	.118	8.394	1.408**
Time Incarcerated (in days)	.000	.000	4.295	1.000*
Total Compensation	.000	.000	.226	1.000
Constant	-.243	.462	.275	.785

Appendix C- Findings excluding 17 Tulia Cases (n=101)

Bivariate Analysis of Post-Exoneration Offending (PEO) by Sample Characteristics (n=101)

% (n)	**Success (no PEO) 67.3 (68)**	**Failure (PEO) 32.7 (33)**
Variable (n)	%	%
Gender		
Male (98)	66.3	33.7
Female (3)	100	0
Race		
African-American (54)	59.3	40.7
White (32)	81.3	18.8
Hispanic (12)	75.0	25.0
Other (2)	50.0	50.0
Age at Arrest (mean)	26.6	27.8
Age at Release	41.0	39.7
Prior Conviction(s)*		
No (46)	76.1	23.9
Yes (54)	59.3	40.7
Number of Prior Convictions (mean)***	1.27	2.80
Compensation		
No (incl. pending)(43)	65.1	34.9
Yes (58)	69.0	31.0
Compensation Amount**		
No Compensation (43)	65.1	34.9
499k or less (25)	52.0	48.0
500k or more (32)	81.3	18.8
Compensation Amount (mean in dollars)	1,700,000	756,000
DNA Exoneration		
No (41)	68.3	41.7
Yes (60)	66.7	33.3
Time Out (mean in years)	7.7	7.7
Record Expungement**		
No (34)	52.9	47.1
Yes (65)	76.9	23.1
WC Primary "Cause"**		

Eyewitness Error (67)	64.2	35.8
Official Misconduct(19)	31.6	68.4
False Confession (23)	69.6	30.4
Snitch/Informant (10)	50.0	50.0
Years Wrongfully Incarcerated (mean)**	13.8	10.1
***p< .05 , **p< .01, ***p<.001** Chi square significance variables and independent t-test for interval/ratio variables test was used for nominal		

Bivariate relationship between prior conviction(s) and age at arrest, number of post-exoneration convictions and age at Post-Exoneration Offense (PEO)

	No Prior Conviction	**Prior Conviction(s)**
Age at WC Arrest (mean)	23.9	29.4
Number of Post Convictions**	.48	1.28
Age at PEO	35.4	44.3

Logistic Regression Analysis: All Predictors (age at arrest/release), n=82

	B	**SE**	**Wald**	**Exp(B)**
Prior # Convictions	.267	.141	3.609	1.306*
WC Expunged (Yes)	.507	.567	.802	1.661
Total Compensation	.000	.000	.550	1.000
Age at Arrest (in years)	.067	.055	1.472	1.069
Age at Release (in years)	-.073	.042	2.931	.930
Race (white)	.709	.644	1.214	2.033
Constant	-.872	1.348	.419	.418
Model X^2 = 14.526* **-2LL = 86.324** **Nagelkerke R^2 = .229** **Reference category in parentheses** ***p<.05 **p<.01 ***p<.001**				

Logistic Regression Analysis: All Predictors (time in), n=82

	B	SE	Wald	Exp(B)
Prior # Convictions	.262	.129	4.155	1.300*
WC Expunged (Yes)	.535	.568	.886	1.707
Total Compensation	.000	.000	.351	1.000
Time Incarcerated (in days)	.000	.000	3.707	1.000*
Race (white)	.769	.637	1.455	2.157
Constant	-1.048	.688	2.319	.351
Model X^2 = 15.440 **-2LL = 85.410** **Nagelkerke R^2 = .243** **Reference category in parentheses** ***p<.05 **p<.01 ***p<.001**				

Logistic Regression Analysis: Compensation and Expunction, n=98

	B	SE	Wald	Exp(B)
WC Expunged (Yes)	-1.000	.457	4.780	.368*
Total Compensation	.000	.000	1.157	1.000
Constant	-.025	.355	.005	.974
Model X^2 = 7.078* **-2LL = 115.239** **Nagelkerke R^2 = .098** **Reference category in parentheses** ***p<.05 **p<.01 ***p<.001**				

Logistic Regression Analysis: Age at Release and Priors, n=86

	B	SE	Wald	Exp(B)
Prior Number of Convictions	.355	.121	7.730	1.399**
Age at Release (in years)	-.037	.027	1.797	.964
Constant	.134	1.068	.016	1.144

Model X^2 = 10.688**
-2LL = 97.845
Nagelkerke R^2 = .163
***p<.05 **p<.01 ***p<.001**

