Predicting Erroneous Convictions: A Social Science Approach to Miscarriages of Justice

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ABSTRACT

The last thirty years have seen an enormous increase not only in the exonerations of innocent defendants but also academic scholarship on erroneous convictions. This literature has identified a number of common factors that appear frequently in erroneous conviction cases, including forensic error, prosecutorial misconduct, false confessions, and eyewitness misidentification. However, without a comparison or control group of cases, researchers risk labeling these factors as "causes" of erroneous convictions when they may be merely correlates. In fact, the only way to establish what causes an erroneous conviction is to understand which factors are exclusive to erroneous convictions as against other sets of cases.

This approach has been taken by only a handful of scholars, all of whom have been interested in what separates erroneous convictions from other convictions. Missing so far in the literature is a study that asks how the criminal justice system identifies innocent defendants in order to *prevent* erroneous convictions. What we want to know—and thus what dictated our research strategy—is what factors are uniquely present in cases that lead the system to rightfully acquit or dismiss charges against the innocent defendant (so-called "near misses"), which are not present in cases that lead the system to erroneously convict the innocent. If we understand this, then we are closer to comprehending what policy interventions can influence the justice system to prevent future erroneous convictions.

Our study employed a mixed methods approach that involved both quantitative and qualitative analysis. We began by identifying a set of 460 erroneous conviction and near miss cases that met a stringent definition of innocence. We then researched and coded the cases along a number of variables, including location effects, nature of the victim, nature of the defendant, facts available to the police and prosecutor, quality of work by the criminal justice system, and

quality of work by the defense. The cases were subsequently analyzed using bivariate and logistic regression techniques. With the assistance of an expert panel, we also explored the cases from a qualitative perspective and examined the statistical results in light of this exploration.

The results indicate that 10 factors—the age and criminal history of the defendant, the punitiveness of the state, *Brady* violations, forensic error, a weak defense and prosecution case, a family defense witness, an inadvertent misidentification, and lying by a non-eyewitness—help explain why an innocent defendant, once indicted, ends up erroneously convicted rather than released. Other factors traditionally suggested as sources of erroneous convictions, including false confessions, criminal justice official error, and race effects, appear in statistically similar rates in both sets of cases; thus, they likely increase the chance that an innocent suspect will be indicted but not the likelihood that the indictment will result in a conviction. Finally, our qualitative review of the cases reveals how the statistically significant factors are connected and exacerbated by tunnel vision, which prevents the system from self-correcting once an error is made. In fact, tunnel vision provides a useful framework for understanding the larger system-wide failure that separates erroneous convictions from near misses.

Among the policy implications of our findings is that increased attention to the failing dynamics of the criminal justice system, rather than simply isolated errors or causes, may lead to better prevention of erroneous convictions. In addition, our results suggest that there should be greater emphasis at all levels and on all sides of the criminal justice system, including police, prosecutors, defense attorneys and judges, to analyze and learn from past mistakes *before* they result in serious miscarriages of justice. To this end, we encourage continued research on near misses among both practitioners and scholars.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Until 1988, when Gary Dotson became the first person to be exonerated through DNA testing, exonerations were a rarity. At that time, very few could imagine that over the course of the next 25 years, well over 300 individuals would be declared innocent and released from prison. Like Dotson's story, these cases have drawn upon emerging technologies—like DNA analysis, cell phone triangulation, video facial recognition, and the debunking of previously common forensic methods—to establish innocence. Yet, while the science involved in the process of exoneration has advanced, research on erroneous convictions has remained relatively static in its method. Erroneous conviction research, rather than adopting more empirical forms of analysis, has continued to primarily rely upon the case study model. While this model can illustrate what factors are shared by erroneous convictions, it cannot isolate *causes*. Here, we use the social science method of case comparison to identify factors that distinguish erroneous convictions from other cases in which factually innocent defendants are released or acquitted post-indictment on the basis of their innocence.

Traditional "Causes" of Erroneous Convictions

In 1932, Edward Borchard's *Convicting the Innocent* highlighted 65 cases of erroneously convicted individuals. Borchard's book was among the first to draw attention to erroneous convictions in the United States, and it also established a methodological approach that would become the norm in subsequent research. Later studies drew upon Borchard's method of dramatically narrating the cases, identifying factors shared between the cases, and discussing what policy recommendations could remedy these "causes." Researchers have used this method to identify seven factors that appear most closely associated with erroneous convictions:

- Mistaken Eyewitness Identification: Nationally, over three-quarters of known erroneous convictions (many of them in rape cases) involve eyewitness misidentifications (Garrett, 2011; Gross & Shaffer, 2012).

- False Confessions: Several studies of erroneous prosecutions conducted since 1987 have shown that 14-25% of the cases reviewed involved false confessions (Leo, 2008). According to the national Innocence Project, approximately two-thirds of the DNA exonerations in homicide cases involved false confessions (White, 2003).

- Tunnel Vision: Tunnel vision is nearly impossible to quantify in terms of its prevalence among erroneous convictions. However, previous qualitative and case study research suggests that tunnel vision is common. Findley and Scott explain that when criminal justice professionals "focus on a suspect, select and filter the evidence that will 'build a case' for conviction, while ignoring the suppressing evidence that points away from guilt," they are at risk of "locking on" to the wrong suspect and inadvertently leading to his continued prosecution and conviction (2006: 292).

- Perjured Informant Testimony: Frequently referred to as "snitch testimony," the Innocence Project reports that 15% of erroneous convictions that were overturned through DNA evidence included perjured informant testimony (Innocence Project, n.d.). In these situations, statements are solicited from an informant (who is often also involved

in the criminal justice system) through the promise of various incentives, which may not be disclosed to the jury.

- Forensic Error: Forensic error involves both errors in testing, including the use of unvalidated techniques, and testimony provided by lab technicians. The Innocence Project indicates that forensic error was present in 50% of DNA exonerations nationwide (Innocence Project, n.d.).

- Prosecutorial Error: Prosecutorial error, which includes *Brady* violations, can be caused by inexperienced prosecutors who may not recognize what information should be shared with the defense or by malicious misconduct. Gross and Shaffer (2012) found that 42% of all exonerations involved misconduct or error by criminal justice officials (not limited to just prosecutors).

- Inadequate Defense Representation: "Bad lawyering" is drawing increased attention as a factor associated with erroneous conviction. A Columbia University study of capital appeals found that ineffective defense lawyering was the biggest contributing factor to the erroneous conviction of criminal defendants in capital cases over a 23-year period (Liebman, Fagan, West, & Lloyd, 2000).

In addition to these factors, researchers have noted the potentially harmful effects on innocent defendants of the media, racial bias, state jurisdiction, and their youth.

But Are These Factors Causes?

Although research continues to show that erroneous convictions share these factors in relatively large numbers, it is incorrect to call them "causes." It is not clear that these same factors occur at a significantly different frequency in other types of cases—for instance, convictions where the criminal defendant is guilty or cases of innocent defendants who are acquitted. Thus, a comparison group is needed to examine whether these factors are actually predictors of erroneous conviction.

In our study, we created a comparison group of "near misses," cases where a factually innocent defendant was indicted but released before conviction on the basis of his innocence. Our comparison was posed to answer two over-arching questions:

1. What factors explain why innocent suspects are erroneously convicted in certain cases but acquitted or have their charges dismissed in other cases ("near misses")?

2. What policy interventions will help the criminal justice system "get it right" and acquit the innocent, thereby preventing future erroneous convictions?

To answer these questions, our study considered 23 hypotheses that drew upon previous research on erroneous convictions (there is virtually no literature on near misses). The hypotheses considered the traditional legal sources of error listed above, sociological factors such as race or socioeconomic status, the structure of the investigative and adjudicative process, and actors and actions within the criminal justice system. We then tested the hypotheses using a mixed method approach.

Selection of Cases

Our study included 460 cases from 1980-2012. Each case involved a factually innocent defendant who was indicted by a state for a violent felony against a person and was subsequently relieved of all legal responsibility for the crime. Two categories were created: "erroneous convictions" for those who were exonerated after conviction (*n*=260), and "near misses" for those who were acquitted or had charges dismissed before conviction on the basis of factual innocence (*n*=200). The project employed a conservative definition of factual innocence that clearly distinguishes factual innocence from innocence based on procedural error or other purely legal criteria (so-called "legal innocence"). To establish factual innocence, each case had to possess two separate components:

1. A judicial, executive or legislative acknowledgement that the individual did not commit the crime for which he was erroneously indicted (including a statement of innocence by a prosecutor, governor, judge, state compensation board, or a juror after an acquittal).
2. Evidence that would convince a reasonable person that the individual did not commit the crime (such as post-conviction DNA testing, another individual was prosecuted and convicted of the crime, or a new diagnosis of the victim's condition).

Potential erroneous conviction and near miss cases were systematically identified using the same, multi-faceted methods. Researchers examined previous academic scholarship, databases, and media resources, and solicited cases from criminal justice professionals. Near misses were more difficult to find than erroneous convictions because there has been little previous research or advocacy associated with these cases. Therefore, researchers relied heavily on newspaper archives and case recommendations from prosecutors, defense attorneys, and scholars. For both sets of cases, researchers excluded those cases that did not meet the

conservative definition of factual innocence; additionally, we attempted to include as many non-DNA cases as possible.

Quantitative Analysis

For each of the 460 qualifying cases, researchers collected data to answer 61 umbrella questions on the project's narrative coding document. The questions were designed to reflect possible sources of erroneous conviction as suggested by prior research, as well as those factors that might distinguish erroneous convictions from dismissals and acquittals based on innocence. The questions involved three separate but non-exclusive categories of case facts: demographics, procedural information, and evidential information. The questions were largely open-ended and designed to elicit a narrative response. Researchers used newspaper articles, legal documents, interviews with people involved with the cases, and other sources to answer the questions completely. Over 600 statistical variables were created in SPSS to capture the 61 umbrella questions in the narrative coding document.

Researchers also used an instrument developed by the Police Foundation to determine the overall strength of the cases. The purpose was to allow us to distinguish between "easy" cases, in which few people would have considered a defendant to be guilty, and "harder" cases, where the facts of a case might have convinced many reasonable people to believe the defendant was guilty even though he was innocent. The scale was originally designed by the Foundation as a method of getting at "ground truth" (e.g., is the suspect really guilty?). As modified by the project for our own purposes, the scale contains six categories of information or evidence; each category in turn contains exemplars that have been given a rating on a 3-point scale (3 being strong evidence, 1 being weak evidence). These exemplars serve as "anchors" for the researcher

when assessing how her own case facts should be rated. The case ratings were also added into SPSS.

Our study evaluated which variables were related to case outcome using bivariate and logistic regression analyses. In both types of analyses, we controlled for time period (post-DNA), type of crime (murder or rape), and state. Using bivariate analysis, we found over 20 variables that were significantly correlated with case outcome. These statistically significant variables were then further tested using logistic regressions.

Employing multiple imputation to recover lost data, we tested several logistic regression models. The model with the best fit included the following ten statistically significant variables:

- State Death Penalty Culture (Executions per Population)
- Age of Defendant
- Criminal History of Defendant
- Strength of Prosecution's Case
- Intentional Misidentification
- Forensic Evidence Error
- Prosecution Withheld Evidence
- Lying by Non-Eyewitness
- Strength of Defense
- Defendant Offered Family Witness

Our model can be used to accurately predict an erroneous conviction versus a near miss nearly 91% of the time. We expect that this model could be used to predict future cases across the United States that are likely to be erroneous convictions with a high degree of accuracy.

Qualitative Methods

A vital component of the project was to supplement our quantitative results with a qualitative context. We convened an expert panel to review 39 sample cases, drawn from our database of erroneous convictions and near misses. The expert panel comprised twelve criminal justice professionals including: two prosecutors, two retired judges, a defense attorney, a police sergeant, a forensic scientist, and researchers on both police and prosecutor practices. Rather than telling the experts what variables had been significant, we asked our panelists to identify what they believed were the sources of error in the sample cases. Then, the panel discussed why those factors either led to an erroneous conviction or a near miss, and what, if any, interventions might have changed the case outcome. Noticably, the panel independently identifed as important most of the factors that we found to be statistical predictors of case outcome, as well as additional aspects such as tunnel vision that we were not able to isolate via quantitative analysis. The panel discussion provided a valuable framework to understand how these factors interact within the criminal justice system to affect the progress of a case.

Results & Discussion

Together, our logistic regression model and the expert panel identified the following variables as significant factors that either harm or help the innocent defendant:

- State Punitiveness: Defendants in punitive states appear to be at an increased risk of erroneous conviction once indicted. In a punitive legal culture, police and prosecutors may be more interested in obtaining a conviction at all costs (leading to greater *Brady* violations, etc.) and community pressure may encourage overly swift resolutions to cases

involving serious crimes like rape and murder. Additionally, state punitiveness could contribute to more state actors assuming the defendant's guilt. This culture eventually works against the defendant, as state agents overlook or under-value evidence that contradicts the assumption of guilt.

- Strength of Prosecution's Case, *Brady* Violations, and Lying Non-Eyewitness Evidence: Unexpectedly, a weak prosecution's case was more likely to lead to an erroneous conviction than a near miss. Discussions with the panelists suggested that weak facts may encourage prosecutors to engage in certain behaviors designed to bolster the case, which our statistics show help predict an erroneous conviction. In several of our erroneous convictions, a prosecutor, convinced of the defendant's guilt despite a lack of conclusive proof, failed to recognize and turn over exculpatory evidence or enlisted a non-eyewitness (such as a snitch) to provide corroborating testimony. These types of actions compound, rather than rectify, previous errors or misconduct in the case, resulting in an escalation of commitment. Eventually, despite the weak evidence, the players involved become so committed to proving the defendant's guilt that evidence illustrating the contrary is ignored or discounted.

- Forensic Error: Error in forensic evidence presented by the prosecution was correlated with an increased likelihood of erroneous conviction. This error most often occurred in testimony or interpretation of evidence, rather than in the actual scientific testing. Errors in forensic testimony include: neglecting to provide the jury with key information such as the victim's blood type when it would mask the perpetrator's; overstating the inculpatory

nature of the evidence by providing inaccurate or non-existent statistics; and misstating the certainty of the results when the forensic technique, such as bite mark, scent, or fiber analysis, does not allow for it.

- Age and Prior History of Defendant: Both a defendant's age and prior record may harm an innocent defendant. In our dataset, young defendants were at an increased likelihood of conviction. A younger defendant will often not have the sophistication or knowledge to aid in his defense and may be slow to realize the gravity of the situation; he may also have a harder time proving a credible alibi. Panelists also discussed how a defendant's prior criminal history can bias police and prosecutors into prematurely narrowing the focus on the defendant and ignoring potentially exculpatory evidence.

- Intentional Misidentification by Eyewitness: Although the overall frequency of misidentifications was not significantly different between the erroneous convictions and near misses, when broken down by intentionally false versus honestly mistaken identifications a significant difference did emerge. Malicious implication of a defendant led to a decreased likelihood of erroneous conviction; or, put another way, an honest, inadvertent mistake increased the likelihood of erroneous conviction. Prosecutors on our panel discussed how a thorough vetting of complaining witnesses can more easily identify inconsistencies in initial statements and red flags when the witness is lying. A truly mistaken identification is harder to uncover even with proper investigation.

- Strength of Defense: As expected, a stronger defense tended to lead to a dismissal or acquittal of an innocent defendant. Though bad lawyering has received much attention in the discussion of erroneous conviction, our panel was struck by the presence of exceptionally *good* lawyering among the near misses. These defense attorneys often did months of leg-work, hired experts, and most importantly, persisted in proving the defendant's innocence rather than immediately working on obtaining a plea. Notably, the type of the defense attorney was *not* significant in either the quantitative or qualitative analysis. Poor representation—regardless of whether it was a private attorney or public defender—was what really determined case outcome.

- Tunnel Vision and System Failure: Discussions with the panel highlighted a particularly important factor not explored in the quantitative analysis—namely, tunnel vision or escalation of commitment. According to the panelists, tunnel visions helps explain how one error often leads to additional errors in an erroneous conviction. It contributes and facilitates system breakdown because it dismantles the rigorous testing of evidence that makes the investigative and adversarial processes function effectively. Ultimately, we concluded that what separates erroneous convictions from near misses is not just a list of individual factors, but more importantly the process by which initial errors remain undetected or uncorrected in the erroneous convictions and lead to system failure. *Indeed, if there is but one conclusion from our research it is that, overall, the erroneously convicted are truly cases of systemic failure.*

Interestingly, our analysis did not identify a number of the traditional sources of erroneous convictions as significant predictors. These included the race of the defendant, snitch

testimony, false confessions, police error, and many eyewitness testimony variables (such as interracial identification, certainty of the witness, and type of identification procedure). While these variables do not determine case outcome, some of them, like false confessions, police error, and an African American defendant, appear in a relatively large proportion of both the erroneous conviction and near misses cases. We suggest that rather than being predictors of erroneous conviction, such factors may explain why innocent individuals are originally brought into the criminal justice system.

Ultimately, in our study the impact of traditional "causes" of erroneous convictions on case outcome is split. Some—such as prosecutorial misconduct, strong defense, forensic error, and lying by a non-eyewitness—do determine case outcome. However, even among these expected findings, our results suggest the way these factors impact case outcome may be different than accepted knowledge. For example, forensic error contributes not so much in terms of error in testing, but rather by error in testimony. As a result, previous policy recommendations that have focused on improving the quality of forensic laboratory procedures should be revisited to emphasize quality control at the interpretation and testimony stages. Furthermore, our research highlights that the interactions of factors, as much as the individual factors themselves, are responsible for the system breakdowns that result in erroneous convictions. Thus, reform efforts should increasingly focus on more comprehensive approaches to combat systemic problems such as tunnel vision.

Future research should continue to use a social science approach as an effective method to study miscarriages of justice. We suggest exploring alternative comparison groups to erroneous convictions, such as defendants who are convicted and not exonerated. Finally, we

encourage more research on near misses to better learn how the criminal justice system can “get it right” when confronted with an innocent defendant.

I. INTRODUCTION

I.A. Background

In the last two decades, hundreds of people erroneously convicted of rape and murder have been exonerated and released from prison (Gross & Shaffer, 2012). Many of these exonerations occurred after post-conviction DNA testing established the innocence of the defendants (Innocence Project, n.d.). In some of these cases—such as the Central Park jogger case in New York City and the Beatrice Six case in Nebraska—DNA evidence established the innocence of *multiple* defendants who had been erroneously prosecuted, convicted, and incarcerated years earlier (Garrett, 2011). In other cases, innocent individuals were released from prison after serving many years on death row (Cohen, 2003). To date, more than 290 individuals have been exonerated by post-conviction DNA testing (Innocence Project, n.d.), and there appears to be no let up in the steady stream of prisoners whose innocence is established by increasingly sophisticated DNA testing (Garrett, 2011). An increasing number of the wrongly convicted also have established their innocence through non-DNA means of exoneration in the last twenty years (Gross & Shaffer, 2012).

The exoneration of hundreds of erroneously convicted but factually innocent individuals has challenged some of our most fundamental assumptions about the American criminal justice and legal systems. Prior to 1989, the first year that post-conviction DNA testing was used to establish innocence (Scheck, Neufeld & Dwyer, 2000), virtually all observers assumed that the innocent were rarely convicted (Leo, 2005), if at all, especially in capital cases (Bedau & Radelet, 1987). Since 1989, however, there has been a growing recognition in popular culture and among criminal justice professionals that erroneous convictions occur regularly in the

American criminal justice system (Findley, 2011). In American society, the arrival of DNA testing and the jump in factually indisputable exonerations has put the problem of erroneous conviction on the national agenda and led to a drop in public confidence about the criminal justice system (Gould, 2007; Baumgartner, De Boef, & Boydstun, 2008). As a result of these and other developments, there has been renewed and concerted attention to the causes and consequences of erroneous conviction.

The DNA exonerations have given rise to an "innocence movement" in American law (Zalman, 2011), seen by some as "the civil rights movement of the twenty-first century" (Medwed, 2008). Although this is likely an overstatement, across the United States at various law schools there are now more than 70 non-profit innocence projects whose purpose is to investigate and litigate post-conviction claims of innocence as well as propose reforms (Innocence Network, n.d.). Additionally, many states have passed legislation to make exoneration easier and prevent erroneous convictions. Six states have created innocence commissions (Gould, 2007), and more than 40 state legislatures have passed statutes to facilitate inmate access to biological evidence for post-conviction DNA testing. Other states have implemented legislation to address certain sources of erroneous conviction (Medwed, 2008). Even the United States Congress has addressed erroneous convictions by passing the 2004 Innocence Protection Act, which provides funding for state post-conviction DNA testing and raises the annual compensation for exonerated federal prisoners (Innocence Protection Act, 2004).

Although the precise rate of erroneous convictions remains unknown and unknowable (Simon, 2012), there is a growing awareness in the legal system that erroneous convictions occur more frequently than almost anyone had previously thought (Findley, 2011). Former Supreme

Court Justice David Souter reflected this sentiment when he wrote that erroneous convictions (in capital cases) happen "in numbers never imagined before the development of DNA tests" (*Kansas v. Marsh*, 2006: 2544). After analyzing hundreds of post-1989 exonerations, Gross Jacoby, Matheson, Montgomery, & Patil (2005: 551) made this point even more forcefully: "any plausible guess at the total number of miscarriages of justice in America in the last fifteen years must be in the thousands, perhaps tens of thousands." Indeed, a recent report by the Urban Institute found erroneous convictions in five percent of homicide and sexual assault cases in Virginia during 1973-1987 (Roman, Walsh, Lachman, & Jahner, 2012).

The exoneration of hundreds of innocent prisoners in the last two decades also has had an effect on academic scholarship, generating a virtual explosion of research on wrongful convictions (Leo, 2005). Strikingly, most of this scholarship has occurred in law reviews, not in peer reviewed social science or criminology journals. In the last decade, law professors and legal scholars have written extensively about the legal causes and consequences of wrongful conviction, as well as about legal and policy reforms designed to reduce their occurrence (Leo & Gould, 2009). Beyond the large quantity of legal scholarship, there also has been a sense that a new paradigm may be emerging, one that treats accuracy and reliability within the legal system as on par with or even more important than traditional concerns about procedural due process (Thomas, 2008). Daniel Medwed has coined the term "innocentrism" to connote the emerging centrality of innocence-based arguments and scholarship in criminal law and procedure (Medwed, 2008). Yet for all the attention that academe has given to wrongful convictions, there has been relatively little dialogue on this topic between criminal law scholars and lawyers on the one hand and criminologists or social scientists on the other (Leo & Gould, 2009).

The study of wrongful convictions actually has a long history in American scholarship (Leo, 2005). For almost a century, writers have documented erroneous convictions of the innocent and described their causes and consequences. Yale Law School professor Edward Borchard's 1932 book, *Convicting the Innocent*, is generally regarded as the breakout work on the subject. Borchard documented 65 cases in which innocent defendants were wrongfully convicted; in addition to identifying the legal causes underlying these convictions, has also proposed reforms to remedy the problem (Borchard, 1932).

Convicting the Innocent was significant because it shifted the debate away from whether factually innocent individuals were erroneously convicted in the American criminal justice system to why these wrongful convictions occurred and how they could be prevented. The book became the template for future wrongful conviction studies and outlined a simple formula: identify wrongful conviction cases, describe their legal causes, and propose reforms to prevent future miscarriages. Other writers such as Gardner (1952), Frank and Frank (1957) and Radin (1964) would continue in this tradition for many decades to come, but the exoneration narratives described in these books failed to persuade others that wrongful convictions represented a systemic problem in the criminal justice system as opposed to a few anomalous, if deeply troubling, travesties of justice. For decades, the problem of wrongful conviction generated very little interest among criminal justice officials, policy-makers, or the public.

In 1987, Hugo Bedau and Michael Radelet's article, "Miscarriages of Justice in Potentially Capital Cases," ushered in a new era and form of wrongful conviction research. Bedau and Radelet documented and systematically analyzed 350 cases of wrongful conviction—based mostly, but not entirely, on official declarations of innocence—in potentially capital cases from 1900 to 1985, 23 of which they argued had led to wrongful executions (Bedau & Radelet,

1987). By uncovering so many cases of erroneous conviction—even in capital cases—Bedau and Radelet challenged the traditional assumptions about the infallibility of human judgments in the criminal justice system. Indeed, they illustrated that mistakes happened, even in the most serious cases. Bedau and Radelet also analyzed patterns in the sources of errors, sources of discovery of the errors, and sources of exoneration across these cases.

Bedau and Radelet triggered intense debate about the risk of executing the innocent. Following their lead, more scholars and journalists began to write about the problem of wrongful convictions in the late 1980s and early 1990s (Yant, 1991; Huff, Rattner, & Sagarin, 1996; Connery, 1996). Bedau and Radelet continued to collect, analyze, and publish research on wrongful convictions in capital cases (Bedau & Radelet, 2004), and others reanalyzed their data (Gross, 1996, 1998; Acker, Brewer, & Cunningham, 2001). But, to some extent, Bedau and Radelet's message became mired in disagreements about whether a small number of individuals in their study were actually guilty and, more generally, about whether their scholarship was just another ideological move in the contentious debate about the desirability of the death penalty in America (Markman & Cassell, 1988; Bedau & Radelet, 1988).

In the late 1980s, the renewed interest in wrongful convictions was catapulted forward by the introduction of DNA testing in criminal cases (Gould, 2007). In 1989, DNA was first used to exonerate an innocent prisoner, Gary Dotson, who had been wrongfully incarcerated for ten years in Illinois for a rape he did not commit (Gross et al., 2005). In the twenty plus years since Dotson's exoneration, post-conviction DNA testing has led to the release of more than 290 wrongly convicted individuals (Innocence Project, n.d.) and contributed to dramatically changing official and popular attitudes about the criminal justice system (Baumgartner et al., 2008). Baumgartner et al. (2008) suggest these changing attitudes could be influenced by noticeable

changes in the tone of press coverage of the death penalty. Indeed, Baumgartner et al. found that as more exonerations occurred, the *New York Times'* tone towards the death penalty became more negative. Relatedly, many of the individual DNA exonerations have garnered tremendous coverage in print and electronic media (Warden, 2003; Garrett, 2011), and the DNA cases collectively have provided an unprecedented opportunity to better understand the nature and consequences of factual error in the American criminal justice system (Garrett, 2011). These DNA exonerations, and the substantial media attention they have received, have inspired extensive legal scholarship to the point that law reviews are now full of articles on the various legal causes and problems of wrongful conviction cases as well as proposed reforms (Leo & Gould, 2009).

While erroneous conviction research has increased, the methods and approach have not changed much. Most scholarship still uses the traditional narrative or "familiar plot"—one that dates back to Borchard's template—but with new and updated cases (Leo, 2005). Perhaps no book illustrates the modern version of this story better than Barry Scheck, Peter Neufeld, and Jim Dwyer's (2000) *Actual Innocence: Five Days to Execution and Other Dispatches From the Wrongly Convicted,* which may be the signature document of the modern innocence movement. Written by two well-known criminal defense lawyers, one of whom is also a law professor, and a journalist, *Actual Innocence* is the rare book that has been both an influential work of legal scholarship and a popular best-seller (Lain, 2007). The only other post-DNA era writing on wrongful conviction to reach a mass audience was John Grisham's (2006) non-fiction book, *The Innocent Man*. Nevertheless, as we will discuss below, the implications of these books – from Borchard (1932) to Scheck et al. (2000) and Grisham (2006) – are limited by the narrative method (Leo & Gould, 2009).

I. B. What Do We Know Now? Factors that Correlate with Erroneous Conviction

The research on erroneous conviction has generally identified seven primary sources of error: (1) mistaken eyewitness identification; (2) false confessions; (3) tunnel vision; (4) perjured informant testimony; (5) forensic error; (6) prosecutorial error; and (7) inadequate defense representation. Apart from these principal sources, the wrongful conviction research literature also discusses the potential role of race effects, media effects, and the failure of post-conviction remedies (Gould & Leo, 2010).

I.B.1 Mistaken Eyewitness Identification

Nationally, over three-quarters of known erroneous convictions (many of them in rape cases) are, in part, the result of mistaken eyewitness identifications (Garrett, 2011; Gross & Shaffer, 2012). Eyewitness misidentification is caused by natural psychological errors in human judgment. As Gary Wells and colleagues have noted, stress alters people's perception of an event. When confronted with a gun or other weapon during a violent crime, for example, the victim may focus so heavily on the firearm that he or she cannot take in and remember well the details of the perpetrator (Wells & Murray, 1983). This problem is more pronounced when the victim and perpetrator are of different races (Meissner & Brigham, 2001). Victims may believe that they recall the events accurately—the crime ostensibly "stenciled into their minds"—but research indicates that there is little relationship between an eyewitness's certainty of her identification and the accuracy of that report (Wells & Murray, 1983).

Eyewitness identifications also can be influenced by the suggestiveness of the identification process, which "leads eyewitnesses to distort their reports of the witnessing experience across a broad array of questions" (Wells & Bradfield, 1998: 367). In practice, suggestion can enter the identification process in two ways. First, law enforcement officers or

other observers can confirm a witness's identification, whether at the time of the identification procedure or at any point before in-court identification (Rosenthal & Rubin, 1978; Wells & Quinlivan, 2009). This can be as subtle as an officer praising the witness for a "good job" in her identification or as overt as a detective thanking the witness "for confirming our suspicion." The problem with such suggestions is that they can give witnesses false confidence in their identifications, even if the witnesses are mistaken. Moreover, witnesses too rarely recognize that a reinforcing comment inflated their confidence (Wells & Murray, 1983).

Second, law enforcement officers may employ suggestive identification procedures that make the suspect stand out from others. For example, in the case of Marvin Anderson, Anderson's photograph appeared in color while the other photographs in the array were black-and-white (Gould, 2007). A further example is lineups, in which problems have arisen when the suspect is the only person presented of a particular height, hair color, or complexion among a group of six or more. These frailties may lead witnesses to make "relative judgments," subtly encouraging them to select the individual in an identification procedure who looks most like the offender, rather than employing independent judgment to ensure that the individual identified is the actual perpetrator (Wells, 2008). Often, someone in a lineup or photo array looks more like the actual offender than the others do, and witnesses, in turn, may be tempted to identify that person (Wells, Penrod, Malpass, Fulero, & Brimacombe, 1998). Additionally, any initial mistaken identification may reinforce subsequent reports, because eyewitnesses may confuse or replace their memory of the true perpetrator with the image of the person who looked most like the offender in the identification procedure (Gould, 2007).

Given documented problems such as these, U.S. Attorney General Janet Reno commissioned a group of criminal justice professionals in the late 1990s to address and

recommend guidelines for police identification procedures. Published by the National Institute of Justice in 1999, these guidelines provide the basis for best practices in law enforcement agencies around the country (Wells & Olson, 2003). The state of New Jersey, for example, has adopted the recommendations. Among these best practices, researchers recommend that witnesses be shown photographs or individuals in a lineup sequentially—that is, one at a time—rather than simultaneously as a group (National Institute of Justice, 1999). Researchers also recommend that witnesses be asked to determine, upon looking at each photograph or individual, whether the witness recognizes the perpetrator. In an analysis of 25 studies comparing simultaneous and sequential identification procedures, scholars have estimated that sequential procedures can reduce the chances of a mistaken identification by nearly one-half (Steblay, Dysart, Fulero, & Lindsay, 2001). Perhaps most importantly, identification procedures must be administered "double-blind" so that neither the eyewitness nor the person administering the lineup knows the identity of the prime suspect and thus cannot guess about or hint at the correctness of the identification. In this way, suggestion and feedback effects can be minimized.

I.B.2 False Confessions

It is difficult for the public to understand why someone would confess to a crime that the individual did not commit (Leo & Liu, 2009; Blandon-Gitlin, Sperry, & Leo, 2011), but research not only indicates that false confessions occur but also explains how they happen (Leo, 2008; Kassin et al., 2010). Several studies of erroneous prosecutions conducted since 1987 have shown that anywhere from 14 percent to 25 percent of the cases reviewed involved false confessions (Leo, 2008). According to the national Innocence Project, approximately two-thirds of the DNA exonerations in homicide cases involved false confessions (White, 2003). This is consistent with Warden's finding that approximately 60 percent of erroneous homicide

convictions in Illinois since 1970 involved false confessions. Moreover, false confessions when introduced into evidence at trial usually lead to the conviction of the innocent (Drizin & Leo, 2004).

There is no one cause, logic, or type of false confession. Rather, police-induced false confessions are the product of a multiple step process of influence, persuasion, and compliance. They usually involve psychological coercion (Ofshe & Leo, 1997). Under certain conditions of interrogation, police are more likely to elicit false confessions, and certain types of individuals are more vulnerable to interrogation pressure and, thus, are more easily manipulated into giving false confessions. In order to understand why innocent suspects sometimes make false confessions, first we must look at the process through which police investigators identify criminal suspects and how police interrogation works as a psychological process, both in the pre-admission and post-admission stages of interrogation.

Three errors occur in sequence when police elicit a false confession that leads to a wrongful conviction. The first error occurs when detectives mistakenly classify an innocent person as guilty. As Davis and Leo point out, "once specific suspects are targeted, police interviews and interrogations are thereafter guided by the presumption of guilt" (2006: 123). Whether to interrogate is arguably the most critical decision point in the investigative process. Police only elicit false confessions if they erroneously interrogate innocent people. If all the suspects the police interrogated were, in fact, guilty, they would never elicit false confessions from the innocent. Misclassifying innocent suspects is thus both the first and the most consequential error police interrogators make.

Although many cognitive errors lead police to mistakenly classify an innocent person as a guilty suspect, perhaps the most common errors are the product of their investigative training.

Police officers in the United States are erroneously taught that they can learn to become human lie detectors, able to distinguish truth from deception at extraordinarily high rates of accuracy (Leo, 2008). For example, detectives are taught that the following behaviors are symptomatic of deceptive, and thus guilty, suspects: averting one's gaze, slouching, shifting body posture, touching one's nose, adjusting or cleaning one's glasses, chewing one's fingernails, and stroking the back of one's head. Suspects who are guarded, uncooperative, and offer broad denials and qualified responses are also believed to be lying and thus guilty. However, across a variety of contexts, social science studies have repeatedly shown that individuals are highly prone to error in their judgments about whether an individual is lying or telling the truth and, thus, are poor human lie detectors. Studies show that most people accurately make these types of judgments at rates no better than the flip of a coin (Leo, 2009). Moreover, studies have suggested that police interrogators themselves cannot accurately distinguish between truthful and false denials of guilt at levels greater than chance but, instead, routinely make erroneous judgments when trying to separate the innocent from the guilty (Hartwig, Granhag, Strömwall, & Vrij, 2004; Kassin & Fong, 1999).

Once detectives misclassify an innocent person as a guilty suspect, the next step is to subject him to an accusatorial interrogation. Obtaining a confession becomes especially important when there is little or no other evidence against the suspect—especially in high profile cases in which police detectives are under great pressure to solve the crime (Gross, 1996)—and typically no credible evidence exists against an innocent suspect who police erroneously believe is guilty. Perhaps not surprisingly, the vast majority of documented false confession cases occur in homicides and high profile cases (Drizin & Leo, 2004; Gross et al., 2005).

The primary cause of police-induced false confessions is the use of psychologically coercive police interrogation methods (Leo, 2008). These include methods that were once identified with the old "third degree," such as deprivation (of food, sleep, water, or access to bathroom facilities, for example), incommunicado interrogation, and extreme induced exhaustion and fatigue. Since the 1940s, however, these techniques have become rare in domestic police interrogations. Instead, when today's police interrogators employ psychologically coercive techniques, they usually consist of implicit or explicit promises of leniency and implicit or explicit threats of harsher treatment in combination with other interrogation techniques such as accusation, repetition, attacks on denials, and false evidence ploys (Ofshe & Leo, 1997; Leo, 2008).

Although psychological coercion is the primary cause of police-induced false confessions, individuals differ in their ability to withstand interrogation pressure and, therefore, in their vulnerability to giving false confessions (Gudjonsson, 2003). Individuals who are highly suggestible or compliant are more likely to confess falsely. So, too, are the developmentally disabled, cognitively impaired, juveniles, and the mentally ill—all of whom tend to be unusually suggestible and compliant. The developmentally disabled are more likely to confess falsely for a variety of reasons (Kassin et al., 2010). Youth is also a significant risk factor for police-induced false confessions (Kassin et al., 2010). Finally, people with mental illness are disproportionately likely to falsely confess (Redlich, 2004), especially in response to accusatorial police pressure (Salas, 2004).

The use of psychologically coercive police methods (and how they interact with an individual's personality) usually explains how and why interrogation succeeds in moving an innocent suspect from denial to admission. But a confession consists not only of an "I did it" statement, but also of a subsequent narrative—what researchers have referred to as the post-

admission narrative (Leo & Ofshe, 1998)—that contextualizes and attempts to explain the "I did it" statement, transforming the admission into a confession. A detailed post-admission narrative is what makes the story appear to be a compelling account of the suspect's guilt. The content and structure of a suspect's post-admission narrative goes a long way toward explaining why confessions are treated as such powerful evidence of guilt and sometimes lead to the erroneous conviction of the innocent (Leo, 2008).

Police detectives use the post-admission phase of interrogation to influence, shape, and sometimes even script the suspect's narrative. The detective's ultimate objective is to elicit a persuasive account of what happened that successfully incriminates the suspect and leads to his conviction. For example, in false confession cases interrogators have sometimes invented, suggested, or elicited an account of the suspect's motivation. They often use scenario-based inducements as a method of attributing a minimizing motive to the suspect—which the suspect agrees to and then repeats back, even if it is completely inaccurate, because he comes to believe that it will reduce his culpability. Police interrogators also will encourage suspects to attribute their decision to confess to an act of conscience, to express remorse about committing the crime, and to provide vivid details of the crime scene that appear to corroborate the suspect's guilty knowledge and thus confirm his culpability. In addition, interrogators will try to make the admission appear voluntarily given, portraying the suspect as the agent of his own confession and themselves merely as its passive recipients (Leo, 2008).

Police detectives help create false confessions in the post-admission narrative phase of interrogation by pressuring the suspect to accept a particular account and suggesting crime facts to him, thereby contaminating the suspect's post-admission narrative. Unless the suspect has learned the crime scene facts from the media, community gossip, or overheard conversations, an

innocent person will not know either the mundane or the dramatic details of the crime (Leo & Ofshe, 1998). Absent such contamination, the innocent suspect's post-admission narrative should therefore be replete with errors when responding to questions for which the answers cannot easily be guessed by chance. Unless, of course, the answers are implied, suggested, or explicitly provided to the suspect—which, unfortunately, does occur in many false confession cases (Leo, Drizin, Neufeld, Hall, & Vatner, 2006). When an interrogation is recorded, it may be possible to trace, step by step, how and when the interrogator implied or suggested the correct answers for the suspect to incorporate into his post-admission narrative. However, when the interrogation is not recorded—and the interrogations preceding virtually all of the documented false confession cases have not been recorded—then there may be no objective way to prove the interrogator contaminated the suspect's post-admission narrative. The contamination of the suspect's post-admission narrative is thus the third mistake in the trilogy of police errors that, cumulatively, lead to the elicitation and construction of a suspect's false confession (Leo & Drizin, 2010).

Although police training is important in identifying and thus avoiding an erroneous confession, research indicates that electronically recording interrogations can minimize the likelihood that a false confession will lead to an erroneous conviction (Leo, 2008). Not only are law enforcement officers more careful in interrogating suspects when they know a jury may view the proceedings—abstaining from threats, punishment, or undue coaching—jurors also can evaluate the circumstances of the interrogation to determine the accuracy of the witness' statements (Sullivan, 2005). In the case of Earl Washington, Jr., for example, a videotape would have shown officers holding up a key piece of evidence for Washington to describe rather than creating the impression at trial that Washington had freely described a secret piece of evidence

known only to the perpetrator. For that matter, electronic recording presents advantages for law enforcement officers who conduct proper interrogations. Videotaped evidence can be quite compelling for jurors, and there is reason to believe that suspects are more likely to plead guilty to a crime when a properly administered interrogation shows them confessing to the crime. Such evidence also may stave off meritless civil suits when judges and jurors can see for themselves how officers behaved in the interrogation room. It is no wonder that surveys of officers using videotape find that many "enthusiastically support this practice" (Sullivan, 2005: 1128).

I.B.3. Tunnel Vision

Like any of us, police officers and prosecutors are susceptible to tunnel vision. That is, the more law enforcement practitioners become convinced of a conclusion—in this case, a suspect's guilt—the less likely they are to consider alternative scenarios that conflict with this conclusion. As Findley and Scott (2006: 292) explain more comprehensively, when criminal justice professionals "focus on a suspect, select and filter the evidence that will 'build a case' for conviction, while ignoring the suppressing evidence that points away from guilt," they are at risk of "locking on" to the wrong suspect and inadvertently leading to his continued prosecution and conviction.

Tunnel vision can occur at any point in the criminal justice process (Raeder, 2003). An officer may be so convinced of an eyewitness's identification that he ignores other case facts that point away from the suspect's guilt; a forensic scientist may conduct a hair comparison and see such a close match between that of the perpetrator and a suspect that he overlooks fingerprint analysis that isn't as compelling; a prosecutor may be so satisfied with a suspect's confession that he discounts forensic evidence that inculpates others; or a defense lawyer may consider the prosecution's case so airtight that he doesn't bother to look deeper into the government's files.

Any of these possibilities may explain why innocent individuals are named as suspects and prosecuted all the way to a conviction. These are not just theoretical possibilities; the many case studies of wrongful convictions show that errors attributable to tunnel vision are real and have grievous consequences (Gould, 2007).

I.B.4. Perjured Informant Testimony

A number of erroneous convictions have turned on the testimony of police informants who themselves lied for personal gain. As scholars note, informants are often rewarded without regard to the accuracy and reliability of their information (Zimmerman, 2001), with as many as one-fifth of erroneous conviction cases based on snitches that lied (Natapoff, 2006). A classic case is that of Jeffrey Cox in Virginia. Cox's conviction for abduction and murder was made largely on the testimony of two witnesses, whose prior felony convictions and pending charges were not disclosed to the defense. Each of these facts would have undermined the credibility of the witnesses, but instead of sharing this information with the defense, the prosecution vouched for the veracity of both witnesses in its closing argument (Gould, 2007). As a federal appellate judge has said of informant testimony, the government relies too heavily on witnesses who are "rewarded criminals," which compromises both the accuracy and the legitimacy of the criminal justice system. "Because the government decides whether and when to use such witnesses, and what, if anything, to give them for their service, the government . . . can either contribute to or eliminate the problem," the judge noted (Trott, 1996: 1382).

I.B.5. Forensic Error

Given the rise and wide acceptance of DNA testing, it is possible to forget that, for decades, law enforcement had to rely on much less accurate forensic methods. Perhaps the most famous practice is fingerprinting, a method so common that applicants for many sensitive jobs

have had to submit to a series of fingerprints. But evidence is now mounting about the problems of fingerprinting analysis (Cole, 2001), which include a lack of validity testing and an absence of validated standards for declaring a match (Mnookin, 2008). In fact, a Maryland trial judge has ruled that latent fingerprint identification is not sufficiently reliable to be admissible into evidence (National Research Council, 2009). The substance behind this conclusion was bolstered by a recent National Research Council report on forensic evidence that echoed Haber and Haber's (2008) conclusion that "we have reviewed the available scientific evidence of the validity of the ACE-V method [of latent fingerprint identification] and found none" (National Research Council, 2009: 136-145).

Fingerprint analysis is hardly the most questionable forensic method employed. More troubling is hair comparison analysis, in which hairs found at a crime scene are compared under a microscope to those of a possible suspect. Although hair comparison analysis has passed the *Frye* (1923) and *Daubert* (1993) standards in many courts and has been admitted into evidence, more recent research raises considerable doubts about its accuracy (Gould & Leo, 2010). For example, the Law Enforcement Assistance Administration Laboratory Proficiency Testing Program, involving over 235 crime laboratories throughout the United States, found hair comparison analysis to be the weakest of all forensic laboratory techniques tested, with error rates as high as 67 percent on individual samples and the majority of laboratories reaching incorrect results on four out of five hair samples analyzed. Another study found that hair comparison error rates dropped from 30 percent to four percent when common hair comparison methods, which compare a questioned hair to the hair samples of a suspect, were changed to a "lineup" method, in which examiners compare a hair sample from the crime scene to samples from five potential suspects (Gould, 2007).

Another potentially problematic test has been serology analysis, which seeks to establish the probability that a perpetrator and suspect share the same blood type. By contrast to DNA testing, serology analysis does not specifically identify suspects, but jurors may not appreciate this fact, hearing testimony of similar blood types as proof of identity "with as much definitiveness as science can muster" (Moenssens, 1993: 13). Of course, that is no longer the case.

DNA testing has helped to uncover the frailties of forensic methods used previously. This said, DNA is not a panacea. There is always the small probability that the results will be inaccurate, but more importantly, few crime scenes have sufficient, specific biological evidence for DNA analysis. A robber may never touch a victim nor shed hairs or other biological markers in a spot specific to himself (Leo & Gould, 2010). Yet the most significant hurdle, for many police departments, is simply the cost of DNA testing (Pratt, Gaffney, Lovrich, & Johnson, 2006). Even large, well-funded departments with their own forensic lab, such as the New York Police Department, cited cost as one reason why DNA testing is used in just seven percent of homicide investigations (Schroeder & White, 2009). The prohibitive cost of DNA testing can make it a "tool of last resort" that departments turn to only after other pieces of evidence have been examined (Schroeder & White, 2009: 337). As a result, law enforcement often relies on other evidence, including different forms of forensic analysis that carry with them greater risks of inaccuracy.

Apart from the inherent weaknesses of various forms of forensic evidence, there have been several shocking examples of improper, indeed shoddy, laboratory practices and forensic testimony that have led to the conviction of innocent defendants (Garrett & Neufeld, 2009). The problem is so serious that the National Research Council concluded in 2009 that "the forensic

science system [in the United States is] fragmented and the quality of practice uneven…These shortcomings pose a threat to the quality and credibility of forensic science practice and its service to the justice system" (National Research Council, 2009: 140).

I.B.6. Prosecutorial Error

For the most part, American prosecutors conduct themselves ethically, seeking to mete out justice even if it means dismissing charges against a defendant whose criminality they suspect but cannot establish. Still, prosecutors may engage in overly suggestive witness coaching (Medwed, 2012), offer inappropriate and incendiary closing arguments (Medwed, 2012), or fail to disclose critical evidence to the defense, all of which may raise the prospect of an erroneous conviction. In research on erroneous convictions, the most commonly established transgression is the prosecution's failure to turn over exculpatory evidence. Sometimes, police officers do not provide prosecutors with this evidence, or prosecutors may be unaware that they have such information in their files. In other cases, though, the misdeeds are intentional.

Consider the case of Edward Honaker, a man convicted for rape on the basis of testimony from the victim and her boyfriend. The prosecution never turned over an officer's report that the victim had not been "allowed to clearly see the [perpetrator] during the entire sequence of events," nor, more incredulously, did it reveal that the victim and her boyfriend were hypnotized four months after the crime, at which time they first identified Honaker's photo as that of the rapist (Gould, 2007: 104). Instead, the prosecution's witnesses were permitted to testify at trial, identifying Honaker, without the defense being aware that there were good grounds to doubt any identification. In cases like these, it is easy to see how the prosecution's failure to disclose material exculpatory evidence can lead to an erroneous conviction.

I.B.7 Inadequate Defense Representation

Even if prosecutors fail in their duties, we expect a suspect's attorney to zealously investigate and defend his case. As Bernhard (2001: 227-228) explains, "[i]t [is] the defense counsel's responsibility to protect [the innocent] from the mistakes of others: from witnesses' misidentifications, police officers' rush to judgment, and prosecution's reluctance to reveal potentially exculpatory material." Yet, as a Columbia University study of capital appeals found, ineffective defense lawyering was the biggest contributing factor to the erroneous conviction or death sentence of criminal defendants in capital cases over a 23-year period (Liebman et al., 2000). The central reason behind ineffective representation is inadequate funding, an absence of quality control, and a lack of motivation (American Bar Association, 2006). The attorney may be so rushed that he fails to communicate with his client or communicates "in a dismissive, callous or hurried manner" (Berry, 2003: 490). He may make perfunctory attempts at discovery, if any; engage in a narrow or shallow investigation; neglect to retain needed experts or test physical evidence; fail to prepare for trial; or offer "weak trial advocacy and superficial or tentative cross-examination" (Berry, 2003: 490). The result is a cascade of errors that dilutes or even destroys the barrier provided by an effective advocate between an innocent defendant and an erroneous conviction.

I.B.8. Interrelated Themes

Although the factors just discussed are those that appear most often in research on the sources of wrongful conviction, three other issues merit mention for, if not definitive sources, they serve as either background influences or interrelated factors. These include questions of race, inadequate post-conviction remedies, and the role of the media. Any student of the criminal justice system recognizes that there are serious race effects in the identification,

prosecution, and sentencing of criminal suspects. Racial and ethnic minorities are disproportionately more likely than whites to be stopped and arrested by the police (Harris, 1999), and once convicted, they are also more likely to receive longer prison terms than do whites (Mitchell, Haw, Pfeifer, & Meissner, 2005). They are also more likely to be subject to some of the sources that lead to erroneous convictions (Martin, 2002). The clearest example is mistaken eyewitness identification, in which the research indicates that errors are more likely when the victim and perpetrator are of different races. In the cases studied, the most common pattern of error is when a white victim is raped by an African-American or Hispanic man and unintentionally identifies an innocent person as the perpetrator.

Another area of concern is jury decision-making; in a number of cases, all-white juries have erroneously convicted African-American men based on questionable evidence and with scant deliberation (Gould, 2007). To be sure, these problems are hardly limited to cases of known exonerations; indeed, justice is threatened whenever a trier of fact allows racial assumptions or prejudice to enter into his or her calculus. But when jurors (and judges) operate on either known or even unconscious biases to convict the innocent, the legitimacy of the criminal justice system is under even greater threat.

Once convicted, innocent defendants often find it extremely arduous to establish their blamelessness. Legal doctrine makes such showings difficult to prove, for in throwing out a conviction and, in some cases, ordering a new trial, the courts must be persuaded that no reasonable juror (or judge in a bench trial) could have concluded that the defendant was guilty (*House v. Bell*, 2006). The defendant's task is even more onerous when states maintain procedures, as Virginia did for decades, that a motion for new trial based on exculpating evidence must be filed within 21 days of the order of conviction. As any criminal trial lawyer

knows, it is rare to the point of impossible for important, new evidence to come to light within three weeks of sentencing.

Virginia has now replaced its twenty-one-day rule with a Writ of Actual Innocence (Gould, 2007), a procedural outlet that other states are considering. But a promising law on the books does not necessarily translate to actual exonerations if the courts that administer the law are systematically skeptical of non-biological evidence. Indeed, it is hardly coincidental that the vast majority of exonerations were achieved not because the courts stepped in and ordered a new trial or habeas corpus relief, but because governors or other political leaders, including parole boards, intervened. In some cases, they had the active support of prosecutors, who admirably came forward to rectify what they believed had been a miscarriage of justice. But as Daniel Medwed's (2012) research also has shown, the institutional culture of some prosecutors' offices creates an environment in which "resistance to post-conviction innocence claims is an accepted and pervasive cultural norm" that helps prosecutors avoid being seen as soft on crime (2004: 130). In such cases, an innocent but convicted defendant faces even greater obstacles in rectifying the error done to him.

Finally, it is important to note the role of the media in both creating the conditions for erroneous convictions and investigating doubtful cases post-conviction to help defendants prove their innocence. One of the background conditions that raises the possibility of an erroneous conviction is the heinousness of the underlying crime. Brutal rapes and murders, multiple murders, and crimes against children particularly inflame the sensibilities of the public and understandably lead to calls to catch and punish the criminal as quickly as possible. When these crimes also generate press coverage—especially the sensational television coverage—authorities are pressured to "do something" to apprehend a suspect. Under these circumstances, research

shows, police officers and prosecutors may feel rushed to complete their investigations and, resultantly, may fall prey to tunnel vision that has them pursuing the wrong suspect (Findley & Scott, 2006).

At the same time, the media, or more specifically, print reporters, have been instrumental in establishing the innocence of some defendants who otherwise would have spent years in prison, if not faced the prospect of execution. Perhaps the most famous of these reporters are former journalists, now Northwestern University professors, David Protess and Robert Warden, whose investigations with their students helped to uncover errors in several Illinois cases. They were aided by Ken Armstrong, Steve Mills, and Maurice Possley, all writers for the *Chicago Tribune*, whose "exposé" on erroneous capital convictions in Illinois was instrumental in convincing then-Governor George Ryan to commute the sentences of Illinois's death row population and to issue a moratorium on further capital prosecutions until additional reforms could be considered. Warden has written about this process and the power that investigative journalism can have in raising awareness of wrongful convictions and building the constituency for reform (Warden, 2003). As his Center on Wrongful Convictions (Leo & Gould, 2010: 858) explains,

> [i]t wasn't that Americans didn't care that innocent men and women were rotting in prison or on death row, but rather that most people simply couldn't accept the fact that such miscarriages of justice could happen on a large scale. When the public and the legal profession finally did come to recognize the alarming scope of the problem, it turned out that there was a great deal of interest.

I.C. New Methods: Social Science Research on What Distinguishes Erroneous Convictions from Other Cases

As useful as the research to date has been in uncovering and exploring potential sources of erroneous convictions, its findings have largely been limited by the nature and scope of

inquiry. Based initially on single case studies, researchers were unable to compare the factors that arose in a particular case of erroneous conviction with those that were found in other exonerations. More significantly, with few exceptions, researchers have not collected data on suitable control groups of cases. Even in those studies with control groups, the underlying crimes at issue have generally been serious felonies, often capital matters. As a result, while the field has been able to highlight particular sources of erroneous convictions, it has been unable to say with certainty whether these factors apply to a multitude of erroneous conviction cases or whether they are shared by other prosecutions that end in different results, including, for example, accurate convictions or acquittals. Put another way, we are still left wondering whether the sources identified to date are correlates or causes of erroneous convictions and if they are contributing or exclusive sources (Leo, 2005; Gould, 2007).

This should not be surprising given that much of the research to date has been conducted by more traditional legal scholars and journalists, who have tended to view erroneous convictions through law's more simplified model of cause and effect: an erroneous conviction occurred, a cause is presumed, and the trigger is sought in order to prevent its harmful effects in the future. Indeed, that is the very basis of both criminal and tort law, which hold that wrongs have causes, that causes can be prevented, and that injuries from unacceptable causes warrant recompense to the victim and punishment to the wrongdoer.

Only recently have researchers applied social science methods to study erroneous convictions, a prospect that offers a better model to understand the sources of error. Social science, of course, is primarily concerned with understanding the world as it is rather than as it ought to be. The goal of traditional social science is generalizable knowledge. Empirical social scientists draw on five primary methods of data gathering—experiments, field observation,

surveys, interviews, and analysis of documents—to produce valid and reliable knowledge about social phenomena. Social scientists study cases and narratives as well, but the researchers are more likely to describe these as sources of data rather than as a method. They are also more likely to study narratives to discern generalizable patterns and explanations across cases (Leo & Gould, 2009).

Empirical social science also seeks to identify more precisely the causal relationships found in social phenomena. However, social scientists recognize that studying causation can be elusive. Observed patterns or events may indicate that two variables are associated or co-vary because they are correlated rather than because one causes the other. Strictly speaking, social scientists can only infer causal relationships with certainty through experiments or randomized control trials in which they can randomly assign subjects, introduce a stimulus on the experimental group (and a placebo on the control group), and measure the independent effect of the stimulus on the observed outcome. In the study of many social phenomena—including most aspects of erroneous conviction—however, it is not possible to conduct meaningful experiments for ethical and/or logistical reasons (e.g., researchers cannot expose research subjects to coercive interrogations in order to induce false confessions). But, as we will discuss in greater depth below, social scientists (and a few non-traditional legal scholars) have relied on other empirical approaches to attempt to make more precise causal statements about patterns and risk factors in the study of erroneous convictions.

I.C.1. Social Science Approaches

Considering that erroneous convictions are brought as actual cases, and recognizing that the investigation and prosecution of these cases show divergent paths, a helpful approach for studying them is controlled case comparisons. This method requires researchers to identify two

separate groups of cases that share independent variables (such as type of crime, prior felony record, etc.) in order to, in effect, control for the potential explanatory effect of these influences on different case outcomes. Done well, this method would allow scholars to more accurately determine what factors are uniquely present in erroneous conviction cases, as well as to statistically test hypotheses about what factors may be causally related to or predict erroneous convictions. For example, researchers could compare a set of erroneous conviction cases against a set of rightful acquittal cases or with a set of accurate conviction cases. The former would explore the differences between cases where some innocent defendants are convicted and others are acquitted; the latter would allow scholars to more systematically test the differences between cases in which the innocent are convicted and those in which the guilty are convicted.

So far, there have been four studies of wrongful convictions using case comparisons, two by criminologists (Harmon, 2001; Harmon & Lofquist, 2005) and, more recently, two by non-traditional criminal law scholars (Garrett, 2008; Gross & O'Brien, 2008). In the first study, Talia Harmon assembled a data set of 76 cases from 1970 to 1998 in which death row prisoners were exonerated and released. She also assembled a comparison, random data set of inmates "convicted at trial and executed, from the same [jurisdictions and years] and in numbers comparable to those of the inmates who were released from death row" (2001: 958). Harmon used logistic regression equations to test which factors (i.e., independent variables) predicted judicial exonerations in capital cases, finding that the discovery of new evidence, allegations of perjury, and type of attorney were all statistically significant predictors of judicial exonerations in capital cases. Harmon found that the amount of evidence introduced at trial was also a statistically significant predictor of exonerations—namely that fewer types of evidence were used in capital cases that eventually resulted in exonerations.

In a second study, Harmon and criminologist William Lofquist (2005) compared not the innocent to the guilty in capital cases, but the innocent to the innocent—eighty-one judicial exonerations of innocent death row prisoners to sixteen executions of death row prisoners whom they believed to be innocent. Their goal was to identify factors that would statistically predict case outcomes of death row prisoners with strong claims of factual innocence, e.g., why some individuals wrongly convicted of capital crimes were exonerated while others were executed. As in Harmon's previous study, Harmon and Lofquist used a logistic regression model to test several hypotheses. They found that allegations of perjury, multiple types of evidence, a prior felony record, type of attorney at trial, and the race of the defendant were all significant predictors of case outcomes. In short, defendants who had a private or resource center lawyer representing them at trial (as opposed to a public defender) were significantly more likely to have their capital conviction (correctly) overturned and be exonerated than be (erroneously) executed. The same was true for convicted capital defendants whose prosecutors relied on fewer forms of evidence at trial, who raised allegations of perjury on appeal, who did not have a prior felony record, or whose case involved an African-American defendant and a white victim. Of course, in Harmon and Lofquist's study the assumptions of innocence were made by the researchers, not by courts or other government officials.

Perhaps the most comprehensive study of wrongful convictions using a comparison sample method is Brandon Garrett's (2008) analysis of the first 200 innocent prisoners who were released after post-conviction DNA testing exonerated them. Of these, Garrett selected the 121 non-capital cases that contained a written decision and assembled a comparison group of 121 non-capital cases that lacked DNA evidence showing innocence or guilt. These cases were randomly selected using a Westlaw search to find all cases that had a published decision from the

same state and same year as the DNA exoneration cases and involved a conviction for the same crime. Unlike the studies by Harmon and Lofquist, Garrett sought to understand how the criminal justice system handled the cases of persons erroneously convicted but eventually exonerated by post-conviction DNA testing. The comparison sample, thus, provided a non-DNA control group of sorts, but, as Garrett points out, he *did not know* how many in the comparison group were innocent. In addition, the comparison group contained less available information about the evidence supporting the convictions because there were no news reports about these cases, unlike in the DNA exonerations in which many were high profile.

Ironically, the real import of Garrett's study for wrongful conviction scholars comes not so much from the comparison sample, but from what his descriptive statistics of the first 200 DNA exonerations tell us: namely, that courts repeatedly misjudged the defendants' innocence and that lawyers, existing legal procedures, and actual innocence all failed to prevent these individuals from being convicted. Garrett also describes why this occurred. As he notes (2008: 131), "[t]hese exonerees could not effectively litigate their factual innocence, likely due to a combination of unfavorable legal standards, unreceptive courts, faulty criminal investigation by law enforcement, inadequate representation at trial or afterwards, and a lack of resources for factual investigation that might have uncovered miscarriages."

Samuel Gross and Barbara O'Brien (2008) have also compared a sample of 105 cases of capital defendants who were sentenced to death and exonerated between 1976 and 2003 with a random sample of 137 executions carried out in the same period. Gross and O'Brien raise the question: What is unique about capital cases that lead to exonerations versus those that lead to execution? This is the same question Talia Harmon (2001) asked and analyzed seven years earlier with a similar data set.

Gross and O'Brien's (2008) analysis implicitly assumes that the convicted capital defendants who were executed are guilty and the ones who were exonerated are innocent, although they are careful to qualify this point by attributing judgments about sufficiency of evidence to the legal system. Unlike Harmon and Lofquist's (2005) study (which compared the *innocent executed* to the *innocent exonerated*), but like Harmon's (2001) study, Gross and O'Brien (2008) compare the *innocent exonerated* to the *guilty executed*. Using chi square tests rather than regression models, Gross and O'Brien identify several statistically significant differences between the capital convictions leading to exoneration and those leading to execution. Defendants who were exonerated were significantly less likely to be reported as mentally ill, more likely to have been tried for crimes that involve two or less victims, more likely to have been tried for crimes that involve children as victims, less likely to have confessed, more likely to have claimed innocence at trial, and more likely to have had an extensive criminal record (especially violent felonies). In addition, in the capital cases leading to exonerations, the time from crime to arrest was significantly much longer than in the cases leading to execution. Gross and O'Brien's analysis demonstrates that these differences are modest predictors of exoneration in capital cases.

I.D. Investigating a New Question: How Erroneous Convictions Differ from Near Misses

As each of the four studies indicates, it is essential to create a comparison, or control, group of cases when studying erroneous convictions. Otherwise, researchers risk labeling certain sources as "causes" of erroneous convictions when the factors are merely correlates. The task, again, is to understand how erroneous convictions differ from the other set of cases – which sources are exclusive to erroneous convictions as against a different set of cases – and to develop a better comprehension of how those sources interact with one another. In choosing a

comparison group, researchers typically assemble cases that differ in their exposure to a particular condition. In medical research, for example, one group of patients may receive a new drug while the control group takes a placebo. By contrast, experimental research in criminal justice raises serious ethical and constitutional questions,[1] so researchers often select a comparison group that differs from the cases of interest on other bases, including outcome. In Harmon and Lofquist's (2005) study, for example, defendants in both sets of cases were presumed to be innocent and differed only in the outcome of the matter; in one set of cases, defendants were exonerated, and in the other they were executed.

The choice of a comparison group should speak to the underlying question at issue in the research. In Harmon and Lofquist's work, the researchers were interested in why the criminal justice system exonerated some erroneously convicted capital defendants while executing others who were also innocent. Gross and O'Brien (2008), by contrast—and Harmon herself (2001)—sought to understand what distinguished the cases of innocent capital defendants who were exonerated from those of guilty capital defendants who were executed. Garrett (2008), who does not claim to have employed social science methods, set out to identify factors specific to the innocent who were exonerated by DNA.[2] At this point, social science research on erroneous convictions is still too young to have evidenced a pattern of interest when employing a control group, but the prior case studies of wrongful conviction may even ask a slightly different question: in scouring the facts of individual cases of erroneous conviction, these studies seek to understand which factors distinguish accurate from mistaken convictions.

[1] Neither the courts nor human subjects protection policies would permit a study, for example, in which one set of subjects received the traditional *Miranda* warnings from the police while a second group was refused these safeguards.

[2] A difficulty in Garrett's work is that his comparison group of cases may include guilty *and* innocent defendants.

I.E. How Does the Criminal Justice System Identify Innocence Before Conviction?

The foci of past studies are certainly valid, but missing so far in the literature is a study that asks how the criminal justice system identifies innocent defendants in order to prevent erroneous convictions. That is the subject of this study, which compares erroneous convictions with "near misses." In both sets of cases, an innocent defendant entered the criminal justice system following indictment or information.[3] In one set, the prosecution continued to an erroneous conviction; in the other, the case against the defendant was dismissed, or the defendant was acquitted at trial, on the basis of factual innocence.

This is an essential distinction and one that so far has lacked scholarly attention. Cases of erroneous conviction, of course, are the most dramatic examples of how the system got the most important thing—the guilt or innocence of the defendant—wrong. They illustrate a breakdown in the accuracy of human judgment at multiple levels: police investigation, prosecution, pre-trial motions, judicial rulings, and ultimately jury verdicts. Near misses, by contrast, illustrate how the criminal justice process got it right (or at least how the court system got it right) in acquitting or dismissing charges against a factually innocent person.[4] What we want to know—and thus what dictated our research strategy—is what factors are uniquely present in the cases that lead the system to rightfully acquit or dismiss charges against the innocent that are not present in cases that lead the system to erroneously convict the innocent. If we understand this, then it may

[3] Throughout this report we simplify the discussion to say by indictment. This expression should be read to include those felonies initiated by information.

[4] We choose to focus on post-indictment cases in this study for both theoretical and practical reasons. Theoretically, it makes sense to compare indictments and convictions, because presumably both are an official recognition of the level of evidence indicating the defendant's guilt; this is in contrast to earlier stages in the process, such as arrest or interrogation, that are more informal and often about public safety concerns or simple fact-gathering. Practically, we do not have access to sufficient information about pre-indictment cases to use these cases in a thorough comparison, as we conducted here. At the same time, we acknowledge that there are many cases of innocent defendants who are correctly "weeded out" of the system prior to indictment, and that in this study we are unable to detect the variance between cases that are discarded before indictment and those that are indicted (for example, if police are more likely to discard investigations against white suspects than black suspects).

be but a short step to comprehending what policy interventions can influence the justice system to get it right and acquit the innocent, thereby preventing future erroneous convictions.

This project differs from past research in four other respects. First, unlike the death penalty studies (Harmon/Lofquist/Gross) that matched alleged exonerations in capital cases to non-exonerations in death penalty cases, we relied on a stricter definition of factual innocence. As we note above, one of the problems with the Harmon/Lofquist/Gross line of research is that they do not know whether the "exoneration" cases are truly innocent or whether the "non-exoneration" cases in their comparison sample are truly guilty. For that matter, even in the Garrett (2008) study, which is an improvement over prior work, the author could not say what percentage of the control group was truly innocent.

Second, this project encompasses a wider range of violent felonies and is not limited simply to capital cases. Third, our study had a greater sample size than the earlier Harmon/Lofquist/Garrett/Gross and O'Brien line of studies: as will be discussed in more detail later in this report, we analyzed 460 cases total (260 erroneous convictions and 200 near misses). Finally, we were able to employ advanced statistical tests that allow a more detailed analysis of the cases than descriptive (Garrett) or chi-square (Gross and O'Brien) statistics.

I.E.1. Hypotheses: Comparing Erroneous Convictions and Near Misses

(i) Introduction

Comparing erroneous convictions to near misses not only will help to explain how and why innocent persons are convicted but also should aid in creating predictors for how the criminal justice system identifies innocent defendants, and thus, prevents erroneous convictions. Although there have been no prior descriptive or comparative studies of near misses, the research literature on erroneous conviction allows us to posit and test a number of hypotheses about what

our study comparing erroneous convictions with near misses may show. The core issue, of course, is why some innocents were erroneously convicted whereas others had their cases dismissed or were acquitted at trial. Four sets of hypotheses emerge: one having to do with the traditional sources of error that are often treated as "causes" of erroneous conviction; one set of hypotheses having to do with sociological factors that are believed to influence erroneous convictions; one set of hypotheses having to do with the structure of the investigative and adjudicative phases of the adversary criminal justice system; and one set of hypotheses having to do with the different actors, and actions they take, within the criminal justice system.

(ii) Hypotheses Concerning the Traditional Legal Sources of Error

The first set of hypotheses we posit involves the traditional legal sources of error that we have reviewed above. Researchers have routinely treated these types of errors as "causes" of erroneous conviction, and sometimes, implicitly or explicitly, as seemingly the most salient or impactful cause of erroneous conviction. For example, some researchers have stated that eyewitness identification testimony is the strongest evidence that the government can bring against an accused (Loftus & Ketcham, 1991). Similar claims have been made about confession evidence, which has been described as "uniquely potent," "highly prejudicial," and as often "trump[ing] innocence" (Kassin, 2012: 2). Accordingly, our first set of hypotheses would be that the seven traditional legal sources of error described above are more likely to be present in the erroneous conviction exonerations than in the near misses:

- Eyewitness error will be significantly more likely in the erroneous convictions than in the near misses;
- False confessions will be significantly more likely in erroneous convictions than in the near misses;

- Knowingly false informant testimony or evidence will be significantly more likely in erroneous convictions than in near misses;
- Forensic error will be significantly more likely in erroneous convictions than in near misses;
- Tunnel vision will be significantly more likely in erroneous convictions than in near misses;
- Prosecutorial error will be significantly more likely in erroneous convictions than in near misses; and
- Defendants in erroneous convictions will be significantly more likely to have received a weaker defense than those in near misses.

(iii) Hypotheses Concerning Sociological Factors Believed to Influence Erroneous Conviction

These seven "traditional" sources of error are sometimes juxtaposed against more sociological sources of error, such as race, class, or demographic effects (Bedau & Radelet, 1987; Free & Ruesink, 2012). The idea here is that minorities and people from lower socio-economic status or class background are at greater risk of poor treatment in the criminal justice system, which may increase the chance of an erroneous conviction. The heightened risk may operate directly—where, for example, racial minorities are arrested at a higher rate than whites in America (Tonry, 1995)—or the danger may be indirect, such as prior findings that African Americans who murder white victims are disproportionately sentenced to death (Baldus, Woodworth, & Pulaski, 1990). In addition, given that criminal justice practices operate within a

larger political system and culture, we anticipate regional differences in the prevalence and distribution of erroneous convictions.[5] Accordingly, we hypothesize that:

- Racial minorities are significantly more likely to be present in the erroneous convictions than in the near misses;
- African Americans charged with crimes against white victims are significantly more likely to be present in the erroneous convictions than in the near misses;
- Cross-racial misidentification is significantly more likely to be present in erroneous convictions than in near misses;
- Class effects are significantly more likely to be present in the erroneous convictions than in the near misses (i.e., individuals from low socio-economic status are significantly more likely to be present in the erroneous convictions than in the near misses);
- Individuals with prior criminal records, especially prior felony records and/or numerous prior convictions, are significantly more likely to be present in the erroneous convictions than in the near misses;
- Erroneous convictions are significantly more likely to occur in former confederate states than in the northern, western and mid-western states;
- Erroneous convictions are significantly more likely to occur in states with a strong attachment to the death penalty or more punitive culture than near misses;[6]

[5] In a study of federal capital defense, researchers identified substantial regional differences in the legal and expert resources provided to defendants (Gould & Greenman, 2010).

[6] Many of the states with the highest number of exonerations are also states with large death rows (Garrett, 2008: 67; Gross et al., 2005: 541). In addition, it appears that exoneration rates for death sentences are much higher than for other murder convictions and for criminal convictions generally. The connection between the use of the death penalty and wrongful convictions may be the result of the fact that capital cases are sometimes afforded greater legal protections (such as increased opportunities to appeal or additional counsel) and are often highly scrutinized by a strong local activist community. *Id.* The greater scrutiny and incentives may result in more erroneous convictions being discovered. If this is the case, then the death penalty is not a source or predictor of the occurrence of erroneous convictions, but rather simply related to how these cases are uncovered. *Id.* However, an alternative explanation for the relationship between the death penalty and higher rates of erroneous convictions is that the death penalty is

- Erroneous convictions are significantly more likely than near misses to occur in states that are politically conservative;
- Erroneous convictions are significantly more likely than near misses to occur in states in which there are high or rising crime rates;
- Erroneous convictions are significantly more likely to be "high profile" cases than near misses, not only representing more serious crimes but also generating greater media attention;

(iv) Hypotheses Concerning Case Characteristics and the Structure of the Investigative and Adjudicative Process in the Adversary System

Criminal cases in the American adversary system move from the investigative phase to the adjudicative phase and then to the sentencing and post-conviction phases. Some wrongful conviction researchers have argued that errors are more likely to occur in the investigative phase (Simon, 2012) and that once these errors occur they are likely to snowball, making it more difficult to reverse the errors at each subsequent step or stage of the criminal process (Leo, 2008). Researchers have also argued that erroneous convictions tend to result from multiple, not singular, errors. These observations suggest that it is easier to reverse or prevent an erroneous conviction the earlier one intervenes in the process, and that the fewer the errors present, especially cumulative errors, the less likely a person is to be erroneously convicted. We can posit several hypotheses based on case characteristics and the structure of the American adversary system of criminal justice:

- Police errors are significantly more likely in erroneous convictions than in near misses;

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indicative of a local legal culture that is violent and punitive and often historically racist (see discussions in Kutateladze (2009) and Cochran et al. (2006); see also Clarke (1998) and Holmes (1992) on the legacy of lynching). These traits may make police, prosecutors, and the community in such jurisdiction more likely to seek conviction despite evidence of innocence.

- Erroneous convictions are significantly more likely to have multiple errors than near misses;
- The time between crime and arrest will be longer in erroneous convictions than near misses; and
- The evidence against defendants will be stronger in erroneous convictions than near misses.

(v) Hypotheses Concerning Actors and Actions within the Criminal Justice System

It is a truism of sociology, and social science more generally, that all behavior can be explained as a result of the interaction between structure and agency. In the context of erroneous convictions, the actions of criminal justice officials, particularly police, prosecutors and defense attorney, can have a huge impact on whether or not a particular case leads to an erroneous conviction. Many hypotheses involving these effects are named above as well. We posit the following additional hypotheses with respect to the behavior of criminal justice officials:

- *Brady* violations are significantly more likely in erroneous convictions than in near misses;
- Intentional error is significantly more likely in erroneous convictions than in near misses; by contrast, unintentional error is significantly more likely in near misses than in erroneous convictions.

II. METHODS

To address these hypotheses and investigate the overarching questions that informed them, this study used a mixed methods approach that involved both quantitative and qualitative analysis. We began by identifying a combined set of erroneous conviction and near miss cases that met the project's criteria. After researching and coding the cases along a number of variables, we analyzed the cases using bivariate and logistic regression techniques. With the assistance of an expert panel, we also explored the cases from a qualitative perspective and examined the statistical results in light of this exploration. Below, we explain in more detail how we identified cases and coded case facts. Then, in the following two sections, we discuss the results of the quantitative and qualitative analyses.

II.A. Case Criteria

Each case in our study involved a factually innocent defendant who was indicted (or, where applicable, charged by information) by a state for a violent felony against a person and was subsequently relieved of all legal responsibility for the crime. Two categories were created: "erroneous convictions" for those who were exonerated after conviction and "near misses" for those who were acquitted or had charges dismissed before conviction on the basis of factual innocence.

The project employed a conservative definition of factual innocence that clearly distinguishes factual innocence from innocence based on procedural error or other purely legal criteria (so-called "legal innocence"). The former means that someone else committed the crime. The latter refers to cases in which the defendant's indictment or conviction was overturned because the state violated his fundamental rights or otherwise made a legal error (Gould & Leo

2010). While a legally innocent defendant may also be factually innocent of the crime, this is not always true. In each case analyzed in this study, we relied on factual innocence.

To establish factual innocence, each case had to possess two separate components:

(1) a judicial, executive or legislative acknowledgement that the individual did not commit the crime for which he was erroneously indicted (including a statement of innocence by a prosecutor, governor, judge, state compensation board, or a juror after an acquittal), and

(2) evidence that would convince a reasonable person that the individual did not commit the crime (such as post-conviction DNA testing, another individual was prosecuted and convicted of the crime, or a new diagnosis of the victim's condition).

In general, a prosecutor's decision not to retry a defendant after a judge overturned the defendant's conviction was not, by itself, considered a sufficient statement of innocence to include the case in our study. However, in a few rare situations where the evidence was uncontroverted and strong enough to prove beyond any doubt that the defendant was factually innocent, we did not require the case to have an official statement of innocence. These were exclusively single-defendant rape cases in which DNA tests on the semen excluded the defendant as the contributor.

We considered it important to employ such a conservative definition of factual innocence for several reasons. First, other research studies on erroneous convictions have suffered from lengthy debates about the actual innocence of some of the defendants included in their study. This, in turn, detracts from a meaningful discussion about the majority of cases over which there is no debate. In addition, one of the goals of the current research was to involve criminal justice

practitioners from traditionally opposing sides that have not previously participated in a common project. To ensure the cooperation of these opposing sides, we needed to employ a definition that was acceptable to the majority of experts and practitioners.

In keeping with our definition that distinguishes factual from legal innocence, we did not include cases in which the defendant actually committed the underlying action of the alleged offense (the *actus reus*) but lacked the necessary mental state (the *mens rea*). These included cases with a successful plea of self-defense or insanity. Such cases rely on legal reasoning and standards of culpability rather than on the factual question of whether the defendant committed the criminal act, and the types of errors involved are also likely distinct. We did, however, include cases of alleged rape where it was later determined that the parties had consensual sex. In these cases the defendant was factually innocent because part of the offense—the lack of consent or force—did not occur.

Cases had to involve a violent felony against a person. We considered this to be the most appropriate type of case for our study because it balanced competing interests. On the one hand, we were sensitive to a bias that has been noted in recent erroneous conviction literature—that is, many studies focus on identifying and studying primarily rapes and murder, which are likely unrepresentative of the majority of erroneous convictions (Garrett, 2008; Gross, 2005). On the other hand, in order to succeed our research required cases that either had official documents on file or would be memorable to those who participated in the case. Less serious felonies and misdemeanors unfortunately do not meet these criteria. Thus, by focusing on violent felonies against a person, we strove to expand our sample to include crimes beyond murder and rape without losing the ability to conduct thorough research.

Qualifying offenses included murder in any degree, voluntary manslaughter, attempted murder, aggravated assault, rape or other sexual assaults involving penetration, attempted rape, and robbery. Aggravation included kidnapping and the use of a weapon. Other felonies, such as kidnapping or arson, were included if the underlying situations included the use of a weapon or resulted in significant bodily harm to an individual. Aiding and abetting either murder or rape was also included if the defendant was alleged to have been at the scene of the crime.

The defendant must have been convicted or indicted no earlier than January 1, 1980 and exonerated, acquitted, or dismissed no later than January 1, 2012. We chose these dates to be inclusive as possible while still ensuring that the law enforcement techniques at issue in the cases were relevant to today and that case files or information were still accessible. The project considered cases from all 50 state jurisdictions but excluded federal and military tribunal cases. Not only are the vast majority of criminal prosecutions in the United States conducted within the states, but the resources available to prosecutors and defendants in federal cases are unlike those in state cases (Cole & Smith, 2010).

A few defendants were included more than once in the database because they had indictments in two or more jurisdictions for separate crimes or had more than one independent case in a single jurisdiction.

II.B. Identifying Qualifying Cases

Researchers systematically identified potential cases, under a common method, using multiple approaches. These included: examining prior publications in the field; searching internet websites and blogs; investigating media coverage of these incidents using online newspaper databases, such as Google Archives; and soliciting potential cases through national outreach to lawyers, criminal justice officials, local innocence projects, and scholars. Using

these methods, researchers identified a total of 628 potential erroneous convictions and over 400 potential near misses.

While the same methods were used to identify both sets of cases, the acquittals and dismissals proved more difficult to identify. In contrast to the often well-documented and consolidated information available for many erroneous convictions, there are no databases, articles, or books written specifically about acquittals and dismissals based on innocence, and no innocence projects take these cases. Therefore, the project relied more heavily on case solicitation from legal practitioners and scholars, media research, and scholarly articles written on specific sources of error (such as false confessions or junk science). To that end, researchers solicited potential near misses through mass emails to members of the National District Attorney's Association, the Association of Prosecuting Attorneys, the National Association of Criminal Defense Lawyers, and state-wide defense associations. Researchers also worked with members of the National Institute of Justice to solicit cases at the agency's annual conference and through word of mouth. To facilitate responses from the case solicitations, the project created a confidential online case submission form that could be accessed through the project's website.

Once the potential erroneous convictions and near misses were identified, researchers conducted a thorough assessment of the cases to determine if they met the project criteria, most importantly that of factual innocence. Rather than relying on the assertions of others that a case constituted an erroneous conviction or near miss, the project conducted extensive research into case facts as well as contacted individuals who could confirm a statement of innocence. Throughout this process, researchers eliminated more than half the cases initially identified because they did not match the study's selective criteria. The initial decision to include cases

was made by individual researchers. When uncertainty arose, the case was discussed among two or more researchers, including the coding supervisor or the principal investigator. Finally, each included case was then reviewed by the coding supervisor to ensure that it met the project's definition.

Both forms of near misses proved particularly challenging. Because they did not go to trial, some dismissals, although they had a statement of innocence, lacked sufficient facts by which researchers could independently verify that innocence. Even more challenging was obtaining an official declaration of innocence in acquittal cases, since there is little reason for a public official or juror to give such a statement after a defendant succeeds in court. For our purposes, a single juror's assertion of the defendant's factual innocence, whether through a direct interview with a project researcher or gathered through the media, was a sufficient statement of innocence, and even this was extremely difficult to acquire. However, even if such a statement of innocence could be obtained, we still needed case facts that would convince us—not just the juror—that the defendant was innocent.

Because of the difficulty and time-intensive research required to identify qualifying dismissals and acquittals, the project received approval from the National Institute of Justice to reduce the target number of near misses from 250 to 200. In addition, dismissals were more likely than acquittals to meet the study's requirement of a statement of innocence, so the final set of near misses was predominately dismissals.

In total, the project identified 260 erroneous convictions and 200 near misses that met the project's definition and were included in the study. Among the erroneous convictions, 87 percent (n=226) were jury trials, five percent (n=12) were bench trials, and seven percent (n=18)

were pleas.[7] Among the near misses, 91 percent (*n*=182) were dismissals and the remaining nine percent (*n*=18) were acquittals at a jury trial.

The geographical distribution of the cases is shown in Figure 1 and Tables 1-2. Both types of cases are located throughout the United States and are relatively more frequent in heavily populated urban areas. In particular, near misses are more common in states and counties with large populations and/or high crime rates. This is what we would expect from an unbiased collection of cases and suggests that our data are broadly representative of near misses.

By contrast, the distribution of erroneous convictions is only partially explainable by population and crime rate. We found, as have other researchers, that there are unusually high concentrations of these cases in areas such as Cook County, IL and Dallas County, TX. Scholars have offered various explanations for this distribution (Zalman, 2012). Some of the explanations, such as systemic police and prosecutorial misconduct, suggest that erroneous convictions may actually occur at a higher rate in these jurisdictions. Other possible reasons, such as the presence of well-established innocence projects or prosecutorial conviction integrity units, and high media coverage in these jurisdictions, have more to do with the rate that cases are *uncovered* and *reported* (Gross, 2005). Although our research does not directly speak to what causes the geographical distributions of erroneous convictions and near misses, we can note that these distributions do vary to some extent between the two types of cases. In addition, as discussed later, we were able to employ statistical controls to account for any geographic concentrations among the cases.

[7] To the best of our knowledge, none were Alford pleas. However, even if they were, we would still consider them erroneous convictions. Alford pleas meet our definition in so far as they involve the conviction of a factually innocent defendant for a crime he did not commit. Of course, reasonable minds differ as to whether this type of plea should be allowed or encouraged in the criminal justice system (and therefore whether the conviction is "erroneous" or "wrongful").

[Figure 1 about here]

With 460 cases of erroneous convictions and near misses from across the United States, our data set is unique within the literature on erroneous convictions for several reasons. First, it is one of only a handful of projects that involves a control group (see Section I.C.1); our control—the near misses—enables us to move beyond a description of erroneous convictions and analyze what separates these cases from other cases of innocence. Second, the size of our data set, as compared to previous studies with only 20 or 50 cases, allows us to run more robust statistical analyses; in addition, because they involve non-capital crimes, our cases are also more diverse than those in many previous studies. Together, this increases our confidence in the representativeness of the results. Finally, the project's conservative definition of innocence ensures that the increase in number of cases does not come at the expense of an extremely solid factual basis for categorizing the cases as we did and helps build broad engagement among scholars and criminal justice practitioners in the conclusions.

II.C. Data Collection and Case Coding

II.C.1. The Narrative Coding Document

For each qualifying case, researchers initially collected data to answer 61 umbrella questions on the project's narrative coding document (see Appendix VIII.A). The questions were designed to reflect possible sources of erroneous convictions as suggested by prior research, as well as those factors that might distinguish erroneous convictions from dismissals and acquittals based on innocence (see hypotheses in Section I.E.1). The questions involved three separate but non-exclusive categories of case facts: demographics, procedural information, and evidential information. The questions were largely open-ended and designed to elicit a

narrative response. For instance, under demographics the researcher was asked to describe any previous arrests or convictions that the defendant had. Under procedural information, a question asked whether the case had been appealed, and if so, what was the court's decision and rationale. In the evidential information section, the researcher was asked to list all eyewitnesses and the relationship of each witness to the defendant. A few questions, such as race of the defendant, had pre-designated choices for the researcher to answer.

To ensure inter-coder reliability among the researchers, the project created a coding book that contained rules for answering each question. For instance, for the inquiry, "What was the result of the first court proceeding in the case?" the coding rules gave the following explanation:

> Choose from "guilty," "acquittal," "dismissal," and "other." "Other" includes hung juries and mistrials. If there is more than one disposition, e.g., the defendant was acquitted of one charge and found guilty of another, please indicate this by circling all that apply and writing in an explanation. If the defendant is found guilty of a lesser included offense but not the primary offense, indicate this as "guilty." (Appendix VIII.B)

Throughout the process of coding, the book was updated regularly to address issues and ambiguities as they arose.

As a further step to ensure inter-coder reliability, the project supervisor reviewed each narrative coding sheet as it was completed by a researcher. If the supervisor determined that one or more researchers were inconsistent in the way they answered a question on the sheet, she brought this to the attention of all the researchers and, together, the project staff developed a coding rule to address the problem.

II.C.2. Sources of Case Facts

The project used multiple sources to investigate cases and collect relevant case facts, including case files, transcripts, other court records, scholarly articles and books, news reports, and interviews with individuals familiar with the facts and context of the cases. In this work,

project staff was greatly aided by the Innocence Project, which made its archives available for the research, and the Association of Prosecuting Attorneys, which helped to introduce researchers to current and former prosecutors. Court or other governmental records were the preferred sources for research, which were obtained either through the state institution itself (such as searchable online court records, transcripts, and gubernatorial archives), or through the Innocence Project's database. The Innocence Project's database included trial transcripts and court proceedings for a subset of their cases. Researchers also relied upon LexisNexis Academia to obtain any appellate court opinions (whether the criminal case itself or a subsequent civil suit) relevant to the cases.

The researchers supplemented written documents with interviews of sources knowledgeable about the cases. This method was especially crucial for the near misses, which had far sparser case files than the erroneous convictions, but it also proved immensely helpful in providing context and additional insight into documentary evidence uncovered through other means. Interviewees included defense attorneys, prosecutors, journalists, police officers, former judges, jurors, and others involved in the cases. Consistent with prior research conducted by the principal investigator, researchers did not contact victims (Gould, 2007). The names and contact information of possible interviewees for each case were identified through official documents or secondary sources.[8] Researchers distributed a template email and letter to potential interviewees explaining the project, and informed consent was obtained before interviews began (see Appendix VIII.D).

Interviews were designed to elicit specific facts about a case and to give subjects an opportunity to speak more expansively about why they thought the relevant indictment had

[8] Interviews were usually conducted after the completion of some documentary research so that the researcher could ask pertinent questions and so that the interviewee's information could be verified through an outside source.

occurred and why the case had concluded as it did. Researchers were careful to distinguish the reporting of facts and opinions; the former were used for case coding, whereas the latter helped to provide context for the case outcome. The exception was when a prosecutor or judge related that s/he believed the defendant had been factually innocent. In these cases, we used the declaration to satisfy one prong of our definition of factual innocence. However, a defense attorney's opinion was not considered a statement of innocence.

Although official documents and interviews were prioritized over other methods of data collection, some case facts were only obtainable through media and news sources. Therefore, researchers conducted thorough searches through Google and Google Archives. Google Archives was particularly useful in identifying articles from local newspapers as well as supplementary material in newspapers (such as letters to the editor and photographs) that were often not available from other sources. Finally, where available, researchers consulted additional sources including academic articles, popular books and documentary films.

(*i) Conflicting Versions of Facts and Missing Data*

While case coding was generally straightforward and objective, occasionally researchers were faced with discrepancies or missing data. In some instances, facts varied between the sources, and researchers needed to determine which version of the facts should be used in the coding process. Thus, an informal hierarchy of written sources was created to establish uniformity between researchers. Official documents were considered the most accurate written resource for case information, followed by academic articles and books, and finally newspapers and Internet sources. For example, if a defendant appeared Hispanic and was referred to as such in the media, but he was listed as Caucasian in the Department of Corrections records, the researcher coded his race as Caucasian.

A more difficult situation arose when an interviewee contradicted a written source. In this instance, the researcher was required to evaluate the trustworthiness and memory of the interviewee. If the interviewee was deemed highly reliable, information gained via the interview was given great weight, overriding differing opinions in all but court documents and scholarly articles. On the other hand, if the interviewee was not deemed particularly reliable, information taken from the interview would be treated as akin to a newspaper article. Again, an example illustrates the point. In one case, several newspapers, while recognizing the defendant's innocence, described him as a gang member and part of an organized crime ring. However, when researchers spoke with a local government official who was close to the case, the official insisted this was not true. He claimed that the story about an organized gang was simply hype surrounding a relatively high profile case. Because of the official's close proximity to the case facts and his obvious reason to answer otherwise (the defendant's allegiance to a gang or organized crime ring would have made the government's erroneous indictment more understandable), we deemed his opinion to be trustworthy. Thus, we did not code the defendant as a gang member. If a researcher ultimately could not resolve a discrepancy or disagreement of facts, she noted it in the narrative coding document and the answer was not used in statistical analysis.

When a fact was not available using the sources listed above, researchers recorded it as "unknown" on the narrative coding document and left it blank during statistical coding. The hardest facts to obtain were certain types of demographic information, such as the number of prior convictions or whether the defendant was a high school graduate. For a few variables, we made limited assumptions when data were missing. Specifically, if no sources made note of the defendant's gang affiliation or suggested a situation in which membership would be plausible, it

was presumed that the defendant did not have an affiliation with any gang. Additionally, if our research failed to uncover any evidence of a cognitive impairment or knowledge of another language, we presumed the defendant did not have cognitive impairment or was reasonably fluent in English, respectively.

II.C.3. Coding Case Facts into SPSS

Once researchers completed the coding document for each case, the cases were entered into SPSS. Over 600 statistical variables were created to capture the 61 umbrella questions in the narrative coding document. For example, the narrative question "Was there forensic evidence in the case?" was reformulated into seven separate SPSS variables: (i) forensic evidence, (ii) fingerprint/impression evidence, (iii) hair/fiber evidence, (iv) ballistics evidence, (v) serology evidence, (vi) DNA evidence, and (vii) bitemark evidence. For every case, the researcher had to code one of three possible answers for each of these variables: not presented (=99), presented without errors (=0), or presented with errors (=1).

To facilitate the translation between the narrative coding document and SPSS and to ensure inter-coder reliability, the project created a separate statistical coding book that defined each of the SPSS variables (Appendix VIII.E). Prior to entering any cases into SPSS, the researchers underwent thorough training on the use of the statistical program and the coding book. Several test cases were also coded and discussed to ensure consistency. The project supervisor and at least one additional researcher independently coded the cases into SPSS; the coders then met weekly to compare how they coded each case. If there were a discrepancy between the coders on any variable, it was resolved by referring back to the narrative coding sheet (in the case of an entry error) or the coding book (in the case of a disagreement about how to code). Because the process of inter-coder checking took over six months, the coders also

conducted random cross-checking on previously checked cases to ensure that coding was consistent over time.

II.D. Rating the Strength of Cases

II.D.1. Introduction to the Police Foundation Rating Scale

The project applied to both sets of cases an instrument from the Police Foundation that examines the strength of evidence available to police and prosecutors. The purpose was to allow us to distinguish between "easy" cases, in which few people would have considered a defendant to be guilty, and "harder" cases, where the facts of a case might have convinced many reasonable people to believe the defendant was guilty even though he was innocent. Indeed, it is one thing for an erroneous conviction to occur when the facts seem overwhelming – as, for example, when an eyewitness is certain of her identification and the forensic evidence is consistent with guilt; it may be quite another for those cases in which the identification procedure is dubious, the forensic evidence fails to match, and the defendant has an alibi.

The project chose the Police Foundation's scale as the most appropriate tool for this research because, as the Foundation notes, it is the first evidentiary strength rating scale for which "content-oriented validity evidence" has been generated.[9] The scale was originally

[9] The Police Foundation scale improves upon previous research. One of the first measures of case strength was developed by Bronx District Attorney Mario Merola (1982). Merola's system evaluated cases on four different aspects: 1) the nature of the crime charged; 2) the gravity of the particular offense; 3) the propensity of the defendant to commit crimes of violence (as indicated by the defendant's background and criminal record); and 4) the strength of the case (Merola, 1982). Merola's system was largely subjective and little effort was made to validate the scale. Later, Behrman and Davey (2001) examined archived eyewitness identifications and categorized the cases as having no extrinsic evidence, or extrinsic evidence that was either minimally probative or substantially probative. Like Merola, the scale lacked any content-oriented validation; in addition, because the scale was essentially dichotomous if the case had extrinsic evidence, the quality of cases condensed into the minimally or substantially probative categories varied drastically. As a result, the scale lacked precision and utility. The Police Foundation scale improves upon the Merola (1982) and Behrman and Davey (2001) scales by generating exemplars that serve as objective anchors, engaging experts in a process of content-oriented validity, and expanding the scale to include five categories of evidential strength. The result is a more nuanced, objective, and applicable tool.

designed by the Foundation as a method of getting at "ground truth" (e.g., is the suspect really guilty?) when assessing the effect of presentation format on the rate of false or correct eyewitness identifications. The scale contains six categories of information or evidence; each category in turn contains exemplars that have been given a rating on a 5-point scale (5 being strong evidence, 1 being weak evidence). These exemplars serve as "anchors" for the investigator or researcher when assessing how the investigator's own case facts should be rated.

To create these exemplars and generate "content-oriented validity evidence," the Police Foundation surveyed a dozen subject matter experts to determine the strength of particular examples of evidence. These original experts included four judges, three prosecutors, two defense attorneys, four police investigators (two of whom were also research scientists), and one criminal justice researcher/lawyer. If an example received a relatively consistent score by each expert, it was assigned the average score and included as an exemplar in the scale. By contrast, particular examples of evidence that received widely differing scores were not used in the scale.

As part of the multi-stage development process, the Police Foundation subsequently refined the scale by having over five dozen other experts and practitioners rate the exemplars, as well as through a pilot project at a police agency. The Foundation is currently in the process of using the rating scale in research at several police agencies across the country and continues to develop further evidence of content-oriented validity.

II.D.2. Applying the Police Foundation Rating Scale to Project Cases

(i) Modifications to the Scale

To increase inter-coder reliability and address the project's unique research questions, we made some minor changes in the scale before applying it to our cases. In consultation with the Police Foundation, we simplified the tool by collapsing the 5-point scale into a 3-point scale.

Exemplars that were originally given a score between 1 and 2.5 were given a new score of 1 ("weak evidence"), exemplars that were originally scored between 2.5 and 4.5 became a 2 ("probative evidence"), and exemplars in the 4.5 to 5 range were given a score of 3 ("highly probative evidence").

The project also created several new exemplars. In the category of physical evidence, this was necessary because the original exemplars had been developed quite recently and did not include common types of evidence frequently found in older cases (such as serology and hair morphology). The project's cases date back to 1980 and therefore some guidelines were necessary for rating these "older" types of forensic evidence. The research team created and rated the new exemplars with input from the Police Foundation. We also added exemplars to the category of suspect statements. The original exemplars did not address many of the possible factors that might correlate with a false confession, such as a mental disorder or "dream confession." The same process for creating new exemplars, as outlined above, was used in this instance. In addition, we consulted with an expert on false confessions.

The last modification to the original Police Foundation scale was to separate the evidence presented by the defense and prosecution for each case. Because the Police Foundation designed the scale to be used only on information contained within a police file, its scale does not make any distinction between evidence available to the state and that presented by the defense. The project, on the other hand, had information from many different sources, often including defense attorneys. In addition, one of the hypotheses of the research was that quality of defense would affect case outcome; therefore, we considered it vital to create a new, seventh category that evaluated the strength of the defense case. Researchers created exemplars of possible defense evidence, modeled on those in the original scale, and gave the exemplars a rating. Following

consultation with the Police Foundation, the rated exemplars were then included in a new scale for defense activity.

(ii) Training and Method of Rating

The Police Foundation trained four researchers (including the PI and project supervisor) in the use of its rating tool. Training included two half-day sessions at the Police Foundation with the head of research at the Foundation and an assistant. The Police Foundation explained the creation and purpose of the scale, provided the research team with copies of the scale and supporting documents, and answered questions from the researchers about implementing the scale. After each training session, the researchers were in contact with the Police Foundation with follow-up questions as the team began to implement the scale.

After discussions with the Police Foundation, we decided that initially each case should be rated independently by three researchers (including the coding supervisor), without consultation with the other researchers. Then, the researchers would compare their ratings. Every rating had to be agreed upon by two out of the three researchers before it could be recorded as final. In most cases, when the researchers compared their individual ratings, at least two of the researchers rated the case identically, and this rating was recorded as final. Occasionally, when the researchers did not agree, they consulted the PI and reached a consensus.

Before implementation, over 20 cases were rated by the four researchers trained on the scale as pilot cases; after inter-rater reliability was reached, the actual rating began. Throughout the process, previously rated cases were re-evaluated to ensure that the researchers were consistently rating cases over time.

(iii) Determining What Information to Rate

The Police Foundation scale was designed to rate cases based on all the information and evidence gathered by the police in their files during an investigation. Our project, however, involved information from several different sources, including police but also prosecutors and defense attorneys, and were not ongoing investigations but rather cases that had progressed to a certain point (i.e., conviction, plea, acquittal, or dismissal) at the time that innocence was determined. Therefore, it was necessary to clarify what sources of information would be taken into consideration when rating each case.

In rating the state's case for the erroneous convictions, researchers assessed all the evidence the state had gathered or reasonably should have gathered up through trial or the plea. All state actors (including prosecutors, police, and state crime analysts) were considered to have exchanged information and evidence, so anything known to one group of actors was imputed to the state's case. Therefore, withholding evidence, making intentionally false statements, and similar actions by a state actor were considered "known" by the state. Mistakes or false statements by non-state actors that were unknowable by the state were not included in our assessment of the state's case. The aim was to ensure that we considered only that evidence which was accessible to the trier of fact (judge or jury) or the prosecutor (who made the decision to pursue the case) and therefore could have conceivably contributed to the erroneous conviction.