Logistic Regression Analysis: Time in and Priors, n=86

	B	SE	Wald	Exp(B)
Prior Number of Convictions	.307	.115	7.097	1.359**
Time Incarcerated (in days)	.000	.000	3.519	1.000
Constant	-.008	.425	.000	.992
Model X^2 = 12.624**				
-2LL = 95.909				
Nagelkerke R^2 = .190				
***p<.05 **p<.01 ***p<.001**				

Logistic Regression Analysis: Time in, Priors and Compensation, n=85

	B	SE	Wald	Exp(B)
Prior Number of Convictions	.310	.121	6.605	1.363**
Time Incarcerated (in days)	.000	.000	3.199	1.000
Total Compensation	.000	.000	.197	1.000
Constant	-.243	.462	.275	.785
Model X^2 = 13.458**				
-2LL = 94.282				
Nagelkerke R^2 = .204				
***p<.05 **p<.01 ***p<.001**				

Appendix D- Coding Instrument

Post-Exoneration Offending and Assessing the Reliability of Exonerations
Coding Sheet

1. ID Number _____
2. Coder___ (initials)
3. Lstname_____
4. Frstname_____
5. Mname_____

6. State – 1. FL
   2. IL
   3. NY
   4. TX

7. DOB (xx/xx/xxxx) _____

7. Race- 1. White (f2)
   2. African-American
   3. Hispanic
   4. Asian
   5. Other
   99. Missing

8. Gender- 0. Male (f2)
   1. Female
   99. Missing

9. Deceased- 0. No (f2)
   1. Yes
   99. Missing

10. Date of Conviction (xx/xx/xxxx)
(ADATE10)_____

11. Date of Incarceration (xx/xx/xxxx)
(ADATE10)_____

12. Date of Release- (xx/xx/xxxx)
(ADATE10)_____
_____

13. Sentenced to Death- 0. No
    1. Yes

99. Missing

14. Offense Type 1 (see sheet #2 for all offense codes) _____

15. Offense Type 2_____

16. Offense Type 3 _____

17. Offense Type 4 _____

17. DNA Evidence help exonerate- 0. No
1. Yes
99. Missing

18. Compensation Received- 0. No
1. Yes
99. Missing

19. Compensation Amount in Dollars _____

20. Compensation Amount Specified- 1. A day Incarcerated
2. Lump sum in Thousands
3. Lump Sum in Millions

21. Record of Wrongful Conviction Expunged- 0. No
1. Yes
99. Missing

22. Prior Record- 0. No
1. Yes
99. Missing

23. Prior Number of Convictions _____

24. Prior Number of Violent _____

25. Prior Number of Property _____

26. Prior Number of Drug _____

27. Post-Exoneration Record- 0. No
1. Yes
99. Missing

28. Number of Post-Exoneration Conviction_____

29. Post Number of Violent _____

30. Post Number of Property _____

31. Post Number of Drug _____

32. Post-Exoneration Crime same as Crime of Exoneration- 0. No
1. Yes
99. Missing

33. Pardon- 0. No
1. Yes
99. Missing

34. Type of Evidence- 1. Eyewitness
2. False Confession
3. Jailhouse Informant
4. Junk Science
5. "Bad" Lawyering
6. Government Misconduct
7. Co-def confession
8. other
99. Missing

35. Number of Victims _____

36. Child Victim? 0. No
1. Yes
99. Missing

37. Number of Victim Deaths_____

38. Tulia- 0. No
1. Yes
99. Missing

39. Multiple Offenders/Co-defendants (same crime)- 0. No
1. Yes
99. Missing

_____ -codefendant ID number
_____ -codefendant ID number

_____ -codefendant ID number

_____ -codefendant ID number

all co-defendants exonerated. 0= No
1= Yes
missing=99

Sheet #2- Offense Codes

1. Murder (unspecified)
2. 1st degree murder
3. 2nd degree murder
4. Voluntary manslaughter
5. Involuntary manslaughter
6. Attempted Murder
7. Assault
8. Rape/Sexual Assault
9. Attempted rape/sexual assault
10. Property Crime (unspecified)
11. Robbery
12. Burglary
13. Drug Crime (unspecified)
14. Drug possession
15. Drug distribution
16. Kidnapping
17. Arson
18. Fraud
99. Missing

Appendix E- State Compensation Statutes

Florida

A wrongfully convicted individual found innocent by a prosecuting attorney or administrative court judge is entitled to $50,000 (adjusted for cost of living increases) annually, up to a maximum of $2 million, as long as he has no prior felony convictions. He is also entitled to 120 hours of tuition at a career center, community college or state university and reimbursement for any fines or costs imposed at the time of his sentence. These statutes were effective as of 2008.