In rating the defense's case for the erroneous convictions, if the case went to trial, researchers assessed the evidence the defense presented at trial. If the case resulted in a plea, researchers assessed all exculpatory evidence the defense gathered and shared with the state up through the plea. Because the defense's case, unlike the state's, generally involved only one or

two attorneys and a very small number of assistants, there was generally no need to impute knowledge between actors when rating the defense.

In rating the state's case for the dismissals, researchers assessed all the evidence the state gathered or should have gathered up to the point immediately before the discovery of the exonerating evidence that directly led to the dismissal. This included any exculpatory evidence uncovered by the state before the final piece of exonerating evidence was discovered. We excluded the exculpatory evidence that directly led to the dismissal of the case because the goal was to rate the strength of the information that led to the erroneous indictment in a manner that paralleled the way the erroneous convictions were rated. That is, we considered the evidence leading to the erroneous conviction but not information leading to the eventual exoneration.[10] Again, as with the erroneous convictions, all state actors were considered to have exchanged evidence, so anything known to one group of actors was imputed to the state's case.

In rating the defense's case for the dismissals, researchers assessed all the evidence the defense gathered up to the point of dismissal, excluding exculpatory evidence uncovered solely by the state. Finally, in rating the defense's case for acquittals, researchers used the same standard as that employed for the defense of erroneous convictions that went to trial.

[10] If we had included the exonerating piece or pieces of evidence in the dismissals but not in the convictions, the strength of evidence rating system would be virtually meaningless—clearly, the dismissals would be consistently much weaker than the convictions because they would include conclusive evidence of innocence. The purpose of the rating scale was to determine whether, *before the exonerating piece of evidence was known to the state*, there was already a difference in strength between the near misses and the erroneous convictions that might speak to why the cases ended up one way and not the other.

III. QUANTITATIVE ANALYSIS

Having collected such detailed information about the erroneous convictions and near misses, the project's next task was to compare the relative frequencies of these variables between the two sets of cases.[11] To better organize the analyses, we divided the variables into six conceptual categories that may predict an erroneous conviction versus a near miss. They include: (1) location effects, (2) nature of the victim, (3) nature of the defendant, (4) facts available to the police and prosecutor, (5) quality of work by the criminal justice system, and (6) quality of work by the defense.

III.A. Frequencies and Bivariate Analysis

III.A.1. Statistically Significant Variables

Using bivariate analysis, we tested each of these variables for significance against case outcome (erroneous conviction or near miss). Tables 3-8 show the results by category.

[Tables 3-8 about here]

Because many of the cases in our sample were crimes of murder or sexual assault (or a combination thereof), we re-ran the bivariate analyses controlling for each type of crime. We also controlled for time period. Our concern was that enhanced forensic technology and improved police procedures might skew the distribution of erroneous convictions and near

[11] The reader will note that some of the variables in Appendix VIII.A.do not speak directly to the different outcomes of erroneous conviction and near miss cases. Such variables, including the amount of compensation that a defendant was awarded after exoneration, the length of a defendant's prison sentence, and the mechanisms by which defendants were exonerated, were recorded for possible future research and are not analyzed in our current study; therefore, we do not discuss them further in the report.

misses over time, and we wanted a control variable that reflected the point at which forensic methods and investigative techniques would have significantly advanced over prior periods (Table 9-10). We selected 1989 for these purposes, which represents the first year that DNA was used to exonerate an innocent defendant. Finally, we controlled for one state—Illinois—in which erroneous convictions were disproportionately located. Here, our concern was that the added frequency may have reflected the circumstances under which erroneous convictions were uncovered as opposed to those forces that would have led to a mistaken conviction.[12] In this vein, we checked the case distributions for disproportionate influence from other localized "scandals," such as problems in the Houston crime lab or corruption in the Los Angeles Police Department's Rampart Division. Those effects were not sufficiently sizeable to necessitate a control. Indeed, as we discovered in the regression analysis, the disproportionate number of cases from Texas was controlled for by other independent variables, including state punitive culture.

In applying the controls noted above, we only used those in which there was a theoretical reason to expect that it may have affected that variable. For instance, there was no reason to think that cases from Illinois were more likely than cases from other states to present DNA evidence, so we did not control this variable for state. By contrast, given the prevalence of organic material suitable for DNA testing in rapes rather than murders or robberies, we controlled the DNA variable for type of crime.

As shown in Tables 11-22, when controlled for type of crime, time period, or state, many of the variables did not remain statistically significant. With few exceptions, noted below, the variables that remained significant despite the controls were retained as candidates for logistic

[12] Illinois has seen considerable attention by innocence projects and journalists to uncover erroneous convictions, especially in capital cases. The findings were so profound that they led former Illinois Governor George Ryan to commute the sentences of all defendants then on the state's death row.

regression. Furthermore, a number of variables that washed out when controlled were nevertheless also retained for further testing due to their original significance when all cases were analyzed or their theoretical importance in prior criminal justice research; those, primarily, were variables representing race effects.[13]

[Tables 11-22 about here]

At the same time, despite the fact that they remained statistically significant when controlled, a few variables had such low frequencies that they violated the assumptions of the chi square tests and could not be included in the regression models. These included: the presence of medical error, whether federal law enforcement participated in the case investigation, and whether the defense presented DNA evidence. In addition, notwithstanding its statistical significance, we did not consider it necessary to retain the U.S. census region where the case occurred because inter-state differences were accounted for by such variables as presidential vote/citizen ideology[14], death penalty culture (which served as a measure of state punitiveness),[15] and state crime rate, among others.

Table 23 shows the variables that remained (by category of hypothesis) for further testing in logistic regression.

[13] Interestingly, as shown later, those added variables did not prove explanatory in logistic regression.
[14] We originally tested mean presidential vote by state for the years at issue (see Appendix VIII.E., Statistical Coding Book). As an alternative and more diverse measure, we then evaluated citizen ideology. This variable was defined as the average citizen ideology score from 1980 until 2008 (most recent data available). The citizen ideology score was developed by Berry et al. (1998) and measures roll call voting scores of state congressional delegations, the outcomes of congressional elections, the partisan division of state legislatures, the party of the governor, and various assumptions regarding voters and state political elites.
[15] We measured the death penalty/state punitiveness variable in several ways, including: (a) state executions post-1976 per state population, (b) state executions post-1976 per number of state murders, (c) state death sentences post-1976 per number of state murders, (d) county death sentences post-1976 per number of county murders as calculated by Liebman et al. (2002), and (e) a ranked level of state punitiveness developed by Kutateladze (2009). We primarily used the first measure in bivariate analysis, but as noted in Section III.B.2., the second measure proved to be more robust in the logit regression models.

[Table 23 about here]

These variables included:

- State Death Penalty Culture (Executions per Population)
- Crime Rate Consistency between Year of Crime and 5 Years Prior
- Age of Defendant
- Criminal History of Defendant
- Defendant's Race (% African American)[16]
- Defendant Graduated High School
- White Female Victim
- Female Victim
- High Profile Case
- Strength of Prosecution's Case
- Error in Forensic Evidence Presented by Prosecution
- Non-Eyewitness Testimony or Evidence[17]
- Discrepancy in Victim's Description of Defendant (Testimony Discrepancy)
- Intentional Misidentification by Eyewitness
- Prosecution Withheld Evidence
- Time from Arrest to Indictment
- Strength of Defense
- Defendant Offered Physical Alibi
- Defendant Offered Other Suspect
- Defendant Offered Evidence of Official Misconduct
- Defendant Offered Family Witness

III.A.2. Variables That Do Not Distinguish the Cases

Perhaps one of the most important findings from this project is which variables do not explain the different outcomes between erroneous convictions and near misses. Indeed, a number of variables that are often discussed by scholars as possible sources or "causes" of

[16] We also tested an alternative variable to evaluate the influence of race, calculated as the percentage of the state population in 1990 that was non-white (all racial minorities plus Hispanics). This variable was designed in particular to measure "racial threat" -- the concept that states become more penal as the size of the minority population rises (and whites, thereby, feel more threatened).

[17] Except where specifically indicated, we use "testimony" in this report as a short-hand to indicate testimony *or* evidence that is given to the state. Because the majority of the near misses did not go to trial, for most variables it was necessary to compare trial testimony in the erroneous convictions with evidence given by witnesses in *anticipation* of trial in the near misses. As discussed in V.C., we recognize that this type of comparison has inherent limitations.

erroneous convictions were not correlated with case outcome in the bivariate analysis. Among these are eyewitness misidentification, false confessions, and jailhouse informants.

This is not to say, however, that these variables are unrelated to either erroneous convictions or near misses. To the contrary, such factors as eyewitness misidentification and false confessions occurred regularly in both sets of cases, but those rates were so similar that they do not explain divergent case outcomes in the bivariate analysis. We address this point in greater detail in the Discussion section, arguing that these errors may lead to the indictment of an innocent defendant. But, once a factually innocent defendant enters the criminal justice system, the findings here suggest that conviction will not turn on differences in those factors.

(i) Errors in Eyewitness Identification

Most of the variables reflecting errors in eyewitness identification were statistically indistinguishable between erroneous convictions and near misses, and of those that were significant when all cases were analyzed, with the notable exception of the intentional misidentification variable (discussed below), virtually all washed out when controlled for type of crime. Eyewitness identification error was frequent in both sets of cases (83 percent of erroneous convictions and 75 percent of near misses), and the difference was not significant. Other eyewitness variables that did not prove significant included: the number of eyewitnesses, whether the eyewitness was certain of her identification, whether the eyewitness provided a description of the defendant, whether the victim needed multiple tries to identify the defendant, whether the non-victim eyewitness made a cross-racial identification, and the type of identification made by the non-victim eyewitness (e.g., photo array, show-up).

(ii) False Confessions

When examined across multiple categories of the variable, 22 percent of erroneous convictions involved defendants who either falsely confessed to a crime or provided incriminating statements against themselves. In near misses, these categories numbered 29 percent of the cases. Those differences were not statistically significant. Examining confessions only, however, 14 percent of erroneous convictions involved false confessions compared to 22 percent of near misses; these data were statistically significant. Nevertheless, when false confessions were controlled separately for type of crime and date, the differences between cases rapidly dropped to statistical insignificance. As a result, we did not include the variable in later regressions.

Among cases where the defendant falsely confessed, less than one third of the erroneous convictions and the near misses involved a substantiated allegation of physical threat or abuse to elicit the confession. This means that the majority of false confessions were either volunteered or obtained through purely psychological coercion.

(iii) Official Error and Misconduct

Neither error nor misconduct (excepting *Brady* violations) on the part of prosecutors and police were significantly different between the two sets of cases. Error was defined as an inadvertent mistake or omission (such as forgetting to collect or losing evidence), while misconduct often violated the defendant's constitutional rights and involved an element of intentionality or extreme negligence (including coercing a confession or planting physical evidence). Although the overall frequencies of all types of error or misconduct were low, police error occurred most frequently, appearing in 16 percent of erroneous convictions and 11 percent of near misses. Prosecutorial error was less common and occurred in extremely similar

percentages (six-seven percent) in both cases. Police misconduct occurred in eight percent of erroneous convictions and 12 percent of near misses, whereas prosecutor misconduct occurred in only three-four percent of both sets of cases. For each variable, we also recorded error or misconduct that was alleged, but this was not statistically significant (see Table 6).

Fraud by a forensic scientist, e.g., when a forensic scientist knowingly reported or testified to false results, was also infrequent and not significant in bivariate analysis. Among erroneous convictions, six percent of cases proved fraud and the same percent alleged it, whereas among near misses it was four percent for each. Therefore, while forensic fraud was a serious issue in a few of our cases, it is not endemic in the system. In fact, instances of fraud were generally confined to a handful of specific labs and technicians.

(iv) Criminal History

Although a defendant's prior conviction was significant in the bivariate analysis, among defendants with a prior conviction, there was not a significant difference in the number of the prior convictions or whether the priors involved a history similar to the crime at hand. In fact, in both sets of cases only a relatively small percentage of defendants had a record that was similar to the crime at issue (17 percent among erroneous convictions, 25 percent among near misses). Our results suggest that it is simply prior involvement with the criminal justice system that puts a suspect at greater risk for an erroneous conviction, rather than the specifics of that involvement.

(v) Jailhouse Informant

Finally, despite the fact that false statements by a jailhouse informant or snitch have been noted as a "cause" of erroneous convictions in prior literature (Gould & Leo, 2010; Gross, 2005), such intentional falsehoods by a snitch were relatively infrequent in our dataset, occurring in 11 percent of erroneous convictions and seven percent of near misses. This difference was not

significant. However, jailhouse informants and snitches were included in a variable that *was* significant in regression analysis—lying by any non-eyewitness—so we cannot discount that this type of evidence might play some role in distinguishing erroneous convictions and near misses.

(vi) Other Factors

In both sets of cases, very few defendants were a member of a gang: just four percent among erroneous convictions and seven percent among near misses. This suggests that the stigma of gang membership does not substantially hurt the innocent defendant.[18] Finally, neither the erroneous convictions nor the near misses made frequent use of defense experts. Seventeen percent of erroneous convictions included a defense expert, whereas 22 percent of near misses did; the difference was not statistically significant. Thus, any overall difference in the strength of the defense between the two types of cases is probably not attributable to the use of experts.

III.B. Logistic Regressions

III.B.1. Estimating the Models

To test the impacts of the variables that were significant in bivariate analysis on case outcome, we created a series of logistic regression models estimating the probability of an erroneous conviction.[19] As with the bivariate analysis, we controlled for time period (post DNA), type of crime (murder), and state (Illinois).[20] To recover missing data, we used multiple imputation (a technique discussed below) and, in turn, generated five separate datasets. Our estimations then incorporated information from all of the data. Each model in Tables 24-28

[18] This is true only for the crimes at issue here—predominately rape, murder, and robbery. The influence of gang membership on erroneous indictments or convictions involving drug crimes may be different.
[19] Logit or probit models will both produce similar coefficient estimates that are different by a factor of about 1.7 (Long & Freese, 2006).
[20] Although here we report the models controlled for murder, we estimated all of the models with rape instead of murder and got similar results.

provides the number of observations (460 complete cases) per dataset (5 datasets) for a total of 2,300 observations.

[Tables 24-28 about here]

Most statistical models assume that the errors across observations are homoscedastic (e.g., they do not vary based on the value of the independent variables) and independent. In our model, we had individuals that were clustered in states. In so far as there may be some correlation among individuals in the same state, the cases are probably not independent and likely violate the assumption of homoscedasticity. To address this issue, we implemented a clustering correction by clustering the standard errors by state where the case resides.

Tables 24-28 show simple models with control variables and a single conceptual focus: the nature of the crime (Table 24),[21] the nature of the defendant (Table 25) , the nature of the facts (Table 26), the quality of the work by the criminal justice system (Table 27), and the quality of the defense (Table 28). Table 29 then provides the results of the full model with all components of each model as well as the relavant control variables. In this report we focus on the discussion of the final full model (Table 29), but we provide these other models to show that the results are similar with just a small set of variables and not sensitive to the specification. Before we discuss the results of the full model in more detail, however, we must first mention our choices to use multiple imputation for missing data and the Receiver-Operating Characteristic Curve as an evaluation of goodness-of-fit.

[21] The nature of the crime model combines the variables that were in two separate conceptual categories in the bivariate analysis—location effects and nature of the victim.

Imputation is the process of filling missing data with plausible values. The primary benefit of multiple imputation is retention of case data; because of this, as King, Honaker, Joseph, and Scheve (2001) note, methodologists and statisticians are nearly unanimous in their agreement that multiple imputation is a better technique to deal with missing data than the conventional applied data analysis approach—listwise deletion. We therefore used multiple imputation on our dataset when confronted with missing values. For a more detailed explanation of imputation, see Appendix VIII.I.

To evaluate the model fit in our binary dependent variable models we chose to use the Operating Characteristic (ROC) curve, which improves upon other measures of goodness-of-fit, such as the percent correctly predicted (PcP) and the percent reduction in error (PRE). (For a more detailed explanation of the ROC curve and alternatives, see Appendix VIII.I.) The area under the ROC curve and above the 45 degree line gives a unique measure of model fit. In the models that we estimate, we use this area under the ROC curve statistic as the measure of model fit. While there is not a standard for what this number should be, between 80-89 percent is generally considered a good model, and above 90 percent is an excellent model at predicting the outcome of interest.[22] As explained later, the area under the ROC curve for our regression is 90.8 percent, suggesting a strong predictive model.

III.B.2. Regression Results

Table 29 displays the results from our full model of logistic regression. The first column organizes the variables by conceptual category. The second column shows the name of the individual indicator, and the third and fourth columns include the coefficient and standard error.

[22] See http://gim.unmc.edu/dxtests/roc3.htm and http://www.cpdm.ufpr.br/documentos/ROC.pdf for discussions of this rule of thumb.

These standard errors are both adjusted based on the inclusion of five datasets as well as clustered by state.

[Table 29 about here]

Among the variables related to the nature of the crime and location effect, only the death penalty culture/state punitiveness measure[23] has a consistent impact on case outcome—defendants in states with greater use of the death penalty are more likely to be erroneously convicted. Other such variables, including the demographics of the victim, are insignificant.

Among defendant characteristics, the defendant's age and any prior criminal history influence case outcome. Older defendants are less likely to be erroneously convicted, whereas defendants with prior criminal histories are more likely to face an erroneous conviction. Other defendant characteristics, such as race and high school graduation, have no impact in distinguishing between an erroneous conviction and near miss.

Three factors related to the nature of the facts are associated with erroneous convictions, although not necessarily as expected. To be sure, errors in forensic analysis increase the likelihood of an erroneous conviction, but the stronger the prosecution's case, the less likely that a defendant will be erroneously convicted and instead will see his case dismissed or acquitted. So, too, intentional misidentification is associated with a decrease in the likelihood of an erroneous conviction. The other three factors are insignificant.

Evaluating the work of the criminal justice system, two variables are associated with an increased probability of a erroneous conviction. The prosecution's withholding of evidence and

[23] As noted in footnote 15, we used several alternative measures of state punitiveness. State death penalty culture, defined as the number of executions post 1976 per number of murders, proved to be the most robust measure in the regression analyses, and thus we select it for the final model.

lying by a non-eyewitness[24] are both positively associated with a erroneous conviction. The time to arrest from indictment is not related.

Three components of the quality of defense are associated with a change in the probability of a erroneous conviction. When the defense has a stronger case, a erroneous conviction is less likely. Additionally, when the defense presents evidence of misconduct, it reduces the likelihood of a erroneous conviction but at a lower degree of certainty than the other measures ($p<0.10$). Having a family witness is associated with an *increase* in the likelihood of a erroneous conviction. Other evidence presented by the defense, including a physical alibi and another suspect, do not systematically relate to case outcome.

Finally, all of the control variables—Illinois cases, the Post-DNA period, and murder cases—are associated with erroneous convictions. Although we do not discuss the substantive influence of these variables, their inclusion assures us that the results for the key theoretical variables are not spurious. As seen in Figure 3, the area under the ROC curve is 90.8 percent, suggesting a strong predictive model. The more simple models have ROC curves in the 80s, suggesting good predictions (see Figure 2), but the more complete model offers the most accurate predictions and thus the best fitting model.

[Figures 2-3 about here]

Since the logit coefficients are difficult to interpret directly, we produced a graph of the predicted probabilities for each variable that has a statistically significant impact on the

[24] While this variable was not significant in bivariate analysis, it was included in the regression models because prior research provides both theoretical and empirical evidence that it plays a substantial role in erroneous convictions (see Section I.B.4). An included variable, jailhouse informant or snitch, was also tested in the regressions but was not significant.

likelihood of an erroneous conviction. Figure 4 displays these results. Using the statistical program Clarify (King, Tomz, & Wittenberg, 2000), we performed 1000 simulations over the five datasets and predicted the change in the probability of an erroneous conviction given changes in the independent variables while holding all other variables at their means. Using Boehmke's (2008) algorithm, we then plotted these predicted probabilities and their standard errors. For the dichotomous variables (Prior Criminal History, Forensic Evidence Error, Intentional Misidentification, Intentionally False Non-Eyewitness Testimony or Evidence, Strength of the Prosecution's Case, Prosecutor Withheld Evidence, Strength of the Defense's Case, and Family Witness), we show the change in the probability of an erroneous conviction given a change in one of these variables from 0 to 1. For the continuous measures that are statistically significant (Death Penalty Culture and Age of the Defendant), we display the change in the probability of an erroneous conviction given a change in the independent variable from its minimum to its maximum.

[Figure 4 about here]

As Figure 4 shows, an increase in the Death Penalty Culture measure from its minimum (0.000) to its maximum (0.012) is, on average, associated with a 27 percent increase in the probability of an erroneous conviction.[25] As with any estimate, there is uncertainty around it, but the result is clearly positive and likely substantively meaningful. Similarly, as the age of the

[25] This 27 percent increase is a 27 percentage point increase. In other words, if the baseline probability for a wrongful conviction were 56 percent, then this change in Death Penalty Culture would be associated with an 83 percent chance of a wrongful conviction. The statistical software Clarify produces first differences, or the expected percentage point change in the dependent variable given a change in the independent variable of interest.

defendant increases from its minimum (14) to its maximum (76), the likelihood of an erroneous conviction decreases, on average, by 65 percent.

A strong defense case decreases the probability of an erroneous conviction by an average of 24 percent. Conversely, a strong case by the prosecutor decreases the probability of an erroneous conviction by an average of 25 percent. If the prosecution withholds evidence or a non-eyewitness gives intentionally false evidence, the probability of an erroneous conviction increases by 19 percent and 16 percent respectively. A forensic evidence error is associated with a 14 percent increase in the likelihood of an erroneous conviction. An intentional misidentification of a suspect leads, on average, to a 20 percent reduction in the probability of an erroneous conviction. If a family member is called as a witness by the defense, the probability of an erroneous conviction increases by 13 percent on average. Finally, a defendant's prior criminal history increases the probability of being erroneously convicted by an average of 19 percent.

III.B.3. Prediction/Forecasting

As the ROC curves show, the statistical model is able to predict erroneous convictions at a high rate (0.908). Nearly 91 percent of the time the model can accurately predict an erroneous conviction versus a near miss. Even in the simpler models (Tables 24-28), the area under the ROC curve is between 0.801 and 0.827. While this evidence suggests that the models are useful, there is a concern with *overfitting*—that is, the fit we find may be particular to these data. The model may be good at predicting outcomes in the same data used to estimate the model (in-sample prediction), but we do not know how the predictive ability of the model will apply to other datasets (out-of-sample prediction).

To address the concern of overfitting, we used the procedure of *cross-validation* to create an out-of-sample test of the model using our own data set (see Appendix VIII.I.**)** for technical discussion of cross-validation). The results of cross-validation show that our model is able to predict over 87 percent of the cases of erroneous convictions *out of sample.* This is a slight decrease as compared to the in-sample forecasts (91 percent) but the forecasts are still high, suggesting overfitting is not a serious problem with the model. We expect that this model could be used to predict future cases across the United States that are likely to be erroneous convictions with a high degree of accuracy.

IV. QUALITATIVE ANALYSIS AND THE EXPERT PANEL

IV.A. Convening the Expert Panel

A vital component of the project was to supplement the quantitative analysis with an independent qualitative review of our cases by an expert panel, which met over two days in early February 2012 at the American University campus in Washington, DC.

The expert panel consisted of twelve criminal justice professionals. Panelists included: two prosecutors, two retired judges, a defense attorney, a police sergeant, a forensic scientist, and researchers on both police and prosecutor practices. We selected the panelists with the goal of providing a diversity of opinions and experiences. Thus, we selected panelists who held sometimes opposing positions in the adversarial system, from different jurisdictions across the United States, and reflecting a mixture of academic scholars and practitioners. The names of potential panelists were obtained either through nominations from other experts or by their reputation as experts in their respective fields.

To facilitate the panel's assessment, the project created factual narratives for 39 of our cases: 20 erroneous convictions and 19 rightful dismissals/acquittals. We matched these cases according to the Police Foundation rating scale for both the strength of the prosecution's case and strength of the defense (see Appendix VIII.F for exemplars from the scale). Thus, there were examples of weak, probative, and highly probative prosecution cases and weak, probative, and highly probative defenses among both the erroneous conviction and near miss narratives. These narratives included both DNA and non-DNA exonerations as well as representative fact patterns (e.g., false rape claims, sudden infant death) and the most common felonies (rape, murder, and armed robbery). This allowed us to facilitate an efficient and broadly applicable discussion among the experts. Appendix VIII.G contains six sample narratives; note, though,

that we have omitted any identifying information in the narratives or our discussion of case facts in this report, which is in compliance with our human subjects research protection plan. The panelists, however, had full access to the information on each case.

The panelists were invited to consider the case narratives several weeks prior to the panel and were asked to assess each case using an evaluation sheet provided by the project (see Appendix VIII.H). The evaluation sheet asked the panelists, among other things, to weigh the strength of various types of evidence against the defendant (such as a confession or eyewitness identification), consider the errors that led to the erroneous indictment or conviction, and offer suggestions for concrete steps or practices that could have been taken to prevent these errors. The panelists then brought these evaluation sheets with them to the panel discussions as a way of facilitating their memory of the cases and providing the project with written commentary.

At the panel, the experts were invited to discuss the reasonableness of individuals' actions in the cases. The project was looking for a qualitative analysis of why the various participants in these cases may have acted as they did. The panelists were also encouraged to discuss what, if anything, differentiated the cases that led to an erroneous conviction from those that resulted in a dismissal or acquittal. Finally, the experts assisted by recommending appropriate measures that might enhance the ability of the criminal justice system to identify and appropriately respond to factually innocent defendants. The discussions were moderated by the principal investigator, who encouraged the experts to cover a broad range of topics and speak freely. As a result, the panelists appeared to be remarkably candid in their opinions and the flow of conversation was dynamic. One project staff member was in charge of taking notes throughout the two days of conversation. These notes, along with the evaluation sheets from the

individual panelists, were reviewed at the close of the expert panel and formed the basis of the project's qualitative analysis.

IV.B. Qualitative Analysis

The expert panelists' analysis helped develop and further explain the individual factors that were statistically significant in distinguishing the two sets of cases. Even more importantly, the panel placed the quantitative findings within the greater context of the criminal justice system, creating a narrative of the system-wide processes that can influence case outcome.

IV.B.1. Predictor #1: Prior Convictions

Quantitative analysis indicates that having at least one prior conviction is a predictor of an erroneous conviction but does not further explain the nature of this connection. To understand more fully how a prior record may hurt an innocent defendant, we turned to the panelists. To begin, the expert panel noted that prior convictions often influence the decision of police officers to place a suspect in a lineup. In addition, if the defendant has a previous arrest or conviction, his picture is likely to be in a mug book; that fact alone may place a defendant in jeopardy that a witness will erroneously choose his photo for a crime he did not commit.

However, this explanation is insufficient to explain the quantitative results, because both erroneous convictions and near misses involved similar rates of eyewitness identification errors. According to the panel discussion, something else must be at work. If an innocent defendant is mistakenly identified by an eyewitness (or implicated in a crime in some other way, such as an anonymous tip), the police and prosecutors must reach a decision—is the defendant a viable suspect or is the evidence against him misplaced? The answer to this question helps dictate the progression of the subsequent investigation, because in the first instance they will likely be working to rule in the defendant whereas in the second instance they will be more likely to

exclude him. According to the panelists, a defendant's criminal history may play an important role in whether officials view the defendant as a viable suspect. If, for example, the defendant is an upstanding member of the community, the police are more likely to view inculpatory evidence with skepticism, thinking, perhaps, that this is not the sort of person who is likely to commit a crime, and are more likely to investigate whether a mistake has been made. The opposite would be true if the defendant presented a significant criminal example.

Our cases provide a good example of this phenomenon. In one case the panelists discussed, a child rape victim tentatively identified the defendant in a lineup. He was a young man with several unrelated prior convictions. Despite the fact that the victim was never more than 60 percent sure of her identification, the police pursued the matter against the defendant and worked to build a case against him. Eventually, the state obtained a conviction based on weak circumstantial evidence and microscopic hair comparison. In this case, the defendant's criminal history not only influenced the police's decision to put him in a lineup, it also preconditioned the police and prosecutors to take the identification as conclusive evidence of his guilt—despite the fact that the victim was a child and the identification tentative.

Put another way, if the defendant had been a model citizen, the officials would have been more likely to view the identification as too weak to pursue a conviction or at the very least, would have attempted to *exclude* the defendant as a suspect by looking for exculpatory evidence. Instead, although the defendant's prior convictions were not at all similar to rape, they were enough to make him a plausible suspect that the police and prosecutors were determined to retain. They continued looking for some inculpatory evidence until they found enough to convince a jury. Thus, while some of the panelists noted that considering a defendant's prior history is not always a mistake, and in fact may be important in the early stages of an

investigation, this case illustrates that it is vital to limit the consideration to only similar crimes and to avoid letting prior history cloud judgments about the strength of evidence against the defendant in the case at hand.

IV.B.2. Predictor #2: Intentional Misidentification

Misidentifications as a whole did not differ appreciably between erroneous convictions and near misses, nor did most variables about the identification process (e.g., length of time from crime to identification, cross-racial identification, and level of certainty). However, when we distinguished intentional misidentifications from honestly mistaken identifications, the difference became statistically significant, with honest mistakes predicting erroneous convictions and intentional misidentifications associated with near misses. Although it may seem counter-intuitive, a close reading of the cases revealed that a lying eyewitness may actually be easier for police and prosecutors to detect with further investigation than one who is honestly mistaken. For example, in one near miss in our study, the "victim" was a college student who said she had been raped by her professor. While her identification of the professor was credible, further police investigation uncovered strong indications that she was lying (emails that she had retouched, a forged restraining order, etc). When confronted with this evidence, the victim confessed that she had made up the sexual assault. By contrast, if the case had involved an honest misidentification by the victim (as did the majority of erroneous convictions), there would probably not be a "smoking gun" for the police to find and discredit the identification.

IV.B.3. Predictor #3: Forensic Errors

Forensic evidence contributed to the exoneration or exclusion of the majority of cases in this study, but earlier errors in science also led to many of the false indictments or convictions. Indeed, as the quantitative results revealed, forensic errors helped predict erroneous convictions.

What sort of errors were these and how did they occur? According to the panelists' close reading of the cases, the most common forensic error was improper testimony at trial by a state's witness who overstated the precision or inculpatory nature of the results she obtained. For instance in a case involving microscopic hair analysis, the scientist erroneously stated that there was a 1 in a 10,000 chance that the defendant's hair was not the hair found on the rape victim's bed. This was highly misleading because no reliable statistics exist to analyze hair matches. Instances in which an analyst incorrectly or fraudulently performed a test, planted evidence, or changed reports were much rarer. This is confirmed by the statistical analysis, which shows that forensic fraud was relatively uncommon (see Section III.A.2) and that errors in serology were far more likely to stem from testimony than testing.

Poor communication between the forensic lab and the police and prosecutor's offices, as well as inadequate training among criminal justice officials, also contributed to the erroneous convictions. In some cases, the police did not adequately identify or preserve forensic evidence, in part because they were unaware of the evidence's potential significance. For example, in one case the panelists discussed, a jewelry store robber brought a mailed package to the scene as a decoy. After the crime, this box was placed in evidence and tested for latent fingerprints, which did not match the defendant. However, because the investigating agency that collected the box and conducted the testing was not the same agency that led the subsequent investigation, the exculpatory results were not passed on to the prosecution or revealed at trial.

In this case, a serious breakdown of communication between the agencies meant that exonerating forensic evidence, though properly tested, was not presented until many years after the defendant's conviction. Although the cause of this communication gap is unclear, it appears

that adequate safeguards, such as evidence checklists or a pre-trial forensic review, were not in place at the time.

Finally, discussions with the panelists revealed that errors with forensic evidence and testimony often can be linked to the problem of tunnel vision. Rather than using forensic testing early in the investigation to better understand the crime and evaluate potential suspects, investigators frequently turned to testing later in a case to confirm the police or prosecutor's belief in the defendant's guilt and ensure a conviction. This may explain why in some cases there was a serious delay in testing the physical material, often right up until the time of trial. If the forensic evidence were seen as largely playing a confirmatory role in the investigation, there was naturally less incentive to obtain results as soon as possible.

IV.B.4. Predictor #4: Weak Prosecution Case

In logistic regression analysis, weak case facts (or weak prosecutions) predicted erroneous convictions, while the near misses generally had stronger prosecution facts. This was a counterintuitive finding, since we might suspect that the cases with weaker evidence against the defendant would be more likely to end in a dismissal or acquittal. One possible explanation for this finding is that it is an artifact of our requirement that every case must have an official recognition of innocence. It seems possible that when a case has gone to trial and resulted in a conviction, prosecutors and other officials might only be forced to acknowledge the defendant's innocence when the case is weak; otherwise, the time investment and public commitment to the case may persuade officials to continue to proclaim the defendant's guilt. By contrast, in a near miss, prosecutors and police may not have invested as much in the case and are thus more willing to recognize innocence even when the case originally appeared strong. While this

explanation might account for some of the variance, it is unsatisfactory for two reasons.[26] First, a number of our near misses actually involved serious commitment by prosecutors and police, including months of investigation (often with the defendant in jail), public press conferences, and considerable resources expended. In addition, it appears more likely that an official recognition of innocence is influenced by the strength of evidence of innocence *after* conviction, rather than the original strength of the case. That is, prosecutors and other officials are probably forced to recognize the defendant's innocence in cases where the evidence of innocence is virtually incontrovertible, regardless of whether the other evidence such as eyewitness identification or a confession appeared strong at the time.

The panel discussion of the cases offered an alternative explanation for the relationship between erroneous convictions and weak prosecution cases. A noticeable portion of our cases started with a tip or hunch that implicated the defendant in the crime. Often the tip came from an anonymous caller or paid informant, while the hunches usually originated with a police officer who knew the defendant from a previous run-in with the law. While tips and hunches are not worthless, they are generally very weak evidence. They are open to abuse from the real perpetrator or a rival who dislikes the defendant; in addition, hunches often rely on vague similarities between the defendant and the description of the suspect. Indeed, it was common in our cases to have the defendant placed in a lineup based on a witness's vague or general description of the suspect (e.g., black male in his 20s-30s). Once the defendant was identified by the witness, however, the hunch suddenly metamorphosed into a "case," even though the basis for submitting the defendant to jeopardy in the first place was remarkably flimsy.

[26] In addition, we want to emphasize the many of our cases did not involve a *prosecutor's* recognition of innocence, but instead relied on a juror, a judge, or a governor.

Though police may rightfully have felt obliged to consider a tip or hunch, often this weak evidence led investigators to narrow the hunt prematurely. Rather than remaining in a general stage of investigation, where police consider a broad range of evidence and leads, the investigation turned into an active pursuit of a particular defendant. Convinced of the defendant's guilt despite a lack of conclusive proof, the prosecutor may enlist a snitch to provide corroborating evidence. Or, a prosecutor may become so attached to a case that he fails to recognize that the available evidence is not only weak but also exculpatory. This happened in another case in our sample:

> Case A: While walking with his wife and child, a man was attacked and killed in a park by a group of teenagers. Police asked a neighborhood boy to come to the station for a lineup because he knew someone the victim had gotten into a fight with earlier; the boy's friend tagged along to the station and agreed to be placed in a lineup too. Both boys were identified by the victim's family. Though one eyewitness was a child and the other, the wife, had been tainted earlier by seeing a picture of one of the defendants and being told his name, the case against the two defendants went to trial based on their identifications. No forensic evidence was recovered. At trial, it came out that the wife had been drinking prior to the crime and gave inconsistent testimony about what she saw in the melee that night. In addition, the prosecutor successfully moved to exclude the confession of another man and did not correct the wife's perjury on the stand when asked if she had prior crimes (in fact, she had pending drug charges and warrant out for her arrest). Both defendants were convicted.

In Case A, the original basis of suspicion against the defendants was quite weak, and the identifications were also problematic. To sustain the case, the prosecution excluded useful information about a confession and withheld the wife's prior history. Unfortunately, the cumulative effect of multiple pieces of doubtful evidence was still an unreliable case. In addition, in some ways this type of case was particularly difficult to defend against. There was no physical evidence to test, and the defense had little it could do but attack the reliability of the witnesses. Thus, when the prosecution's case is weak, the possibility increases that an error will go unchecked.

IV.B.5. Predictor #5: Weak Defense Case

In the quantitative analysis, the strength of the defense case helped to predict case outcome, with erroneous convictions having on average weaker defenses than near misses. From our discussion with the expert panel, it emerged that a large problem with defense work in the erroneous convictions was a lack of time, training, and funding among the defense bar.

Conflicts of interest also weakened the defense in some cases. The defense attorney had competing loyalties to other suspects or was working too closely with local prosecutors. This was most likely to be a problem in small communities where the pool of defense attorneys is limited and the same prosecutors and defense attorneys work together almost every day. One of our cases epitomized the danger of multiple conflicts and poor training.

> Case B: Several young adults living in a small town were co-indicted for murder. At least two of the defendants had histories of mental illness and had been in therapy with a local psychologist before the crime. However, the psychologist was also a deputy sheriff, who interviewed the defendants about the murder and suggested that they were repressing memories of the crime. In doing so, the psychologist not only violated professional standards, he also became unavailable to testify for the defense. In the same case, the defense attorney for one of the defendants suggested to his client what might have occurred at the victim's apartment. His suggestions, which mirrored the story of the police, became the blueprint for his client's false confession. The confession, along with confessions from the defendants who saw the psychologist, was used against a co-defendant. The defense never hired an outside expert to examine the defendants' mental conditions.

The defense in this case suffered from a multitude of flaws—conflict of interest, no independent expert witness, lack of training regarding false confessions, belief in the defendants' guilt—all of which conspired to create a hopeless situation where the defendants felt compelled to take pleas for a murder they did not commit.

By contrast, panelists noted that several dismissals involved a defense attorney who took considerable initiative to prove the defendant's innocence. In one example, because the prosecution failed to investigate the defendant's alibi, the defense attorney tracked down

witnesses and work records from the defendant's seasonal job. He was then able to create a detailed timeline of the defendant's drive home that night, including producing clerks and receipts to verify each of the stops along the way. In another case involving several juvenile defendants, defense counsel convinced the judge to discard a large portion of his clients' confessions, in part because he hired one of the preeminent experts on false confessions. The attorneys in these cases successfully forced the state to reconsider seemingly inculpatory evidence and were instrumental in preventing an erroneous indictment from turning into a major miscarriage of justice.

In the discussion among the panelists, however, it emerged that in some cases the strength of the defense did not rest on the quality of counsel. A number of erroneous convictions appeared to have a weak defense because there was simply little or no exculpatory evidence available. For instance, if the defendant were unemployed or a drug addict, defense counsel often found it impossible to establish an alibi or produce reliable witnesses to testify to the defendant's character and whereabouts. In addition, many of the cases involved a stranger rape at night in the victim's home. Not surprisingly, most defendants had no alibi for this time except a wife or girlfriend, who at best could testify that she would have heard if the defendant had left the bed that night. Such a defense naturally did not successfully counteract the victim's identification of the defendant as the rapist. Interestingly, this could explain why, in the regression analysis, presenting a family member as a defense witness predicted an erroneous conviction. Therefore, a weak defense usually stemmed from either poor defense counsel or a lack of exculpatory evidence—or both.

IV.B.6. The Role of the Judge

Finally, although judicial error did not emerge as a significant issue in the quantitative analysis, our discussion of the cases suggest that it may play some role. Judges, like defense attorneys, appeared to lack training and education in new advances in psychology, forensic science, and other related disciplines. More importantly, in a number of our cases, the judge failed to use his or her discretionary powers to closely examine the evidence, level the field between prosecution and defense, or otherwise take an active role in protecting the innocent defendant:

> Case C: A defendant was charged with robbery. A key component of the case against him included statements from a confidential informant. The judge allowed a government official to testify in court about the informant's implication of the defendant, rather than requiring that the informant appear in court for cross-examination or holding an *in camera* review of the informant's veracity. The defendant was convicted. During a subsequent investigation by the state, the informant was tracked down; he declared that he never spoke with the official about the defendant. When confronted, the official changed his story to say that a confidential contact of the confidential informant gave him the information—by then, it became clear that the source never existed.

In Case C, although the judge was not responsible for the government official's perjury, had he adequately examined the testimony before or during trial, the exculpatory evidence would likely have been revealed; such evidence would have led to a dismissal, or at the very least, a much stronger defense. In other cases, the judicial error more directly contributed to the erroneous conviction:

> Case D: A young, Hispanic gang member was charged with armed robbery and car-jacking. When the car was recovered, the latent fingerprints and DNA found on the clothes left by the bandit within the vehicle failed to match the defendant. Based on eyewitness identifications from a three-person photo array and a show-up, the defendant was offered a plea of two years in prison. Rather than rejecting the plea outright, or at least ensuring that the defendant understood the nature of the deal, the judge threatened him with life imprisonment until he took the plea mid-trial.

The judge in Case D was clearly convinced of the defendant's guilt, despite compelling evidence to the contrary. This clouded his judgment regarding the appropriateness of a plea and allowed the prosecution to obtain a conviction even though the defendant would likely have been acquitted.

What these cases have in common is not so much legally recognizable judicial error (again, our quantitative results suggest such error is rare), but instead a scenario in which mistakes made earlier by police, prosecutors, eyewitnesses, or defense attorneys were compounded when judges failed to perform their gate-keeper function to prevent injustices. Thus, judges are part of a more comprehensive breakdown of the adversarial system, and when the system fails, erroneous convictions can happen. In the section below, we explore the concept of system failure in greater detail.

IV.B.7. How Factors Interact: Tunnel Vision

If we synthesize our qualitative analysis of the individual factors that distinguish the two sets of cases, it emerges that miscarriages of justice are complex break-downs in the adversarial process, that occur when errors are compounded rather than rectified. Taking an overarching, system-wide approach allows us to examine the interactive processes and pathways that facilitate breakdown and influence the outcome of a case.

Most of our cases involved more than one error, sometimes as many as four or five. This was particularly evident with the erroneous convictions. For example, false testimony or evidence alone was rarely the direct cause of an erroneous conviction. The larger story often involved a prosecutor who had serious doubts about the witness's story but did not share these doubts with a superior or the defense, and a defense attorney who did not have the time or energy to investigate the witness's story. Thus, our research more readily describes a "perfect storm" of

system failure in the adversarial system that differentiates erroneous convictions from near misses. As such, it is not entirely correct to say that the witness's falsehood "caused" the erroneous conviction; instead, it is only part of the story.

Our statistical analysis does not speak to the order of these errors that lead to conviction. However, a qualitative look at the cases shows that the errors are often sequential and build upon each other. Panelists commented that many of the near misses and erroneous convictions started in a similar way—most frequently a misidentification, but occasionally a tip or confession—that led to an indictment. This explains the quantitative findings, that indicated the cases generally possessed these problems at similar rates.

The panelists' analysis also reiterates that such factors alone cannot "cause" an erroneous conviction. If they did, all of our cases would have ended in a conviction. Instead, the very different case outcomes stemmed from what occurred *after* the initial error or misconduct. Among the erroneous convictions, early mistakes were usually compounded with additional errors or lack of attention, such as improper or extremely weak forensic evidence and a defense attorney who either did not bother to prepare an adequate defense or lacked the training and money to do so. Case A, above, provides an example of two eyewitness identification errors that were later compounded by prosecutorial misconduct.

By contrast, among the near misses, the original errors were corrected in a variety of ways. These included: better or more complete forensic testing, an active defense attorney who tracked down and documented an alibi, or a follow-up investigation in which the victim or witness recanted the identification. For example, one near miss involved a severely drug-addicted husband, found at the scene of the crime, who admitted he could have killed his prostitute wife in a drug-induced haze. Despite the fact that the husband was indicted as the

"perfect" suspect, the police ordered blood tests on physical evidence near the victim—and when the tests came back to exclude the husband, the police took the results seriously and ordered a fuller investigation. After painstakingly tracking another suspect from the victim's hotel room to a local hospital, the state eventually built a much more solid case against the other suspect, who then confessed. In this case, a thorough and unprejudiced police investigation uncovered the weaknesses in the initial inculpatory evidence against the defendant and saved him from a conviction.

What accounts for this difference in the way the cases proceeded? Why were errors rectified in some cases and compounded in others? The panelists offered several explanations. At times a lack of effective institutional safeguards may have allowed errors to go undetected or uncorrected. Such safeguards include evidence checklists, proper file maintenance, open communication between officers and supervisors, rigorous screening of cases by seasoned prosecutors, and adequate defense funding. These practices could have gone a long way in steering an erroneous indictment away from a conviction. But according to the panelists, what was more fundamentally at issue in most erroneous convictions, what further separated these cases from the near misses, was tunnel vision.

Though tunnel vision has been listed as a cause of erroneous convictions in prior literature (Gould & Leo, 2010; Findley & Scott, 2006), our panelists helped elucidate the concept in terms of the more heavily theorized *process* in psychology and management of *escalation of commitment* (Brockner, 1992; Coleman, 2010; Staw, 1981). As more resources—money, time, and emotions—are placed into a narrative involving a suspect, the actors involved are less willing or able to process negative feedback that refutes their conclusions. Instead, actors want to devote additional resources in order to recoup their original investment. As a result, evidence

that points away from a suspect is ignored or devalued, and latent errors are overlooked. At this point, the police are working to rule in rather than rule out the suspect, and prosecutors have moved from "inspection" mode to "selling" mode. Escalation of commitment contributes and facilitates system breakdown because it dismantles the rigorous testing of evidence that makes the adversarial process function effectively.

To a large extent, the panelists attributed tunnel vision in our cases to a police and prosecutorial culture in which questioning and independent thinking were not valued, procedures were not designed to probe already gathered evidence, and little or no concern was given to learning from past errors. Even if safeguards, such as those mentioned above, are in place, they cannot be used effectively when the officials in the system are blinded by tunnel vision.

Community pressure or concerns about community safety also contribute to escalation and tunnel vision. In several cases, especially those involving sex crimes against children or the murder of police officers, investigators were under additional pressure to make an arrest and take a dangerous and likely repeat felon off the streets. While officers may be originally justified in arresting the defendant based on weak suspicions in order to ensure public safety, often the state placed too much stock in the arrest and turned a blind eye to the potential weaknesses or flaws in the case. High profile arrests may also receive greater attention and support from supervisors and politicians, making it more difficult for officers or prosecutors to let the suspect go even if they want to. One final case illustrates how the entire process worked to convict an innocent defendant:

> Case E: A young white female was raped and killed in a large city park—the second recent female rape victim in the area. The defendant was a suspect because he had recently been convicted of purse-snatching in the park. The only evidence against him at the time of arrest, however, was a positive hair comparison performed by an FBI analyst. To bolster the case, the prosecutor ordered serology testing of the semen found in the victim and also enlisted the help of a paid informant. The informant was engaged to

> speak to the defendant in prison and elicit a statement. The serology results excluded the defendant. At trial, the state explained away the serology by saying the sample had degraded and relied instead on the informant's statement and the hair comparison to obtain a conviction.

This case had multiple problems, including community pressure to solve the crime, prejudice against the defendant because of his prior crime, forensic fraud (the FBI analyst's hair results were actually spurious), and a paid informant. Yet our qualitative analysis throws into question the accepted wisdom that any of these caused the erroneous conviction, because none of the issues functioned by itself. For instance, if the prosecutor, after being told about the hair comparison, had reinvestigated the case for more probative indications of guilt rather than providing a paid informant with a "road map" of the type of statement he wanted, the results would very likely have been different. Similarly, even if the prosecutor had used the paid informant but the serology results had been taken seriously, the defendant probably would not have been convicted.

If we think in terms of "conditional causation" or "pathways analysis," it becomes clear that this case, like erroneous convictions in general, is more understandable as a systemic failure than as the malfunction of any given part. Our expectation of the criminal justice system is not to be perfect—human errors will always occur—but rather to rigorously test the evidence of guilt. When this does not happen, the system, rather than revealing mistakes and untruths, can serve to mask, compound, and even legitimize these errors.

In a concluding section we discuss our findings in more detail and introduce possible remedies to mitigate or prevent compounded error and system-wide breakdown. We also note the limitations of this study and offer suggestions for future areas of research.

V. DISCUSSION

As the preceding discussion indicates, there are both narrow and broad ways of interpreting the study's results. If one follows a narrow approach—asking only if the hypotheses proffered distinguish erroneous convictions from near misses—the results highlight a number of key variables that influence how innocent defendants are convicted instead of cleared. Foremost among these are the strength of the evidence offered and the defense provided, although here the results do not necessarily match our original hypotheses. Certainly, the quality of defense is related to erroneous convictions, with weaker defenses linked to conviction. But, contrary to expectations, cases with weaker facts for the prosecution were more likely to end in an erroneous conviction than dismissal or acquittal.

A state's capital culture proved relevant in distinguishing cases—a conclusion we anticipated—as defendants charged in jurisdictions with a stronger attachment to the death penalty had a greater chance of erroneous conviction than those prosecuted elsewhere. Also influential were a defendant's age and prior record, with younger defendants and those previously convicted of any crime at heightened risk of erroneous conviction. These results were expected, although we had also anticipated that erroneous convictions would be tied to a defendant's prior history of similar criminal activity, which they were not. Examining case facts, we were not surprised to find that erroneous convictions were connected to inadvertent misidentification or lying by a non-eyewitness, but we had not expected that testimony by a family witness would prove influential. Finally, as hypothesized, *Brady* violations, forensic error, and tunnel vision proved influential in distinguishing erroneous convictions from near misses.

Even if many of these results were anticipated, perhaps the more interesting results are those hypotheses that were not borne out by the research. For example, among the traditional legal model of wrongful convictions, the study provided support for only half of the original hypotheses. Although the findings distinguished erroneous convictions and near misses on the basis of tunnel vision, *Brady* violations, forensic error, and inadvertent misidentification, the disparate case outcomes were not explained by other eyewitness variables, false confessions, forensic fraud, or non-*Brady* error or misconduct by police or prosecutors. Similarly, our findings support just one-third of the hypotheses under the sociological factors model. Explanations focused on the race of the defendant or victim, the socioeconomic standing of the defendant, the political culture or crime rate of the surrounding state, or media attention to the crime were not statistically significant. Finally, the results fail to confirm a hypothesis focused on the time between crime and arrest. Table 33 provides a summary of these conclusions.

[Table 33 about here]

V.A. Broader Interpretation

It might be tempting to rely on the narrow interpretation of the study's results and conclude, perhaps provocatively, that some traditional explanations for wrongful convictions—most notably, prosecutorial misconduct and false confessions—do not explain the erroneous convictions here. One might even claim these presumed sources are not responsible for wrongful convictions. That, however, would be wrong. It is essential to recall what distinguishes the two sets of cases in this study. In both categories, an innocent person enters the criminal justice system by indictment or information. In one set, the defendant's prosecution

continues to an erroneous conviction; in the other, the defendant is acquitted or sees his case dismissed. So, when our results exclude a potential variable or hypothesis, the correct conclusion is that this factor does not explain the trajectory of an erroneous conviction once an indictment has issued. Or, stated differently, the factors identified in this study offer explanations for why one group of factually innocent defendants is convicted and the other released *after* an initial error has been made in indicting them.

How a factually innocent defendant enters the criminal justice system is another matter. Here, our study helps to tell a more complex story. Although we lack a comparison group of accurate convictions, it is impossible to ignore the large number of both erroneous convictions and near misses that contain eyewitness errors. As described earlier in Table 7, more than three-quarters of the cases involved a misidentification (stemming from either an honest mistake or an intentional false implication). Theoretically, it is possible that this proportion might be as high among accurate conviction cases, but we think it unlikely. Not only is the rate so excessive as to seem unusual, but misidentification is a substantial error at the bedrock of a prosecution—the kind of mistake that, if caught, would later lead to dismissal or exoneration.

The same logic applies to false confessions and police and prosecutor misconduct, each of which was found at relatively similar rates in both the erroneous conviction and near miss cases. Although their respective rates are not as high as the misidentifications in our sample, the likelihood that a false confession or official misconduct would lead to an erroneous conviction, let alone indictment, is substantial. As prior research on wrongful convictions has shown, as many as half of known exonerations may involve at least one of these errors (Gould, 2007).

Looking at our findings through a broader lens, then, the key distinction between the erroneous convictions and near misses is the point in the criminal justice system at which they

differ. We know that both sets of cases share similarly high rates of misidentification, false confession, and official misconduct and that, further, several of these factors are not statistically significant in explaining the ultimate resolution of innocence cases. Our supposition is that there is a difference in what contributes to the indictment of an innocent defendant and what factors then prevent a mistaken indictment from leading to an erroneous conviction. This process is laid out in Figure 7 below.

[Figure 7 about here]

Based on prior wrongful conviction research, we surmise that false confession, official misconduct and some sort of identification (either an anonymous tip or a misidentification) are among the errors that bring innocent defendants into the criminal justice system. That is, regardless of the ultimate resolution of a case, an innocent individual is more likely to be indicted for a crime if there is a misidentification or official misconduct in his case or if he is induced to confess falsely. But official error and the like need not necessarily lead to an erroneous conviction, for there are several factors that intervene in the investigation and prosecution of a crime that then influence the likelihood of a mistaken conviction. Most significantly would be the quality of defense provided to a defendant; here, one can imagine how a defendant who was incorrectly identified as the perpetrator could still be cleared of the crime by an intrepid defense attorney and investigator, who conduct thorough legwork to poke holes in the state's case. As discussed above, this is more likely to occur when the misidentification is intentional rather than inadvertent. So, too, it is understandable how a younger defendant might not have the sophistication to aid in his defense or the credibility to have his alibi fully

investigated by detectives. We can imagine as well why defendants charged in states with a heightened capital culture would face police and prosecutors more committed to the original theory of the case, even if it later appeared to have holes; by contrast, individuals in less punitive jurisdictions might benefit from a law enforcement community willing to consider exculpatory theories or evidence. For that matter, the escalation of commitment by police and prosecutors in more punitive jurisdictions could well contribute to the failure of prosecutors to turn over exculpatory evidence, a factor identified in the erroneous conviction cases.

The one finding in Figure 7 that does not make intuitive sense is the inverse relationship between the strength of the prosecution's evidence and the likelihood of an erroneous conviction. As discussed previously, our findings indicate that innocent defendants are at a heightened risk of mistaken conviction when the facts available to the prosecution are weaker. We had originally hypothesized the opposite based on the assumption that police and prosecutors would be able to weed through the facts of indicted cases and move to dismiss those with the weaker facts.

As described earlier, we view this result in a larger context of system failure. That is, what primarily distinguishes the erroneous conviction cases from near misses is that the criminal justice system largely failed the former once a defendant had been indicted. Regardless of what brought innocent defendants into the system, the officials charged with protecting their rights more often failed those who were erroneously convicted than those who had their cases dismissed or were acquitted. The erroneously convicted had weaker defenses than other innocent defendants; their prosecutors were less willing to turn over exculpatory evidence when required by law; their cases relied disproportionately on flawed forensics and lying non-eyewitnesses; and their investigators more often engaged in tunnel vision, perhaps because

criminal justice officials were under heightened pressure by their local culture to punish a presumed wrongdoer or because police officers figured the defendant must have done something wrong because he was young and had a prior record. Under these circumstances, it is understandable how a case would proceed to judgment even though it had weaker prosecution facts than did those cases the state dismissed. *Indeed, if there is but one conclusion from our research it is that, overall, the erroneously convicted are truly cases of systemic failure.* Just as a jetliner may crash when a multitude of problems arises and distracts the crew's attention from the task at hand (National Transportation Safety Board [NTSB], 1973),[27] erroneous convictions see a combination of errors by those charged with control of the criminal justice system; unfortunately, this "perfect storm" leads to systematic injustice.

V.B. Recommendations for Reform

In presenting these findings to select audiences in anticipation of public release, we often have been asked which problems uncovered in this study deserve the most attention. "So, you're saying that erroneous identifications and false confessions aren't the real problem, and that more attention should be directed to criminal defense and other issues post-indictment?" more than one person has asked us. Our short answer is no, but, of course, that hardly explains the issue. Our findings indicate that there are problems in the criminal justice system that *both* lead to the indictment of the innocent and also prevent the dismissal or acquittal of innocent defendants once they enter the criminal justice system. The question for criminal justice policymakers, then, is where in the process to focus attention. If the issue is what leads to the indictment of the innocent, then our findings point to mistaken identifications as well as false confessions and

[27] The 1972 crash of an Eastern Airlines airplane into the Florida Everglades was ascribed to the crew's inattention to the autopilot, which had been deactivated while the pilots were troubleshooting the malfunctioning of its landing gear (NTSB, 1973).

official misconduct. If, instead, one seeks to correct an erroneous indictment once it has occurred, then the focus should be on criminal defense practice, forensic evidence, and prosecutorial discretion, among other issues.

Another way to think about our findings is to distinguish between dynamic and static sources of erroneous convictions. Here a static source is a case fact presented to, but not created by, criminal justice professionals. A good example in our dataset is a defendant's age. When confronting static sources, police, prosecutors, and defense lawyers would do well to keep watch, knowing that such facts may put a defendant at a greater risk for erroneous conviction even while recognizing that they did not create the source themselves. By contrast, dynamic sources are those in which the actions or omissions of criminal justice officials heighten the risk of an erroneous conviction. A classic example here would be *Brady* violations, where the failure of police and prosecutors more directly affect the outcome of a case.

Looking at our data this way, the vast majority of sources we identified are dynamic – thus presenting the greatest opportunity for criminal justice professionals to ameliorate the risk of erroneous conviction themselves. The strength of the prosecution's case and the quality of defense lawyering, of course, are dependent upon the actions of criminal justice officials, as are forensic fraud, *Brady* violations, and tunnel vision. These are all areas in which heightened professionalism and greater attention to casework can reduce the chance of an erroneous conviction. But even misidentification – whether inadvertent by an eyewitness or intentional by a non-eyewitness – rests to some extent on the judgment and decisions of police and prosecutors. Not that we expect either would suborn perjury, but a trier of fact would only be aware of such evidence if the state chooses to offer the testimony. As such, both offices would do well to better screen the motivation and veracity of witnesses, their opportunity for identification, and the

reasonableness of their testimony before presenting testimony that may raise the risk of an erroneous conviction.

This is not to say that criminal justice professionals are "off the hook" with respect to static sources. To be sure, a police officer or prosecutor cannot affect a defendant's age or criminal history, nor is a defense lawyer responsible for the capital culture of the state in which a case is brought. But, simply being aware of the influence of these factors may cause all three groups to pause and give greater attention to cases that present a combination of risks. When representing a young defendant in a particularly punitive state, for example, a defense lawyer should be especially careful to ensure that even she does not get caught up in tunnel vision, assuming that she grasps the theory of the case before investigating a variety of alternatives. Similarly, police ought to be on guard that they do not "rule in" a suspect simply because he has a criminal history, especially when the prior crime does not match the case at hand.

How, exactly, the criminal justice system can prevent erroneous convictions is a complex matter. We believe the findings here will help in two important respects – first by distinguishing between those factors that bring innocent defendants into the criminal justice system and those sources that then heighten the risk of conviction post-indictment. As we have said, we do not seek to prioritize one issue over the other but instead to note that the sources – and thus responses – to each are different. Second, we think it helpful to distinguish between those sources directly under the control of criminal justice professionals and those influences that confront the criminal justice system through secondary means. Both sets of sources require attention, but, again, they entail different approaches.

Apart from this more broad brush response to erroneous convictions, the project benefitted from the participation of expert panelists eager to go beyond the sources of erroneous

convictions and offer recommendations that would prevent their occurrence. Several of these measures have been presented in other publications (see Gould, 2007), but because the recommendations were offered by such a professionally varied group, and in candid and constructive dialog, we include the expert panelists' recommendations here as well. We endorse their recommendations as a step forward in addressing the sources of erroneous conviction uncovered by our research, both those problems that lead to the indictment of innocent defendants and those that hinder the adversarial system from clearing innocent individuals already charged with a crime. Of note, we offer them here not as a proven set of answers but rather as the product of serious discussion among dedicated and talented criminal justice professionals, with the hope that their presentation may spur additional discussion and consideration.

(i) Defense Practice

- There is no antidote more powerful than a committed attorney with sufficient time and resources to mount an adequate defense. In this respect, increasing caseloads and declining resources for indigent defense present a heightened risk of erroneous convictions.
- It is essential that a defendant meet with his attorneys as soon as possible after arrest or charge so he can participate in his defense and the lawyer has a full opportunity to investigate facts before indictment or at least trial.
- Just as prosecutors must disclose exculpatory evidence, defense attorneys must request and then review evidence offered in discovery.

(ii) Disclosing Exculpatory Evidence

- Prosecutors should pursue a policy of open discovery; the practice might include holding discovery conferences, in particular with forensic evidence presented, so there is no question whether *Brady* material was offered. This approach would benefit the prosecution as much as the defense, since withholding would be more difficult to argue on appeal.

(iii) Eyewitness Misidentification

- Because the trial process has consistently failed to weed out bad identifications, safeguards are necessary before this point in a case; prosecutors, in particular, need to be more aware of how important the indictment stage is.
- There should be a threshold of evidence met before police officers place someone in a lineup. The standard need not be unduly high, simply an articulated reason that might even be shared with the defense. If this is not practical, police departments should at least foster a "mindfulness" among officers so that they do not put defendants in jeopardy of a misidentification without good reason.
- Officers should build a photo array or lineup based on the description given, rather than on the suspect's appearance. This way the suspect's appearance does not become the "baseline" upon which a comparison is made.
- If the police do not have a description, they should rely on a mug book for initial identifications. This is less prejudicial than creating a lineup or photo array based on the suspect's appearance, which may or may not be similar to what the actual perpetrator looks like.

- Show-ups can be replaced with quickly assembled photo arrays using new computer software; these new photo arrays combine the immediacy of show-ups with the less prejudicial nature of a photo array. So far, computerized arrays have been used in only a few jurisdictions, and officers must be trained on this method to make it efficient.

(iv) False Confessions

- Videotaping interrogations (and even interviews) should become standard practice; videotaping provides an important safeguard for defendant and police alike.

(v) Forensic Error

- Forensic investigation—especially DNA testing—should be conducted early in a case to rule suspects in or out rather than confirming or checking what police and prosecutors already believe once an investigation gains steam.
- More jurisdictions should have police officers trained in crime scene investigations who could be present when technicians are collecting evidence to help direct the collection and expand the area searched.
- Prosecutors need to be better educated in the techniques of forensic testing and must clarify what results mean if they do not understand a report.
- There should be better supervision and peer review in forensic labs, including the kind of "grand rounds" or discussion of near misses that the medical community follows in a similar context when conducting morbidity and mortality conferences. (See a similar point below about systematic failings.)

(vi) Police Misconduct

- To help combat erroneous convictions based on police corruption, jurisdictions might allow defense counsel to request the police officers' police record. (Such practices would also strengthen the quality of defense provided defendants.)

(vii) Systematic Failures

- Police and prosecutors should develop checklists of items to weigh when investigating or charging a case. These might include forensic reports, the circumstances of interrogation, and the consideration of alibis. In particular, alibis offered—or reviewed—at the last minute are less likely to be credited by police and prosecutors even if they are truthful. For this reason, it is important that alibis be investigated before the state commits considerable time and resources to a case.
- The criminal justice system could embrace the medical model of professional review, which sees errors as a cultural and systemic problem rather than the "bad apple" approach.
- Departments and agencies should hold a review when there is an erroneous conviction *or* a near miss. The process should be routine and involve everyone, along the lines of "grand rounds" conducted by doctors.
- To encourage reporting and facilitate discussion, departments might consider immunization (at least internally) of officers who accurately report errors or near misses.

(viii) Tunnel Vision

- Police and prosecutors need a "devil's advocate" in their midst to consider alternative hypotheses of a case. Whether this should be located in one office or the other, it is essential that police officers and prosecutors remember to pause and not rush to judgment.
- Police departments might invite the stationing of a prosecutor, whose job it would be to review evidence as it is collected "at the source" before an indictment issues.

(ix) Weak Prosecution Evidence

- Prosecutors' offices should consider assigning more experienced prosecutors to charging. This would fulfill the "screening" function better and save resources devoted to cases that later must be dismissed.
- Prosecutors should consider the standard they use for indicting a defendant. Although some prosecutors use a standard of likelihood of conviction at trial, others employ a much looser standard to hold a defendant while additional evidence is collected. If a weaker standard is used, prosecutors should deliberately evaluate (or reevaluate) the merits of the case at regular intervals to avoid the trap of escalation of commitment.

V.C. Study Limitations

As the first large-scale empirical study of erroneous convictions using a control group, our research is primarily exploratory and possesses certain limitations. Like all studies of erroneous conviction, we could not draw randomly from a known universe of cases. Although we searched widely for both erroneous convictions and near misses, the data are limited by our ability to have uncovered possible cases. In addition, while we identified the two sets of cases

using similar methods, we were more successful in locating potential erroneous convictions through lists and databases already created by scholars and activists. By contrast, there has been no systematic collection of near misses; therefore, we had to rely more on case solicitation and media searches to locate these cases.

This difference in method of case selection may affect our dataset. Relying on media coverage of a case may oversample murders, which are the most serious and therefore most high profile crimes in the community. Case solicitation likely also oversamples more recent cases, since the individual who recommended the case to us is most likely to remember relatively recent cases that she was involved in or heard about. In fact, our near misses did include more murders and more recent cases than the erroneous convictions. We addressed these twin issues by controlling for type and date of crime, a process we employed in both the bivariate and regression analyses. For that matter, we are uncertain whether the issue of case selection can be avoided in future research. In time, scholars may begin to compile a list of near misses, but we suspect that given the relative frequency and low profile of near misses as opposed to exonerations of the erroneously convicted, there will never be parity between the ways used to identify the two sets of cases.

More troubling for our purposes is the possibility we oversampled near misses that involved false confessions. One of the authors has written extensively on false confession cases, including those that resulted in a dismissal or acquittal; because of our familiarity with such cases and our method of case selection, we may have included more of these cases than would have occurred with a truly random sample. This, in turn, could influence our finding that there was not a statistically significant difference between the rate of false confessions in erroneous convictions and near misses. At the same time, we may have oversampled erroneous convictions

from states with the death penalty because of the increased visibility of these exonerations (see footnote 6), leading us to find what may be a spurious relationship between state punitiveness and erroneous conviction. Further research on near misses is needed to clarify whether our findings on these two variables are affected by any artifacts of collection bias.

The near misses were also limited in the type and extent of data available. An inherent limitation in our study is that the different procedural postures of the cases may artificially depress the observation of certain errors or misconduct in the near misses. For example, because the near misses generally did not involve appeals, post-conviction investigations, or habeas proceedings like the erroneous convictions, it may be less common for prosecutorial misconduct to be uncovered.[28] Likewise, the vast majority of the dismissals had no transcripts and court documents. For many of these cases we had to rely on news reports or the memory of witnesses for the same information that was obtained through transcripts for many of the erroneous convictions. Recognizing that such disparity introduces a possible imbalance in the completeness of information between the erroneous convictions and near misses on a few variables, such as number of defense witnesses or length of time between the crime and the identification, we did not make these variables central to our analysis.

Another limitation, which is shared by all researchers in the field of erroneous convictions, is that the cases studied are likely not representative of the majority of criminal or even felony cases. As Garrett (2008), Gross (2005), and others have pointed out, most known erroneous convictions and exonerations are for serious violent crimes, such as murder, rape, and robbery. In part this is because DNA evidence, the most powerful and uncontroverted method of proving innocence, is most often present in these types of crimes, whereas it is not available or

[28] It should be noted, however, that a fair number of the near misses involved civil proceedings for compensation involving wrongful arrest, etc., and these proceedings often provided an official recognition of error or misconduct on the part of police or prosecutors.

analyzed in lesser offenses. In addition, the serious punishment for such crimes leads to greater incentives to prove an erroneous conviction (Garrett, 2008: 19, Gross, 2005). Furthermore, dismissals or acquittals for less serious crimes usually do not receive enough system scrutiny or media attention to make them readily identifiable. Even among rapes and murders, the known erroneous convictions and near misses are likely over-representative of cases with DNA evidence (Gross & O'Brien, 2008: 939; Gross, 2005). Therefore, while our focus on serious violent felonies is probably inevitable and does not create a bias *between* the erroneous convictions and near misses, it should be kept in mind that the manner in which the criminal justice system identifies and handles innocent defendants accused of lesser or different crimes may be significantly different than our analyses suggest.

Finally, a word must be said about the use of imputation. Despite our considerable efforts, there were some data in particular cases that proved impossible to find, for example a defendant's educational level among the near misses. Rather than engage in listwise deletion of these cases, we employed the statistical technique of imputation. Appendix VIII.I provides a detailed explanation of imputation, which is a mainstream method to deal with missing data. Although we would have preferred to avoid any missing data, our limited use of imputation permits analysis across a greater number of cases.

V.D. Possible Directions for Future Research

In our study, the control group was near misses, meaning that we are able to show how the criminal justice system identifies and corrects the indictment of innocent defendants before an erroneous conviction occurs. There are other control groups that could be used in the future – for example "rightly" convicted defendants. Similarly, future research could look at different decision points in the criminal justice process, such as the prosecution's decision to indict. None

of this weakens our work or the significance of our findings. Rather, it emphasizes the context of our research and underscores that our findings are not so much about what causes erroneous convictions but what prevents them once an innocent defendant enters the criminal justice system. Our control group was the appropriate choice for this research question, but other equally interesting questions will require a different control group.

Further research into near misses is also a promising avenue for development. As the first systematic study of these cases, our project may raise as many questions as it answers. Future studies that examine near misses will be needed to verify whether our results apply to other contexts. For instance, researchers could examine a much narrower group of near misses, such as those involving drug crimes or false confessions, which would provide a more nuanced view of the major issues we explored in this project. To build understanding of how the criminal justice system identifies and deals with innocent suspects in the majority of cases, future projects could also identify near misses that involve less serious felonies or misdemeanors. Because of their relative frequency, near misses may actually have greater potential than erroneous convictions to shed light on this area of the system. To study cases involving lesser or different crimes, researchers will come up against some of the data collection problems we noted earlier. To overcome these limitations, researchers may profit from building a working relationship with police and prosecutors in jurisdictions where officials are open to interviews or willing to share police records.

Lastly, our research helps inaugurate a new era of social science research on erroneous convictions. Such research moves beyond anecdotal stories and the delineation of fixed "causes," focusing instead on the more dynamic and complex question of what these cases can tell us about how the criminal justice system safeguards, or fails to safeguard, innocent

defendants who have been erroneously accused. Our project shows that such system-wide, large-scaled comparison studies can and will bear fruit.

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VII. TABLES AND FIGURES

Figure 1. Distribution of Cases by County Population

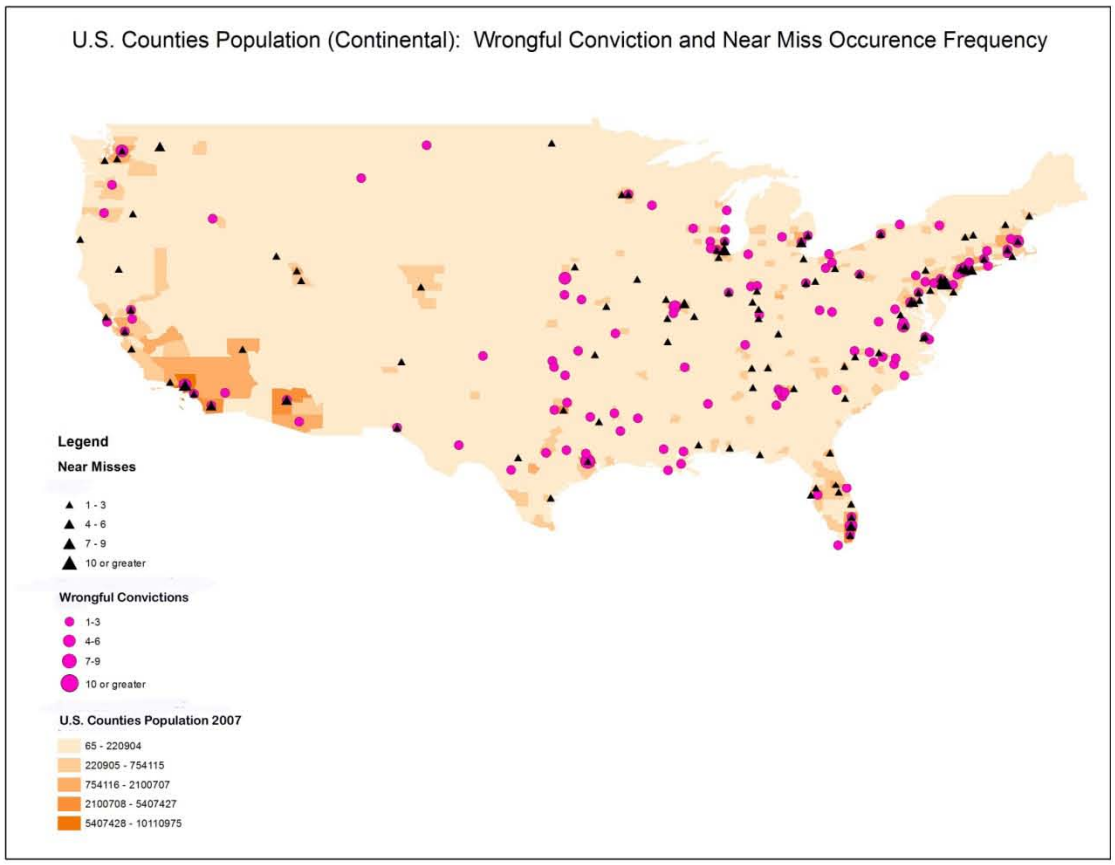


Table 1. Erroneous Convictions by State

State	Frequency	Percent
AZ	2	.8
CA	13	5.0
CT	3	1.2
DC	2	.8
FL	9	3.5
GA	5	1.9
ID	1	.4
IL	35	13.5
IN	5	1.9
KS	2	.8
KY	1	.4
LA	8	3.1
MA	8	3.1
MD	2	.8
MI	4	1.5
MN	1	.4
MO	8	3.1
MS	2	.8
MT	2	.8
NC	9	3.5
NE	6	2.3

NJ	5	1.9
NY	29	11.2
OH	10	3.8
OK	6	2.3
OR	4	1.5
PA	8	3.1
RI	2	.8
SC	1	.4
TN	3	1.2
TX	40	15.4
VA	15	5.8
WA	1	.4
WI	5	1.9
WV	3	1.2
Total	260	100.0

Table 2. Near Misses by State

State	Frequency	Percent
AK	2	1.0
AL	2	1.0
AZ	6	3.0
CA	24	12.0
CO	1	.5
CT	1	.5
DC	4	2.0
FL	18	9.0
GA	2	1.0
IL	20	10.0
IN	3	1.5
KY	2	1.0
MA	2	1.0
MD	5	2.5
ME	1	.5
MI	6	3.0
MN	2	1.0
MO	12	6.0
MS	1	.5
NC	5	2.5

ND	1	.5
NE	2	1.0
NH	1	.5
NJ	2	1.0
NM	1	.5
NV	1	.5
NY	17	8.5
OH	4	2.0
OK	1	.5
OR	2	1.0
PA	18	9.0
RI	2	1.0
SC	1	.5
TN	2	1.0
TX	8	4.0
UT	4	2.0
VA	3	1.5
WA	10	5.0
WI	1	.5
Total	200	100.0

Table 3. Bivariate Results: All Variables, Location Effects

Location Effect Variables	*Erroneous Convictions Total % (N)*	*Near Misses Total %(N)*
Case from former Confederate state***	35% (92)	21% (42)
Death penalty culture**	.07 (201)	0.4 (160)
Political ideology of state (Median Democratic presidential vote 1980 to 2008)*	47% (122)	59% (117)
Crime rate 5 years prior	609 (260)	636 (190)
Crime rate the year of the crime	643 (260)	643 (178)
Crime consistency**	6.5 (260)	-0.8 (178)

* p<0.05 ** p<0.01 ***p<0.001

Note: The following variables are <u>not</u> represented as percentages: death penalty culture, crime rate 5 years prior, crime rate the year of the crime; and crime consistency.

Table 4. Bivariate Results: All Variables, Nature of the Defendant

Nature of the Defendant Variables	*Erroneous Convictions Total % (N)*	*Near Misses Total % (N)*
Race of defendant/% African American***	57 (257)	37 (189)
High school graduate**	45 (128)	65 (105)
Previous criminal conviction***	67 (212)	42 (166)
If so, for similar crime	17 (132)	25 (65)
Female defendant*	2 (260)	6 (200)
Mean age of defendant***	25 (253)	29 (193)
Gang affiliation	4 (253)	7 (199)
Mental disorder	15 (254)	11 (199)
Strength of suspect characteristics***		
None:	23 (222)	46 (174)
Weak:	54 (222)	32 (174)
Probative:	19 (222)	18 (174)
Highly probative:	5 (222)	4 (174)

* p<0.05 ** p<0.01 ***p<0.001

Note: The following variables are <u>not</u> represented as percentages: mean age of defendant.

Table 5. Bivariate Results: All Variables, Nature of the Crime

Nature of the Crime Variables	*Erroneous Convictions Total % (N)*	*Near Misses Total % (N)*
Race of victim 1 (% Caucasian)	65 (198)	62 (155)
Race of victim 1 differs from defendant 1*	43 (198)	31 (151)
Victim 1 and defendant 1 were strangers**	65 (251)	48 (198)
No victim was a stranger***	62 (260)	46 (200)
Female victim 1***	85 (260)	57 (199)
At least one female victim***	86 (260)	66 (199)
At least one white female victim***	48 (260)	31 (200)
Criminal charges***		
Murder only	28 (260)	56 (200)
Rape only	56 (260)	26 (200)
Murder and rape	14 (260)	5 (200)
Lesser offense	5 (260)	11 (200)
Mean number of charges	4 (243)	5 (200)
Serial crime	25 (259)	25 (199)
Criminal justice action demanded*	8 (260)	15 (200)
Mean number of alleged co-perpetrators**	0.7 (260)	1.5 (200)
Mean number of codefendants**	0.2 (260)	0.7 (200)
Mean number of female victims*	1.0 (260)	0.9 (200)
Mean number of white female victims*	0.5 (260)	0.4 (200)

Strength of victim characteristics		
None:	37 (260)	53 (200)
Weak:	4 (260)	2 (200)
Probative:	28 (260)	23 (200)
Highly probative:	32 (260)	22 (200)

* p<0.05 ** p<0.01 ***p<0.001

Note: The following variables are <u>not</u> represented as percentages: mean number of charges, mean number of alleged co-perpetrators, mean number of codefendants, mean number of female victims, and mean number of white female victims.

Table 6. Bivariate Results: All Variables, Quality of Work by Criminal Justice Officials

Quality of Work Variables	*Erroneous Convictions Total % (N)*	*Near Misses Total % (N)*
County sheriff investigated*	23 (246)	32 (199)
Local police investigated*	81 (246)	72 (199)
State bureau investigated	1 (249)	4 (199)
State police investigated*	3 (248)	7 (199)
Federal law enforcement investigated*	.04 (257)	3 (200)
Exculpatory evidence withheld*	14 (259)	6 (200)
	[Alleged: 7]	[Alleged: 7]
Police withheld exculpatory evidence	11 (259)	9 (199)
Prosecution withheld exculpatory	11 (260)	4 (200)
evidence**	1.3 (226)	1.2 (178)
Time b/w crime and arrest (days-log)	1.8 (116)	1.6 (73)
Time b/w arrest and indictment (days-log)**	5 (26)	0.5 (200)
Judicial error**	[Alleged: 5]	[Alleged: 3]
	0.4 (260)	0 (200)
Judicial misconduct	[Alleged: 0.8]	[Alleged: 0]
	0.4 (260)	9 (199)
Medical error***		
Police error	16 (259)	11 (198)
	[Alleged: 14]	[Alleged: 15]
Police misconduct	8 (259)	12 (199)
	[Alleged: 9]	[Alleged: 15]
Prosecutor error	9 (260)	6 (199)
	[Alleged: 7]	[Alleged: 6]
Prosecutor misconduct	4 (260)	3 (200)
	[Alleged: 5]	[Alleged: 4]

Other official error	0.8 (260)	0.5 (200)
	[Alleged: 0]	[Alleged: 0.5]
Other official misconduct	0.4 (260)	0 (200)
	[Alleged: 0.8]	[Alleged: 0]
Criminal justice official lying**	5 (259)	1 (199)
	[Alleged: 4]	[Alleged: 1]
Forensic fraud	6 (203)	4 (138)
	[Alleged: 6]	[Alleged: 4]
Abuse to elicit confession	21 (57)	18 (56)

* p<0.05 ** p<0.01 ***p<0.001

Note: The following variables are <u>not</u> represented as percentages: time between crime and arrest and time between arrest and indictment.

Table 7. Bivariate Results: All Variables, Nature of the Facts Available to the State

Nature of the Facts Variables	*Erroneous Convictions Total % (N)*	*Near Misses Total % (N)*
False confession*	14 (259)	22 (200)
Any incriminating statement	22 (259)	29 (200)
False evidence by jailhouse snitch	11 (260)	7 (200)
Non-eyewitness gave evidence*	31 (260)	21 (198)
If so, was evidence false?		
Eyewitness identification	82 (260)	75 (200)
Eyewitness misidentification*** (unintentional, only cases with ID)	83 (215)	57 (151)
Additional misidentification***	20 (260)	9 (199)
Intentional misidentification or lie by victim***	2 (260)	13 (200)
Intentional misidentification by non-victim eyewitness***	12 (260)	24 (200)
Intentional misidentification***	14 (260)	36 (200)
Forensic evidence errors*** (only cases with forensics)	43 (203)	22 (133)
Forensic evidence errors (all cases)***	34 (260)	15 (200)
Fingerprint*		
Presented w/ no errors:	18 (258)	9 (196)
Errors:	1 (258)	2 (196)
Ballistics***		
Presented w/ no errors:	0.4 (259)	13 (195)
Errors:	0.8 (259)	0 (195)
Microscopic hair***		
Presented w/ no errors:	20 (258)	3 (196)
Errors:	6 (258)	1 (196)

Serology***		
Presented w/ no errors:	29 (259)	4 (196)
Errors in testing:	3 (259)	0.5 (196)
Errors in testimony:	16 (259)	0.5 (196)
Errors in testing and testimony	2 (259)	0 (196)
DNA***		
Presented w/ no errors:	3 (259)	25 (196)
Errors:	1 (259)	2 (196)
Bite-mark		
Presented w/ no errors:	0.4 (259)	0 (196)
Errors:	2 (259)	2 (196)
Victim's property near defendant	3 (260)	4 (200)
Anonymous tip	3 (260)	5 (200)
Surveillance/wiretap evidence***	1 (260)	8 (200)
Misleading circumstantial evidence**	35 (260	48 (200)
Any victim recanted crime***	0 (260)	9 (200)
Any victim recanted identification***	0.4 (260)	13 (200)
Any non-victim eyewitness recanted***	5 (260)	22 (200)
Any witness recanted crime or ID***	10 (260)	34 (200)
Victim 1 provided description of perp	94 (123)	97 (66)
Victim 1 took multiple tries to make ID	13 (145)	7 (68)
Victim 1 certain of ID	82 (137)	82 (67)
Victim 1 misidentified the defendant* (only cases where victim was alive)	92 (158)	83 (82)
Discrepancy b/w victim 1's description and defendant***	56 (101)	21 (63)
Discrepancy b/w any victim's description and defendant***	22 (206)	8 (200)

Victim 1 provided unique details of perp*	35 (106)	54 (63)
Victim 1 made cross-racial ID*	58 (100)	35 (43)
Victim 1 identification method***		
Direct:	22 (125)	56 (63)
Show-up:	8 (125)	5 (63)
Photo array:	58 (125)	37 (63)
Lineup:	10 (125)	3 (63)
Single photo:	2 (125)	0 (63)
Eyewitness 1 misidentified defendant**	36 (258)	49 (183)
Eyewitness 1 took multiple tries to ID defendant*	8 (92)	1 (88)
Eyewitness 1 provided unique details of perp	66 (62)	71 (76)
Discrepancy b/w Eyewitness 1's description and the defendant	19 (62)	9 (75)
Eyewitness 1 made cross-racial ID	21 (57)	19 (54)
Eyewitness 1 identification method		
Direct:	48 (86)	65 (89)
Show-up:	2 (86)	6 (89)
Photo array:	35 (86)	21 (89)
Lineup:	11 (86)	7 (89)
Single photo:	5 (86)	1 (89)
Eyewitness 1 provided description of perp	89 (66)	96 (82)
Eyewitness 1 certain of ID	82 (87)	89 (89)
Total number of eyewitnesses	1.3 (260)	1.5 (200)
Strength of witness characteristics**		
None:	43 (260)	32 (200)
Weak:	7 (260)	2 (200)

Probative:	25 (260)	27 (200)
Highly probative:	26 (260)	39 (200)
Strength of identification information**		
None:	10 (259)	17 (200)
Weak:	17 (259)	16 (200)
Probative:	54 (259)	37 (200)
Highly probative:	19 (259)	31 (200)
Strength of suspect statements		
None:	73 (260)	61 (200)
Weak:	14 (260)	20 (200)
Probative:	12 (260)	13 (200)
Highly probative:	1 (260)	8 (200)
Strength of physical evidence		
None:	18 (260)	24 (200)
Weak:	52 (260)	54 (200)
Probative:	27 (260)	17 (200)
Highly probative:	4 (260)	6 (200)
Strength of prosecution's case***		
Weak:	35 (260)	24 (200)
Probative:	53 (260)	46 (200)
Highly probative:	12 (260)	31 (200)

* $p<0.05$ ** $p<0.01$ ***$p<0.001$

Note: The following variables are <u>not</u> represented as percentages: total number of eyewitnesses.

Table 8. Bivariate Results: All Variables, Quality of Defense

Quality of Defense Variables	*Erroneous Convictions Total % (N)*	*Near Misses Total % (N)*
Attorney was a public defender*	73 (153)	61 (133)
Defense presented alternative suspect***	10 (192)	22 (157)
Defense presented DNA evidence*	1 (193)	4 (159)
Defense presented defendant's friend as a witness	36 (180)	26 (152)
Defense presented disinterested person as a witness	28 (180)	28 (153)
Defense presented evidence of misconduct***	7 (193)	20 (163)
Defense presented expert witness	17 (193)	22 (158)
Defense presented exculpatory evidence	66 (196)	73 (161)
Defense presented family member as a witness***	52 (181)	25 (153)
Defense presented physical evidence corroborating alibi***	5 (194)	24 (153)
Defense presented evidence of mental illness or disability	5 (193)	3 (159)
Substantiated allegations of incompetent defense counsel***	4 (259) [Alleged: 14]	0 (200)

* p<0.05 ** p<0.01 ***p<0.001

Table 9. Erroneous Convictions by Year of Crime

Date of Crime†	Frequency	Percent
1973	1	.4
1977	1	.4
1978	1	.4
1979	5	1.9
1980	7	2.7
1981	20	7.7
1982	23	8.8
1983	20	7.7
1984	18	6.9
1985	25	9.6
1986	26	10.0
1987	16	6.2
1988	8	3.1
1989	16	6.2
1990	17	6.5
1991	12	4.6
1992	7	2.7
1993	5	1.9
1994	4	1.5
1995	3	1.2
1996	8	3.1

1997	7	2.7
1998	3	1.2
1999	1	.4
2001	1	.4
2002	1	.4
2005	3	1.2
2006	1	.4
Total	260	100.0

†If the case involved more than one crime, the year of the most recent crime was used.

Table 10. Near Misses by Year of Crime

Date of Crime†	Frequency	Percent
1973	1	.5
1979	1	.5
1980	3	1.5
1981	1	.5
1982	1	.5
1983	5	2.5
1984	8	4.0
1985	7	3.5
1986	5	2.5
1987	1	.5
1988	2	1.0
1989	2	1.0
1990	7	3.5
1991	16	8.0
1992	5	2.5
1993	3	1.5
1994	4	2.0
1995	2	1.0
1996	4	2.0
1997	8	4.0
1998	13	6.5

1999	4	2.0
2000	14	7.0
2001	4	2.0
2002	8	4.0
2003	5	2.5
2004	4	2.0
2005	9	4.5
2006	9	4.5
2007	4	2.0
2008	10	5.0
2009	11	5.5
2010	13	6.5
2011	6	3.0
Total	200	100.0

†If the case involved more than one crime, the year of the most recent crime was used.

Table 11. Bivariate Results: Nature of the Defendant, Significant Variables Controlled for Murder and Sexual Assault

Nature of the Defendant Variables	*Erroneous Convictions Murder Cases %(N)*	*Near Misses Murder Cases % (N)*	*Erroneous Convictions Sexual Assault Cases %(N)*	*Near Misses Sexual Assault Cases %(N)*
Race of defendant (% African American)	45 (109)	39 (124)	62 (182)***	31 (62)***
High school graduate	42 (60)	54 (76)	44 (97)***	82 (28)***
Previous criminal conviction	65 (81)**	46 (109)**	66 (157)***	38 (53)***
Female defendant	5 (109)	5 (131)	1 (185)*	5 (67)*
Mean age of defendant	25 (106)**	28 (128)**	25 (65)**	30 (181)**
Strength of suspect characteristics				
None:	26 (85)	43 (118)	24 (161)**	50 (54)**
Weak:	57 (85)	32 (118)	53 (161)	33 (54)
Probative:	14 (85)	21 (118)	19 (161)	17 (54)
Highly probative:	4 (85)	3 (118)	4 (161)	0 (54)

* p<0.05 ** p<0.01 ***p<0.001 † no control applied

Note: The following variables are <u>not</u> represented as percentages: mean age of defendant.

Table 12. Bivariate Results: Nature of the Defendant, Significant Variables Controlled for Pre- and Post-DNA Resolution

Nature of the Defendant Variables	*Erroneous Convictions Pre-DNA Cases %(N)*	*Near Misses Pre-DNA Cases % (N)*	*Erroneous Convictions Post-DNA Cases %(N)*	*Near Misses Post-DNA Cases %(N)*
Race of defendant (% African American)	65 (147)***	39 (26)***	47 (109)	37 (163)
High school graduate	48 (75)	62 (13)	40 (53)*	65 (92)*
Previous criminal conviction	65 (130)***	37 (19)***	68 (82)*	43 (147)*
Strength of suspect characteristics				
None:	25 (134)	44 (23)	22 (88)**	46 (151)**
Weak:	52 (134)	23 (23)	57 (88)	34 (151)
Probative:	19 (134)	30 (23)	18 (88)	16 (151)
Highly probative:	5 (134)	4 (23)	3 (88)	4 (151)
Female defendant†				
Mean age of defendant†				

* p<0.05 ** p<0.01 ***p<0.001 † no control applied

Table 13. Bivariate Results: Nature of the Crime, Significant Variables Controlled for Murder and Sexual Assault

Nature of the Crime Variables	*Erroneous Convictions Murder Cases %(N)*	*Near Misses Murder Cases % (N)*	*Erroneous Convictions Sexual Assault Cases %(N)*	*Near Misses Sexual Assault Cases %(N)*
Victim 1 and defendant 1 were strangers	52 (52)	47 (61)	69 (182)***	38 (66)***
Female victim 1	69 (109)***	44 (131)***	98 (185)*	93 (67)*
At least one white female victim	44 (109)*	31 (131)*	58 (185)*	40 (67)*
Criminal justice action demanded	14 (15)	15 (19)	7 (185)***	21 (67)***
Mean number of alleged co-perpetrators	1.3 (109)	1.1 (131)	0.4 (185)*	0.9 (67)*
Mean number of codefendants†				
Mean number of female victims†				
Mean number of white female victims†				
Additive charges include murder†				
At least one female victim†				
No victim was a stranger†				
Race of victim 1 differs from defendant 1†				

* p<0.05 ** p<0.01 ***p<0.001 † no control applied

Note: The following variables are <u>not</u> represented as percentages: mean number of alleged co-perpetrators. Other categories with "mean number" also do not depict percentages.

Table 14. Bivariate Results: Nature of the Crime, Significant Variables Controlled for Pre- and Post-DNA Resolution

Nature of the Crime Variables	*Erroneous Convictions Pre-DNA Cases %(N)*	*Near Misses Pre-DNA Cases % (N)*	*Erroneous Convictions Post-DNA Cases %(N)*	*Near Misses Post-DNA Cases %(N)*
Victim 1 and defendant 1 were strangers	70 (12)	64 (3)	57 (60)	45 (77)
Additive charges include murder	20 (29)*	50 (14)*	34 (38)*	57 (98)*
Mean number of alleged co-perpetrators	0.5 (148)	0.7 (28)	1.7 (112)***	0.9 (172)***
Mean number of codefendants†				
Criminal justice action demanded†				
Mean number of female victims†				
Mean number of white female victims†				
Race of victim 1 differs from defendant 1†				
No victim was a stranger†				
Female victim 1†				
At least one female victim†				
At least one white female victim†				

* p<0.05 ** p<0.01 ***p<0.001 †no control applied

Note: The following variables are <u>not</u> represented as percentages: mean number of alleged co-perpetrators. Other categories with "mean number" also do not depict percentages.