§ 961.03, § 961.04, § 961.05, § 961.06, § 961.07

Illinois

Exonerees who have been granted a pardon by the Governor or a certificate of innocence by the Circuit Court are eligible for the following compensation: $85,350 for those who served up to five years, $170,000 for those who served between five and 14 years and $199.150 for those who served more than 14 years. The law also reimburses attorney's fees up to 25 percent of the compensation award, and provides job search and placement services and re-entry services.

705 ILCS 505/8, 20 ILCS 1015/2

New York

New York's compensation statute for wrongfully convicted individuals includes several complex provisions. The statute was effective in 1984 and amended in 2007. Under the statute a judge reads the facts in the case and, if the lawsuit is appealed by the state the judge determines whether the facts fit the law's criteria. If it does, the state tends to settle the claim rather than proceed with a potentially lengthy trial. Some other provisions include: If the wrongfully convicted person "did not by his own conduct cause or bring about his conviction" and files a claim within two years of his pardon of innocence, he shall receive "damages in such sum of money as the court determines will fairly and reasonably compensate him." One unique and

beneficial provision allows The Court of Claims to award any amount—there is no floor or ceiling.

NY Ct. of Claims Act - 8-b: *(Added L.1984, c. 1009, § 2. Amended L.2007, c. 210, § 2, eff. July 3, 2007.)*

Texas

In 2009 the name was changed from The Wrongful Imprisonment Act to the Tim Cole (names after Timothy Cole the state's first posthumous pardon) and established the Timothy Cole Advisory Panel on Wrongful Convictions. Unlike past lump-sum payments, the new Act declares compensation to be paid out in a mix of monthly payments, with an upfront lump sum and an annuity that can be passed on through a recipient's estate. Additionally, the Act states that a wrongfully convicted person is entitled to $80,000 per year of wrongful incarceration, an annuity, as well as $25,000 per year spent on parole or as a registered sex offender. The wrongfully convicted person is also entitled to compensation for child support payments, tuition for up to 120 hours at a career center or public institution of higher learning, reentry and reintegration services, and the opportunity to buy into the Texas State Employee Health Plan. This statute was effective in 2001 and amended in 2011 to include a provision that doesn't allow payments to anyone who served time for a wrongful conviction at the same time they were serving out a legitimate sentence for which they would have been in prison anyway.

§ 103.001, § 103.002, § 103.003, § 103.051, § 103.052, § 103.053, § 103.054, § 103.101, § 103.102, § 103.151, § 103.152, § 103.153

Appendix F- State Expungement Statutes

Florida

Florida does not currently have a law regarding expungement in cases of wrongful conviction. To be eligible for sealing or expungement, the defendant must not have been convicted of or have pled guilty to any criminal offense, and must not have previously received an expungement or sealing. In other words, if an exoneree has any prior offenses or has plead guilty to the offense in which they were wrongfully convicted for they are not eligible for an expungement. A Certificate of Eligibility from the Florida Department of Law Enforcement is required prior to petitioning the court for an order to seal or expunge a record. There is a $75.00 charge required to secure this certificate. A successful sealing will limit disclosure of the record to only the Florida Bar, the Florida Department of Children and Families, and the Florida Board of Education, law enforcement. In a few other circumstances, an expunged record will be unavailable for dissemination to any private or public entity.

Illinois

Illinois law allows the sealing or expungement of parts of the records of a conviction, preventing the public, including employers, from gaining access to that record. To be eligible for sealing of a conviction record in Illinois, one must have been sentenced to supervision and must wait four years, beginning at the time of discharge from supervision. Some misdemeanors are ineligible for sealing. All felony convictions are ineligible for sealing except for class 4 felony drug possession and prostitution offenses.

In Illinois, expunging and sealing a criminal record are two different things. If an individual has never been convicted of a crime or violated a municipal ordinance, they may be eligible to have their record expunged, whereas if they have been convicted they may be able to have their records sealed. Expunged records are physically destroyed or returned to the

individual, and their name is removed from public criminal records. In contrast, sealed records are not destroyed but are kept confidential. The general public will not usually have access to a sealed record, but law enforcement agencies will still be able to see it. If a record is expunged or sealed, in most cases it does not need to be disclosed to others, including potential employers.