Table 15. Bivariate Results: Quality of Work by Criminal Justice Officials, Significant Variables Controlled for Murder and Sexual Assault

Quality of Work Variables	*Erroneous Convictions Murder Cases % (N)*	*Near Misses Murder Cases % (N)*	*Erroneous Convictions Sexual Assault Cases % (N)*	*Near Misses Sexual Assault Cases % (N)*
Exculpatory evidence withheld	19 (108)*** [Alleged: 9]	5 (131)*** [Alleged: 8]	10 (184) [Alleged: 6]	9 (67) [Alleged: 6]
Medical error	1 (109)**	9 (130)**	0 (185)***	9 (67)***
Prosecution withheld exculpatory evidence	19 (108)***	2 (130)***	7 (184)	6 (67)
Criminal justice official lying†				
County sheriff investigated†				
Local police investigated†				
State police investigated†				
Federal law enforcement investigated†				
Time b/w arrest and indictment (days-log)†				
Judicial error†				

* p<0.05 ** p<0.01 ***p<0.001 † no control applied

Table 16. Bivariate Results: Quality of Work by Criminal Justice Officials, Significant Variables Controlled for Pre- and Post-DNA Resolution

Quality of Work Variables	*Erroneous Convictions Pre-DNA Cases %(N)*	*Near Misses Pre-DNA Cases % (N)*	*Erroneous Convictions Post-DNA Cases %(N)*	*Near Misses Post-DNA Cases %(N)*
Exculpatory evidence withheld	12 (147) [Alleged: 8]	4 (28) [Alleged: 4]	15 (112) [Alleged: 5]	6 (171) [Alleged: 7]
Prosecution withheld exculpatory evidence	9 (147)	0 (28)	13 (112)**	4 (171)**
Criminal justice official lying†				
Medical error†				
County sheriff investigated†				
Local police investigated†				
State police investigated†				
Federal law enforcement investigated†				
Time b/w arrest and indictment (days-log)†				
Judicial error†				

* p<0.05 ** p<0.01 ***p<0.001 † no control applied

Table 17. Bivariate Results: Quality of Work by Criminal Justice Officials, Significant Variables Controlled for Illinois

Quality of Work Variables	*Erroneous Convictions Illinois Excluded % (N)*	*Near Misses Illinois Excluded % (N)*
County sheriff investigated	24 (211)*	33 (180)*
Local police investigated	80 (211)*	71 (180)*
State police investigated	3 (213)	7 (180)
Federal law enforcement investigated	0.5 (222)*	3 (180)*
Criminal justice official lying†		
Time b/w arrest and indictment (days-log)†		
Judicial error†		
Exculpatory evidence withheld†		
Prosecution withheld exculpatory evidence†		
Medical error†		

* p<0.05 ** p<0.01

Table 18. Bivariate Results: Location Effects, Significant Variables Controlled for Illinois

Location Effect Variables	*Erroneous Convictions Illinois Excluded (N)*	*Near Misses Illinois Excluded (N)*
Case from former Confederate state***	41% (225)	23% (180)
Death penalty culture***	.081 (166)	.039 (140)
Political ideology of state (Median Democratic presidential vote 1980 to 2008)**	39% (225)	54% (180)
Crime rate 5 years prior	581 (225)	620 (170)
Crime rate the year of the crime	614 (225)	628 (159)
Crime consistency***	6.57 (225)	-0.71 (159)

* p<0.05 ** p<0.01 ***p<0.001

Table 19. Bivariate Results: Nature of the Facts Available to the State, Significant Variables Controlled for Murder and Sexual Assault

Nature of the Facts Variables	*Erroneous Convictions Murder-DNA Cases % (N)*	*Near Misses Murder Cases % (N)*	*Erroneous Convictions Sexual Assault Cases % (N)*	*Near Misses Sexual Assault Cases % (N)*
False confession	28 (108)	33 (131)	11 (184)	6 (67)
Non-eyewitness gave evidence	51 (109)***	26 (129)***	29 (185)***	9 (67)***
Eyewitness misidentification (unintentional, only cases with an ID)	57 (67)	61 (86)	90 (158)***	54 (59)***
Additional misidentification	9 (109)	4 (131)	23 (185)	14 (66)
Intentional misidentification or lie by victim	N/A	N/A	3 (185)***	33 (67)***
Intentional misidentification by non-victim eyewitness	26 (109)	33 (131)	3 (185)*	9 (67)*
Intentional misidentification	26 (109)	34 (131)	5 (185)***	40 (67)***
Forensic evidence errors (all cases)	31 (109)	19 (131)	36 (185)	13 (67)
Forensic evidence errors (only cases with forensics)	44 (77)*	28 (89)	41 (162)**	17 (52)
Fingerprint				
Presented w/ no errors	22 (109)	12 (128)	16 (183)***	3 (66)**
Errors	2 (109)	2 (128)	1 (183)***	2 (66)***
Ballistics				
Presented w/ no errors	1 (109)***	19 (127)***	N/A	N/A
Errors	2 (109)***	0 (127)***	N/A	N/A
Microscopic hair				
Presented w/ no errors	21 (108)***	3 (128)***	26 (183)***	2 (66)***
Errors	5 (108)***	2 (128)***	7 (183)***	3 (66)***
Serology				
Presented w/ no errors	22 (109)***	2 (128)***	36 (184)***	8 (66)***

Errors in testing	2 (109)***	1 (128)***	3 (184)***	0 (66)***
Errors in testimony	12 (109)***	1 (128)***	20 (184)***	2 (66)***
Errors in testing & Testimony	2 (109)***	0 (128)***	1 (184)	0 (66)
DNA				
Presented w/ no errors	6 (109)***	23 (128)***	3 (184)***	42 (66)***
Errors	0 (109)***	2 (128)***	2 (184)***	2 (66)***
Surveillance/wiretap evidence	3 (109)	2 (131)	1 (185)***	12 (67)***
Any victim recanted crime	N/A	N/A	0 (185)***	24 (67)***
Any victim recanted identification	N/A	N/A	1 (185)***	28 (67)***
Victim 1 misidentified the defendant (only cases where victim is alive)	N/A	N/A	91 (149)	88 (57)
Discrepancy b/w victim 1's description and defendant	N/A	N/A	57 (97)***	21 (48)***
Victim 1 provided unique details of perp	N/A	N/A	34 (101)**	60 (48)**
Victim 1 made cross-racial ID	N/A	N/A	58 (95)	39 (31)
Victim 1 identification method				
Direct	N/A	N/A	21 (118)***	63 (46)***
Show-up	N/A	N/A	9 (118)***	4 (46)***
Photo array	N/A	N/A	58 (118)***	30 (46)***
Lineup	N/A	N/A	11 (118)***	2 (46)***
Single photo	N/A	N/A	2 (118)***	0 (46)***
Eyewitness 1 misidentified defendant	60 (107)	63 (118)	24 (183)	21 (67)
Eyewitness 1 took multiple tries to ID defendant	5 (62)	0 (72)	9 (45)	0 (14)
Strength of witness characteristics				

Weak:	18 (109)***	1 (106)***	8 (86)	10 (29)
Probative:	54 (109)	45 (106)	41 (86)	28 (29)
Highly probative:	29 (109)	54 (106)	51 (86)	62 (29)
Strength of identification information				
Weak:	16 (83)	19 (99)	18 (171)*	19 (62)*
Probative:	66 (83)	50 (99)	58 (171)	36 (62)
Highly probative:	18 (83)	31 (99)	25 (171)	45 (62)
Strength of prosecution's case				
Weak:	51 (109)***	24 (131)***	28 (185)	24 (67)
Probative:	41 (109)	44 (131)	59 (185)	54 (67)
Highly probative:	8 (109)	33 (131)	14 (185)	22 (67)
Misleading circumstantial evidence†				
Any non-victim eyewitness recanted†				
Any witness recanted crime or ID†				
Discrepancy b/w any victim's description and defendant†				

* p<0.05 ** p<0.01 ***p<0.001 † no control applied

Table 20. Bivariate Results: Nature of the Facts Available to the State, Significant Variables Controlled for Pre- and Post-DNA Resolution

Nature of the Facts Variables	*Erroneous Convictions Pre-DNA Cases %(N)*	*Near Misses Pre-DNA Cases % (N)*	*Erroneous Convictions Post-DNA Cases %(N)*	*Near Misses Post-DNA Cases %(N)*
False confession	10 (147)	12 (2)	19 (112)	23 (172)
Forensic evidence errors (all cases)	33 (147)	21 (28)	35 (111)***	14 (170)
Forensic evidence error (only cases w/ forensics)	39 (122)	25 (20)	48 (81)	21 (113)
Fingerprint				
Presented w/ no errors	15 (146)	11 (28)	21 (112)**	8 (168)
Errors	1 (146)	7 (28)	1 (112)	1 (168)
Ballistics				
Presented w/ no errors	1 (147)***	14 (28)	0 (112)***	13 (167)
Errors	1 (147)	0 (28)	0 (112)	0 (167)
Microscopic hair				
Presented w/ no errors	20 (147)	11 (2)	20 (168)***	1 (111)
Errors	6 (147)	4 (28)	5 (168)	1 (11)
Serology				
Presented w/ no errors	34 (147)**	11 (28)	21 (112)***	2 (168)
Errors in testing	3 (147)	0 (28)	4 (112)	1 (168)
Errors in testimony	18 (147)	4 (28)	13 (112)	0 (168)
Errors in testing &	1 (147)	0 (28)	3 (112)	0 (168)
Testimony				
DNA				
Presented w/ no errors	N/A	N/A	7 (112)***	29 (168)
Errors	N/A	N/A	3 (112)	2 (168)
Strength of witness				

characteristics				
Weak:	15 (76)	0 (22)	10 (73)**	4 (114)**
Probative:	33 (76)	32 (22)	53 (73)	41 (114)
Highly probative:	53 (76)	68 (22)	37 (73)	55 (114)
Strength of identification				
information				
Weak:	17 (132)*	11 (27)*	20 (100)	20 (139)
Probative:	60 (132)	44 (27)	61 (100)	45 (139)
Highly probative:	23 (132)	44 (27)	19 (100)	35 (139)
Strength of prosecution's case				
Weak:	30 (148)*	18 (28)*	41 (112)***	24 (172)***
Probative:	59 (148)	54 (28)	46 (112)	44 (172)
Highly probative:	11 (148)	29 (28)	13 (112)	31 (172)
Surveillance/wiretap evidence†				
Misleading circumstantial evidence†				
Any victim recanted crime†				
Any victim recanted identification†				
Any non-victim eyewitness recanted†				
Any witness recanted crime or ID†				
Victim 1 misidentified the defendant (victim is alive)†				
Discrepancy b/w victim 1's description and defendant†				
Discrepancy b/w any victim's description and defendant†				
Victim 1 provided unique details of perp†				
Victim 1 made cross-racial ID†				

Victim 1 identification method†	
Eyewitness 1 misidentified defendant†	
Eyewitness 1 took multiple tries to ID defendant†	
Non-eyewitness testified†	
Eyewitness misidentification†	
Additional misidentification†	
Intentional misidentification or lie by victim†	
Intentional misidentification by non-victim eyewitness†	
Intentional misidentification†	

* p<0.05 ** p<0.01 ***p<0.001 † no control applied

Table 21. Bivariate Results: All Variables, Quality of Defense: Significant Variables Controlled for Murder and Sexual Assault

Quality of Defense Variables	*Erroneous Convictions Murder Cases %(N)*	*Near Misses Murder Cases % (N)*	*Erroneous Convictions Sexual Assault Cases %(N)*	*Near Misses Sexual Assault Cases %(N)*
Defense presented DNA evidence	0 (81)	4 (102)	1 (136)***	11 (55)***
Defense presented evidence of misconduct	12 (81)	23 (106)	7 (136)**	24 (55)**
Defense presented exculpatory evidence	54 (80)*	71 (103)*	70 (139)	73 (55)
Defense presented family member as a witness	41 (74)*	25 (99)*	58 (127)***	23 (52)***

* p<0.05 ** p<0.01 *** p<0.001

Table 22. Bivariate Results: All Variables, Quality of Defense: Significant Variables Controlled by Pre-DNA and Post-DNA Testing

Quality of Defense Variables	*Erroneous Convictions Pre-DNA Cases %(N)*	*Near Misses Pre-DNA Cases % (N)*	*Erroneous Convictions Post-DNA Cases %(N)*	*Near Misses Post-DNA Cases %(N)*
Defense presented alternative suspect	11 (114)	20 (21)	10 (79)*	24 (136)*
Defense presented DNA evidence	NA	NA	3 (79)	5 (138)
Defense presented evidence of misconduct	6 (114)	14 (21)	8 (79)**	21 (142)**
Defense presented exculpatory evidence	72 (118)	59 (22)	56 (78)**	75 (139)**
Defense presented family member as a witness	60 (106)**	26 (19)**	40 (75)*	25 (134)*
Defense presented physical evidence corroborating alibi	4 (115)	15 (15)	5 (75)***	26 (133)***

* p<0.05 ** p<0.01 ***p<0.001

Table 23. Variables Included After Bivariate Controls

Category	Variable	Controlled for State	Controlled for Time	Controlled for Crime
Location Effects	Death Penalty Culture	Sig	Sig	N/A
	Crime Consistency	Sig	No	N/A
Nature of Defendant	Age	N/A	N/A	Sig
	Criminal History	N/A	Sig	Sig
	Race (% African American)	N/A	No	No
	High School Grad	N/A	No	No
Nature of Crime	White female victim	N/A	N/A	Sig
	Female Victim	N/A	N/A	No
	High Profile Case	N/A	N/A	No
Nature of Facts	Strength of Pros. Case	N/A	Sig	No
	Forensic Error	N/A	No	Sig
	Non-Eyewitness Evidence	N/A	N/A	Sig
	Testimony Discrepancy	N/A	N/A	Sig
	Intentional MisID	N/A	N/A	No
Quality of Work by Criminal Justice Officials	Pros. Withheld Evidence	N/A	No	No
	Time from Arrest to Indict	N/A	N/A	N/A
	Strength of Defense	N/A	Sig	Sig
Quality of Defense	Physical Alibi	N/A	Sig	N/A
	Other Suspect	N/A	No	N/A
	Evidence of Misconduct	N/A	No	No
	Family Witness	N/A	Sig	Sig

Table 24. Logistic Regression Results: Nature of the Crime and Location Effect Model

Concept	Variable	Coef.	Std. Err.
Location Effects	Death Penalty Culture	146.103***	(43.463)
	Crime Consistency	2.113**	(0.821)
Nature of the Crime	Female Victim	0.896**	(0.380)
	High Profile Case	-0.433	(0.427)
Controls	Illinois Cases	0.953***	(0.339)
	Post DNA	-1.658***	(0.309)
	Murder Cases	-0.464	(0.297)
	Constant	-2.648*	(1.529)
Num. of Obs. = 460	Num. of Imputations = 5	Area Under ROC Curve = 0.816	

Coefficient estimates followed by robust standard errors in parentheses clustered by state.

**** p<0.01, **p<0.05, *p<0.10*

Table 25. Logistic Regression Results: Nature of the Defendant Model

Concept	Variable	Coef.	Std. Err.
Nature of the Defendant	Age	-0.031*	(0.018)
	Black Defendant	0.153	(0.387)
	High School Grad	-0.406	(0.390)
	Prior Criminal History	0.880***	(0.192)
Controls	Illinois Cases	0.427	(0.264)
	Post DNA	-1.863***	(0.282)
	Murder Cases	-0.917***	(0.267)
	Constant	2.488***	(0.625)
Num. of Obs. = 460	Num. of Imputations = 5	Area Under ROC Curve = 0.801	

Coefficient estimates followed by robust standard errors in parentheses clustered by state.

**** p<0.01, **p<0.05, *p<0.10*

Table 26. Logistic Regression Results: Nature of the Facts Model

Concept	Variable	Coef.	Std. Err.
Nature of the Facts	Strength of Pros. Case	-0.974***	(0.366)
	Forensic Error	1.012***	(0.324)
	Non-eyewitness Testimony/Evidence	0.981***	(0.286)
	Testimony Discrepancy	0.517	(0.459)
	Unique Perpetrator Description	-0.100	(0.376)
	Intentional MisID	-0.605	(0.444)
Controls	Illinois Cases	0.521**	(0.254)
	Post DNA	-1.877***	(0.232)
	Murder Cases	-0.931***	(0.331)
	Constant	1.761***	(0.358)
Num. of Obs. = 460	Num. of Imputations = 5	Area Under ROC Curve = 0.827	

Coefficient estimates followed by robust standard errors in parentheses clustered by state.

**** p<0.01, **p<0.05, *p<0.10*

Table 27. Logistic Regression Results: Quality of the Criminal Justice System Model

Concept	Variable	Coef.	Std. Err.
Quality of Work by CJ System	Pros. Withheld Evidence	1.483**	(0.655)
	Non Eyewitness Lying	1.144***	(0.336)
	Time from Arrest to Indict	0.797	(0.494)
Controls	Illinois Cases	0.632**	(0.265)
	Post DNA	-1.956***	(0.278)
	Murder Cases	-1.069***	(0.354)
	Constant	0.453	(0.921)
Num. of Obs. = 460	Num. of Imputations = 5	Area Under ROC Curve =0.811	

Coefficient estimates followed by robust standard errors in parentheses clustered by state.

**** p<0.01, **p<0.05, *p<0.10*

Table 28. Logistic Regression Results: Quality of Defense Model

Concept	Variable	Coef.	Std. Err.
Quality of Defense	Strength of Defense Case	-0.902**	(0.371)
	Physical Alibi	-1.166**	(0.432)
	Alternative Suspect	-0.565	(0.351)
	Evidence of Misconduct	-0.612	(0.408)
	Family Witness	0.987***	(0.256)
Controls	Illinois Cases	0.549**	(0.276)
	Post DNA	-1.722***	(0.286)
	Murder Cases	-0.778***	(0.288)
	Constant	2.187***	(0.364)
Num. of Obs. = 460	Num. of Imputations = 5	Area Under ROC Curve =0.825	

Coefficient estimates followed by robust standard errors in parentheses clustered by state.

**** p<0.01, **p<0.05, *p<0.10*

Table 29. Factors that Influence the Likelihood of an Erroneous Conviction

Concept	Variable	Coef.	(Std. Err.)
Nature of the Crime	Death Penalty Culture	172.848**	(57.809)
	Crime Consistency	1.086	(0.792)
	Female Victim	0.601	(0.463)
	High Profile Case	-0.715	(0.486)
Nature of the Defendant	Age	-0.055**	(0.027)
	Black Defendant	0.213	(0.383)
	High School Grad	-0.309	(0.483)
	Prior Criminal History	0.850***	(0.296)
Nature of the Facts	Strength of Pros. Case	-1.091**	(0.490)
	Forensic Error	0.956**	(0.467)
	Non-eyewitness Evidence	0.333	(0.461)
	Testimony Discrepancy	0.422	(0.472)
	Unique Perpetrator Description	0.270	(0.480)
	Intentional MisID	-0.890**	(0.448)
Quality of Work by CJ System	Pros. Withheld Evidence	1.655***	(0.557)
	Non Eyewitness Lying	1.159**	(0.574)
	Time from Arrest to Indict	0.241	(0.493)
Quality of Defense	Strength of Defense Case	-1.043**	(0.470)
	Physical Alibi	-0.716	(0.489)
	Other Suspect	-0.693	(0.534)
	Evidence of Misconduct	-0.989*	(0.488)

	Family Witness	0.887***	(0.290)
Controls	Illinois Cases	0.953**	(0.419)
	Post DNA	-1.213***	(0.347)
	Murder Cases	-0.674*	(0.364)
	Constant	-0.131	(2.111)
Num. of Obs. = 460	Num. of Imputations = 5	Area Under ROC Curve = 0.908	

Coefficient estimates followed by robust standard errors in parentheses clustered by state.

**** p<0.01, **p<0.05, *p<0.10*

Figure 2. Sample Receiver-Operating Characteristic Curve, Model Includes Nature of the Crime and Controls

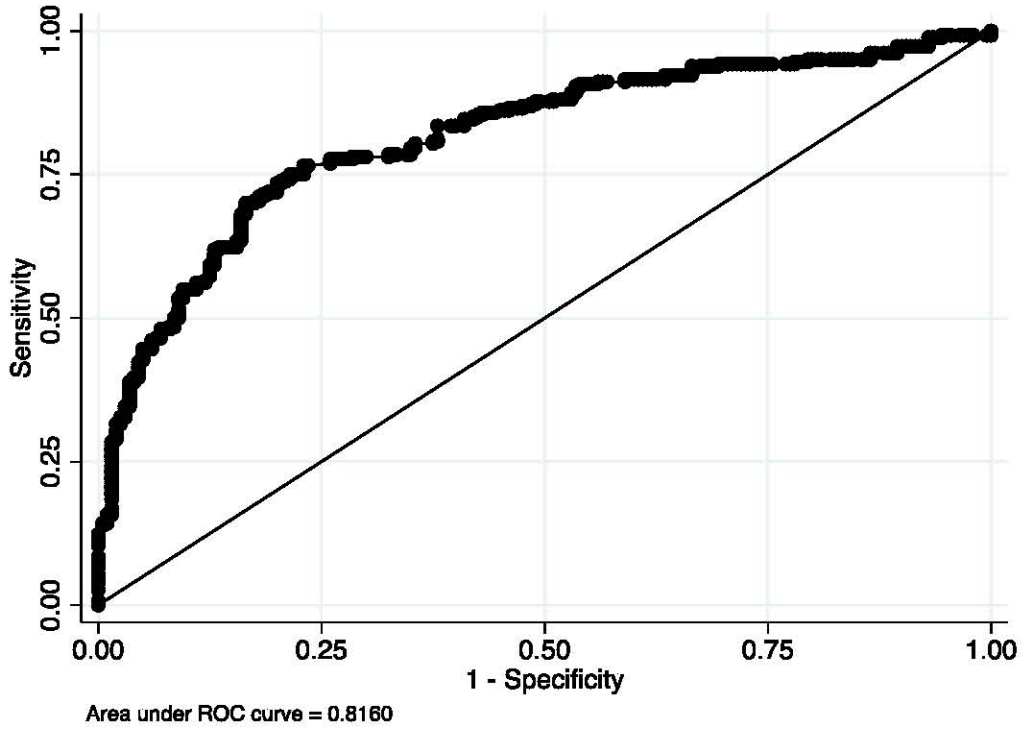


Figure 3. Receiver-Operating Characteristic Curve for First Imputed Data Set, Final Model

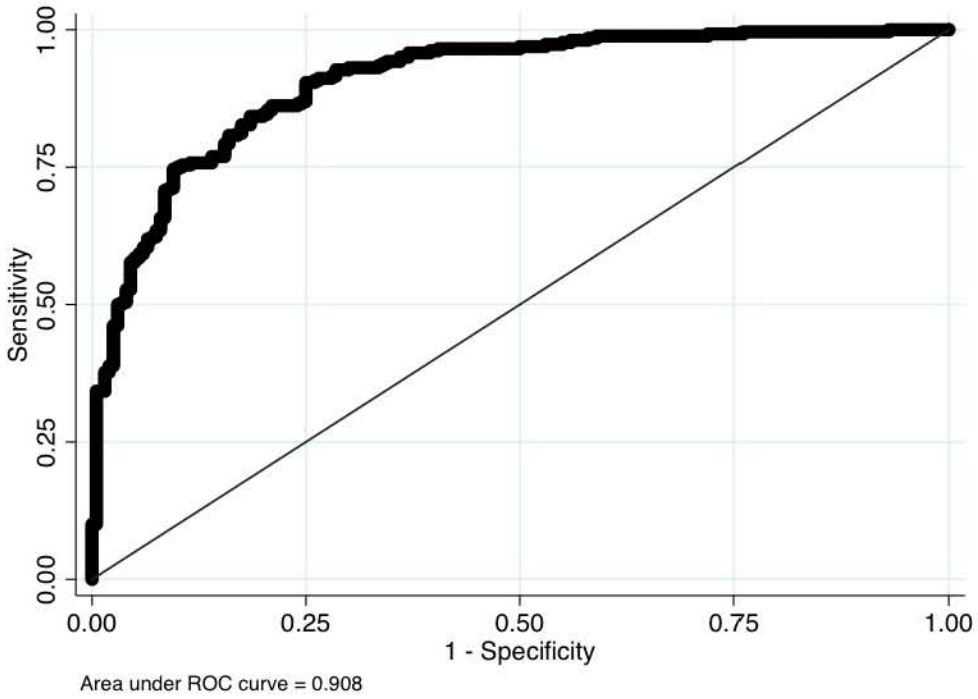
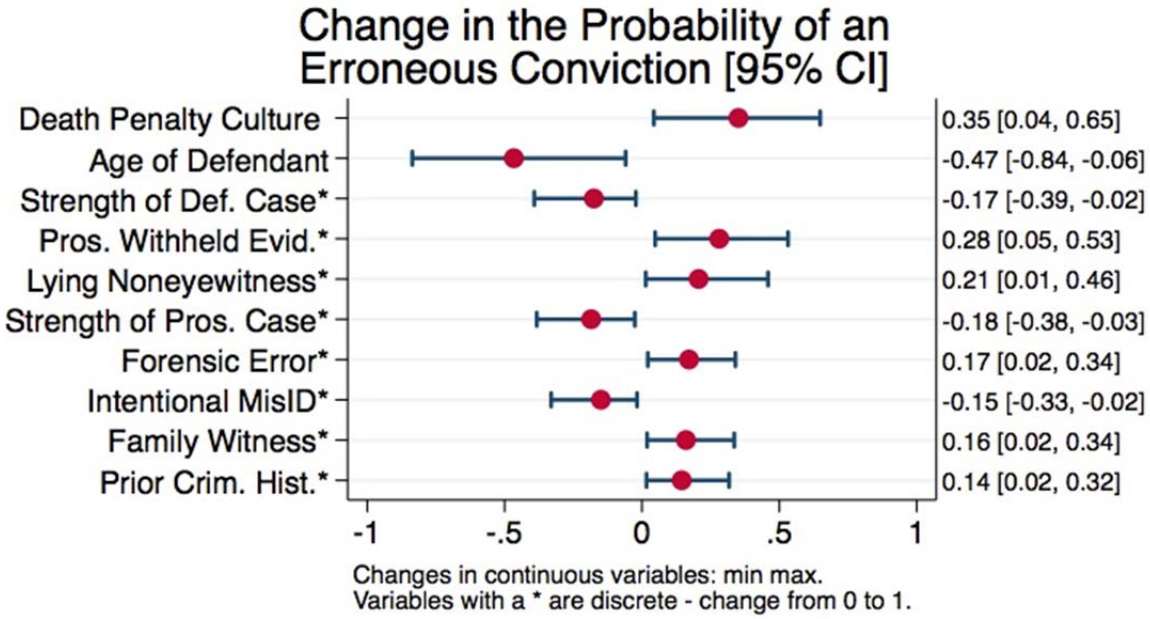


Figure 4. Probability of an Erroneous Conviction



1000 Simulations performed on the 5 Imputed data sets using Clarify (King et al. 2000). Plotted using plotfds (Boehmke 2008).

Table 30. Number of Complete Cases, Imputed Cases, and Models used for Imputation

Variable	Model	Complete	Incomplete	Imputed	Total
Logged Time to Arrest from Indictment (Months)	Linear	189	271	271	460
Logged Time to Arrest from Indictment (Days)	Linear	189	271	271	460
Death Penalty Culture 1	Truncated	358	102	102	460
Death Penalty Culture 2	Truncated	358	102	102	460
Punitive Rank	Truncated	454	6	6	460
Age of Defendant	NBR	446	14	14	460
Black Defendant	Logit	446	14	14	460
High School Grad	Logit	233	227	227	460
Prior Criminal History	Logit	378	82	82	460
Strength of Defense Case	Logit	359	101	101	460
Family Witness	Logit	334	126	126	460
Evidence of Defense Misconduct	Logit	356	104	104	460
Physical Alibi	Logit	347	113	113	460
Other Suspect	Logit	349	111	111	460

(complete + incomplete = total; imputed is the minimum across *m* of the number of filled-in observations.)

Table 31. Summary Statistics for Non-imputed Data

Variable	Obs	Mean	Std. Dev.	Min	Max
Wrongful Conviction	460	0.565	0.496	0	1
Death Penalty Culture	358	0.003	0.003	0.000	0.012
Crime Consistency	460	1.513	0.211	-0.143	2.158
Female Victim	460	0.772	0.420	0	1
Age	446	26.874	8.935	14	76
Black Defendant	446	0.484	0.500	0	1
High School Grad	233	0.536	0.500	0	1
Prior Criminal History	378	0.558	0.497	0	1
Strength of Pros. Case	460	1.202	0.402	0	1
Forensic Error	460	0.252	0.435	0	1
Non-eyewitness Testimony	458	0.266	0.443	0	1
Testimony Discrepancy	460	0.157	0.364	0	1
Unique Perpetrator Description	460	0.167	0.374	0	1
Intentional MisID	460	0.235	0.424	0	1
Crime or ID Recanted	460	0.207	0.405	0	1
Pros. Withheld Evidence	460	0.076	0.265	0	1
Strength of Defense Case	359	0.435	0.496	0	1
Exculpatory Evidence	358	0.687	0.464	0	1
Physical Alibi	347	0.133	0.340	0	1
Other Suspect	349	0.155	0.362	0	1
Illinois Cases	460	0.120	0.325	0	1
Post DNA	460	0.617	0.487	0	1
Murder Cases	460	0.522	0.500	0	1

Table 32. Summary Statistics for Complete vs. Observed Data

	Complete Data			Observed		
	5 (Observed and Imputed)					
Variable	Obs.	Mean	Std. Err.	Obs.	Mean	Std. Err.
Logged Time to Arrest from Indictment (Months)	460	0.451	0.262	189	0.452	0.223
Logged Time to Arrest from Indictment (Days)	460	1.716	0.381	189	1.718	0.321
Death Penalty Culture 1	460	0.045	0.062	358	0.056	0.067
Death Penalty Culture 2	460	0.002	0.003	358	0.003	0.003
Strength of Defense Case	460	0.431	0.496	359	0.435	0.496
Family Witness	460	0.396	0.490	334	0.395	0.490
Physical Alibi	460	0.133	0.340	347	0.133	0.340
Evidence of Defense Misconduct	460	0.124	0.330	356	0.126	0.332
Other Suspect	460	0.154	0.362	349	0.155	0.362
Prior Criminal History	460	0.555	0.498	378	0.558	0.497
Black Defendant	460	0.484	0.500	446	0.484	0.500
Age of Defendant	460	27.000	8.966	446	26.874	8.935
High School Grad	460	0.574	0.495	233	0.536	0.500
Punitive Rank	460	31.965	12.823	454	31.767	12.779

Table 33. Study Results by Hypothesis Proffered

Model	Hypothesis	Confirmed?
Traditional Legal		
	Eyewitness Error	
	Inadvertent Misidentification	✓
	False Confessions	
	Police or Prosecutor Error	
	Brady Violations	✓
	Tunnel Vision	✓
	Forensic Error	✓
	Forensic Fraud	
	Snitch Testimony/Evidence	
	Lying by any Non-eyewitness	✓
	Quality of Defense	✓
Sociological Factors		
	Race/ethnicity of Defendant	
	Race/ethnicity of Victim	
	Cross-racial effects	
	Age of Defendant	✓
	SES of Defendant	
	Any Criminal History	✓
	Similar Criminal History	
	State Death Penalty Culture	✓
	State Political Culture	
	State Crime Rate	

	High Profile Crime	
Case Characteristics		
	Strength of Prosecution Case	✓ *
	Multiple Errors	✓
CJ System Actors		
	Time between Crime and Arrest	

* Note, though, that the direction of the relationship is opposite as hypothesized

Figure 5. Probability Density Plots of Observed, Imputed, and Complete Data for *Age of Defendant*

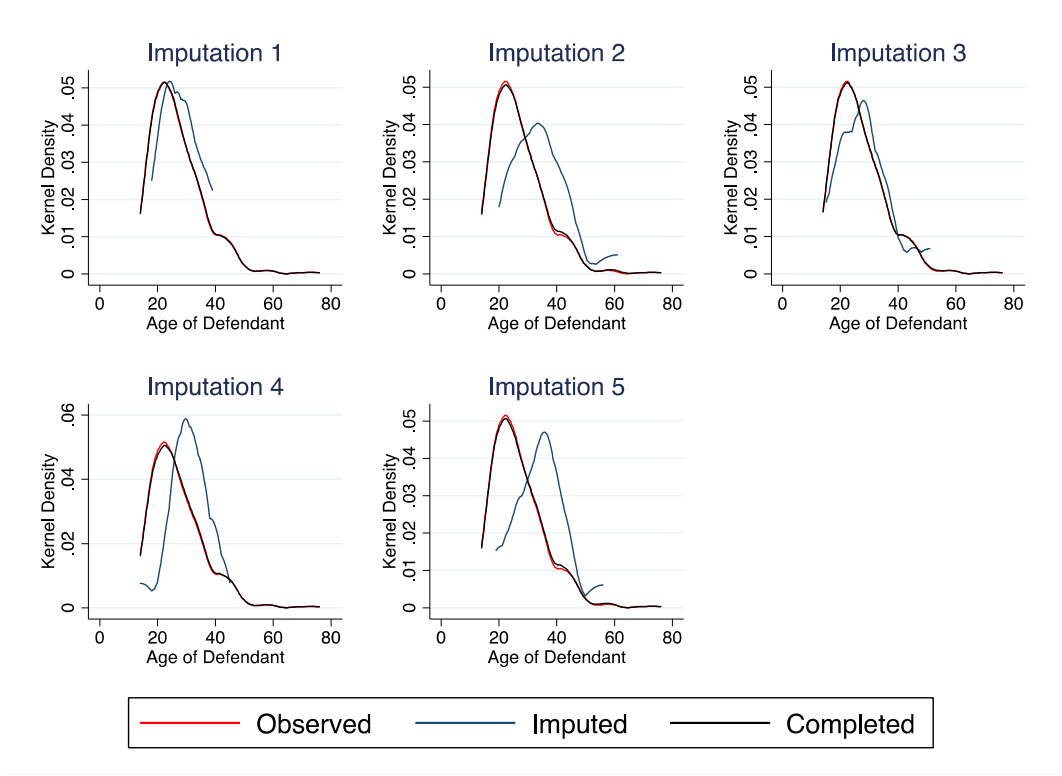


Figure 6. Probability Density Plots of Observed, Imputed, and Complete Data for *Logged Time from Indictment to Arrest*

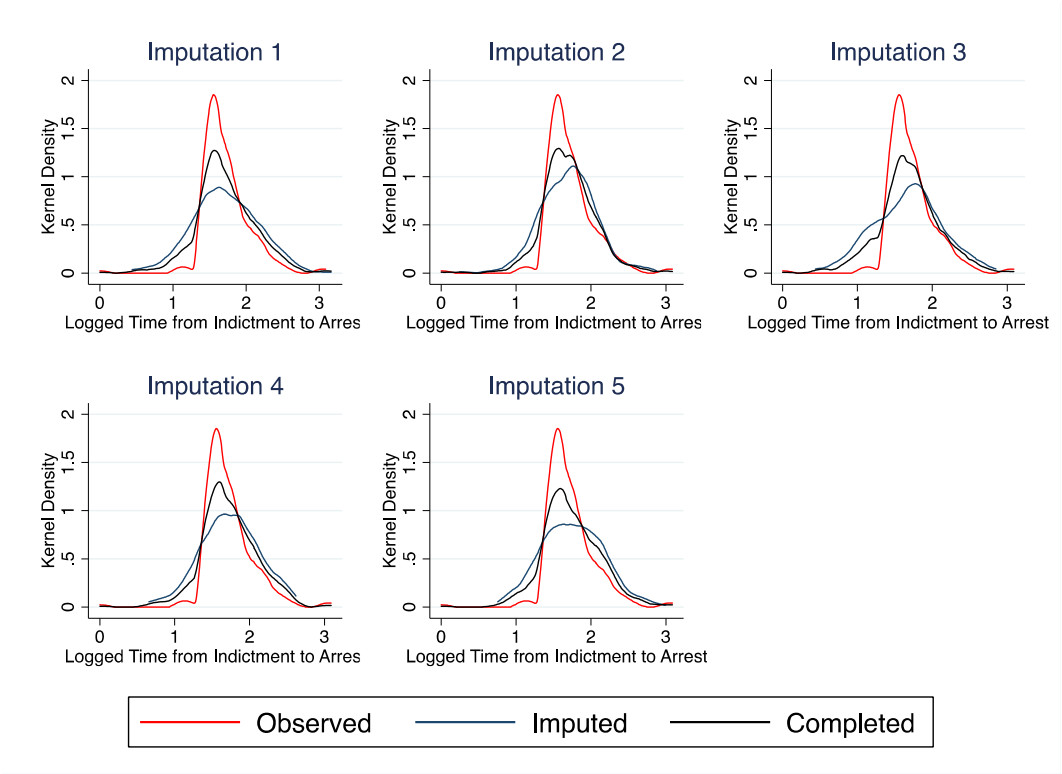
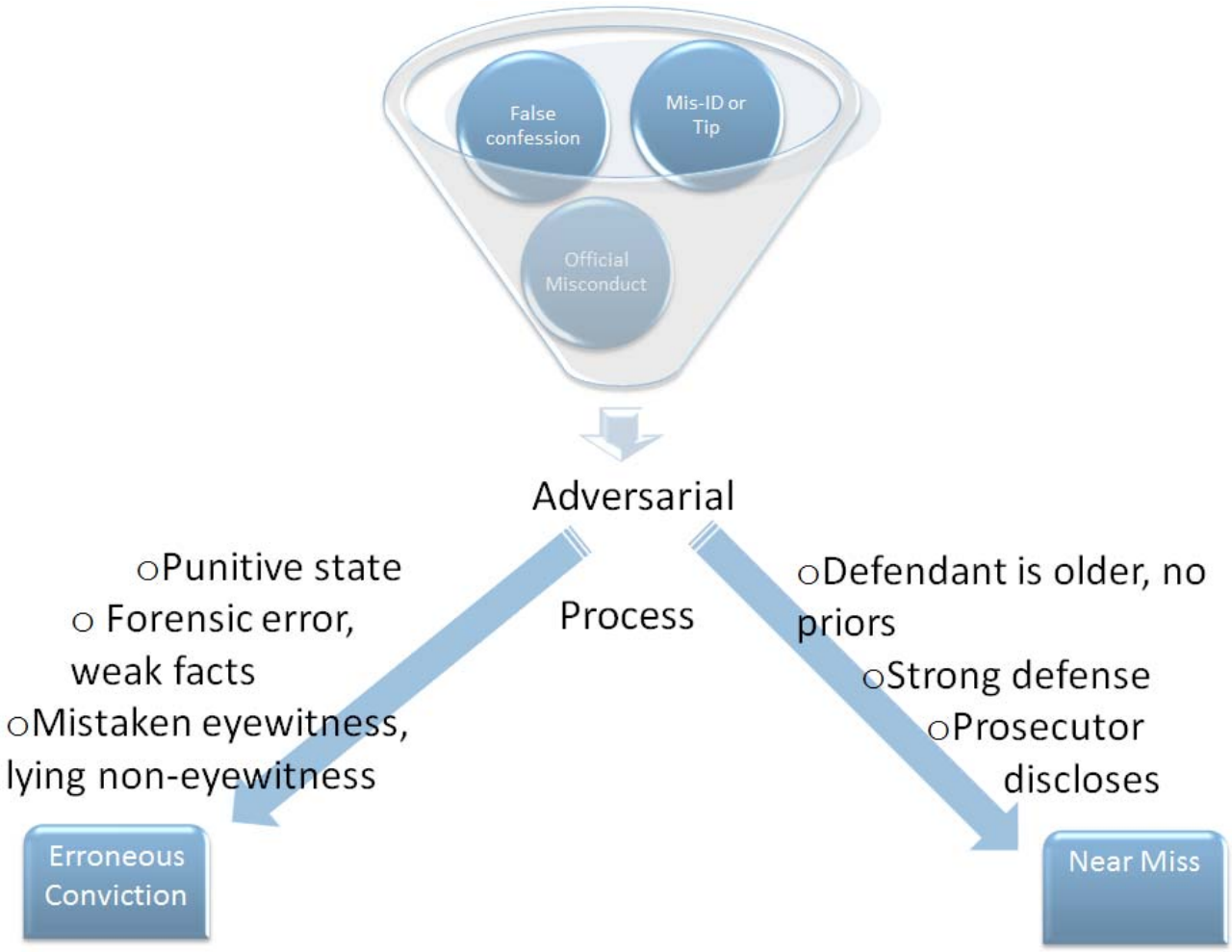


Figure 7. Divergent Processes of Innocence Cases



VIII. APPENDICES

VIII.A. Case Coding Document

1) Name of defendant

2) Is the case in the Innocence Project profiles?

3) Previous criminal conviction?

a) Yes

b) No

c) Unknown

4) Number of prior criminal convictions? (write in)

5) High school graduate? (write in any additional educational or socioeconomic information that is available)

a) Yes

b) No

c) Unknown

6) Does the defendant have a history of mental illness or retardation?

a) Yes

b) No

c) Unknown

7) Fluent in English?

a) Yes

b) No

c) Unknown

8) Does the defendant have a history of gang affiliation?

a) Yes

b) No

c) Unknown

9) Number of co-defendant(s) at trial, if any (write in names if known) and disposition of their cases

10) Number of alleged perpetrators other than the defendant, if any (write in names if known) and disposition of their cases

11) Is a co-defendant or alleged co-perpetrator guilty of the crime(s) for which the defendant was charged and/or convicted?

a) Yes

b) No

c) Unknown

d) Not applicable

12) Number of victims involved in:

a) crime(s) charged_____

b) crime(s) convicted_____

13) Race/ethnicity of defendant

a) Caucasian/white

b) African American/black

c) Hispanic/Latino

d) Asian American

e) Native American

f) Other

g) Unknown

14) Race/ethnicity of victim: (if more than 2 victims, add in)

a) Victim #1:

i) Caucasian/white

ii) African American/black

iii) Hispanic/Latino

iv) Asian American

v) Native American

vi) Other

vii) Unknown

b) Victim #2:

i) Caucasian/white

ii) African American/black

iii) Hispanic/Latino

iv) Asian American

v) Native American

vi) Other

vii) Unknown

15) Relationship between defendant and victim(s) (if more than 2 victims, add in)

a) Victim #1:

i) Family member/Significant other (specify)

ii) Friend

iii) Acquaintance

iv) Neighbor

v) Stranger

vi) Other (specify)

vii) Unknown

b) Victim #2:

i) Family member/Significant other (specify)

ii) Friend

iii) Acquaintance

iv) Neighbor

v) Stranger

vi) Other (specify)

vii) Unknown

16) Age of defendant (if unknown, write that down)

17) Age of victim(s) (if more than 2 victims, add in)

a) Victim #1

b) Victim #2

18) Gender of defendant

a) Male

b) Female

19) Gender of victim(s) (if more than 2 victims, add in)

a) Victim #1:

i) Male

ii) Female

b) Victim #2:

i) Male

ii) Female

20) Type of crime(s) with which defendant was charged

21) Type of crime(s) for which defendant was convicted

22) Was the alleged offense(s) a serial crime?

23) Date of crime (if unknown, write that down)

24) Date on which defendant was first arrested, charged and/or indicted (if unknown, write that down)

25) Location/jurisdiction of crime (write in state, county, and city if known)

26) Law enforcement agency of arrest and investigation (write in)

27) Prosecutor's office to indict (geographic location) (write in)

28) Name of chief District Attorney/State's Attorney (write in)

29) Court where case was brought (write in)

30) Date of first trial court resolution (trial/plea/dispositive motion) (write in)

31) Result from first court proceeding:

a) Guilt

b) Acquittal

c) Dismissal

c) Other (describe)

32) Method of Disposition:

a) By trial

i) Jury trial

ii) Bench or judge trial

b) By plea bargain

c) By Motion

i) On defense motion

ii) On prosecution motion

d) Unknown

33) If convicted, sentence/penalty:

a) Number of years & months

b) Life sentence

c) Sentenced to death

d) Other

e) Unknown

34) If convicted, was case appealed?

a) Yes

b) No

c) Unknown

35) If yes, in what court was initial appeal heard (write in name and location)?

36) What was the result?

a) Conviction affirmed (describe court's rationale)

b) Conviction overturned and case thrown out (describe court's rationale)

c) Conviction overturned and new trial ordered (describe court's rationale)

d) Unknown

e) Other (please describe)

37) If conviction was affirmed, did defendant seek further appeals? Write in all further direct appeals, their dates of resolution, their results, and the courts' rationales.

38) Did the defendant file any petitions for habeas corpus, whether in state or federal court? Write in all habeas appeals, their dates of resolution, their results, and the courts' rationales.

39) Did the defendant file any motions or petitions asserting an independent claim for relief available in state court? Write in all independent claims, their dates of resolution, their results, and the courts' rationales.

40) Multiple trials to reach guilty verdict?

a) Yes

b) No

c) Unknown

d) No applicable

41) If new trial was ordered, what was the date of its resolution? (write in)

42) Result of that court proceeding (second time):

a) Guilt

b) Acquittal

c) Dismissal

c) Other (describe)

43) Method of Disposition (second time):

a) By trial

i) Jury trial

ii) Bench or judge trial

b) By plea bargain

c) By Motion

i) On defense motion

ii) On prosecution motion

d) Unknown

44) If convicted (second time), sentence/penalty:

a) Number of years & months

b) Life sentence

c) Sentenced to death

d) Other

e) Unknown

45) If convicted (second time), was case appealed?

a) Yes

b) No

c) Unknown

46) If second conviction was appealed, in what court was initial appeal heard (write in name and location)?

47) What was the result (second appeal)?

a) Conviction affirmed (describe court's rationale)

b) Conviction overturned and case thrown out (describe court's rationale)

c) Conviction overturned and new trial ordered (describe court's rationale)

d) Unknown

e) Other (please describe)

48) If the second conviction was affirmed, did defendant seek further appeals? Write in all further direct appeals, their results, and the courts' rationales.

49) Did the defendant file any petitions for habeas corpus (on second conviction), whether in state or federal court? Write in all habeas appeals, their results and the courts' rationales.

50) Did the defendant file any motions or petitions asserting an independent claim for relief available in state court (on second conviction)? Write in all independent claims, their dates of resolution, their results, and the courts' rationales.

51) Type of defense attorney (write in **Public Defender, Court Appointed, Pro Bono, Private Attorney, Pro se,** or **another description**):

a) original proceeding_____

b) subsequent appeals and/or other proceedings_____-

52) How do we know defendant was factually innocent (circle as many as apply and briefly list reason supporting the categories chosen)? **(Note: This applies to both convictions and acquittals/dismissals.)**

a) It can be objectively demonstrated that no crime ever occurred

b) It can be objectively demonstrated that it was physically impossible for the defendant to have committed the crime (if so, please describe why it was physically impossible)

c) Scientific evidence exonerated the defendant and established his innocence (please list type or types of scientific evidence)

d) The true perpetrator was identified, apprehended and/or convicted (state how we know why this person is the true perpetrator)

e) Other (please describe)

53) Source of exoneration (**choose only one**)

a) Governor's pardon

b) State trial court overturned conviction with prejudice

c) State appellate court overturned conviction with prejudice

d) Highest state court overturned conviction with prejudice

e) State court of unknown level overturned conviction with prejudice

f) Federal district court overturned conviction with prejudice

g) Federal circuit court overturned conviction with prejudice

h) U.S. Supreme Court overturned conviction with prejudice

i) State trial court overturned conviction without prejudice, new trial ordered, prosecution dismissed

j) State appellate court overturned conviction without prejudice, new trial ordered, prosecution dismissed

k) Highest state court overturned conviction without prejudice, new trial ordered, prosecution dismissed

l) State court of unknown level overturned conviction without prejudice, new trial ordered, prosecution dismissed

m) Federal district court overturned conviction without prejudice, new trial ordered, prosecution dismissed

n) Federal circuit court overturned conviction without prejudice, new trial ordered, prosecution dismissed

o) U.S. Supreme Court overturned conviction without prejudice, new trial ordered, prosecution dismissed

p) Other

54) Did defendant receive a pardon from the governor?

1) Yes

2) No

55) Date of exoneration

56) Individual(s) responsible for defendant's exoneration (Please put a number beside **each** category; a "0" if individual/group is not known to have been involved in the exoneration, a "1" if individual/group was predominately responsible for the exoneration, or a "2" if individual/group actively opposed the exoneration; there can be multiple individuals/groups assigned each number)

a) Defendant

b) Victim/supposed victim

c) Real culprit

d) Witness(es)

e) Police

f) Convicting prosecutor

g) Subsequent prosecutor

h) Judge

i) State administrative official

j) Federal law enforcement

k) Original/trial defense attorney

l) Subsequent defense attorney

m) Family of defendant

n) Friend of defendant

p) Journalist

q) Professor

r) Innocence project or organization

s) Other (describe)

t) Unknown

57) Evidence presented and source(s) of error – First Indictment or Conviction

a) Did the victim testify at trial?

1. Yes
2. No
3. Unknown
4. Not applicable

b) Did the victim recant his/her report of the crime?

1. Yes
2. No
3. Unknown

c) Did the defendant testify at trial?

1. Yes
2. No
3. Unknown
4. Not applicable

d) Eyewitness identification used?

a) Yes (if yes, continue to fill out this section)
b) No
c) Unknown

1) If yes, did the eyewitness(es) misidentify the defendant?

a. Yes (if yes, continue to fill out this section)
b. No
c. Other (describe)
d. Unknown

2) Please list number of eyewitnesses misidentifying the defendant

3) Please list who the eyewitnesses were (e.g. victim, bystander, family member)

4) Did the eyewitness provide a description of the perpetrator and if so, was it unique? Did it differ in a significant way from the defendant's actual appearance?

5) Was the identification (please circle as many as apply; if more than 2 eyewitness identifications were made, add in):

a) Eyewitness #1:

i) show-up

ii) line-up

1. sequential

2. simultaneous

3. method unknown

iii) single photo

iv) photo array

1. sequential

2. simultaneous

3. method unknown

v) directly implicated defendant

b) Eyewitness #2:

i) show-up

ii) line-up

1. sequential

2. simultaneous

3. method unknown

iii) single photo

iv) photo array

1. sequential

2. simultaneous

3. method unknown

v) directly implicated defendant

6) Was the identification cross-racial/ethnic?

a) Yes

b) No

c) Unknown

7) What was the length of time between the crime and the first positive identification made by the eyewitness? (if more than two eyewitness identifications were made, add in)

a) Eyewitness #1_____

b) Eyewitness #2_____

8) How certain was the eyewitness of the identification? (if the eyewitness was not certain, put "0", if certain, put "1"; if more than two eyewitness identifications were made, please add in)

a) Eyewitness #1_____

b) Eyewitness #2_____

9) Was there police misconduct or procedural error involved in the misidentification? (describe)

a) Eyewitness #1_____
b) Eyewitness #2_____

10) Did witness testify at trial?

a) Eyewitness #1_____
b) Eyewitness #2_____

11) Was pretrial identification presented at trial?

a) Eyewitness #1_____
b) Eyewitness #2_____

12) Did the witness recant? (if yes, write in when the recantation occurred)

a) Eyewitness #1_____
b) Eyewitness #2_____

e) Other eyewitness misidentification?

1) What was misidentified?

2) Who did the identification?

3) How was the identification made?

f) False confession?

1) Please circle level of incrimination (at what level can the “false confession” be classified?)

a) false incriminating statement (e.g., defendant saying they were at the crime scene but saying nothing else)

b) false admission/false confession (e.g., defendant says “I did it” or gives explanation of how or why he/she committed the crime)

2) Please list conditions under which confession was elicited (e.g., use of physical violence or threats)

g) Perjury or lying/fabrication by witness?

1) Please list number of witnesses

2) Please list type of witness(es) (e.g., Jailhouse informant or snitch testimony)

h) Perjury or lying/fabrication by criminal justice official(s) (list number and type of officials)?

i) Other unreliable or mistaken prosecution testimony (i.e., not eyewitness testimony and not perjured/fabricated testimony)?

j) Forensic evidence presented at trial?

a) Yes

b) No

c) Unknown

1) If yes, write in type(s) of forensic evidence presented and errors that occurred

2) Was there fraud?

k) Withholding of exculpatory evidence (i.e., evidence tending to show the defendant was innocent); list type of evidence withheld and individual withholding the evidence?

l) Police error (please describe)?

m) Police misconduct (please describe)?

n) Prosecutorial error (please describe)?

o) Prosecutorial misconduct (please describe)?

p) Judicial error (please describe)?

q) Judicial misconduct (please describe)?

r) Juror error (please describe)?

s) Juror misconduct (please describe)?

t) Error or misconduct by other criminal justice officials (please describe)?

u) Incompetent defense counsel?

v) Miscellaneous

1) Misleading circumstantial evidence?

2) Erroneous judgment on cause of death?

3) Community pressure?

4) Other errors (list as descriptively as possible)

w) Did the **defense case** present the following evidence (circle as many as apply and briefly note **the strength** of the evidence presented)?

1) Alibi evidence/witnesses

2) Forensic evidence

3) Eyewitness(es) of crime

4) Misconduct of criminal justice officials

5) Evidence incriminating another individual

6) Other (describe)

58) Evidence presented and source(s) of error – Second Indictment or Conviction

[omitted: questions are repeated from #57]

59) What was the length of time:

a) served in prison from conviction/charge to release? (write in any correctional control imposed on defendant after release)

1. Years and months _____
2. Unknown

b) between the conviction/charge and the point at which the defendant finally exited the criminal justice system with regards to the crime at issue?

1. Years and months _____
2. Unknown

60) Did the defendant receive compensation?

a) Yes (write in amount_____)

b) No

61) If yes, what was the compensation for and how and when was it granted (write in)?

62) Where is the defendant now? (write in)

CONTACT INFORMATION:

(Please provide name, connection to case, contact information, and method of contact for each individual from which information was obtained about this case)

SOURCE INFORMATION:

(Please provide type of source and citation for each source consulted about this case)

VIII.B. Coding Book (for Case Coding Document)

1) Name of defendant (last name, first name, middle name):

This is the full legal name used on court documents.

2) Is the case in the Innocence Project profiles?

This refers to whether or not the defendant has a profile on the Innocence Project website.

3) Previous criminal conviction?

This refers to prior convictions *before the time of arrest.* Answer "Yes," "No," or "Unknown" and write in an explanation if needed. If known, write in the type of conviction (felony or misdemeanor) and charge (i.e., burglary). This includes any convictions in any jurisdiction in the United States. Also, please make a note if the defendant has previously been arrested or charged, but not convicted.

4) Number of prior criminal convictions (write in):

Be as precise as possible, but if the actual number is not known, please make an estimate (i.e., only a few, several, many).

5) High school graduate?

This refers to level of education obtained prior to arrest. Answer "Yes," "No," or "Unknown". Do not assume an answer unless there are strong indications one way or the other. Write in any

additional educational or socioeconomic information that is available, including highest level of education received, previous employment experience, and previous homelessness.

6) Does the defendant have a history of mental illness or retardation?

This is an objective standard, so do not consider whether the impairment or disability was known at the time the defendant was arrested and/or brought to trial. However, only impairments or disabilities that existed at the time of the crime or the defendant's indictment should be noted (i.e., disabilities developed after conviction, dismissal, or acquittal are excluded). This question is meant to be as inclusive as possible and includes emotional and personality disorders as well as chemical addictions that affect behavior or memory loss. In addition, if a defendant is of low intelligence/has an IQ below 80 (WAIS-IV), mark "Yes." If there is no indication that the defendant had a mental disorder, you may assume "No."

7) Fluent in English?

Answer "Yes," "No," or "Unknown". Choose "No" if there is any indication that defendant was not conversant or could not write in English. If there is no reasonable expectation that the defendant spoke another language, choose "Yes." "Unknown" should only be chosen when there is a *possibility* that the defendant was not fluent in English, but you are not certain.

8) Does the defendant have a history of gang affiliation?

This refers to the defendant only. If no mention is made of possible gang affiliation, select "No." By itself, participating in the sale of narcotics is NOT enough to indicate gang affiliation.

9) Number of co-defendant(s) at trial, if any (write in names if known) and disposition of their cases:

Co-defendant is used in the legal sense, as an individual indicted for the same crime and not subsequently severed at trial. An individual is still considered a co-defendant if (s)he did not go to trial with the defendant because one or the other disposed of his/her case through a plea. Make a note if the co-defendant confessed or implicated the defendant.

10) Number of perpetrators other than the defendant, if any (write in names if known) and disposition of their cases:

This is the number and name of any perpetrators other than the defendant but including co-defendants, who the police or prosecution alleges participated in the crime(s) for which the defendant was convicted. Please briefly indicate whether the co-perpetrators were ever arrested and charged, and if so, what were the dispositions of their cases. Make a note if the co-perpetrator confessed or implicated the defendant.

11) Is a co-defendant or alleged co-perpetrator guilty of the crime(s) for which the defendant was charged and/or convicted?

Answer "Yes" if the co-defendant or co-perpetrator was convicted (or pled guilty) and was never exonerated. Answer "No" if a co-defendant or co-perpetrator was found guilty and later exonerated. Answer "Not applicable" if there were no co-defendants or alleged co-perpetrators.

12) Number of victims:

Crimes charged: This is the number of victims involved in crime(s) for which the defendant was charged together in the relevant jurisdiction.

Crimes convicted: This is the number of victims involved in crime(s) of which the defendant was convicted together in the relevant jurisdiction.

13) Race/ethnicity of defendant:

Use the race/ethnicity designated either by official record or by colloquial usage; if defendant is of mixed race, designate "other" and write in "mixed."

14) Race/ethnicity of victim(s):

Use the race/ethnicity designated either by official record or by colloquial usage; if victim is of mixed race, designate "other" and write in "mixed." If there is more than one victim, make a notation for the race of each victim even if they are of the same race.

15) Relationship between defendant and victim(s):

"Neighbor" includes anyone whose physical living proximity to the victim is noted in official reports or the media (i.e., said to have been living a few streets down, in an adjacent apartment complex, etc.). Family member/significant other includes extended family by birth or marriage, as well as any close romantic relationship. If, from the available facts, it is not clear what the relationship is between the defendant and victim(s), designate "unknown" rather than "stranger." If there is more than one victim, make a notation for the relationship of each victim even if they have the same relationship.

16) Age of defendant:

This refers to the age of the defendant at the time of the offense. If there are a range of dates, use the mean.

17) Age of victim(s):

This refers to the age of the victim(s) at the time of the offense. If there is more than one victim, make a notation for the age of each victim even if they are the same age.

18) Gender of defendant:

19) Gender of victim(s):

If there is more than one victim, make a notation for the gender of each victim even if they are the same gender.

20) Type of crime(s) with which defendant was charged:

Include the number of counts if more than one.

21) Type of crime(s) for which defendant was convicted:

Include the number of counts if more than one. If we know that the defendant was convicted of a lesser included offense, please designate that. If the defendant was convicted of any offense that the judge then set aside (due to juvenile status, etc.), include this offense but make a note that it was set aside.

22) Was the alleged offense(s) a serial crime?

Answer "Yes" if police or prosecutors think the crime at issue was part of a serial crime event. Please write in whether this was known at the time that the defendant was originally charged or convicted. A serial murder is defined as: "the unlawful killing of two or more victims by the same offender(s), in separate events." [FBI Serial Murder Report] A serial rape is similarly defined as: "the unlawful sexual assault of two or more victims by the same offender(s), in separate events."

23) Date of crime (if unknown, write that down)

Include day, month, and year if known.

24) Date on which defendant was first arrested, charged and/or indicted (if unknown, write that down):

If the dates of arrest, charge, and/or indictment differ, please designate which date is which. If you do not have any other relevant dates, you may include the date of arraignment, but please make a note of this.

25) Location/jurisdiction of crime (write in state, county, and city if known):

26) Law enforcement agency of arrest and investigation (write in):

This should be the agency that took responsibility for bringing the defendant to prosecution (e.g., Arlington County Sheriff's Office). If the agency had only a minor, brief role in the case, such as arresting the defendant and handing him over to another agency, or providing information about

a suspect, do not include it. You *may* include more than one agency if substantive investigation was performed by multiple agencies.

27) Prosecutor's office to indict (geographic location) (write in):

This is the official name of the prosecutor's office as well as jurisdictional or geographic location if unclear from the name of the office.

28) Name of chief District Attorney/State's Attorney:

Use the name of the individual in office when the defendant was first convicted. If there is more than one trial and the chief DA or SA is different, note this.

29) Court where case was brought (write in):

If the case was removed or changed venue please note this. This may not be relevant question to for the dismissals.

30) Date of trial court resolution (trial/plea/dispositive motion) (write in):

Include day, month, and year if known. Do *not* use the sentencing date.

31) Result from first court proceeding:

Choose from "guilty," "acquittal," "dismissal," and "other." "Other" includes hung juries and mistrials. If there is more than one disposition, e.g., the defendant was acquitted of one charge and found guilty of another, please indicate this by circling all that apply and writing in an explanation. If the defendant is found guilty of a lesser included offense but not the primary

offense, indicate this as “guilty” (remember, there is an earlier question that asks what offenses the defendant was convicted of).

32) Method of disposition:

If there is more than one disposition, e.g., the defendant pled guilty for one offense but stood trial for another, indicate this by circling all that apply and writing in an explanation.

33) If convicted, sentence/penalty:

If more than one category applies because defendant was convicted of multiple crimes, fill in all that apply. If more than one life sentence is imposed, write that in, as well as if the life sentence is without the possibility of parole.

34) If convicted, was case appealed?

35) If yes, in what court was initial appeal heard (write in name and location):

36) What was the result?

If there is more than one disposition, e.g., the court affirms the conviction on one charge but orders a new trial for another charge, please indicate this by circling all that apply and writing in an explanation.

If the outcome was positive for the defendant and the prosecution appealed, write this in and explain the outcome of the prosecution’s appeal. This will help explain why the defendant might have pursued further appeals despite an initial positive outcome of the initial appeal.

37) If conviction was affirmed, did the defendant seek further appeals? Write in all further direct appeals, their dates of resolution, their results, and the courts' rationales.

Indicate the name of the court hearing the appeal and the level of the court (e.g., Court of Appeals in a jurisdiction may designate an intermediate court or a final court of appeals). Make sure to distinguish between a discretionary appeal that the court refused to hear and an appeal that the court agreed to hear but the defendant lost.

38) Did the defendant file any petitions for habeas corpus, whether in state or federal court? Write in all habeas appeals, their dates of resolution, their results, and the courts' rationales.

Note that this question will not be used in further quantitative analysis so please do not make this a priority in your research. Make sure to indicate whether the petitions were filed in state or federal court and at which level.

39) Did the defendant file any motions or petitions asserting an independent claim for relief available in state court? Write in all independent claims, their dates of resolution, their results, and the courts' rationales.

Note that this question will not be used in further quantitative analysis so please do not make this a priority in your research. Independent claims include state remedies other than direct appeals or habeas petitions, including a writ of actual innocence (as in Virginia) or in some jurisdictions, a motion for a new trial based on new evidence.

40) Multiple trials to reach guilty verdict?

Indicate "Yes" if initial trial(s) resulted in no verdict (i.e., a hung jury or a mistrial) and a subsequent trial led to a guilty verdict. Select "No" if there was only one trial or if there were multiple trials with a guilty verdict each time. Select "Unknown" if there was a guilty verdict (i.e., it is an erroneous conviction case) but you are uncertain about how many trials occurred. Select "Not applicable" if it is a rightful acquittal/dismissal case.

41) If a new trial was ordered, what was the date of its resolution? (write in)

If a new trial was ordered, but the prosecutor declines to re-prosecute, write in the date of this decision.

42) Result of that court proceeding (second time):

See instructions for Q 31, above. If the second court proceeding resulted in a third proceeding (e.g., another mistrial resulted in a third trial), please indicate this and add the information in Qs 37-46 for the third court proceeding. Continue this process for any additional court proceedings.

43) Method of disposition (second time):

See Q 32, above.

44) If convicted (second time), sentence/penalty:

See instructions for Q 33, above.

45) If convicted (second time), was case appealed?

See instructions for Q 34, above .

46) If second conviction was appealed, in what court was initial appeal heard (write in name and location)?

See instructions for Q 35, above .

47) What was the result (second appeal)?

See instructions for Q 36, above.

48) If the second conviction was affirmed, did defendant seek further appeals? Write in all further direct appeals, their results, and the courts' rationales.

See instructions for Q 37, above.

49) Did the defendant file any petitions for habeas corpus (on second conviction), whether in state or federal court? Write in all habeas appeals, their results and the courts' rationales.

See instructions for Q 38, above.

50) Did the defendant file any motions or petitions asserting an independent claim for relief available in state court (on second conviction)? Write in all independent claims, their dates of resolution, their results, and the courts' rationales.

See instructions for Q 39 above.

51) Type of defense attorney (write in Public Defender, Court Appointed, Pro Bono, Private Attorney, Pro Se, or another description): original proceeding subsequent appeals and/or other proceedings

This question only includes defense attorneys who actually represented the defendant (e.g. they formed an attorney-client relationship). Any defense attorney who represented the defendant before or at the time of sentencing should be included in "original proceeding." If the attorney was involved in a subsequent stage, note what stage this was (i.e., habeas petition, executive clemency petition, etc.). Write in if there were multiple types of defense attorneys representing the defendant during either period (you do not need to note if there were two different individuals, i.e., two public defenders, if this information is not significant for another reason). If the reason that the type of defense attorney changed is significant, please note this.

52) How do we know defendant was factually innocent (circle as many as apply and briefly list reason supporting the categories chosen)?

Include evidence cited by officials in their decision to exonerate or dismiss the defendant, as well as any additional information that you may have collected from research that indicates the defendant's innocence.

53) Source of exoneration (choose only one):

You do not need to answer this question for the acquittals/dismissals.

This question is referring to the legal act that finally dissolved the defendant's responsibility for the crimes with which he was convicted. Thus, choose (a) "Governor's pardon" only if this was the first act that actually dissolved his responsibility—for instance, if the defendant completed

his sentence but was still a convicted felon until he received a pardon. If the defendant's conviction was overturned by a court but there was no statement of innocence until he received a pardon, the exoneration is still the overturning of the conviction by the court and the subsequent dismissal of charges (see Q 54 for a place to designate that he also received a pardon). Choose "other" if the conviction was overturned by a court, a new trial was ordered, and the charges were eventually dismissed by another court.

Also, write in how the exoneration fulfills our requirement of an official recognition of innocence. In some cases, the exoneration itself will include such a statement (e.g., a full pardon based on innocence) but other times the legal exoneration and the recognition of innocence may not be simultaneous. If this is the case, next to the legal exoneration make a note of the statement upon which you are relying (e.g., case was dismissed by prosecutor; later the AG makes an announcement that the state has found the real killers and are indicting two other men.)

54) Did defendant receive a pardon?

55) Date of exoneration:

For the acquittals/dismissals, this will be the same date as you indicated in Q 30.
If the exoneration occurred through a governor's pardon, use the date of the pardon. If the exoneration occurred through legislative action, use the date the bill was passed. If the exoneration occurred through a court declaration of innocence, or an overturned or set aside conviction, use the date of the court's opinion or order. If the exoneration occurred through other court action, coupled with a prosecutor's decision to dismiss charges or vacate the conviction,

use the **last** date at which this action was given legal effect (i.e., the date that the court grants the motion to vacate or the date that the prosecutor dismisses the charges).

56) Individual(s) responsible for defendant's exoneration:

You do not need to answer this question for the acquittals/dismissals.

Put a "1" next to any individual/group that was predominately responsible for the exoneration. Thos e that are predominately responsible include individuals or groups who are "but for" causes of the exoneration or those who played crucial, direct, and active roles in the exoneration (e.g., an agency that takes the initiative to retest forensic evidence).

Put a "2" next to any individual/group who actively opposed the exoneration, particularly in the face of overwhelming evidence of innocence. For instance, the prosecutor's office should receive a "2" if the office maintained that the defendant was guilty despite an official recognition of innocence or actively sought to hinder the exoneration in some way.

Prosecutor refers to both the individual and the office (if there is a discrepancy between the roles of the individual prosecutor and the office in the exoneration, indicate this). Police refers to city, county, or state police, as distinguished from federal law enforcement. An innocence project or organization must be an organization whose purpose is to establish the innocence of defendants who are erroneously charged or convicted of a crime.

57) Evidence presented and source(s) of error – First Indictment or Conviction

a) Did the victim testify at trial?

Answer "Yes," "No," "Unknown," or "Not applicable." This includes any type of testimony. Select "Not applicable" if there was no trial (i.e., the case is a dismissal or plea) or if the victim is deceased.

b) Did the victim recant his/her report of the crime?

Indicate whether the victim, after reporting the crime to the police, recanted his or her statement that a crime occurred. If known, write in when the recantation happened (i.e., before, during, or after trial). This does NOT include a recantation of eyewitness identification, see (d). You may assume "No" if there was no indication to the contrary.

c) Did the defendant testify at trial?

If you have information about the nature of the defendant's testimony, write this in. Select "Not applicable" if there was no trial (i.e., the case is a dismissal or plea).

d) Eyewitness identification

First designate whether eyewitness identification was used in the investigation and prosecution of the crime. This includes any informal or formal identification procedure used by law enforcement or prosecution, including pre-trial procedures. Eyewitnesses include individuals who witnessed the defendant commit the crime as well as those who identify the defendant as someone who was at or near the scene of the crime. It also includes alleged co-perpetrators who falsely implicated the defendant in the crime (i.e., say they committed the crime together).

1) Next, designate whether any eyewitness misidentified the defendant as the perpetrator or the person at or near the scene during an identification procedures. This refers to either mistaken identification or perjured testimony. However, if an eyewitness perjures herself when identifying the defendant, this should be noted here and also included under 57 (g) or (h), below.

2- 3) List the number and type of eyewitnesses who *misidentified* the defendant (this question and the following questions are no longer concerned with individuals who correctly identified the defendant).

4) Indicate whether the eyewitness provided a description of the perpetrator. This includes creating a composite sketch. If the witness provided a description, put down whether the description was unique. Unique identifiers include tattoos, missing or gold teeth, unusual scars, a limp or a name. If the witness provided a description, write in whether it differed in a significant way from the defendant's actual appearance You may rely on reports that say the description was different from the defendant's actual appearance, but only if there are adequate facts to back this up (in other words, the report should describe *what* was different about the appearance).

5) Indicate the specific type(s) of identification procedures that were used in the misidentification, noting the sequence of procedures, as well as whether the eyewitness identified the defendant in each procedure.

6) Designate whether the misidentification was cross racial/ethnic.

7) Designate the length of time between the crime and the first positive misidentification of the defendant.

8) Designate the level of certainty in the eyewitness's misidentification. If any uncertainty was reported, designate this as "Uncertain". If multiple procedures were used, please specify the level

of certainty for each. If the ID procedures are described in full and there is no reason to think otherwise, you may assume the eyewitness was certain.

9) Note whether police misconduct or procedural error was involved in the identification process. Please also make a note of whether the existence of misconduct or error was recognized by a court or criminal justice official or is based upon the opinion of the media or an organization like the Innocence Project. If you indicate police misconduct or error in the eyewitness ID process, this should also be indicated under 57 (l) or (m).

10-11) Designate whether the eyewitness testified at trial and whether the pre-trial identification of each eyewitness was used at trial. If the pre-trial identification was excluded by the court, please explain why. If there was no trial, i.e., it was a dismissal or plea, then write in "No." If you know that the primary evidence against the defendant was eyewitness identification, you may assume that both pretrial and trial identifications were used.

12) Finally, note whether any eyewitness recanted his or her misidentification before, during, or after trial. Again, if no mention is made of this, you may assume "No."

e) Other misidentification This includes an eyewitness who testifies (erroneously) to seeing the defendant's car, clothing, etc., at or near the scene of the crime. It also includes identifications made through senses other than vision, such as recognizing the defendant's voice or the feel of his face. As in 57 (d), this can include perjured testimony (such testimony should also be marked under 57 (g) or (h)). However, it does not include testimony that is correct (i.e., the witness really did see the defendant near the scene of the crime) but was nonetheless misleading or improperly used. This type of testimony may be marked under 57 (h) or another subpoint.

f) False confession If there is police error or misconduct involved in the false confession, indicate this here, as well as under 57 (l) or (m). A confession is an inculpatory statement given to a criminal justice official (rather than, for instance, a statement supposedly given to a jailhouse snitch and subsequently reported to police, which should be marked under (g) below).

g) Perjury or lying/fabrication by witness (other than criminal justice official) Only include witness testimony where there is clear evidence that the person made deliberately false or misleading statements, rather than simply being mistaken. This evidence will usually come from a substantiated admission by the witness that he lied or the prosecution of the witness for perjury; if the evidence does not rise to this level but there are substantial indications that the witness may have lied, note that the fabrication is "alleged."

h) Perjury or lying/fabrication by criminal justice official(s) See (g), above

i) Other unreliable or mistaken prosecution testimony (i.e., not eyewitness testimony and not perjured/fabricated testimony) This includes mistaken testimony about circumstantial evidence or motive. It also includes testimony that had certain indicia of unreliability, such as the testimony of a drug addict or a mentally unstable witness, jealous husband, etc.

j) Forensic evidence presented at trial? Answer "Yes," "No," or "Unknown." If you answer "Yes," continue to fill out this question. Forensic evidence is evidence that has been evaluated using scientific methods.

1) List the types of forensic evidence used (e.g., serology, fingerprints, DNA) and the errors that occurred in either the testing of the evidence or its presentation at trial. Error does NOT include lack of testing unless such testing was sanctionable by the court. The presence of error should be based on available facts and the conclusions of scholars or criminal justice officials. Please make a note of what the forensic evidence attempted to prove or if it were exculpatory.
2) Indicate whether there was evidence of forensic fraud (e.g., the knowing presentation of falsified results or the willful presentation of results in a false light).

Please note that for the following variables, you have the option of putting "alleged" as well as "yes" or "no." Only select "yes" when an official source, such as the appellate court, governor, or civil jury, has recognized the error/misconduct, or when it is evident on its face based upon uncontroverted facts.

k) Withholding of exculpatory evidence (i.e., evidence tending to show the defendant was innocent); list type of evidence withheld and individual withholding the evidence.
This is essentially *Brady* violations. It refers to evidence withheld by police or prosecutors. If information was withheld by a crime lab, psychologist, or other state-affiliated person, do not include this here—mark it as other criminal justice official error or misconduct, below.

l) Police error This is a mistake or omission that is made by the police and does not imply intentional wrongdoing. It includes forgetting to collect or losing evidence, suggestive identification procedures that do not violate a defendant's rights, and sloppy interrogations where information is unintentionally leaked to the victim or defendant.

m) Police misconduct This is an action by the police that violates a defendant's constitutional rights. There is an element of intentionality or extreme negligence that is either present or can be legally inferred. It includes Miranda violations, physical abuse of the defendant, or the fabrication of evidence. It only includes a *Brady* violation, see (k), when there is evidence of intentionality or extreme negligence in the withholding. It also includes coercive interrogation tactics where the defendant later wins a civil suit against the officers. Please note, however, that police are usually allowed to lie to defendants in interrogation or use other forms of psychological pressure. Therefore, do not mark this behavior as error or misconduct unless there is strong evidence to indicate that it was deemed unacceptable (e.g., a mentally handicapped defendant gets his conviction overturned based on a coerced confession).

n-t) Repeat designation of error and misconduct for prosecution, judge, juror, or other criminal justice official

u) Incompetent defense counsel? Ideally, this will be based on an official court finding of ineffective assistance of counsel. However, you may also answer "Yes" if the behavior was incompetent on its face (e.g., forgetting to file court documents).

v) Miscellaneous

1) Misleading circumstantial evidence: Circumstantial evidence is opposed to <u>direct</u> evidence (like an eyewitness who says she saw the crime occur, a confession from the defendant, or serology evidence on semen found in a rape victim). It primarily involves coincidences or

suspicious circumstances that falsely led the police or prosecutors to believe the defendant committed the crime. Examples include: the perpetrator told the victim he just got out of jail for robbery and the defendant recently finished time for robbery; and the defendant was known to have visited the victim the night of her death and threatened her.

2) Erroneous judgment on cause of death: This should also be marked under forensic error. It involves an accidental or natural death that was erroneously ruled a homicide (such as shaken baby syndrome cases), as well as the misdiagnosis of the method or manner of a homicide.

3) Community pressure: This should only be selected when there is a clear indication that this was a substantial factor in the investigation or conviction of the defendant. It can be based on either a direct statement by a criminal justice official (e.g., "we were under a lot of pressure to solve this crime because…") or on a post hoc interpretation by the media, scholars, or yourself. If you are relying on the post hoc interpretation, it should be verified by the presence of special indicators. These indicators include: the creation of a special commission to deal with the crime(s), the horrific nature or number of crimes (e.g., a series of child rapes), a highly publicized crime, a rushed investigation and speedy trial, and a crime involving racial tensions in a community. Pressure from elected officials (e.g., the District Attorney or mayor) to solve a crime can constitute community outrage

4) Other errors: Write in anything else that contributed to the erroneous indictment and/or conviction.

w) Did the defense case present the following evidence (circle as many as apply and briefly note the strength of the evidence presented)?

Note that this should only include evidence/testimony that was initiated *by the defense*—if exculpatory evidence was uncovered and used by the prosecution, then it should be recorded in the above questions instead. Also, this question is focused on actual evidence that is presented/used, rather than mere arguments that the defense attorney makes at trial. For example, if an attorney in closing argument says that the eyewitnesses were mistaken and the serology evidence is bad, this should not be included; however, if the attorney puts on a serology expert and impeaches the eyewitness with a prior statement, then this is included).

1) Alibi evidence/witnesses (please record who the alibi witnesses were: family, friends, etc)

2) Forensic evidence (includes experts)

3) Eyewitness(es) of crime

4) Misconduct of criminal justice officials. This should be evidence of something egregious and intentional, such as showing pictures that indicate the defendant was beaten or threatened into confessing. Do NOT include an argument made by defense counsel that the photo array or lineup was suggestive unless counsel produces evidence that the suggestiveness rose to the level of misconduct (in most such cases, the defense should be able to have the lineup excluded).

5) Evidence incriminating another individual. This refers to a specific individual, e.g., arguing that Johnny, not the defendant, committed the crime. In order to be included, the defense must have evidence to support the claim that another individual was involved.

6) Other (describe)

58) Source(s) of error – Second conviction (Please circle as many as apply; if unknown, write this in)

See instructions for Q 57.

59) What was the length of time:

Note that these questions measure different periods, depending on whether the case is an erroneous conviction or a rightful acquittal/dismissal.

a) served in prison for the offense from conviction/charge to release? (write in any correctional control imposed on defendant after release from prison)

For erroneous convictions, the time served should begin when the defendant was convicted of the relevant crimes, *even* if the defendant was in prison earlier awaiting trial. It ends when the defendant was released from prison. Please indicate whether the defendant continued to have any serious correctional restraints placed on him after release from prison, such as parole or registration as a sex offender (this does not include bail). If the defendant remains in prison after the defendant's conviction was vacated and a new trial ordered, demarcate the time spent in prison for the convicted offense (time between conviction and vacation) from the time spent in prison awaiting a final disposition, but include it in the total time spent in prison.

For acquittals/dismissals, the time served should begin when the defendant was charged with the relevant crimes and end when the defendant was released from prison. If the charge date is not known, you may use the arrest date. As above, please note whether the defendant continued to have any serious correctional restraints placed on him after release from prison.

b) between the conviction/charge and the point at which the defendant finally exited the criminal justice system with regards to the crime at issue?

Note that these questions measure different periods, depending on whether the case is an erroneous conviction or a rightful acquittal/dismissal.

For erroneous convictions, the time should begin when the defendant was *convicted* of the relevant crimes while for acquittals/dismissals, the time should begin when the defendant was *charged* with the relevant crimes. If the charge date is not known, you may use the arrest date.

For both sets of cases, the defendant leaves the system when the government is no longer using the criminal justice system to implicate the defendant in the relevant crime. This question is NOT concerned with whether the defendant is still in the criminal justice system for reasons that are not related to the crime(s) at issue (this may be indicated in Q 62), or with the time taken by the defendant in seeking compensation or bringing a civil suit. However, if a defendant seeks a pardon after his conviction is vacated, the grant of the pardon may be considered the date on which the defendant exited the system.

60) Did the defendant receive compensation?

Circle "Yes" or "No." If you do not know whether the defendant received compensation, write in unknown. If you are aware that a claim for compensation is pending, answer "No" but write in what the claim is, where it is pending, and any further information that will be helpful in monitoring the progress of the claim.

61) If yes, what was the compensation for and how and when was it granted (write in)?

Indicate the source of the compensation (e.g., city police department), mechanism (e.g., settlement or civil judgment), and date. Also explain the reasoning behind the compensation (e.g., awarded for a violation of the defendant's constitutional rights, or mandatory compensation for exonerated defendants).

62) Where is the defendant now? (write in)

Write in any relevant information about the defendant's current life, including where he is now located, whether he is still in prison or on parole for other offenses, and whether the defendant has secured a job. If this information is unknown, write this in.

Coding Book Supplement: Points to Consider when Answering Question 57 (k)-(t)

Bullets for distinguishing *misconduct* from *error*:

- Intentional or gross negligence (deliberate indifference)
- Physical abuse in interrogations
- Fabrication of evidence (as opposed to supplying information about the crime or asking leading questions in an interrogation, which is error)
- Miranda violations
- Brady violations IF there is intentional or grossly negligent withholding
- Fraud
- Violation of ethical duties and conflicts of interest
- When in doubt, benefit of the doubt goes to the state (i.e., choose error)

Bullets for distinguishing *proven* from *alleged*:

- Court declares there was misconduct or error
- Jury declares there was misconduct or error
- Authority (police, prosecutor, governor) admits misconduct or error

- Defendant wins a jury verdict in a civil suit based on this claim
- The defendant wins a large settlement (usually over $1million) on the claim AND there is either a pattern of misconduct or error on the part of the department/office/individual or there are additional indicia of reliability, such as an affidavit or testimony.

Bullets for distinguishing between *police, prosecutor*, and *crime lab* when responsibility

unknown:

- Brady violation=prosecutor
- Errors or misconduct at trial=prosecutor
- Coerced confession=police
- Eyewitness identification procedures=police
- Losing forensic evidence or not completing tests=prosecutor, then police, then lab

Bullets for determining when an allegation should NOT be recorded:

- Error stemmed from a discretionary decision
- Error or misconduct was explicitly addressed and dismissed by a court (and not overturned on appeal or subsequently discredited by another court or other officials)
- Allegations of Error or misconduct has no basis in the discernible facts or is not verified by other sources
- Error or misconduct, even if true, would be trivial or harmless

The role of court decisions:

- If a court dismisses a claim on the merits and is not overturned on appeal or subsequently discredited by another court, the ruling is treated as dispositive of the merits of the claim
- If a court decides there was harmless error, we code it as NO error or misconduct
- A dissenting opinion is not dispositive of any point

VIII.C. Email and Call Templates for Interviews

Dear _____,

I am contacting you as part of a federally funded social science research project to help prevent wrongful convictions. The project, which is led by Dr. Jon Gould of American University, seeks to understand how the criminal justice system avoids wrongful convictions by comparing felony cases that ended in an official exoneration with those in which defendants had charges dismissed before trial or were acquitted on the basis of their factual innocence. The project represents an unprecedented collaboration between academic researchers and representatives of both the prosecutorial and defense communities. As part of this project, we are working to create thorough summaries of noted criminal cases for comparison. Eventually, we expect to examine more than 500 cases.

We are wondering if you can help us to understand one of those cases – that of **[NAME OF DEFENDANT]**, which occurred in **[NAME OF COUNTY AND STATE]**. We have examined several parts of this case but still have some remaining questions about the facts. Your assistance would be a big help in completing the research and producing a report.
Attached are a summary of the research project and an outline of the several privacy protocols we are following in the research. We want to emphasize that under federal law, nothing you tell us will ever be released publicly, and your identity will remain confidential at all times.

Accordingly, we very much hope that you will be willing to talk to us about the case and assist in the research. Please feel free to email or call me at the contact information provided below. With your consent, we will then ask you a set of brief questions about the **[DEFENDANT'S LAST NAME]** case. If we don't hear from you soon, we will follow up by phone in the next week.

Thank you in advance for your time and cooperation. We look forward to your assistance.

Sincerely,

[YOUR NAME]

_____

[YOUR NAME AND POSITION]
Preventing Wrongful Convictions Project
American University, School of Public Affairs
4400 Massachusetts Avenue, NW
Washington, D.C. 20016
Phone: 202-885-6421
Fax: 202-885-6536
prevent@american.edu

Phone Interview Template

Greeting and Introduction

Good morning, I am _____, calling from American University's research project on the prevention of wrongful convictions. We communicated earlier by email and I'm now calling to see if you might be able to assist me in collecting some missing data on the _____case. Do you have time to answer a few questions?

[*if Yes*] Thanks. But before we start, I need to confirm your consent. We sent you a document earlier outlining the nature of the project, but I need to go over some key points briefly. Please feel free to stop me if there is anything you don't understand or that concerns you. At the end, I'll ask for your verbal consent.

Informed Consent

- This research is being conducted by researchers from American University and is funded by the National Institute of Justice, U.S. Department of Justice.
- The interview will ask you about your knowledge of or experience with a particular criminal case that has since concluded.
- There are no benefits to you as a participant other than to further research about the sources of wrongful convictions.
- The foreseeable risks of participating in this project may include unpleasant memories of the case. Should this occur and the effects be serious, researchers will assist in referring you to a counselor.
- The researchers will be the only individuals with knowledge of your participation and access to your responses. Any notes or recordings taken during the interviews will be immediately secured and then destroyed at the conclusion of the study. Nothing released from this study will state or imply that you have spoken with the research team. Federal protection prevents the release of any information obtained from this research, even by subpoena.
- Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate, or if you withdraw from the study, there is no penalty; nor are there any costs to you or any other party for participating in the research.
- This research has been reviewed according to American University procedures. You may contact the University Office of Research Subject Protections if you have questions or comments regarding your rights as a participant in the research.
- Based on what I have just told you, do you agree to participate in this study?

- *[If Yes]* Thanks. I will send you a hard copy of the full consent form after we finish the interview. That copy is for you to review and keep.

Interview

Continue the phone interview with specific questions relating to the case(s). If the interviewee has questions or concerns about the project that were not already addressed, see below for scripted answers. If the interviewee is still not comfortable with the answers or has a concern you cannot address, ask them if a project supervisor may contact them to answer their questions. If so, ask when would be a good time for someone to get back to them and then terminate the interview.

- Project Methodology and Goals: Can you explain the project a little? What are you doing with this data?
  - The purpose of the project is to compare wrongful convictions and innocence-based dismissals/acquittals in order to identify which factors explain how the criminal justice system identifies and addresses cases of innocence. We are looking at cases involving charges for violent felonies since 1980, in which the defendant was later found to be factually innocent.
  - Once we have about 250 cases each of wrongful convictions and innocence-based dismissals and acquittals, we will run several statistical tests using matched comparison samples to identify which factors help to explain the different outcomes of these cases. We will also have an expert panel look over the individual case files to assess how and why the cases ended differently.
  - In the end, we will develop a database of cases and a report outlining our analysis that will be archived at the National Institute of Justice.

- Project Visibility: Who is going to see this? How will the data be presented?
  - The National Institute of Justice will release the final report of this project. All sensitive information such as names and geographical area will be removed before publication.

- Project Participants: Who is involved?
  - The Principal Investigator of the project is Dr. Jon Gould, a professor American University.
  - The project is funded by the National Institute of Justice, the research and evaluation arm of the Dep't of Justice.

- Other collaborators include the National District Attorneys Association, the Police Foundation, forensic specialists, representatives of the defense bar, and the Innocence Project.

- Question of Innocence: How do you know these people are innocent?
  - We are using a very narrow definition of factual innocence, a more exacting standard than legal innocence. In our project, factual innocence means that there must be facts to reasonably conclude the defendant did not commit the crime. But in addition, we also require an *official recognition* of this innocence, for instance from a prosecutor, judge, or jury.
  - [*you should be prepared to explain briefly why the case you are asking about fits our definition of innocence*]

- General Hostility: Why should I help the project?
  - We understand your concerns, but the goal of this project is not to point fingers at any particular part of the criminal justice system but rather to help the system learn from its *successes* in identifying innocent defendants and preventing wrongful convictions. We need your assistance in creating unbiased, complete case files.

- Follow-up Contact: I can't talk now or I need to look up some information and get back to you. Whom should I contact? Where should I send documents?
  - It is up to the interviewee how they would like to provide us with the information. Over the phone or via fax is most secure.
  - Phone: (202) 885-6421
  - Fax: (202) 885-6536 Attn: Preventing Wrongful Convictions Project
  - Email: prevent@american.edu
  - Mailing address: Preventing Wrongful Convictions Project
    School of Public Affairs
    4400 Massachusetts Ave., NW
    Washington, DC 20016-8022

<u>Closing</u>

I think those are all the questions I have for now. Is there anyone else you would advise me to talk to about this case?

[*If Yes*, take down relevant contact information]

Thank you for your assistance; you've been very helpful. Again, my name is _____ and please feel free to contact me if any questions or concerns come up.

Attachment #1 for Interviewees

Project Overview: How the Criminal Justice System Prevents Wrongful Convictions
A Study by American University with Funding from the National Institute of Justice

What is the purpose of the study?

The goal of the research is to ascertain which factors explain how the criminal justice system identifies and addresses cases of factual innocence to prevent wrongful convictions. To accomplish this, the project is comparing felony cases that ended in an official exoneration with those in which defendants had charges dismissed or were acquitted on the basis of their factual innocence.

What is involved?

To be included in the study, cases must involve indictments for violent felonies post-1980 in which the defendant was later found to be factually innocent. Such cases are divided into two sets. One group involves official exonerations based on factual innocence. The other includes post-indictment dismissals or acquittals of defendants who were factually innocent. Researchers are identifying qualifying cases and then coding each for more than 50 factors.

The team will run several statistical tests using matched comparison samples to identify which factors help to explain the different outcomes of these cases. Researchers will augment these results by convening an expert panel of prosecutors, defense attorneys, retired judges, police detectives, and forensic scientists, among others, to assess independently how and why the cases ended differently.

What constitutes "innocence"?

This project uses a narrow definition of *factual innocence*. To qualify under this study, there must be clear evidence that defendants did not commit the crime as well as an official

declaration – whether by a prosecutor, judge, jury, compensation board, or governor – that the defendant was factually innocent.

Who is conducting the research?

The project is led by Jon Gould, professor at American University. Professor Gould previously has directed studies for the National Institute of Justice and the federal courts, among others. He is aided by Professor Richard Leo of the University of San Francisco. Dr. Gould and Dr. Leo are both lawyers and social scientists. Together, they direct a research team of four others.

Who is funding the study?

Research is supported by the National Institute of Justice, the research arm of the U.S. Department of Justice.

What other groups are involved?

This project represents a unique collaboration between academic researchers, the National District Attorneys Association, the Police Foundation, defense advocates, former judges, forensic scientists, and representatives of the Innocence Project. Together, these diverse participants will ensure that the research is valid and reliable.

What are participants asked to do?

Individuals are asked to assist the research team in collecting data on cases that qualify under the study's criteria. Researchers will contact willing participants with brief questions

about specific cases that the individual may have information about. As described below, no information provided will ever be disclosed.

What safeguards are in place?

In obtaining funding from the National Institute of Justice, the researchers have secured a privacy certificate from the Department of Justice. *Any data collected or information secured as part of this project is protected from disclosure or release, even by subpoena*. The research team is also bound by human subjects protections from American University. Please see the accompanying Summary of Human Subjects Research Protections for more detail.

Attachment #2 for Interviewees

Summary of Human Subjects Research Protections

The research team is taking several measures to protect the confidentiality and integrity of the information acquired and to minimize discomfort to participants in the research.

Training and Confidentiality Agreements

All members of the research team have completed human subjects research training required by American University. In addition, all researchers, expert panelists, and consultants will sign confidentiality agreements.

Documents and Data Received from Participants

No confidential information or documents received from participants, including notes from interviews, will ever be released publicly. All hard-copied documents will be kept in a locked filing cabinet in a locked office. Likewise, electronic databases or spreadsheets will be maintained in a password-protected format and on password-protected computers maintained in the locked offices of the principal investigator and the coding supervisor.

Project Database and Case Narratives

The project will create a statistical database that codes cases for the presence of various possible facts as well as case narratives for select cases. Cases will be assigned a code number, rather than the defendant's name, in the database. Likewise, researchers will use monikers in constructing the narratives so as not to identity any person involved in the case. Those narratives, which will be used only by the research team, will omit the geographic location of any case, instead simply stating whether a case occurred in an urban, rural, or suburban location.

When the project is completed, only the principal investigator will keep a copy of the database, referenced list of case names, and case narratives, which he will maintain in a locked cabinet in a locked office. A version of the database will be made available for the National Institute of Justice to archive, but the archived version will be "scrubbed" of any information that would allow an analyst to speculate and thus identify any particular case.

VIII.D. Informed Consent Form for Interviews

Social Science Research on Wrongful Convictions Informed Consent Form

RESEARCH PROCEDURES

This research is being conducted by researchers from American University to study the sources of wrongful convictions. It is funded by the National Institute of Justice, U.S. Department of Justice (NIJ).

This research is being conducted to understand how cases of wrongful conviction differ from those in which an innocent suspect is cleared or acquitted before a conviction occurs. If you agree to participate, you will be asked to take part in an interview of 30-90 minutes, whether in person or by phone, at your convenience. The interview will ask you about your knowledge of or experience with a particular criminal case that has since concluded, whether a wrongful conviction that was followed by exoneration or an arrest and initial prosecution of a factually-innocent suspect who was cleared or acquitted before a conviction at trial. NIJ personnel may be present during the interview, although you may ask for them to be excluded.

RISKS

The foreseeable risks or discomforts of participating in this project may include unpleasant memories of the case. Should this occur and should the effects be serious, researchers will assist in referring you to a counselor or a victim assistance coordinator, whichever is most appropriate.

BENEFITS

There are no benefits to you as a participant other than to further research about the sources of wrongful convictions.

CONFIDENTIALITY

The researchers will be the only individuals with knowledge of your participation and access to your responses. They will keep your identity and comments confidential. Interviewers may create summaries of case facts for discussions within the research team, but they will employ monikers. Any notes or recordings taken during the interviews will be kept confidential by the researchers and will be destroyed at the conclusion of the study. Nothing released from this study will state or imply that you have spoken with the research team, and the researchers will not publish any information you provide that would identify you. Federal protection prevents the release of any information obtained from this research, even by subpoena.

PARTICIPATION

Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate, or if you withdraw from the study, there is no penalty; nor are there any costs to you or any other party for participating in the research. You should feel free to ask any questions about this project or your participation with the researchers at any time.

CONTACT

This research is led by Professor Jon Gould of the School of Public Affairs at American University. Professor Gould may be reached at 202-885-6535 or gould@american.edu for questions or to report a research-related problem. You may contact the American University Institutional Review Board at 202-885-3447 if you have questions or comments regarding your rights as a participant in the research.

This research has been reviewed according to American University procedures governing your participation in this research.

CONSENT

I have read this form and agree to participate in this study.

_____
Name (print)

_____
Signature

_____
Date

_____
Name of Witness/Interviewer

_____
Signature of Witness/Interviewer

_____
Date

VIII.E. Statistical Coding Book

*Use CAPS for "write in" variables

**Assign "99" to any variable if it is non-applicable

***When making estimations of days, a month consists of 31 days

BACKGROUND AND JURISDICTIONAL INFORMATION

Defendant's name (def): string

[Question #1] This is the full legal name used on court documents. Last name, first name and middle name or initial.

Identification code (id): string

This will be assigned after the cases are coded. It consists of C or A (conviction or acquittal) and a unique number.

Innocence Project Case (IP_case): nominal

0=no

1=yes

[Question #2] Select "Yes" if there is an Innocence Project case profile for the case.

Type of case (case_type): nominal

0=near miss

1=erroneous conviction

State where conviction/charge occurred (state): string

[Question #25] Write in the state where conviction occurred. Use U.S. Post Office abbreviations.

Numerical state where conviction/charge occurred (state_num): nominal

This is a variable you will not need to enter manually. The syntax will assign a variable based on the state you inputted. Recode of (state) variable.

County where conviction/charge occurred (county): string

[Question #25] Write in the county or parish where conviction occurred. Do not use abbreviations.

Region (region): nominal

0=New England (CT, ME, MA, NH, RI, VT)

1=Middle Atlantic (NJ, NY, PA)

2=East North Central (IN, IL, MI, OH, WI)

3=West North Central (IA, KS, MN, MO, NE, ND, SD)

4=South Atlantic (DE, DC, FL, GA, MD, NC, SC, VA, WV)

5=East South Central (AL, KY, MS, TN)

6=West South Central (AR, LA, OK, TX)

7=Mountain (AZ, CO, ID, NM, MT, UT, NV, WY)

8=Pacific (AK, CA, HI, OR, WA)

This is a variable you will not need to enter manually. The syntax will assign a variable based on the state you inputted. Regions and districts are defined by the US Census.

Former Confederate State (confed_state): nominal

0=no

1=yes

This is a variable you will not need to manually enter. The syntax will assign a variable based on the state you input. Confederate states are defined as states that seceded from the Union—South Carolina, Mississippi, Florida, Alabama, Georgia, Louisiana, Texas, Virginia, Arkansas, Tennessee, and North Carolina.

State Death Penalty Culture (dp_cult): scale

This is a variable you will not need to manually enter. It is based upon the per capita executions since Furman (1976) and will be assigned according to the state you input.

State Death Penalty Culture (dp_cult2): scale

This is a variable you will not need to manually enter. It is calculated as the number of executions since Furman (1976) per number of murders and will be assigned according to the state you input

Voting and political ideology (pol_ideol): nominal

This is a variable you will not need to manually enter. It is based upon the median vote for president (party) from 1980 to 2008 and will be assigned according to the state you input.

Judicial selection (jud_sel): nominal

0=partisan election

1=non-partisan election

2=gubernatorial appointment

3=legislative appointment

This variable is based on the method of judicial selection for the criminal trial court in the county in which the crime occurred or was prosecuted.

State crime rate 5 years prior (crime_rate_5yrs): scale

This is a variable you will not need to manually enter. It is the median crime rate for 5 years prior to the crime and will be assigned according to the state you input.

State crime rate year of the crime (crime_rate): scale

This is a variable you will not need to manually enter. It is the crime rate at the time the crime occurred and will be assigned according to the state you input.

Crime consistency (crime_consistency): scale

This is a variable you will not need to manually enter. It is the percent change in crime rate from median of 5 years prior to the crime and the crime rate at the time the crime occurred. It will be assigned according to the state you input.

DEMOGRAPHIC INFORMATION

High school graduate at time of offense (hs_grad): nominal

0=no

1=yes

[Question #5] This refers to level of education obtained prior to arrest for the crime at issue here. This includes a GED.

Defendant has cognitive impairment or intellectual disability (MR): nominal

0=no

1=yes

[Question #6] This is at the time of the offense. It is an objective standard, so do not consider whether the impairment or disability was known at the time the defendant was arrested and/or brought to trial. However, only impairments or disabilities that existed at the time of the crime or the defendant's indictment should be noted (i.e., disabilities developed after conviction, dismissal, or acquittal are irrelevant). This question is meant to be as inclusive as possible and includes emotional and personality disorders as well as low intelligence. Generally, if a defendant has an IQ below 80 (WAIS-IV), mark "yes". If there is no indication whatsoever that the defendant had a mental condition, you may assume "no".

Fluent in English (English): nominal

0=no

1=yes

[Question #7] Choose "No" if there is any indication that defendant was not conversant or could not write in English. If there is no reasonable expectation that the defendant spoke another language, choose "Yes".

Previous Criminal Convictions (prior_crim_hx): nominal

0=no

1=yes

[Question #3] This includes any convictions in any jurisdiction in the United States before the time of arrest for the crime in question here. Do not count simple driving citations.
[Note, Question #2 asks you to record if the defendant has previously been arrested or charged, but not convicted, for any crime.]

Number of prior criminal convictions (prior_convict): scale

[Question #4] Be as precise as possible, but if you can estimate, do so. If the actual number is not known but you have an idea of how many convictions there were (i.e., only a few, several, many), use the following answers: 96=a few, 3 or less; 97=more than 3.

Criminal history similar to instant offense (hx_sim): nominal

0=no

1=yes

99=not applicable (no criminal history)

This will require some interpretation by the coder, but the following are offered as guidelines: sexual assault crimes should be designated as similar to other sexual assaults (despite different MOs); serious assaults with a deadly weapon should be designated as similar to murder or

attempted murder; property crimes should be designated as similar to other property crimes unless the difference in severity is enormous. In addition, a previous crime against the same person can be considered similar.

One similar criminal conviction is sufficient to answer "Yes".

History of gang affiliation (gang): nominal

0=no

1=yes

[Question #8] This refers to the defendant only. If no mention is made of possible gang affiliation, select "No". By itself, participating in the organized sale of narcotics is NOT enough to indicate gang affiliation.

Number of Codefendants at trial (num_codef): scale

[Question #9] Co-defendant is used in the legal sense, as an individual indicted for the same crime and not subsequently severed at trial. An individual is still considered a co-defendant if (s)he did not go to trial with the defendant because one or the other disposed of his/her case through a plea.

Number of Additional Alleged Co-Perpetrators (num_perp): scale

[Question #10] This is the number and name of any perpetrators other than the defendant but including co-defendants, who the police or prosecution alleges participated in the crime(s) for which the defendant was convicted. [Question #7 also asks that you briefly indicate whether the co-perpetrators were ever arrested and charged, and if so, what was the disposition of their case]

Co-perpetrator confessed (coperp_confessed): nominal

0=co-perpetrator did not confess

1=co-perpetrator confessed

99=not applicable

Select "co-perpetrator confessed" if the co-perpetrator made incriminating statements (a full confession is not necessary), regardless of whether the confession was later proved false. This only refers to confessions or statements that occurred before or during the defendant's conviction or case. If the identity of the perpetrator is unknown or he/she was never apprehended, enter '99'.

Co-perpetrator implicated current defendant (coperp_imp): nominal

0=co-perpetrator did not implicated defendant

1=co-perpetrator implicated defendant

99=not applicable

Select "co-perpetrator implicated defendant" if the co-perpetrator's statements implicated the defendant's participation in the crime, at any time in the investigation and/or trial. If the identity of the perpetrator is unknown or he/she was never apprehended, enter '99'.

Co-perpetrator guilty (coperp_guilty): nominal

0=co-perpetrator not guilty

1=co-perpetrator guilty

99=not applicable

[Question # 11] Answer "Yes" if the co-defendant or co-perpetrator was convicted (or pled guilty) and was never exonerated. Answer "No" if a co-defendant or co-perpetrator was found guilty and later exonerated. If the identity of the perpetrator is unknown or he/she was never apprehended, enter '99'.

Number of Victims in Crime Charged (num_vic_charged): scale

[Question #12] This is the number of victims involved in crime(s) for which the defendant was charged together in the relevant jurisdiction.

Number of Victims in Crime Convicted (num_vic_conv): scale

[Question #12] This is the number of victims involved in crime(s) of which the defendant was convicted together in the relevant jurisdiction.

**Note, while we make the distinction here between victims of crimes for which the defendant was convicted and victims of crimes for which the defendant was merely charged, all victims regardless remain designated as "victims" in the rest of the coding (e.g., if there are 3 rape victims at trial, but the defendant is only convicted of one of the rapes, the other 2 victims are still treated as victims for the questions regarding age, race, eyewitness account, etc,).*

Race/ethnicity of Defendant (def_race): nominal

0=Caucasian/white

1=African American/black

2=Hispanic/Latino

3=Native American

4=Asian

5=Other

[Question #13] Use the race/ethnicity designated either by official record or by colloquial usage (with the official record taking precedent if there is a discrepancy). You may also choose a race or ethnicity based upon a photograph; assumptions may be made from clearly ethnic names, but this should only be done as a last resort and where the name is unambiguous . 'Other' includes individuals of Asian Indian, Middle Eastern, or mixed descent.

Race/ethnicity of First Victim (vic_race1): nominal

0=Caucasian/white

1=African American/black

2=Hispanic/Latino

3=Native American

4=Asian

5=Other

[Question #14] See instructions for race/ethnicity of defendant.

Race/ethnicity of victim one and defendant (race_diff1): nominal

0=same

1=different

If the race/ethnicity of the defendant AND victim are designated as 'other' but you know that the races are actually different, select '1'.

Race/ethnicity of Second Victim (vic_race2): nominal

0=Caucasian/white

1=African American/black

2=Hispanic/Latino

3=Native American

4=Asian

5=Other

99=not applicable

[Question #14] See instructions above.