New York

New York law permits the sealing of cases where charges have been dismissed, vacated, set-aside, not filed, or otherwise terminated (New York Criminal Procedure Law 160.50). In New York "expungement" means that the record is actually removed from the system, whereas "sealing" means that the record exists, but that it is shielded from public view. When a record is sealed at the court level it means that the court file is stored at the particular courthouse where the sealing was ordered, and that there is also an electronic record there of the case, but neither the actual file nor the computer record is available to the public. The fingerprints, photographs and arrest records are supposed to be destroyed (expunged) at the police level, but the Court Records are neither destroyed nor returned. In New York, a record of a criminal conviction, which is any misdemeanor or felony except a youthful offender adjudication, is never sealed and is considered a public record available to anyone through the OCA website for a $55 fee. It does not matter if the person had the charge reduced from a felony to a misdemeanor or only received probation. There are no exceptions to the rule.

Texas

Texas expungement law allows expungement of arrests, which did not lead to a finding of guilt, at which point the use of expunged records by any agency is prohibited. Unless being questioned under oath, the defendant may deny the occurrence of the arrest and expungement order. If the defendant was found guilty, pled guilty, or pled no contest to any offense other than a class “C” misdemeanor, it is not eligible for expungement. An individual may be eligible for

expungement if they were found not guilty after a trial, they were arrested but never charged, the indictment or information was dismissed, or they were pardoned or acquitted by the appellate court.

Appendix G- Variable descriptions

Name	Coding	Level of measurement
Age	In years	Interval
Gender	0 = Female 1= Male	Nominal
Race	1 = White 2= African-American 3= Hispanic 4 = Asian 5= other	Nominal
Length of Incarceration	In months	Interval
Age at Incarceration	In years	Interval
Sentence	1= LWOP 2=Death 3=Custodial 4= Non-Custodial	Nominal
Sentence Minimum	In Years 99= Life 999= Death	
Sentence Maximum	In Years 99= Life 999= Death	Interval
Prior Conviction(s)	0=No 1=Yes	Nominal
Prior Convictions	Number of prior convictions	Interval
Age at WC arrest	In Years	Interval
Age at WC Conviction	In Years	Interval
Offense_1	1=Murder/Manslaughter 2= Rape/Sexual assault 3=Property Crime 4= Drug Crime 5= Other	Nominal
Offense_2	1=Murder/Manslaughter 2= Rape/Sexual assault 3=Property Crime 4= Drug Crime 5= Other	Nominal
Offense_3	1=Murder/Manslaughter	Nominal

	2= Rape/Sexual assault 3=Property Crime 4= Drug Crime 5= Other	
Child Victim	0= No 1= yes	Nominal
Number of Deaths		Interval
DNA Exoneration	0=No 1=Yes	Nominal
Age at Release	In Years	Interval
Age at Exoneration	In Years	Interval
Number of Co-defendants		Interval
Number of Co-defendants exonerated		Interval
Case-specific exoneration (all but Tulia)	0= No 1= Yes	Nominal
Compensation	0= No/Pending 1= Yes	Nominal
Compensation	Amount in dollars	Interval
Compensation	0= No compensation 1= 499K or under 2= 500K or over	Nominal
Expunged record of WC	0=No 1= Yes	Nominal
Post-Exoneration Offense(PEO)	0= No 1=Yes	Nominal
Number of PEO convictions		Interval
How long after release	In months	Interval
Age at PEO	In Years	Interval
If PEO, offense type	1=Murder/Manslaughter 2= Rape/Sexual assault 3=Property Crime 4= Drug Crime 5= Other	Nominal
If PEO, same crime	0= No 1= Yes	Nominal
Official Pardon	0= No	Nominal

	1= Yes	
Type of Evidence/ Factor leading to WC	1= Eyewitness Evidence 2= False Confession 3= Jail Informant/Snitch 4= Junk Science 5= Bad Lawyering 6= Official Misconduct	Nominal
Eyewitness	0= No 1= Yes	Nominal
False Confession	0= No 1= Yes	Nominal
Jail Informant/Snitch	0= No 1= Yes	Nominal
Junk Science	0= No 1= Yes	Nominal
Bad Lawyering	0= No 1=Yes	Nominal
Official Misconduct	0= No 1= Yes	Nominal
Currently Incarcerated	0= No 1= Yes	Nominal

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