Race/ethnicity of victim two and defendant (race_diff2): nominal

0=same

1=different

99=not applicable

Continue for victims #3-10

Relationship Between Victim 1 and Offender (relationship1): ordinal or nominal

0=stranger

1=proximity but no known relationship (i.e., neighbor, worked in vicinity/same location, attended same school)

2=friend, acquaintance

3=family or significant other

[Question #15] This is a scaled variable. Therefore, select the closest relationship the victim and defendant ever had (i.e., if the victim was a former girlfriend, this is still "3", or if a friend is also a neighbor, still select '2'. "Neighbor" includes anyone whose physical living proximity to the victim is noted in official reports or the media (i.e., said to have been living a few streets down, in an adjacent apartment complex, etc.). Family member/significant other includes extended family by birth or marriage, as well as any close romantic relationship.

Relationship Between Victim 2 and Offender (relationship2): ordinal or nominal

0=stranger

1=proximity but no known relationship (i.e., neighbor, worked in vicinity/same location, attended same school)

2=friend, acquaintance

3=family, significant other

99=not applicable

[Question #15] See instructions above.

Continue for victims #3-10

Age of Defendant (age): scale

[Question #16] This refers to the age of the defendant at the time of the offense. If there is a range, use the mean age. If you really only have a rough estimate, use the following system: if it says defendant was in his 20s, use '25'; if it says he was in his early 20s, use '21'; if it says late 20s, use '29'; if it says late 20s or early 30s, use '30'…and so on.

Age of First Victim (vic_age1): scale

[Question #17] This refers to the age of the victim(s) at the time of the offense. See above for estimates.

Age of Second Victim (vic_age2): scale

[Question #17] See instructions above.

Continue for victims #3-10

Gender of Defendant (gender): nominal

0=male

1=female

[Question #18]

Gender of the First Victim (vic_gender1): nominal

0=male

1=female

[Question #19]

Gender of the Second Victim (vic_gender2): nominal

0=male

1=female

99=not applicable

[Question #19]

Continue for victims #3-10

At least one female victim (Addfemale):

0=no

1=yes

You will not need to enter this manually. Syntax will calculate whether at least one victim was a female.

At least one white female victim (Addwhitefemale):

0=no

1=yes

You will not need to enter this manually. Syntax will calculate whether at least one victim was a female.

CHARGING AND INVESTIGATIVE INFORMATION

Charged with robbery (c_rob): nominal

0=no

1=yes

[Question #20] This includes attempted robbery.

Charged with attempted kidnapping (c_att_kidnap): nominal

0=no

1=yes

[Question #20]

Charged with kidnapping/false imprisonment (c_kidnap): nominal

0=no

1=yes

[Question #20]

Charged with attempted rape (c_sexual_assault): nominal

0=no

1=yes

[Question #20] This includes any felony that involves sexual misconduct.

Charged with rape/sexual assault (c_sexual_assault): nominal

0=no

1=yes

[Question #20] This includes any felony that involves sexual misconduct.

Charged with assault/battery (c_assault): nominal

0=no

1=yes

[Question #20]

Charged with burglary (c_burglary): nominal

0=no

1=yes

[Question #20] This includes attempted burglary and home invasion.

Charged with child abuse-incl sexual assault (c_child_abuse): nominal

0=no

1=yes

[Question #20] This refers to a charge that specifically includes as part of the offense that it was committed against a child or minor. Thus, do not select this option if a defendant was charged with raping an 8 yr old girl, if the charge is simply "rape". However, DO select this option if the offense was "Murder of a child".

Charged with carjacking (c_carjacking): nominal

0=no

1=yes

[Question #20]

Charged with attempted murder (c_att_murder): nominal

0=no

1=yes

[Question #20]

Charged with murder (c_murder): nominal

0=no

1=yes

[Question #20]

Charged with possession of a weapon (c_weapon): nominal

0=no

1=yes

[Question #20] This includes aggravated offenses that stem from the possession of a weapon or offenses that include the possession or use of a weapon (i.e., armed violence).

Charged with arson (c_arson): nominal

0=no

1=yes

[Question #20]

Total crimes charged with (charges): string

List of all charges.

Number of charges (num_charges): scale

You will need to enter this manually; include every count as a separate charge.

Additive Charges (AddCharge): nominal

You will not need to enter this manually: "Do If" loops

c_murder and c_sexual_assault=1

c_murder and NOT c_sexual_assault=2

c_sexual_assault and NOT c_murder=3

Convicted of robbery (rob): nominal

0=no

1=yes

[Question #21] This includes attempted robbery.

Convicted of attempted kidnapping (att_kidnap): nominal

0=no

1=yes

[Question #21]

Convicted of kidnapping/false imprisonment (kidnap): nominal

0=no

1=yes

[Question #21]

Convicted of attempted rape (att_sexual_assault): nominal

0=no

1=yes

[Question #21] This includes any felony that involves sexual misconduct.

Convicted of rape/sexual assault (sexual_assault): nominal

0=no

1=yes

[Question #21] This includes any felony that involves sexual misconduct.

Convicted of assault/battery (assault): nominal

0=no

1=yes

[Question #21]

Convicted of burglary (burglary): nominal

0=no

1=yes

[Question #21] This includes attempted burglary and home invasion.

Convicted of child abuse-incl sexual assault (child_abuse): nominal

0=no

1=yes

[Question #21] This refers to a conviction that specifically includes as part of the offense that it was committed against a child or minor. Thus, do not select this option if a defendant was convicted of raping an 8 yr old girl, if the conviction is simply "rape". However, DO select this option if the offense was "Murder of a child".

Convicted of carjacking (carjacking): nominal

0=no

1=yes

[Question #21]

Convicted of attempted murder (att_murder): nominal

0=no

1=yes

[Question #21]

Convicted of murder (murder): nominal

0=no

1=yes

[Question #21]

Convicted of possession of a weapon (weapon): nominal

0=no

1=yes

[Question #21] This includes aggravated offenses that stem from the possession of a weapon or offenses that include the possession or use of a weapon (i.e., armed violence).

Convicted of arson (arson): nominal

0=no

1=yes

[Question #21]

Total number of convictions in erroneous conviction case (num_convictions): scale

You will need to enter this manually; include every count as a separate conviction. An aggravated offense is considered one conviction, even if you selected "weapons" as a separate variable, above.

[Question #21]

Total convictions in erroneous conviction case (convictions): string

[Question #21] Write in the convictions.

Additive Convictions (AddConv): nominal

You will not need to enter this manually: "Do If" loops

murder and sexual_assault=1

murder and NOT sexual_assault=2

sexual_assault and NOT murder=3

Most serious offense convicted of (serious_offense): ordinal/scale

0=no conviction

1=Aggravated assault

2=Burglary

3=Robbery

4=Arson

5=Kidnapping

6=Attempted rape

7=Attempted murder

8=Rape

9=Murder

Choose the highest number that corresponds to a crime of which the defendant was convicted. The list is based on federal crime seriousness categories used in sentencing.

Crime part of serial crime event (serial): nominal

0=no

1=yes

[Question #22] This was not directly asked on the original narrative coding sheet, so you may have to imply the information from what is provided or do more research to obtain an answer. Answer "Yes" if police or prosecutors thought then or think now that the crime at issue was part of a serial crime event. A serial murder is defined as: "the unlawful killing of two or more victims by the same offender(s), in separate events." [FBI Serial Murder Report] A serial rape is similarly defined as: "the unlawful sexual assault of two or more victims by the same offender(s), in separate events."

Date of crime (date_crime): mm/dd/yyyy

[Question #23] If the day is unknown, use the first of the month. If there are more than one crimes charged together, there is an individual variable for each crime. Please put them in chronological order if possible. If there is the possibility of two dates, i.e., perhaps the murder occurred at 11pm or perhaps at 5 am the next day, use the earlier date. [Question #19 asks you to write in the date if known; if the day is unknown, write this in]

Date of initial arrest (date_arrest): mm/dd/yyyy

[Question #24] If the day is unknown, use the first of the month. As above, use the earlier date if there is a question between two possible dates. [Question #20 asks you to write in the date if known; if the day is unknown, write this in]. If defendant is arrested and released, and then arrested again, use the first arrest date.

Date of charge/indictment (date_indictment): mm/dd/yyyy

[Question #24] This refers to the date that the information is filed by the prosecutor, or in states with grand juries, when the jury hands down the indictment (rather than the day the police charge the defendant). If the day is unknown, use the first of the month.
If the charge/indictment date is not available, you may use the arraignment date.
If the charge date is different from the indictment date, use the indictment date.

[Question #24 asks you to write in the date if known; if the day is unknown, write this in]

Date of trial court resolution (date_resolution): mm/dd/yyyy

[Question 30] For erroneous convictions, use the date of the first conviction (rather than subsequent convictions or a hung jury or mistrial). Do not use the sentencing date, but if possible, you may make an estimate of the conviction date based upon the sentencing date. If the day is unknown, use the first of the month. Again, if there is the possibility of one or more consecutive dates, choose the earliest.

[Question #30 asks you to write in the date if known; if the day is unknown, write this in]

Resolution post-DNA period (PostDNAresoltuion): nominal

0=no

1=yes

You will not need to enter this manually. Syntax will assign a value based on whether the resolution you entered was on or after 1/1/1989.

Length of time between crime and arrest (time_arrest): scale

This is a variable you will not need to manually enter.

Length of time between crime and charge/indictment (time_indictment): scale

This is a variable you will not need to manually enter.

Length of time between crime and trial or trial resolution (time_trial): scale

This is a variable you will not need to manually enter.

County Sheriff investigates case (sheriff): nominal

0=no

1=yes

[Question #26] This should be the agency that took responsibility for bringing the defendant to prosecution. If the agency had only a minor, brief role in the case, such as arresting the defendant and handing him over to another agency, or providing information about a suspect, do not include it. However, you may select more than one agency. Answer "Yes" for any law enforcement agency at the county level (even if it is not called the Sheriff's Dept).

Local Police investigates case (local_police): nominal

0=no

1=yes

[Question #26] This should be the agency that took responsibility for bringing the defendant to prosecution. If the agency had only a minor, brief role in the case, such as arresting the defendant and handing him over to another agency, or providing information about a suspect, do not include it. However, you may select more than one agency.

State Police investigates case (state_police): nominal

0=no

1=yes

[Question #26] This should be the agency that took responsibility for bringing the defendant to prosecution. If the agency had only a minor, brief role in the case, such as arresting the defendant and handing him over to another agency, or providing information about a suspect, do not include it. However, you may select more than one agency.

State bureau of investigation investigates case (SBI): nominal

0=no

1=yes

[Question #26] This should be the agency that took responsibility for bringing the defendant to prosecution. If the agency had only a minor, brief role in the case, such as arresting the defendant and handing him over to another agency, or providing information about a suspect, do not include it. However, you may select more than one agency.

Federal law enforcement investigates case (Fed_LE): nominal

0=no

1=yes

[Question #26] This should be the agency that took responsibility for bringing the defendant to prosecution. If the agency had only a minor, brief role in the case, such as arresting the defendant and handing him over to another agency, or providing information about a suspect, do not include it. However, you may select more than one agency.

CASE PROCEDURE

Multiple trials to reach disposition (multiple_trials): nominal

0=no

1=yes

99=not applicable

[Question #40] Indicate "Yes" if initial trial(s) resulted in no verdict (i.e., a hung jury or a mistrial) and a subsequent trial led to a verdict. Select "No" if there was only one trial or if there were multiple trials with a guilty verdict each time. Select "Not applicable" if it is a dismissal case.

Method of Case Disposition at First Disposition (disposition1): nominal

0=dismissal before trial

1=jury trial

2=bench trial

3=plea bargain

4=defense motion

5=prosecution motion

6=joint motion

7=sua sponte

8=other

[Question #32] If there are multiple methods of case disposition, select "other".

Sentence Received (sentence): nominal

0=less than 10 years

1=10 years to 24 years

2=25 years to life

3=life sentence (including life plus)

4=LWOP

5=death

99=not applicable (acquittal or dismissal)

[Question #33] If the defendant received multiple sentences that were to be served concurrently, you should select the highest sentence that the defendant received. If he received sentences to be

served consecutively, add the sentences together. If the sentence was a range other than "x"-years to life, take the average and use that number. If the sentence was several times the normal life expectancy of an individual (e.g. 3,000 years), select "3".

Conviction Appealed (appeal): nominal

0=no

1=yes

99=not applicable, no conviction

[Question #34]

Highest level direct appeal heard (app_level): nominal

0=no appeal

1=trial court

2=state appellate court

3=state supreme court/highest state court

4=United States Supreme Court

99=not applicable, no conviction

[Questions #35 and #37] This means the highest level of court that agreed to hear arguments on the appeal—not petitions for hearings that were denied. Please note that in Texas, the highest state court of appeals is the Texas Court of Criminal Appeals. The same with Oklahoma.

Final outcome of direct appeals process (app_outcome): nominal

0=no appeal

1=conviction affirmed

2=conviction overturned and thrown out

3=conviction overturned and new trial

4=other/mixed with at least one affirmation

99=not applicable, no conviction

[Questions #36-37] This refers to the final outcome of the direct appeals process for the first conviction only. You will have to look first at Question #36 to determine the result of the initial appeal and then look at Question #37 to determine if there was a further appeal and if so, what was the result. We are only concerned with the court's disposition of the substantive conviction(s) at issue. Thus, if the court affirms the conviction but remands for re-sentencing, this will be counted as an affirmation. You may assume "conviction affirmed" for an erroneous conviction if there is no mention of a further appeal and it is apparent that the conviction is not overturned until a long time after the initial appeal. "Other/mixed" should be marked when the court overturns one or more of the convictions, but also affirms one or more of the convictions (thus leaving the defendant in prison with at least one erroneous conviction).

Multiple guilty verdicts, i.e. guilty verdict(s) upon retrial (multiple_guilt): nominal

0=no

1=yes

99=not applicable

[See Question #42]

Method of disposition at re-trial post appeal (later_disposition): nominal

0=dismissal before trial

1=jury trial

2=bench trial

3=plea bargain

4=defense motion

5=prosecution motion

6=joint motion by prosecution and defense

7=sua sponte

8=jury acquittal

9=bench acquittal

10=other

99=not applicable

[Question #43]

Sentence Received at retrial (second_sentence): nominal

0=less than 10 years

1=10 years to 24 years

2=25 years to life

3=life sentence (including life plus)

5=LWOP

6=death

99=not applicable (acquittal or dismissal)

[Question #44]

Second Conviction Appealed (second_appeal): nominal

0=no

1=yes

99=not applicable

[Question #45]

Final outcome of second appeals process (sec_app_outcome): nominal

1=conviction affirmed

2=conviction overturned and thrown out

3=conviction overturned and new trial

4=other/mixed with at least one affirmation

99=not applicable, no appeal

[Question #47-48] This refers to the final outcome of the direct appeals process for the second conviction only. You will have to look first at Question #47 to determine the result of the initial

appeal and then look at Question #48 to determine if there was a further appeal and if so, what was the result. We are only concerned with the court's disposition of the substantive conviction(s) at issue. Thus, if the court affirms the conviction but remands for re-sentencing, this will be counted as an affirmation. You may assume "conviction affirmed" for an erroneous conviction if there is no mention of a further appeal and it is apparent that the conviction is not overturned until a long time after the initial appeal. "Other/mixed" should be marked when the court overturns one or more of the convictions, but also affirms one or more of the convictions (thus leaving the defendant in prison with at least one erroneous conviction).

Same District Attorney in office at conviction and exoneration (same_DA): nominal

0=no

1=yes

99=not applicable

Type of defense attorney at original proceedings (trial_atty): nominal

0=public defender/court appointed

1=pro bono

2=private/retained

3=pro se

4=mixed/other

[Question #51]

Type of defense attorney at later proceedings (later_atty): nominal

0=public defender/court appointed

1=pro bono

2=private/retained

3=pro se

4=public defender, pro bono

5=public defender, private

6=public defender, pro se

7=public defender, pro se, pro bono

8=public defender, private, pro bono

9=private, pro bono

As in the narrative coding sheet, do not include attorneys who represented the defendant for a purely civil claim, such as compensation.

Factual innocence based on no crime occurring (no_crime): nominal

0=no

1=yes

[Question #52]

Factual innocence based on physical impossibility (phys_imp): nominal

0=no

1=yes

[Question #52]

Factual innocence based on DNA (exon_DNA): nominal

0=No

1=Yes

[Question #52]

Factual innocence based on scientific evidence other than DNA (scientific_evid): nominal

0=no

1=yes

[Question #52]

Factual innocence based on identification of the true perpetrator (true_perp_id): nominal

0=no

1=yes

[Question #52] This includes any identification of the true perpetrator by the state, including police, prosecutor, or crime lab (it is not essential that they are arrested, charged, or convicted).

Do not include it if there is no real verification of the real perpetrator's identify (if, for example, the defendant just alleges that Joe committed the crime).

Factual innocence based on recantation of witness (exon_recant): nominal

0=no

1=yes

[Question #52] This includes the recantation of crucial prosecution witnesses, which the state credits.

Factual innocence based on other evidence/information (exon_other): nominal

0=no

1=yes

[Question #52]

Factual innocence based on DNA and identification of the true perpetrator (DNAtrueperp): nominal

You will not need to enter this manually: "Do If" loop

exon_dna and true_perp_id=1

Total indicators of factual innocence (total_innocence): scale

You will not need to enter this manually. It is a count variable that adds up all the '1's on the previous "factual innocence based on…" variables.

Exoneration method (exon_method): nominal

0=Governor's pardon

1=State trial court overturned conviction with prejudice

2=State appellate court overturned conviction with prejudice

3=Highest state court overturned conviction with prejudice

4=State court of unknown level overturned conviction with prejudice

5=Federal district court overturned conviction with prejudice

6=Federal circuit court overturned conviction with prejudice

7=U.S. Supreme Court overturned conviction with prejudice

8=State trial court overturned conviction without prejudice, new trial ordered, prosecution dismissed

9=State appellate court overturned conviction without prejudice, new trial ordered, prosecution dismissed

10=Highest state court overturned conviction without prejudice, new trial ordered, prosecution dismissed

11= State court of unknown level overturned conviction with prejudice

12=Federal district court overturned conviction without prejudice, new trial ordered, prosecution dismissed

13=Federal circuit court overturned conviction without prejudice, new trial ordered, prosecution dismissed

14=U.S. Supreme Court overturned conviction without prejudice, new trial ordered, prosecution dismissed

15=Court overturned conviction, new trial was ordered, and acquitted

16=Other

99=not applicable (acquittal or dismissal)

[Question #53] If you know that the conviction was overturned by a court and the prosecutor chose not to refile charges, but you do not know the type of court, choose 11 if there is absolutely no indication a federal court was involved.

Received a pardon by the governor (pardoned): nominal

0=no

1=yes

[Question #54] Mark an answer, regardless of whether a pardon was the source of exoneration.

Date of exoneration (date_exon): mm/dd/yyyy.

[Question #56] You must write in the first date on which an exoneration occurred. If the exoneration occurred through a governor's pardon, use the date of the pardon. If the exoneration occurred through legislative action, use the date the bill was passed. If the

exoneration occurred through a court declaration of innocence, or an overturned or set aside conviction with prejudice, use the date of the court's opinion or order. If the exoneration occurred through other court action, coupled with a prosecutor's decision to dismiss charges or vacate the conviction, use the date at which this action was given legal effect (i.e. the date that the court grants the motion to vacate or the date that the prosecutor dismisses the charges).

Length of time between trial resolution and exoneration (time_to_exoner): scale

This will be calculated for you.

Length of time served from conviction to release (time_served): scale

[Question #59(a)] Write in. Measured in months. For erroneous convictions, the time served should begin when the defendant was convicted of the relevant crimes, even if the defendant was in prison earlier awaiting trial, and end when the defendant was released from prison. If the defendant remained in prison due to another conviction, use the date on which the defendant was exonerated as the release date. If the defendant was released on bond or was paroled and then returned to prison, use the time between conviction and <u>final</u> release from prison (do not subtract the time spend on bond, parole, etc).

For acquittals/dismissals, the time served should begin when the defendant was charged with the relevant crimes and end when the defendant was released from prison. If the charge date is not known, you may use the arrest date.

Additional correctional control between time of release and exoneration (add_control): nominal

0=no

1=yes

99=not applicable

[Question #59] Correctional control refers to substantial restraints on the defendant's freedom (i.e., house arrest, GPS monitoring, curfews, registered sex offender, parole, etc.); it does NOT include bail or bond.

Total amount of time under correctional/criminal justice control from conviction to exoneration (total_cj): scale

[Question #59(b)] Write in. Measured in months. Round up days.
For erroneous convictions, the time should begin when the defendant was convicted of the relevant crimes while for acquittals/dismissals, the time should begin when the defendant was charged with the relevant crimes. If the charge date is not known, you may use the arrest date. For both sets of cases, the point at which the defendant is said to leave the criminal justice system with regards to the crime at issue is the point at which the government is no longer using the criminal justice system to implicate the defendant in the crime. This question is NOT concerned with whether the defendant is still in the criminal justice system for reasons that are not related to the crime(s) at issue (this may be indicated in Q 62). In addition, when

determining the point of exit of the criminal justice system, do not take into consideration action taken by the defendant in seeking compensation or bringing a civil suit. However, if a defendant seeks a pardon after his conviction is vacated, the grant of a pardon may be considered the exit.

Defendant responsible for exoneration (def_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] General instructions for the following 18 variables: Put a "1" next to any individual/group that is predominately responsible for the exoneration. We are mainly concerned with the primary causes—these can be individuals or groups who are "but for" causes or those who played crucial, direct, and active roles in the exoneration (e.g. an agency that takes the initiative to retest forensic evidence or a witness who recants the crucial identification of the defendant).

Put a "2" next to any individual/group who actively opposes the exoneration (rather than simply supported the conviction in the first instance), particularly in the face of overwhelming evidence of innocence. Both categories should be limited to only a few individuals/groups and should generally NOT include individuals who are simply doing their job.

Victim/supposed victim responsible for exoneration (vic_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

Real culprit responsible for exoneration (real_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

Witness responsible for exoneration (witness_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

Police responsible for exoneration (police_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above. Police refers to city, county, or state police, as distinguished from federal law enforcement.

Convicting prosecutor responsible for exoneration (conv_prosec_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above. A prosecutor in one sense is always "opposed" to the defendant in the initial trial stage, but do not note this unless there are facts to suggest that the prosecutor afterward maintained that the defendant was guilty despite an official recognition of innocence or actively sought to hinder the exoneration in some way. If there is a discrepancy between the roles of the individual prosecutor and the office in the exoneration, choose the official position of the District or State Attorney's Office. [Note, this is different than the instructions for Question #52, which instructs you to note the discrepancies only]

Subsequent prosecutor responsible for exoneration (sub_prosec_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above. A prosecutor in one sense is always "opposed" to the defendant in the initial trial stage, but do not note this unless there are facts to suggest that the prosecutor afterward maintained that the defendant was guilty despite an official recognition of innocence or actively sought to hinder the exoneration in some way. Prosecutor refers to both the individual and the office. If there is a discrepancy between the roles of the individual prosecutor and the office in the exoneration, choose the official position of the District or State Attorney's Office. [Note, this is different than the instructions for Question #56, which instructs you to note the discrepancies only]

Judge responsible for exoneration (judge_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

State administrative office responsible for exoneration (state_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

Federal law enforcement responsible for exoneration (fed_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

Original/trial defense attorney responsible for exoneration (defense_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

Subsequent (retrial or appellate) defense attorney responsible for exoneration (sub_defense_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above. An appellate defense attorney should not be given a "1" if (s)he was simply seeking the defendant's exoneration in the normal course of employment.

Family of defendant responsible for exoneration (family_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

Friend of defendant responsible for exoneration (friend_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

Journalist responsible for exoneration (jour_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

Professor responsible for exoneration (prof_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

Innocence project or organization responsible for exoneration (IP_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above. An innocence project or organization must be an organization that is convened for the purpose of establishing the innocence of defendants charged or convicted of crimes in the United States.

Other individual group responsible for exoneration (other_resp): nominal

0=no known involvement

1=predominantly responsible

2=actively opposed

99=not applicable (acquittal or dismissal)

[Question #56] See instructions above

PROSECUTION'S EVIDENCE

*For the next several pages of questions that correspond to Q#57 on the narrative coding sheet, you should answer in reference to what was known to the trier of fact/decisionmaker, **unless** the question explicitly mentions a **trial.** For the questions that do ask about a trial, answer "not applicable" if there was no trial.

If the case is an erroneous conviction, code only the information that was used at the **first conviction. If the case is an acquittal, code only the information that was used at the trial that resulted in the acquittal.

Eyewitness identification of the defendant (identification): nominal

0=no

1=yes

This includes any informal or formal identification procedure used by law enforcement or prosecution, including pre-trial procedures that led to an identification of the defendant. Eyewitnesses include not only individuals who witnessed the defendant commit the crime but also those who identify the defendant as someone who was at or near the scene of the crime. However, it does not include, for instance, victims of past crimes who are allowed to testify as to the defendant's identity to establish motive or MO or witnesses who identify the defendant as having been with the victim at some other time and place.

Eyewitness misidentification of the defendant (misid): nominal

0=no

1=yes

99=not applicable/no identification made

[Question #57(d)(1)] Misidentification is genuinely mistaken identification of the defendant, as opposed to perjured or willful false identifications, or correct identifications that nonetheless led

to an erroneous conviction. This refers to the eyewitnesses in general, so if there is one eyewitness that misidentified the defendant (and one that did not), the answer is still "Yes".

Victim 1 misidentification (vic1_misid): nominal

0=no

1=yes

99=not applicable (victim deceased)

[Question #57(d)(2-3)] This includes identifications that are genuinely mistaken, as well as perjured testimony.

Victim 1 provided description of perpetrator prior to identification (vic1_descr): nominal

0=no

1=yes

99=not applicable (victim deceased)

[Question #57(d)(4)] This refers to some description of the facial features/body of the defendant (rather than clothing).

Victim 1 provided details of a unique characteristic of the perpetrator (a tattoo, birthmark, etc) (vic1_unique): nominal

0=no

1=yes

99=not applicable (victim deceased)

[Question #57(d)(4)] This includes tattoos, a gold tooth, a scar, bodily disfigurement.

Discrepancy between victim 1 description and person identified (vic1_discrepancy):

nominal

0=no

1=yes

99= not applicable (victim deceased)

[Question #57(d)(4)] This will require some subjective judgment. However, you may rely, in your discretion, on the conclusions of those involved in the case (i.e., defense attorneys) as long as there are sufficient details about the victim's original description and the defendant's characteristics to support their conclusion. Of course, some minor discrepancy such as the difference between being 5'8 and 5'10 is not sufficient.

Victim 1 pretrial identification 1 (vic1_id1): nominal

0=witness volunteers identification of the defendant

1=show-up used, did not identify the defendant when defendant was present

2=show-up used, identified the defendant

3=sequential line-up used, did not identify the defendant when the defendant was present

4= sequential line-up used, identified the defendant

5=simultaneous line-up used, did not identify the defendant when the defendant was present

6=simultaneous line-up used, identified the defendant

7=unknown line-up procedure, did not identify defendant when the defendant was present

8=unknown line-up procedure, identified the defendant

9=sequential photo array used, did not identify the defendant when the defendant was present

10=sequential photo array used, identified the defendant

11=simultaneous photo array used, did not identify the defendant when the defendant was present

12=simultaneous photo array used, identified the defendant

13=unknown photo array procedure used, did not identify the defendant when the defendant was present

14=unknown photo array procedure used, identified the defendant

15=single photo, did not identify the defendant when the defendant was present

16=single photo, identified the defendant

99=no identification procedure

[Question #53(d)(5)] This refers to the first time the victim was asked to identify the defendant, when the defendant was present. Note that a show-up means the police or prosecutors presented the defendant (or created a situation in which the defendant would be presented) to the eyewitness to make an identification. A direct implication includes either the victim identifying the defendant by name or other unique features (i.e., "my uncle's girlfriend"), as well as the

victim pointing out the defendant independently of any request for identification (for instance, the victim is walking down the street, sees a man, and realizes he is her rapist). Single photo identifications include victims or other individuals who view the crime or the scene on surveillance video and made an identification of the perpetrator.

Victim 1 pretrial identification 2 (vic1_id2): nominal

0=witness volunteers identification of the defendant

1=show-up used, did not identify the defendant when defendant was present

2=show-up used, identified the defendant

3=sequential line-up used, did not identify the defendant when the defendant was present

4= sequential line-up used, identified the defendant

5=simultaneous line-up used, did not identify the defendant when the defendant was present

6=simultaneous line-up used, identified the defendant

7=unknown line-up procedure, did not identify defendant when the defendant was present

8=unknown line-up procedure, identified the defendant

9=sequential photo array used, did not identify the defendant when the defendant was present

10=sequential photo array used, identified the defendant

11=simultaneous photo array used, did not identify the defendant when the defendant was present

12=simultaneous photo array used, identified the defendant

13=unknown photo array procedure used, did not identify the defendant when the defendant was present

14=unknown photo array procedure used, identified the defendant

15=single photo, did not identify the defendant when the defendant was present

16=single photo, identified the defendant

99=no identification procedure

[Question #53(d)(5)] This refers to the second time the victim was asked to identify the defendant, when the defendant was present.

This is repeated for a third pre-trial identification.

Victim 1 made cross-racial identification (vic_cross_race1): nominal

0=no

1=yes

99=not applicable

[Question #53(d)(6)]

Victim 1 time elapsed between crime and first positive identification (vic_id_elapse1): scale

[Question #53(d)(7)] Time in days. If the ID was made on the same day, put a "0" (not a decimal or a 1).

Victim 1 certainty of identification (vic_cert_id1): nominal

0=not certain

1= certain

99= not applicable (victim deceased)

[Question #53(d)(8)] If multiple procedures were used, please specify the level of certainty for the first positive ID. Thus, if the eyewitness failed to make an ID, this is not the same as being uncertain. [Note, this is somewhat different than in the narrative coding sheet where you were asked to note the level of certainty for each identification]. If you have a detailed account of the identification and no mention is made of uncertainty, you may assume that it was certain.

Victim 1 took multiple tries to identify defendant (vic_id_multiple1): nominal

0=no (ID at first procedure)

1=yes (multiple tries before identification is made)

99=no identification procedure

[Question #53(d)(5)] Select "Yes" if the victim failed to identify the defendant once or multiple times before making a positive ID. Select "No" if the victim made a positive ID in the first identification procedure, even if the victim was not entirely certain of her identification. Do not consider identification procedures that did not include the defendant (i.e., an array in which the defendant was not present). If there is no mention of a failed attempt to make an ID, you may assume "No".

Victim 1's pretrial identification was presented at trial (vic_pretrial1): nominal

0=no

1=yes

99=not applicable (no trial)

You may assume that is was presented at trial only if you have a detailed description of the ID process and/or trial, in other words, a description that would mention if a pre-trial ID was excluded by the court for some reason. If the victim failed to make an ID, you would need to know more information before assuming that this failed attempt was or was not presented at trial.

Victim 1 made misidentification at trial (vic_trial1): nominal

0=no

1=yes

99=not applicable (no trial)

This may be assumed unless there is evidence to the contrary.

Victim 2 misidentified the defendant (vic2_misid): nominal

0=no

1=yes

99= not applicable (victim deceased or no 2nd victim)

[Question #53(d)(2-3)] See instructions above.

Victim 2 provided description of perpetrator prior to identification (vic2_descr): nominal

0=no

1=yes

99= not applicable (victim deceased)

[Question #57(d)(4)] See instructions above.

Victim 2 provided details of a unique characteristic of the perpetrator (a tattoo, birthmark, etc) (vic2_unique): nominal

0=no

1=yes

99= not applicable (victim deceased)

[Question #57(d)(4)] See instructions above.

Discrepancy between victim 2 description and person identified (vic2_discrepancy): nominal

0=no

1=yes

99= not applicable (victim deceased)

[Question #57(d)(4)] This will require some subjective judgment. However, you may rely, in your discretion, on the conclusions of those involved in the case (i.e., defense attorneys) as long as there are sufficient details about the victim's original description and the defendant's characteristics to support their conclusion.

Victim 2 pretrial identification 1 (vic2_id1): nominal

0=witness volunteers identification of the defendant

1=show-up used, did not identify the defendant when defendant was present

2=show-up used, identified the defendant

3=sequential line-up used, did not identify the defendant when the defendant was present

4= sequential line-up used, identified the defendant

5=simultaneous line-up used, did not identify the defendant when the defendant was present

6=simultaneous line-up used, identified the defendant

7=unknown line-up procedure, did not identify defendant when the defendant was present

8=unknown line-up procedure, identified the defendant

9=sequential photo array used, did not identify the defendant when the defendant was present

10=sequential photo array used, identified the defendant

11=simultaneous photo array used, did not identify the defendant when the defendant was present

12=simultaneous photo array used, identified the defendant

13=unknown photo array procedure used, did not identify the defendant when the defendant was present

14=unknown photo array procedure used, identified the defendant

15=single photo, did not identify the defendant when the defendant was present

16=single photo, identified the defendant

99=no identification procedure

[Question #53(d)(5)] This refers to the first time the victim was asked to identify the defendant, when the defendant was present.

Victim 2 pretrial identification 2 (vic2_id2): nominal

0=witness volunteers identification of the defendant

1=show-up used, did not identify the defendant when defendant was present

2=show-up used, identified the defendant

3=sequential line-up used, did not identify the defendant when the defendant was present

4= sequential line-up used, identified the defendant

5=simultaneous line-up used, did not identify the defendant when the defendant was present

6=simultaneous line-up used, identified the defendant

7=unknown line-up procedure, did not identify defendant when the defendant was present

8=unknown line-up procedure, identified the defendant

9=sequential photo array used, did not identify the defendant when the defendant was present

10=sequential photo array used, identified the defendant

11=simultaneous photo array used, did not identify the defendant when the defendant was present

12=simultaneous photo array used, identified the defendant

13=unknown photo array procedure used, did not identify the defendant when the defendant was present

14=unknown photo array procedure used, identified the defendant

15=single photo, did not identify the defendant when the defendant was present

16=single photo, identified the defendant

99=no identification procedure used

[Question #53(d)(5)] This refers to the second time the victim was asked to identify the defendant, when the defendant was present.

Victim 2 made cross-racial identification (vic_cross_race2): nominal

0=no

1=yes

99=not applicable

[Question #53(d)(6)] See instructions above.

Victim 2 time elapsed between crime and first positive identification (vic_id_elapse2): scale

[Question #53(d)(7)] Write in, time in days.

Victim 2 certainty of identification (vic_cert_id2): nominal

0=not certain

1= certain

99= not applicable

[Question #53(d)(8)] See instructions above.

Victim 2 took multiple tries to identify defendant (vic_id_multiple2): nominal

0=no (ID at first procedure)

1=yes (multiple tries before identification is made)

99=not applicable

Select "Yes" if the victim failed to identify the defendant once or multiple times before making a positive ID. Select "No" if the victim made a positive ID in the first identification procedure, even if she was not certain of her identification. Do not consider identification procedures that did not include the defendant (i.e., an array in which the defendant was not present).

Victim 2's pretrial misidentification was presented at trial (vic_pretrial2): nominal

0=no

1=yes

99=not applicable (no trial)

Victim 2 made misidentification at trial (vic_trial2): nominal

0=no

1=yes

99=not applicable (no trial)

Continue for victims #1-10

Discrepancy between any victim's description and the defendant (Addvic_discrepancy): nominal

0=no

1=yes

You will not need to enter this manually. Syntax will calculate whether there was a discrepancy between any victim's description of the perpetrator and the defendant's appearance.

Unique details of perpetrator provided by any victim (Addvic_unique): nominal

0=no

1=yes

You will not need to enter this manually. Syntax will calculate whether victim gave a unique description of the perpetrator.

Eyewitness 1 misidentification (witness1): nominal

0=no

1=yes

[Question #53(d)(2-3)]

Eyewitness 1 provided description of perpetrator prior to identification (witness1_descr): nominal

0=no

1=yes

99=not applicable (no eyewitness)

[Question #57(d)(4)]

Eyewitness 1 provided details of a unique characteristic of the perpetrator (a tattoo, birthmark, etc) (witness1_unique): nominal

0=no

1=yes

99=not applicable

[Question #57(d)(4)]

Discrepancy between eyewitness 1 description and person identified (witness1_discrepancy): nominal

0=no

1=yes

99=not applicable

[Question #57(d)(4)] This will require some subjective judgment. However, you may rely, in your discretion, on the conclusions of those involved in the case (i.e., defense attorneys) as long as there are sufficient details about the victim's original description and the defendant's characteristics to support their conclusion.

Eyewitness 1 pretrial identification 1 (wit1_id1): nominal

0=witness volunteers identification of the defendant

1=show-up used, did not identify the defendant when defendant was present

2=show-up used, identified the defendant

3=sequential line-up used, did not identify the defendant when the defendant was present

4= sequential line-up used, identified the defendant

5=simultaneous line-up used, did not identify the defendant when the defendant was present

6=simultaneous line-up used, identified the defendant

7=unknown line-up procedure, did not identify defendant when the defendant was present

8=unknown line-up procedure, identified the defendant

9=sequential photo array used, did not identify the defendant when the defendant was present

10=sequential photo array used, identified the defendant

11=simultaneous photo array used, did not identify the defendant when the defendant was present

12=simultaneous photo array used, identified the defendant

13=unknown photo array procedure used, did not identify the defendant when the defendant was present

14=unknown photo array procedure used, identified the defendant

15=single photo, did not identify the defendant when the defendant was present

16=single photo, identified the defendant

99=no identification procedures used

[Question #57(d)(5)] This refers to the first time the victim was asked to identify the defendant, when the defendant was present.

Eyewitness 1 pretrial identification 2 (wit1_id2): nominal

0=witness volunteers identification of the defendant

1=show-up used, did not identify the defendant when defendant was present

2=show-up used, identified the defendant

3=sequential line-up used, did not identify the defendant when the defendant was present

4= sequential line-up used, identified the defendant

5=simultaneous line-up used, did not identify the defendant when the defendant was present

6=simultaneous line-up used, identified the defendant

7=unknown line-up procedure, did not identify defendant when the defendant was present

8=unknown line-up procedure, identified the defendant

9=sequential photo array used, did not identify the defendant when the defendant was present

10=sequential photo array used, identified the defendant

11=simultaneous photo array used, did not identify the defendant when the defendant was present

12=simultaneous photo array used, identified the defendant

13=unknown photo array procedure used, did not identify the defendant when the defendant was present

14=unknown photo array procedure used, identified the defendant

15=single photo, did not identify the defendant when the defendant was present

16=single photo, identified the defendant

99=no identification procedures used

[Question #57(d)(5)] This refers to the second time the victim was asked to identify the defendant, when the defendant was present.

Eyewitness 1 pretrial identification 3 (wit1_id3): nominal

0=witness volunteers identification of the defendant

1=show-up used, did not identify the defendant when defendant was present

2=show-up used, identified the defendant

3=sequential line-up used, did not identify the defendant when the defendant was present

4= sequential line-up used, identified the defendant

5=simultaneous line-up used, did not identify the defendant when the defendant was present

6=simultaneous line-up used, identified the defendant

7=unknown line-up procedure, did not identify defendant when the defendant was present

8=unknown line-up procedure, identified the defendant

9=sequential photo array used, did not identify the defendant when the defendant was present

10=sequential photo array used, identified the defendant

11=simultaneous photo array used, did not identify the defendant when the defendant was present

12=simultaneous photo array used, identified the defendant

13=unknown photo array procedure used, did not identify the defendant when the defendant was present

14=unknown photo array procedure used, identified the defendant

15=single photo, did not identify the defendant when the defendant was present

16=single photo, identified the defendant

99=no identification procedures used

[Question #57(d)(5)] This refers to the third time the victim was asked to identify the defendant, when the defendant was present.

Eyewitness 1 made cross-racial identification (cross_race1): nominal

0=no

1=yes

99=not applicable

[Question #57(d)(6)]

Eyewitness 1 time elapsed between crime and first positive identification (id_elapse1): scale

[Question #57(d)(7) Write in, time in days

Eyewitness 1 certainty of identification (cert_id1): nominal.

0=not certain

1= certain

99=not applicable

[Question #57(d)(8)] see above

Eyewitness 1 took multiple tries to identify defendant (id_multiple1): nominal

0=no (ID at first procedure)

1=yes (multiple tries before identification is made)

99=not applicable

Select "Yes" if the eyewitness failed to identify the defendant once or multiple times before making a positive ID. Select "No" if the eyewitness made a positive ID in the first identification procedure, even if she was not certain about her identification. Do not consider identification procedures that did not include the defendant (i.e., an array in which the defendant was not present).

Eyewitness 1's pretrial misidentification was presented at trial (witness_pretrial1): nominal

0=no

1=yes

99=not applicable (no trial)

Eyewitness 1 made misidentification at trial (witness_trial1): nominal

0=no

1=yes

99=not applicable (no trial)

See instructions above

Eyewitness 2 misidentification (witness2): nominal

0=no

1=yes

[Question #57(d)(2-3)] See instructions above

Eyewitness 2 provided description of perpetrator prior to identification (witness2_descr):

nominal

0=no

1=yes

99=not applicable (no eyewitness)

[Question #57(d)(4)] See instructions above

Eyewitness 2 provided details of a unique characteristic of the perpetrator (a tattoo, birthmark, etc) (witness2_unique): nominal

0=no

1=yes

99=not applicable

[Question #57(d)(4)] See instructions above

Discrepancy between eyewitness 2 description and person identified (witness2_discrepancy): nominal

0=no

1=yes

99=not applicable

[Question #57(d)(4)] This will require some subjective judgment. However, you may rely, in your discretion, on the conclusions of those involved in the case (i.e., defense attorneys) as long as there are sufficient details about the victim's original description and the defendant's characteristics to support their conclusion.

Eyewitness 2 pretrial identification 1 (wit2_id1): nominal

0=witness volunteers identification of the defendant

1=show-up used, did not identify the defendant when defendant was present

2=show-up used, identified the defendant

3=sequential line-up used, did not identify the defendant when the defendant was present

4= sequential line-up used, identified the defendant

5=simultaneous line-up used, did not identify the defendant when the defendant was present

6=simultaneous line-up used, identified the defendant

7=unknown line-up procedure, did not identify defendant when the defendant was present

8=unknown line-up procedure, identified the defendant

9=sequential photo array used, did not identify the defendant when the defendant was present

10=sequential photo array used, identified the defendant

11=simultaneous photo array used, did not identify the defendant when the defendant was present

12=simultaneous photo array used, identified the defendant

13=unknown photo array procedure used, did not identify the defendant when the defendant was present

14=unknown photo array procedure used, identified the defendant

15=single photo, did not identify the defendant when the defendant was present

16=single photo, identified the defendant

99=no identification procedures used

[Question #57(d)(5)] This refers to the first time the victim was asked to identify the defendant, when the defendant was present.

Eyewitness 2 pretrial identification 2 (wit2_id2): nominal

0=witness volunteers identification of the defendant

1=show-up used, did not identify the defendant when defendant was present

2=show-up used, identified the defendant

3=sequential line-up used, did not identify the defendant when the defendant was present

4= sequential line-up used, identified the defendant

5=simultaneous line-up used, did not identify the defendant when the defendant was present

6=simultaneous line-up used, identified the defendant

7=unknown line-up procedure, did not identify defendant when the defendant was present

8=unknown line-up procedure, identified the defendant

9=sequential photo array used, did not identify the defendant when the defendant was present

10=sequential photo array used, identified the defendant

11=simultaneous photo array used, did not identify the defendant when the defendant was present

12=simultaneous photo array used, identified the defendant

13=unknown photo array procedure used, did not identify the defendant when the defendant was present

14=unknown photo array procedure used, identified the defendant

15=single photo, did not identify the defendant when the defendant was present

16=single photo, identified the defendant

99=no identification procedures used

[Question #57(d)(5)] This refers to the second time the victim was asked to identify the defendant, when the defendant was present.

Eyewitness 2 pretrial identification 3 (wit2_id3): nominal

0=witness volunteers identification of the defendant

1=show-up used, did not identify the defendant when defendant was present

2=show-up used, identified the defendant

3=sequential line-up used, did not identify the defendant when the defendant was present

4= sequential line-up used, identified the defendant

5=simultaneous line-up used, did not identify the defendant when the defendant was present

6=simultaneous line-up used, identified the defendant

7=unknown line-up procedure, did not identify defendant when the defendant was present

8=unknown line-up procedure, identified the defendant

9=sequential photo array used, did not identify the defendant when the defendant was present

10=sequential photo array used, identified the defendant

11=simultaneous photo array used, did not identify the defendant when the defendant was present

12=simultaneous photo array used, identified the defendant

13=unknown photo array procedure used, did not identify the defendant when the defendant was present

14=unknown photo array procedure used, identified the defendant

15=single photo, did not identify the defendant when the defendant was present

16=single photo, identified the defendant

99=no identification procedures used

[Question #57(d)(5)] This refers to the third time the victim was asked to identify the defendant, when the defendant was present.

Eyewitness 2 made cross-racial identification (cross_race2): nominal

0=no

1=yes

99=not applicable

[Question #57(d)(6)]

Eyewitness 2 time elapsed between crime and identification (id_elapse2): scale

[Question #57(d)(7)] Write in, time in days.

Eyewitness 2 certainty of identification (cert_id2): nominal

0=not certain

1= certain

99=not applicable

[Question #57(d)(8)] see above

Eyewitness 2 took multiple tries to identify the defendant (id_multiple2): nominal

0=no (only one try needed)

1=yes (multiple tries required)

99=not applicable (no identification procedures conducted)

Select "Yes" if the eyewitness failed to identify the defendant once or multiple times before making a positive ID. Select "No" if the eyewitness made a positive ID in the first identification

procedure, even if she was uncertain as to her identification. Do not consider identification procedures that did not include the defendant (i.e., an array in which the defendant was not present).

Eyewitness 2's pretrial misidentification was presented at trial (witness_pretrial2): nominal

0=no

1=yes

99=not applicable (no trial)

Eyewitness 2 made misidentification at trial (witness_trial2): nominal

0=no

1=yes

99=not applicable (no trial)

Continue for Eyewitnesses #1-10

Eyewitness(es) testify at trial (witness_testify): nominal

0=no (did not testify)

1=yes (testified)

99=not applicable (no eyewitness)

[Question #57(d)(10)] This is a comprehensive variable; thus if there is at least one eyewitness (including victim) testifying as to a misidentification at trial, select "Yes."

Eyewitness(es) pre-trial identification presented at trial (witness_trial): nominal

0=evidence of identifications not presented at trial

1=evidence of eyewitness identifications presented at trial

99=not applicable (no eyewitness)

[Question #57(d)(11) Again, this is a comprehensive variable. So if at least one pre-trial misidentification was presented at trial, select "Yes". Presented at trial means either that the eyewitness testified to the prior identification or the identification itself was entered into evidence (i.e., a photo array with the defendant's picture initialed.)

Prosecution witness(es) provided exculpatory testimony/evidence for the defendant (exulp_wit): nominal

0=no

1=yes

This variable includes both eyewitnesses and noneyewitnesses who provide exculpatory evidence in favor of the defendant and who make up part of the prosecution's case.

Non-eyewitness(es) provided testimony against the defendant (noneye_test): nominal

0=no

1=yes

This does NOT include criminal justice personnel (such as police officers), medical personnel, or expert witnesses; instead the focus here is on "lay" witnesses. For example: friends or jailmates who supposedly hear the defendant bragging about the crime, the victim's husband who testifies he left his wife at a certain time before the crime and she was in good spirit, etc. While there is another variable that specifically records falsehoods by a jailhouse informant, jailhouse informants that are non-eyewitnesses should be included here as well.

Non-eyewitness(es) recanted testimony (noneye_recant): nominal

0=no

1=yes

99=not applicable (no non-eyewitness)

If relatively detailed account of the testimony is given and no mention is made of recantation, you may assume the witness did not recant.

Victim(s) testified at trial (vic_testify): nominal

0=no

1=yes

99=not applicable/deceased/no trial

[Question #57 (a)] You may assume the victim testified at trial where it is reasonable to do so, i.e., at a rape trial.

Additional misidentified information (add_misid): nominal

0=no

1=yes

[Question #57(e)] This includes an eyewitness who testifies (erroneously) to seeing the defendant's car, clothing, etc. at or near the scene of the crime, or before or after the crime took place. It also includes identification through other senses, such as smell or voice. If a non-victim or non-eyewitness identifies a sketch as representing or resembling the defendant, this can also be included. This can include perjured testimony. However, it does not include testimony that is correct (i.e ., the witness really did see the defendant near the scene of the crime) but was nonetheless misleading or improperly used.

Victim recanted identification prior to trial (vic_prior_recantid): nominal

0=did not recant

1=recanted

99=not applicable/deceased (no identification given)

[Question #57(d)(11)] If relatively detailed account of the testimony is given and no mention is made of recantation, you may assume the witness did not recant.

Victim recanted identification during trial (vic_trial_recantid): nominal

0=did not recant

1=recanted

99=not applicable/deceased (no identification given or no trial)

[Question #57(d)(11)] If relatively detailed account of the testimony is given and no mention is made of recantation, you may assume the witness did not recant.

Victim recanted identification after trial (vic_later_recantid): nominal

0=did not recant

1=recanted

99=not applicable/deceased (no identification given or no trial)

[Question #57(d)(11)] If relatively detailed account of the testimony is given and no mention is made of recantation, you may assume the witness did not recant.

Victim recanted crime prior to trial (vic_prior_recantcrime): nominal

0=did not recant

1=recanted

99=not applicable/deceased (no testimony given)

[Question #57(b)] If relatively detailed account of the testimony is given and no mention is made of recantation, you may assume the witness did not recant.

Victim recanted crime during trial (vic_trial_recantcrime): nominal

0=did not recant

1=recanted

99=not applicable/deceased (no testimony given or no trial)

[Question #57(b)] If relatively detailed account of the testimony is given and no mention is made of recantation, you may assume the witness did not recant.

Victim recanted crime after trial (vic_later_recantcrime): nominal

0=did not recant

1=recanted

99=not applicable/deceased (no testimony given or no trial)

[Question #57(b)] If relatively detailed account of the testimony is given and no mention is made of recantation, you may assume the witness did not recant.

Victim intentionally misidentified the defendant (vic_perjury): nominal

0=no

1=yes

2=alleged

99=not applicable

This includes lying to officials in an investigation, even when there is no trial or hearing (and thus no official perjury).

Continue for victims #2-10

Eyewitness 1 (non-victim) recanted identification prior to trial (wit1_prior_recantid):

nominal

0=did not recant

1=recanted

99=not applicable (no identification given)

[Question #57(d)(11)] If relatively detailed account of the testimony is given and no mention is made of recantation, you may assume the witness did not recant.

Eyewitness 1 (non-victim) recanted identification during trial (wit1_trial_recantid):

nominal

0=did not recant

1=recanted

99=not applicable (no identification given or no trial)

[Question #57(d)(11)] If relatively detailed account of the testimony is given and no mention is made of recantation, you may assume the witness did not recant.

Eyewitness 1 (non-victim) recanted identification after trial (wit1_later_recantid): nominal

0=did not recant

1=recanted

99=not applicable (no identification given or no trial)

[Question #57(d)(11)] If relatively detailed account of the testimony is given and no mention is made of recantation, you may assume the witness did not recant.

Any eyewitness (including victim) recanted the identification or crime before or during trial (Addrecant): nominal

0=no

1=yes

You will not need to enter this manually.

Eyewitness 1 (non-victim) intentionally misidentified the defendant (wit1_perjury): nominal

0=no

1=yes

2=alleged

99=not applicable

[Question #57(g)] This includes lying to officials in an investigation, even when there is no trial or hearing (and thus no official perjury).

Continue for Eyewitnesses #2-10

Intentional misidentification by any victim or eyewitness (Intentional_MisID): nominal

0=no

1=yes

You will not need to enter this manually.

Intentionally false testimony by jailhouse informant/snitch (informant): nominal

0=no

1=yes

2=alleged

[Question #57(g)] A jailhouse informant is an individual, already imprisoned or with a court case pending/threatened, who informs the police, prosecutors, or other officials of the activities and words of the defendant. A snitch is an individual who gives information to the police for the return of a favor—monetary or otherwise. If there was no jailhouse informant or snitch deceit, answer "no". Note, if there is an informant or snitch who testimony appears reliable (not false), do not mark "yes" for this variable. Instead, simply record this witness as a non-eyewitness. This includes lying to officials in an investigation, even when there is no trial or hearing (and thus no official perjury).

Perjury or lying by criminal justice officials (police, prosecutors, etc) (cj_perjury): nominal

0=no

1=yes

2=alleged

[Question #57(h)] This includes lying to officials in an investigation, even when there is no trial or hearing (and thus no official perjury).

Non-eyewitness(es) committed perjury/gave intentionally false testimony (noneye_perjury): nominal

0=no

1=yes

2=alleged

99=not applicable

This includes lying to officials in an investigation, even when there is no trial or hearing (and thus no official perjury).

False confession (confession): nominal

0=no confession/statements

1=false incriminating statements made

2=falsely confessed to the crime.

[Question #57(f)]

Evidence of physical or threat of physical abuse to elicit false confession or incriminating statements (abuse_false): nominal

0=no abuse indicated

1=physical abuse or threat thereof

99=no false statements made

[Question #57(f)]Physical abuse refers to bodily harm inflicted on the defendant, such as beating, knocking down, or depriving the person of sleep or food. A threat of physical abuse must be imminent and direct from the police or prosecutors; indirect threats, such as the threat of a life sentence if convicted or the suggestion that the defendant will be raped by inmates in prison, does not count.

This includes credible allegations of physical abuse (such as cases where there is a history of physical abuse in the police department, the defendant wins a large settlement from the city, or the court says there is enough evidence of the allegation to continue the civil suit).

Significant Forensic evidence presented (foren_evid): nominal

0=presented, no errors

1=presented, errors present

99=not presented

[Question #57(j)] Forensic evidence is "forensic science" evidence—evidence that has been evaluated using scientific methods. If the case is an erroneous conviction or rightful acquittal,

this question asks what was presented a trial; if the case is an erroneous plea or rightful dismissal, then this question refers to forensics presented up unto the point of plea or dismissal. The presence of semen, tears, or bruising should be marked as "forensic evidence presented," if we know it played a role in the case (i.e., verified victim's claim that she was raped). If there is no mention of forensics, mark a "99"; however, we acknowledge that there is a high likelihood in almost all murder and rape cases there will be <u>some</u> forensic evidence, which we might not be aware of (not mentioned in sources), to prove that the supposed crime did occur. Specifically, cases from the Innocence Project must have had forensic evidence collected in order for the defendant's convictions to be vacated via DNA testing. But again, if we are not aware of this evidence playing any role in the original convictions or dismissal/acquittal, mark '99'.

This is an umbrella variable. The next eight variables drill down on the specific type(s) of forensic evidence presented.

Impression/print evidence presented (impression): nominal

0=presented, no errors

1=presented, errors present

99=not presented

[Question #57(j)] This includes all types of impression evidence: fingerprints, palmprints, shoe impressions, etc. It also includes errors that are the result of fraud.

Ballistics evidence presented (ballistics): nominal

0=presented, no errors

1=presented, errors present

99=not presented

[Question #57(j)] It includes errors that are the result of fraud.

Microscopic hair evidence presented (hair): nominal

0=presented, no errors

1=presented, errors present

99=not presented

[Question #57(j)] This includes other fibers, as well as hair. In determining whether there was an error in the hair evidence presented, use the FBI guidelines [see Forensic Science Communications, Forensic Hair Comparison Review Article, 11:2, April 2009]. According to the guidelines as well as some case law on the subject, it is almost certainly error if the expert testifies about percentages or the specific likelihood of a "match". This kind of information is not known for hair comparison (in contrast, say, to DNA testing). It is likely NOT error if the expert merely says that the hair is consistent with, or can be associated with, the defendant (or in reverse, that the defendant can be excluded as the source of the hair).
It also includes errors that are the result of fraud.

Serology evidence presented (serology): nominal

0=presented, no errors in serology evidence (analysis or testimony)

1=presented, errors in testing

2=presented, errors in testimony

3=presented, errors in testing and testimony

99=no serology evidence

[Question #57(j)] It includes errors that are the result of fraud.

DNA evidence (dna): nominal

0=presented, no errors

1=presented, errors present

99=not presented

[Question #57(j)] It includes errors that are the result of fraud.

Bite mark evidence (bite_mark): nominal

0=presented, no errors

1=presented, errors present

99=not presented

[Question #57(j)] It includes errors that are the result of fraud.

Medical examiner or other medical error (med_error): nominal

0=no

1=yes

[Question #57(j)]This includes erroneous diagnoses of cause of death, disease, etc., as well as errors made in the administration or analysis of a rape kit. It also includes errors that are the result of fraud.

Exculpatory forensic evidence presented by prosecution (forensic_exculp): nominal

0=no

1=yes

99=no forensic evidence presented

This includes evidence presented up through the trial, plea, or dismissal. Exculpatory evidence is material evidence that tends to show the defendant did not commit the crime. Thus, latent fingerprints on the murder weapon or O type blood found in a rape victim that do NOT match the defendant or the victim would be exculpatory. Blood found at the scene that does not match the defendant but does match the victim would not be exculpatory (though it is also not inculpatory) because it does not exclude the defendant in any meaningful way. Likewise, latent prints that do not match the defendant but are found at a crime scene that is a public place, such as a store, are probably not exculpatory, unless these prints are located specifically in areas that we know the perpetrator touched.

Exculpatory DNA evidence presented by prosecution (DNA_exculp): nominal

0=no

1=yes

99=no forensic evidence presented

If you mark "yes" for this variable, you should have also marked "yes" for the previous variable, forensic_exculp.

Forensic fraud evident (foren_fraud): nominal

0=no

1=yes

2=alleged

99=no forensic evidence presented

[Question #57(j)] This includes fraud in either forensic testing or testimony. As with all subsequent "alleged", there must be a clear basis for the allegation and the allegation must be sufficiently serious to have possibly influenced the outcome of the trial.

Exculpatory physical evidence presented by prosecution (physical_exculp): nominal

0=no

1=yes

This includes exculpatory physical evidence (other than forensics) that is discovered and/or presented by the prosecution. It includes text messages and cell phone calls that are exculpatory on their face, without scientific investigation (i.e., forensic analysis).

Anonymous tip/information received by police/prosecutors (anonymous): nominal

0=no

1=yes

This only includes information that implicates the defendant or establishes facts of the crime (rather than a tip that exonerates the defendant). This was not directly asked on the narrative coding sheet, so you will have to imply the information from what is provided or do more research to obtain an answer.

Surveillance tape or wiretap evidence that implicates the defendant (surveillance): nominal

0=no

1=yes

This only includes surveillance or recordings that implicates the defendant in the crime (rather than exonerate). This was not directly asked on the narrative coding sheet, so you will have to imply the information from what is provided or do more research to obtain an answer.

Recovery of victim's stolen property from/or near defendant (stolen_prop): nominal

0=no

1=yes

This was not directly asked on the narrative coding sheet, so you will have to imply the information from what is provided or do more research to obtain an answer. If there is no record of the victim having property stolen or no record of the victim's property being found in the vicinity of the defendant, answer "no". This can be your default choice unless you have positive information to the contrary.

Withholding of exculpatory evidence (withheld_exculp): nominal

0=no

1=yes

2=alleged

[Question #57(k)] This is essentially a Brady violation. It refers primarily to evidence withheld by police or prosecutors. If information was withheld by a crime lab, mark it as "forensic fraud", above. If you answer 'yes', the following two variables require you to select who was responsible for the withholding (police, prosecutor, or both). If you answered 'no', then select a '99' for the next two variables.

Evidence withheld by police (police_withheld): nominal

0=no

1=yes

2=alleged

99=not applicable (no evidence withheld)

[Question #57(k)]

Evidence withheld by prosecutor (prosec_withheld): nominal

0=no

1=yes

2=alleged

99= not applicable (no evidence withheld)

[Question #57(k)]

Police Error (police_error): nominal

0=no

1=yes

2=alleged

[Question #57(l)] This is a mistake or omission that is made by the police and does not imply intentional or extremely negligent wrongdoing. It includes forgetting to collect or loosing certain evidence, suggestive identification procedures that do not violate a defendant's rights, and sloppy interrogations where information is unintentionally leaked to the victim or defendant.

Prosecutor Error (prosec_error): nominal

0=no

1=yes

2=alleged

[Question #57(k)] This is a mistake or omission that is made by the prosecution and does not imply intentional or extremely negligent wrongdoing. It includes forgetting to collect or loosing certain evidence, suggestive identification procedures that do not violate a defendant's rights, and sloppy interrogations where information is unintentionally leaked to the victim or defendant.

Judicial Error (judge_error): nominal

0=no

1=yes

2=alleged

[Question #53(k)] This is a mistake or omission that does not imply intentional wrongdoing. It includes errors that are reversed by a higher court upon appeal.

Juror Error (juror_error): nominal

0=no

1=yes

2=alleged

99=not applicable, no jury

[Question #57(k)] This is a mistake or omission that does not imply intentional wrongdoing

Other Criminal Justice Official Error (off_error): nominal

0=no

1=yes

2=alleged

[Question #57(k)] This is a mistake or omission that does not imply intentional wrongdoing. It includes actions by state officials such as hospital or prison administrators, state forensic psychologist, or Child Protective Services.

Police Misconduct (police_miscon): nominal

0=no

1=yes

2=alleged

[Question #57(m)] There must be intentionality or extreme negligence that is either present or can be legally inferred. It includes intentional Brady violations, as well coercive interrogation tactics where the defendant later wins a civil suit against the officers. Please note, however, that police are usually allowed to lie to defendants in interrogation or use other forms of psychological pressure, so do not mark this as error or misconduct, unless there is strong

evidence to indicate that in this case, it was deemed unacceptable (i.e., mentally retarded defendant gets his conviction overturned based on a coerced confession)

Prosecutor Misconduct (prosec_miscon): nominal

0=no

1=yes

2=alleged

[Question #57(k)] There must be intentionality or extreme negligence that is either present or can be legally inferred. It includes intentional Brady violations and instances where the defendant wins a malicious prosecution civil suit.

Judicial Misconduct (judge_miscon): nominal

0=no

1=yes

2=alleged

[Question #57(k)] There must be intentionality or extreme negligence that is either present or can be legally inferred.

Juror Misconduct (juror_miscon): nominal

0=no

1=yes

2=alleged

99=not applicable, no jury

[Question #57(k)] There must be intentionality or extreme negligence that is either present or can be legally inferred.

Other Criminal Justice Official Misconduct (other_cj_miscon): nominal

0=no

1=yes

2=alleged

[Question #57(k)] There must be intentionality or extreme negligence that is either present or can be legally inferred. This includes coercive interrogation techniques or a fraudulent investigation by Child Protective Services, the US Postal Service, a state forensic psychologist, and other government officials.

Criminal Justice Action/Success Demanded by Community (conv_demand): nominal

0=no

1=yes

[Question #57(k)] This should only be selected when there is a clear indication that this was a substantial factor in the investigation or conviction of the defendant. It can be based on either a direct statement by a criminal justice official (i.e. "we were under a lot of pressure to solve this

crime because…") or on a post hoc interpretation by the media, scholars, or ourselves, verified by the presence of special indicators. These indicators include: the creation of a special commission to deal with the crime(s), the horrific nature or number of crimes (i.e., a series of child rapes), a highly publicized crime, a rushed investigation and speedy trial, and a crime involving racial tensions in a community. The indicators by themselves are not enough to answer 'yes'. Pressure from elected officials (i.e. District Attorney, Mayor, etc.) to solve a crime can constitute community outrage.

Misleading circumstantial evidence (misleading_circ): nominal

0=no

1=yes

Circumstantial evidence is opposed to direct evidence (like an eyewitness who says she saw the crime occur). Circumstantial evidence is also generally distinct from confessions and expert testimony. In keeping with this, you should NOT include forensic evidence like serology that merely proved that the defendant could have committed the crime. This question is therefore really getting at whether there were coincidences or suspicious circumstances that falsely led the police or prosecutors to believe the defendant committed the crime. Examples include: the defendant has the same name as the real perpetrator, or he drives an identical car; the defendant was known to have visited the victim the night of her death and had threatened her.

Incompetent defense attorney: nominal

0=no

1=yes

2=alleged

[Question #57(u)] Answer "yes" if there is an official court finding of ineffective assistance of counsel or some other official recognition of attorney incompetence (i.e., the defendant won a civil suit against the attorney). You may also indicate that defense counsel was incompetent if you have direct, clear evidence of the counsel's errors/misconduct. However, if in doubt, select "alleged".

DEFENSE'S EVIDENCE

Defense put on a defense (def_presented): nominal

0=no

1=yes

2=yes, but no trial (plea or dismissal)

[Question #57(w)] In dismissal cases, select "no" if the defendant fails to present any material evidence against his charge(s). In cases that go to trial, select "no" if the defense rested after the prosecution's case.

Defendant testified at trial (def_testify): nominal

0=defendant did not testify

1=defendant testified

99= not applicable/no trial

[Question #57(c)]

Family member is witness for defense (family_witness): nominal

0=no

1=yes

99=not applicable (no defense)

[Question #57(w)] Family includes spouses and significant others.

Friend is witness for defense (friends_witness): nominal

0=no

1=yes

99=not applicable (no defense)

[Question #57(w)]

Non-family or non-friend is witness for defense (other_witness): nominal

0=no

1=yes

99=not applicable (no defense)

[Question #57(w)] Includes police officers if called for exculpatory reasons. It also includes bosses and co-workers, unless these witnesses are clearly also friends or family.

Number of non-expert witnesses called (defense_witness): scale

[Question #57(w)] Write in. Total witnesses.

Alibi corroborated by physical evidence (phys_alibi): nominal

0=no

1=yes

99=not applicable (no defense)

This is evidence other than testimony, such as phone records, timesheets, surveillance videos, etc.

Defense had expert as witness (def_expert): nominal

0=no

1=yes

99=not applicable (no defense)

[Question #57(w)]

Number of expert witnesses called by the defense (number_experts): scale

[Question #57(w)] Write in. If you do not know the exact number, use the following answers: 96=a few, 3 or less; 97=more than 3

Defense offered testimony/evidence about mental illness/disorder or intellectual disability (def_cognitive): nominal

0=no

1=yes

99=not applicable (no defense)

[Question #57(w)] This evidence need not be presented by an expert (for example, a police officer or family member may testify as to the defendant's behavior on the night in question, or about the medication that the defendant was on).

Exculpatory evidence presented by defense (exculp_presented): nominal

0=no

1=yes

99=not applicable (no defense)

[Question #57] This was not directly asked on the coding sheet. It refers to favorable and material evidence that is offered by the defense that tends to show the defendant did not commit the crime in question. Material means that it is likely it could affect the outcome of an issue or

case; in other words, it is significant evidence. In general, alibi evidence and evidence of another independent perpetrator will be exculpatory evidence, while character testimony will not. Other types of evidence, such as insanity or police misconduct, will only be exculpatory if it directly bears on whether the defendant committed the crime, rather than on an abuse of rights or the degree of offense (murder vs. manslaughter, for instance).

Defense presented DNA evidence (DNA_defense): nominal

0=no

1=yes

99=not applicable (no defense)

Defense presented evidence of official misconduct (def_evid_misconduct): nominal

0=evidence not presented

1=evidence presented

99=not applicable (no defense)

[Question #57(w)] This only includes evidence or testimony of something egregious and intentional, such as that the defendant was beaten or threatened into confessing; do NOT include merely an argument made by defense counsel that the photo lineup was suggestive unless evidence is presented that misconduct accompanied this lineup, such that, for instance, the defense is able to have the lineup excluded

Defense presented evidence implicating another individual (def_other_ind): nominal

0=evidence not presented

1=evidence presented

99=not applicable (no defense)

[Question #57(w)] This refers to evidence that a specific individual (either by name or through specific identifying features) committed the crime instead of the defendant, i.e., presenting an eyewitness who says that Johnny, not the defendant, shot the gun. Or evidence that Johnny (not the defendant) hated the victim, had a motive for murder, and bought poison right before the victim died of an overdose.

Evidence provided by defense (def_evidence): string

Write in.

COMPENSATION

Compensation received (compensation): nominal

0=no

1=yes

2=currently seeking, not yet decided

[Question #60; Note, on the narrative coding sheet, there is not a separate category for "currently seeking"]

Compensation amount (comp_amnt): scale, amount received in dollars

[Question #60] If there were multiple sources of compensation, add them together for a total amount. If you do not have an exact amount and you can estimate, use that. However, if you can't estimate, leave blank. This is only for compensation actually received; if compensation is pending, do not record it here.

POLICE FOUNDATION SCALE

Strength of suspect characteristics in indicating guilt (strength_suspect): ordinal

0=no suspect characteristics

1=weak

2=probative

3=highly probative

Strength of victim characteristics in suggesting defendant's guilt (vic_strength): ordinal

1=weak

2=probative

3=highly probative

99=not applicable (victim deceased)

Strength of witness characteristics in suggesting defendant's guilt (wit_strength): ordinal

1=weak

2=probative

3=highly probative

99=not applicable (no witness)

Strength of identification information in suggesting defendant's guilt (id_strength): ordinal

1=weak

2=probative

3=highly probative

99=not applicable (no identification)

Strength of statements provided by defendant (statement_strength): ordinal

1=weak

2=probative

3=highly probative

99=not applicable (no statements)

Strength of physical evidence case (physical_strength): ordinal

1=weak

2=probative

3=highly probative

99=not applicable (no physical evidence)

Total strength of prosecution's case (case_strength): ordinal

1=weak

2=probative

3=highly probative

Strength of evidence provided by defense in suggesting innocence (def_strength): ordinal

0=no defense

1=weak

2=probative

3=highly probative

VIII.F. Sample Factors and Exemplars from the Modified Police Foundation Strength of Evidence Rating Scale

Type of Physical Evidence	1 Weak	2 Probative	3 Highly Probative
Serology[29]	• Sample from the victim is mixed and suspect cannot be excluded.	• Suspect has blood type that is the same as that found in seminal fluid from the victim's PERK kit	• Suspect has very rare blood type or disease, and traces of which are found in the seminal fluid from the victim's PERK kit.
Recovery of Stolen Items[30]	• Stolen items are recovered in garbage can. • Inscribed piece of jewelry was recovered. • Recovered stolen laptop is identified with serial number.	• Stolen item found in suspect's girlfriend's car.	• Stolen items are found in suspect's locker at work. • Victim's driver's license is on suspect. • Class ring is found on victim's body and matches suspect's history.

[29] This factor and the accompanying exemplars were developed by project researchers to supplement the original Police Foundation scale.
[30] This factor and the accompanying exemplars were modified from the original Police Foundation scale to accommodate the project's 3-point rating scale (original scale was 5-point).

VIII.G. Sample Case Narratives[31]

VIII.G.1. Erroneous Conviction Exemplar: Highly Probative Prosecution and Weak Defense

Harry Isaiah Sampson

The Crime

On the night of September 1, 1983, a 24-year-old cosmetician student left a friend's house in Irvine, California, and began walking towards a bus stop. As she was walking, an African-American male in a Ford pulled up next to the woman and asked if she needed a ride. The woman agreed, entered the car, and gave the driver directions to her home. Instead of following her directions, however, the driver pulled a handgun on the victim and drove into a vacant lot. The man then proceeded to rape the woman on the hood of the Ford, in the backseat of the car, and again in the vacant lot.

After this assault, the man drove the victim to a house in the Sherwood community of Irvine. The perpetrator took the victim inside, where he raped her again. The victim was then able to convince her attacker to take her to a friend's apartment. Once they neared the friend's apartment, the victim ran inside and locked the perpetrator out. Her friend called the Irvine police to report the sexual assault, and the assailant fled the scene upon hearing the friend call authorities.

[31] The following six examples of case narratives were rated using the modified Police Foundation strength of evidence scale. All identifying information, including people, places, and specific dates, have been changed. Years are true to life.

When the police arrived at the friend's apartment, the victim gave a description of her attacker. She stated the man was an African-American male with a short afro and short facial hair. She said the assailant had confided to her that he had recently been released after 11 years in prison and stated his name was Ronald. The victim gave a detailed description of the perpetrator's clothing, saying he was wearing blue jeans and a red pullover shirt with black or grey horizontal stripes. She also gave the police a description of the perpetrator's Ford, including the license plate number.

In addition, the victim attempted to describe the Sherwood home where she was attacked. She told police that while the perpetrator was driving her to the home, she was able to see the names of two streets. The victim also gave a description of the house's interior, including the presence of Bud Light beer in the refrigerator and a magnum revolver in the perpetrator's bedroom. Furthermore, she asserted that the man had a key to the house.

The Identification

Police asked the victim to ride with them as they attempted to reconstruct where the perpetrator had taken the victim. Following the victim's memory of the route and the two street names she remembered, the police ended near the house of John Sampson. Police immediately saw that there was a Ford Escort parked in front of the Sampson house that fit the victim's description of the perpetrator's car. The license plate of the parked Ford was only one digit different than the number the victim remembered from the perpetrator's plates. When officers walked up to the car,

one of them declared the hood was still warm, indicating it had been driven recently. The victim said this was the house where she had been attacked.

The police officers entered the house and found John Sampson's son, Harry Isaiah Sampson, in the back room. Harry Isaiah Sampson, a 31-year-old African-American male on parole for armed robbery, matched the physical description given by the victim. The clothes on the floor of Sampson's room were also similar to the victim's description. Additionally, there was a magnum revolver in Sampson's desk and Bud Light in the refrigerator, as the victim had described.

According to Sampson's account of the events, police conducted a show-up at the Sampson home, and the victim positively identified Harry Isaiah Sampson as her attacker. This would have occurred within several hours of the rape. However, as described below, at trial the state maintained that the victim was not asked to make a pre-trial identification.

Given how well the victim's recollection matched the evidence found at the Sampson home, police immediately arrested Harry Isaiah Sampson for sexual assault. The victim was then taken to the Glenmont Hospital and a rape kit examination was conducted.

The Trial

On December 22, 1983, Harry Isaiah Sampson was indicted in Orange County on charges of aggravated sexual assault with a deadly weapon. The trial was held on January 17, 1984 in the Judicial District Court in Orange County. At trial, the victim testified to her account of the sexual

assault and identified Sampson with certainty as her attacker. However, the victim specifically stated she had not seen Sampson in person or in a photograph before the trial. Furthermore, the arresting officer testified that after the victim pointed out the house where she had been raped, he parked the car away from the house, and the victim did not see Sampson.

The state also called a doctor from Glenmont Hospital to testify to the rape examination. The doctor stated that the vaginal area was consistent with recent trauma and that semen was present. Although Sampson did not testify in his own defense, three witnesses were presented, including his brother, father, and Amanda Jones, a renter in the Sampson house. Harry's father, John Sampson, testified that he was not in the house when the crime supposedly occurred; however, he returned home that evening and did not notice anything unusual. He also confirmed that a gun was kept in the drawer of the desk in the back room but stated that the weapon belonged to him, not his son. He said that he and his son were sharing the back room as a bedroom. Harry's brother also testified that he was not there at the exact time of the crime but had not seen anything unusual when he returned home. Amanda Jones, on the other hand, said she was home the night the incident took place, sleeping in another part of the house. She said that Sampson was in the home as well, and she did not hear or see anything suspicious.[32] The defense did not challenge the recollection of the arresting officer and victim about the pre-trial identification of Sampson.[33]

[32] For reasons that are not clear, all three defense witnesses also testified to the layout of the house in which Harry Isaiah Sampson was arrested. One reason for this may have been to show that the layout of the home, which the victim attested to, was a typical house layout and not unusual in that neighborhood (i.e., the victim could easily have been describing any number of other homes). Another reason for this testimony would be to point out discrepancies between the victim's description of the house where she was raped and the actual layout of the Sampson family home.

[33] Post-conviction, Harry Isaiah Sampson did contest the victim's and arresting officer's recollection of the day of the crime. Sampson's assertion that the victim identified him in a show-up was affirmed by two separate police reports and a sworn affidavit of the case detective, Anthony Saunders.

On January 19, 1984, after deliberating for an hour and two minutes, the jury convicted Sampson of aggravated sexual assault. On the same day, Sampson was sentenced to life in the California Department of Correction by the jury.

STOP: Please answer #1-4 on the case evaluation sheet before reading the remainder of the narrative.

RESUME: Now please continue to read about the exoneration and answer #5-8 on the case evaluation sheet.

Post-Conviction

The California Supreme Court affirmed his conviction on direct appeal on August 2, 1991. While incarcerated, Sampson worked to free himself, reading law books at night and drawing up legal motions *pro se*. In September 2001, he filed a six-page, handwritten petition for a DNA test. It took nearly four years before his request was heard, but in 2005 Sampson was granted DNA testing on evidence collected from the rape kit. His DNA was compared to the spermatozoa found on the vaginal swab and was excluded as the source. The victim confirmed that only the rapist could be the source of the DNA, stating she did not have any partners at the time that could have been the source of the semen.

In April 2006, Sampson was released from prison, pending the resolution of his motion for a writ of habeas corpus with the California Supreme Court. On October 1, 2006, this court granted relief on the grounds that the post-conviction DNA evidence excluded Sampson as the source of the semen, and Sampson's conviction and sentence were vacated. On December 3, 2006 California Governor Allen Allison issued a full pardon for Sampson on the basis of innocence. Allison cited the DNA evidence in Sampson's case as playing a pivotal role in his decision.

Harry Isaiah Sampson received $500,000 for his incarceration from the state's compensation fund for individuals who have been wrongfully convicted.

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VIII.G.2. Erroneous Conviction Exemplar: Probative Prosecution and No Defense

Alex Borrensa

The Crime

Monique and Peter Zinfani, a Caucasian couple in their late 20s or early 30s, owned a diamond importing business in Manchester, NH. There, they operated a private showroom from their heavily secured home. The home's security features, installed after an earlier robbery attempt, included a front door identification camera, a buzz-in system, alarms, and even a safe room. Despite these precautions, on January 15, 1980, the Zinfanis were robbed.

The perpetrators entered the showroom by first abducting the Zinfanis' mail carrier, Lisa Hauptmann. Hauptmann reported that a Caucasian man, "slim in build, thin through the face, . . . about five foot seven inches in height," and wearing a trench coat, approached her as she was on her daily mail route. The man held a gun to Hauptmann's back and ordered her into her mail truck. Once there, the man stripped off her uniform, bound her, and put her into the back of the truck. Hauptmann reported that a second Caucasian man, "around five foot seven or eight inches tall and of medium build with dark brown hair," also entered the truck.

The pair then drove the mail truck (with Hauptmann still in the back) to the Zinfanis' home and parked it outside the house. One of the men put on some parts of Hauptmann's uniform and

slipped out of the truck with a large package; his accomplice followed. Left alone in the truck, Hauptmann eventually freed herself and ran to get help.

Meanwhile, Monique Zinfani heard the doorbell ring. Looking at the camera feed, she saw a man holding a large package that obscured his face and claiming to be the mailman. Mrs. Zinfani buzzed the man in. Once he entered, the man dropped the package, produced a gun, and ordered Mrs. Zinfani and a customer to the floor. Peter Zinfani, who was in the back of the showroom, was able to run into the safe room where he pressed the alarm. However, the alarm was not working and failed to notify the police.

While Mrs. Zinfani and the customer lay on the floor, the man in the postal uniform fumbled with a black ski mask, eventually pulling it over his face, and then let his accomplice into the house. Together, they quickly made off with $250,000 worth of jewelry and fled the scene.

The Investigation

The Manchester Police Department led the investigation but had few leads. The descriptions provided by Mrs. Zinfani and Hauptmann were vague and included no identifying features. Additionally, Mrs. Zinfani had only seen the first intruder for a few seconds as he entered the house and fumbled with his mask.

Since U.S. postal worker Hauptmann had been abducted as part of the crime, much of the evidence, including the mailed package that the intruder used to gain entry to the Zinfanis'

house, was funneled into a simultaneous federal investigation led by postal inspector Simon Fontaine. Fontaine produced the first real suspect. According to Fontaine, an informant told him that Alex Borrensa, a Caucasian, 21-year-old man with several drug arrests but no prior convictions, was involved in the crime. Borrensa's appearance did not differ significantly from the descriptions of the first assailant given by Mrs. Zinfani and Hauptmann. On February 26, 1980, Fontaine arrived at the Zinfanis' house to show Mrs. Zinfani a photo array that included Borrensa's photograph. Looking at the photo array, Mrs. Zinfani identified Borrensa as the first assailant who gained access to her house and threatened her with a gun. Hauptmann was subsequently shown the same photo array and identified another individual as the first assailant. She stated she was "ninety percent sure" that the individual she selected was the perpetrator. Fontaine relayed this information gained from his investigation to the Manchester police.

During the next two months, Manchester police tried to find additional information that would connect Borrensa to the crime but were unable to uncover anything. On May 1, police showed Mrs. Zinfani the same photo array that Fontaine had shown her, and she again chose Borrensa. Following this second identification, police arrested Borrensa on June 3.

Police conducted an in-person line-up on August 31. Mrs. Zinfani was brought into the court to make the identification and was walked past a group of men assembled for the line-up. She saw Borrensa and spontaneously identified him as the first assailant. Garrett Martinez, the New Hampshire Attorney General, and Rebecca Robinson, Assistant Attorney General, then indicted Borrensa for armed robbery in the Hillsborough County Superior Court.

The Trial

At trial, the state's case primarily rested on Monique Zinfani's eyewitness identification testimony and the information gained from Postal Inspector Fontaine's informant. However, because Fontaine argued that his informant's life would be in danger if he testified in open court, and the prosecutors supported this argument, the judge agreed that Fontaine himself could testify to what the informant said.

Borrensa's public defender, Keith Millard, had little in terms of counterarguments. On January 15, 1980, the day of the crime, Borrensa admitted he had spent the day getting high on drugs with acquaintances at a house were people often gathered to buy and use intravenous drugs. Millard tried to locate these individuals to verify his client's story, but Borrensa was unable to provide any identifying information about his acquaintances. Millard also could not find anyone who would admit to being at the house that day. Therefore, at trial Millard instead focused on attacking Fontaine's credibility and the credibility of his confidential source. Ultimately, the jury rejected the defense's argument, and Borrensa was convicted of armed robbery on February 20, 1981. He was sentenced to 15 years.

STOP: Please answer #1-4 on the case evaluation sheet before reading the remainder of the narrative.

RESUME: Now please continue to read about the exoneration and answer #5-8 on the case evaluation sheet.

The Exoneration

Borrensa served 13 years of his sentence before being released for good behavior in 1994. But by 1998, Borrensa was in trouble again, indicted for attempted murder of a mail carrier. The case was under federal jurisdiction. As Borrensa's federal public defender, Lila Anderson, prepared for the trial, she received an unexpected phone call from a federal witness protection handler.

"Does your client ever mention a 1980 robbery conviction?" the caller asked Anderson.

"Yeah, he says he didn't do it," Anderson recalls responding.

"He's right. He didn't."

Instead, the caller said that one of her charges, Billy Adler, a member of the notorious Oxman Gang, had admitted numerous times over the last fifteen years to the armed robbery and gloated about Borrensa taking the blame. Now, though, as Borrensa prepared to be tried for a second, similar crime, the federal government was obligated to turn over this information as it impacted sentencing.

After the call, Anderson, federal prosecutors, and the new New Hampshire Assistant Attorney General Patrick DeStefano met to discuss the development. DeStefano asked Adler and his handler to testify before a grand jury. Adler agreed and revealed details of the crime previously not known. The judge commented upon the physical similarities between Borrensa and Adler, saying they could almost be "brothers." After the testimony, DeStefano petitioned the court to vacate Borrensa's earlier conviction and expunge his record, which was granted.

Additionally, DeStefano issued an internal investigation into Borrensa's wrongful conviction, including the reexamination of all state and federal evidence. Among those pieces tested was the mail parcel used to gain access to the Zinfanis' house. The new investigation found that it was covered in fingerprints, which had been tested before Borrensa's trial and did not match Borrensa. The prints matched Adler. Fontaine, who would have been aware of the results, could not explain why the prints had not been turned over to local police, the state prosecutor, or the defense during the original trial. Police also tracked down Fontaine's confidential informant, who claimed he had never given Fontaine Borrensa's name. When confronted with this denial, Fontaine changed his story and claimed he actually received Borrensa's name from a confidential contact of his confidential informant. That contact was never found. In his final report, DeStefano questioned whether the informant and contact had ever actually existed. Borrensa agreed to a guilty plea for the new federal charge of attempted murder of a mail carrier. He is currently serving a 25 year sentence.

Fontaine, who had retired, was not disciplined or prosecuted for his role in Borrensa's case.

VIII.G.3. Erroneous Conviction Exemplar: Weak Prosecution and Probative Defense

Toby Jackson

The Crime

On August 1, 1981, Mary Mullen, a Caucasian 21-year-old Columbia University law student, was found raped and murdered in Prospect Park in New York City, NY. Police theorized that Mullen, who was employed as a paralegal by a downtown law firm, had been cutting through the park after finishing work. Police suggested that Mullen's assailant had attempted to rob her and steal her purse, but when Mullen resisted her attacker turned violent, dragging Mullen from the path, raping her, and then shooting her in the head five times. Despite their theory, Mullen's purse was found near her body undisturbed. Forensic evidence—pubic hair and semen—was collected from Mullen's body.

New York City Police (NYPD) almost immediately identified a likely suspect: Toby Jackson. Jackson was a 28-year-old African-American Air Force enlistee who had previously attended the University of Kansas. Recently, though, Jackson had attracted the negative attention of park and city police. Approximately a month earlier, Jackson pled guilty to robbery for snatching a purse from a female visitor to Prospect Park. Then, just two weeks after the purse snatching and two weeks before Mullen's murder, a young Caucasian woman was raped in Prospect Park. After working with sketch artists, she created a composite image that reminded park police of Jackson. Jackson was arrested on the rape charges, positively identified by the victim, and charged with

the rape. However, Jackson was able to provide an airtight alibi—he had spent the night of the rape in jail for public drunkenness. Following verification of his alibi, the rape charges were dropped.

Following the Mullen murder and rape, police suspected that Jackson might be involved. On August 30, 1981, Jackson was arrested on unrelated misdemeanor charges, and his hair samples were collected. These were sent for comparison to the FBI Forensic Laboratory. FBI Special Agent Jenny Jonavitch confirmed that Jackson's hairs matched those found on Mullen's body. Based on these results, Jackson was indicted for Mullen's murder and rape. Steven Cabrini, who was just preparing to retire, was appointed by the court to defend Jackson against the charges. Cabrini immediately requested serology tests on the semen.

In preparing for the trial, Assistant District Attorney Alfonso Bryant authorized the use of a paid informant. Mitt Yates had worked as a paid informant for the NYPD before. Police and prosecutors encouraged Yates to engage Jackson in a conversation about Mullen and obtain a confession. Eventually, Yates reported to his handler that Jackson had confessed, saying he had raped and murdered a girl in Prospect Park. Bryant authorized a $1000 payment to Yates in exchange for his work as a police informant.

Before the trial was to start in 1982, the serology results came back; the tests excluded Jackson as the semen donor. Nonetheless, the prosecution continued.

The Trial

At trial, Bryant called both the informant, Yates, and Special Agent Jonavitch to the stand. Yates testified that Jackson confessed to him while in prison. On cross, defense counsel Cabrini attacked Yates's credibility and the government's payment. Special Agent Jonavitch explained that a microscopic comparison matched Jackson's hair and those found on Mullen's body. Jonavitch concluded that these hairs were microscopically identical. Additionally, Jonavitch dismissed the recently returned serology results, claiming that the blood evidence had been degraded. Thus, she contended that the absence of a match did not indicate Jackson was innocent, just that the material was unsuitable for testing.

To respond to Jonavitch's testimony, the defense called its own forensic expert. The defense expert contested the reliability of microscopic hair comparison and disagreed with Jonavitch's interpretation of the serology results. However, when crossed by Bryant, the defense expert did admit that a degraded sample could mask a positive serology match.

The prosecution also successfully petitioned for testimony about Jackson's purse-snatching to be permitted at trial. Bryant claimed the earlier act was "ambiguously sexual" in nature and indicative of an escalating pattern in sexual violence. As a result, Bryant called the purse-snatching victim to the stand. She testified that Jackson had robbed her and made sexual remarks in the process.

The defense attempted to introduce the earlier rape charges that were dismissed against Jackson. The defense's argument was that Jackson's solid alibi and the police sketch showed that an African-American man with a similar appearance to Jackson was raping young, Caucasian women in Prospect Park and contributed to reasonable doubt. The judge denied the defense's motion.

The jury found Jackson guilty. He was sentenced to 20 years to life.

STOP: Please answer #1-4 on the case evaluation sheet before reading the remainder of the narrative.

RESUME: Now please continue to read about the exoneration and answer #5-8 on the case evaluation sheet.

Errors in Forensic Testimony

Nearly ten years later, in 1993, Dr. Hans Mueller, a former FBI Crime Lab analyst, revealed to Congress that Jonavitch frequently falsified lab results and perjured testimony, usually in favor of the prosecution. A 1997 report from the Department of Justice's Office of the Inspector General ("OIG") confirmed that Jonavitch had falsified results in a number of cases, but did not specifically examine the Jackson case. Regardless, Jackson's defense was not notified of the OIG's findings. Following the 1997 OIG report, the Department of Justice formed a Brady Task Force to investigate all cases Jonavitch had been involved in, including Jackson's case. Though the Task Force never issued an official report, the Department of Justice did notify the New York District Attorney's Office that Jonavitch's testimony and final lab report in the Jackson case were not supported by her notes. Indeed, Jonavitch's notes suggested the blood sample was not degraded and that the hair comparison did not show a microscopic match. The letter advised prosecutors to determine if they needed to notify the defense as required under *Brady*, but the defense was not informed of the Department of Justice's letter.

Exoneration

In 2007, Jackson's original defense attorney, Cabrini, wrote to the public defender's office to encourage them to reexamine the Jackson case in light of the FBI crime lab scandal. As a result, public defender Amanda Bronson reopened Jackson's case. She eventually found the Department of Justice letter to the New York District Attorney's Office. Upon learning that the original testimony concerning the blood evidence was in error, Bronson worked with two police detectives to track down the remaining forensic evidence from Jackson's case. Eventually the trio found that the original medical examiner had saved samples from the Jackson case. Retested using new DNA tests, the results concluded that Jackson was not the semen donor.

On November 8, 2009, New York Supreme Court Judge Fenwick, the same man who had originally sentenced Jackson to prison, exonerated him and declared him legally innocent in light of the new forensic evidence. Jackson had served 27 years in prison. With the official declaration of innocence, Jackson was eligible for $50,000 per year in compensation under New York law. Jackson received approximately $1.4 million.

VIII.G.4. Near Miss Exemplar: Highly Probative Prosecution and Weak Defense

Carson Coleman

The Crime

Elaine Marsh had just settled down for bed around 8 p.m. on December 2, 2010 when the doorbell rang. Marsh lived alone in an apartment in Kearney, NE. Although she had been drinking and smoking pot, the 35-year-old, Caucasian woman answered the door. Through the screen, she saw a man who did not identify himself but asked if Kirk, her ex-boyfriend, were home. Marsh invited the man into her house, and told him her boyfriend was not there. She then turned away, and as she did, the man grabbed her, dragged her into the living room, and forced her to give him oral sex. He then raped her vaginally, dragged her to the bedroom and raped her again. He also forcibly beat Marsh throughout the attack.

Over the next several hours, Marsh was raped multiple times. She testified that in between the rapes, the assailant would leave her in the bedroom and go into her kitchen and drink. In total, Marsh's rapist drank an entire bottle of Vodka and ten Miller beers. She tried to escape twice, once unsuccessfully. After 11 p.m., Marsh managed to escape and fled to her neighbor's apartment. From there, she watched her assailant and noticed he left with the remainder of the pack of beer. Shortly afterwards, police responded.

The Identification

When asked about her rapist, Marsh directly implicated Carson Coleman, a friend of her ex-boyfriend. She had met Coleman just a few weeks before, though the encounter was brief, lasting no more than a couple of hours at most. Still, she was sure Coleman was her attacker.

Coleman, a 27-year-old man[34], was known to police. He had been arrested in 2002 for multiple counts of burglary and had been arrested several times for public drunkenness. Police located Coleman shortly after midnight about a block and a half from the victim's apartment. He was drinking Miller beer, the same type that had been stolen from the victim's apartment. Police arrested Coleman on a number of counts including knowingly concealing stolen property, rape, forcible sodomy, robbery, and strangulation.

Concurrently, Marsh was taken to the hospital. Her physical injuries were photographed and documented. However, because a Sexual Assault Nurse Examiner was not available, Marsh had to wait two days before a rape kit could be collected. Marsh testified that during that time she neither showered nor changed her clothes so that evidence was preserved.

Once the evidence was collected, the Buffalo County District Attorney requested it be sent to the state forensic laboratory for testing. Coleman's DNA was collected and sent as a comparison sample.

[34] Coleman's race and ethnicity are somewhat unclear. The Nebraska Department of Corrections website lists his race as "Caucasian," however, his photo, on the same site, clearly shows an individual who is Hispanic or Native American.

STOP: Please answer #1-4 on the case evaluation sheet before reading the remainder of the narrative.

RESUME: Now please continue to read about the exoneration and answer #5-8 on the case evaluation sheet.

The Exoneration

Tests conducted at the state lab concluded that Coleman was not the donor of the DNA. In his motion to dismiss the charges, District Attorney Jeremy Ambrose wrote:

> "On this date, April 15, 2011, the State of Nebraska received confirmation of results of DNA comparative analysis from NSBI [Nebraska State Bureau of Investigation] pertaining to DNA evidence recovered from the person of the alleged victim in this case. The results of said analysis proved to be exculpatory and excluded the defendant as the doner [*sic*] of said DNA evidence and accordingly the State moves to dismiss the charges. The described exculpatory evidence was disclosed to counsel for the defense upon confirmation and this motion tendered immediately thereafter."

Coleman spent 134 days in the county jail, pretrial, after failing to post his bail due to financial restraints. Coleman was released on April 19, 2011.

VIII.G.5. Near Miss Exemplar: Probative Prosecution and Probative Defense

Andre Towers

The Crime

On March 6, 2000 at approximately 7:30 a.m., Anne Rogawsky was fatally shot in the head by a young man attempting to steal her purse. Rogawsky's husband was with her on the sidewalk when the incident occurred outside a Hampton Inn on Park Street in New Orleans, LA. The New Orleans police were called and quickly arrived on the scene to speak with Mr. Rogawsky, a middle-aged Caucasian tourist from Alabama. He described the shooter to police as a tall, African-American male with skinny legs, in his mid-to-late twenties, and wearing a fishing style hat. Mr. Rogawsky described the gun as a double barrel shotgun. Police also spoke briefly with someone who had been eating at a nearby IHOP, who said he saw two African-American men speeding away from the crime scene in a car.

Nearly two hours later, New Orleans police picked up 15-year-old African-American Lyon High School student Andre Towers. Towers said he was on his way to Jiffy Lube to pick up a job application at the time, and his appearance did not closely match Mr. Rogawsky's description of the shooter in age, height, or attire. Nonetheless, an officer approached Towers and asked him to accompany the officer to the Hampton Inn to be of assistance in the investigation of a nearby crime. Towers complied. The officer would later testify at trial that he picked up Towers because he was an African-American male in the area close to the crime scene.

The police then conducted a show-up at the crime scene, and the victim's husband identified Andre Towers as the person who had shot his wife. Another person also identified Towers at the scene as the African-American teenager who had been panhandling at the Hampton Inn the night before the crime. After the identifications, police gave Towers a Gun Shot Residue test, and his results were clean (indicating he had not recently shot a gun). The police then took him to the station for questioning.

The Interrogation

At the station, Towers was held and interrogated for a total of over 12 hours without his parents being notified of his whereabouts. Detective Oliver, who at the time had already been working 15 straight hours, was assigned to be one of the lead investigators. At the request of the New Orleans State Attorney's Office, none of the interrogation was recorded or videotaped. As a result, the accounts of what took place during the interrogation would be highly disputed at trial. Lead detectives Oliver and Sussey testified that Towers verbally confessed to the murder during the first part of the interrogation, before Towers requested to call his parents, but Towers adamantly refuted the claim. Towers insisted he maintained his innocence. Police declined his offer to take a polygraph examination.

At 8:40 p.m., Towers asked to call his parents. The police did not call his parents and continued to interrogate him. During this subsequent portion of his interrogation, Towers signed a statement of admission and was arrested.

After the interrogation and arrest, police did not verify the statements given to them by Towers (for instance, the victim's husband described the murder weapon as a shotgun, while Towers referred to it as a .38 during his confession), nor did they search the Towers family home. The murder weapon was never found. However, the victim's purse was recovered by a dumpster diver the day after the crime on the opposite side of town.

Towers was indicted on first-degree murder charges and assigned two public defenders. In preparation for trial, Towers signed an affidavit; in it, he alleged that in the first part of the interrogation, Detective Sussey punched him, called him a racial epithet, threatened him with the electric chair, and threatened to get someone to hurt his parents. Towers also alleged another detective punched him in the eye and threatened to shoot him. Furthermore, Towers insisted that he did not waive his rights voluntarily but was instead held forcefully by the chin until he signed the waiver. Towers claimed that police then took him to the woods at dusk in an attempt to recover the murder weapon. While Sergeant Johnson and Detective Oliver waited behind, Detective Sussey took Towers into the woods. Towers maintained he was hit in the face and punched twice in the stomach by Sussey after refusing to disclose the location of the weapon or admit to the crime. Towers also stated that when he was taken back to the station for the final portion of his interrogation, Detective Oliver continued the physical abuse, poking him in the eye and unsnapping the holster of his gun to coerce Towers into signing the written admission. Towers alleged Detective Oliver wrote most of the statement based upon what he wanted to hear, and forced Towers to sign it.

The Trial

Towers's trial began in September 2000. In a pretrial motion, defense counsel sought to suppress the positive identification of Towers by the victim's husband and keep statements attributed to Towers from being used in the trial. The Circuit Judge denied defense counsel's motion to suppress the identification but agreed to withhold statements attributed to Towers that were made after he asked to call his parents at 7:50 p.m. The judge held that the jury could hear oral statements that police said Towers made to them prior to that time.

At trial, the state's case rested on Towers's confession and the identification made by the victim's husband at the crime scene. The prosecution also discussed the victim's recovered purse. The prosecutor explained that detectives failed to notify the prosecution that they had not tested the victim's purse for fingerprints until two weeks before trial. By then, there was not enough time to run the tests and meet speedy trial deadlines. Therefore, no tests had been run. The state did attempt to explain how Towers could have put the recovered purse in the dumpster across town before police picked him up. The state argued he may have put it on the back of tractor-trailer truck to get rid of it, and then the truck somehow dumped it, along with its load, in the dumpster. However, the state offered no evidence to support this theory.

The defense focused on Towers's allegations that his confession had been coerced. Defense counsel presented a photo of the defendant with bruises on his face and argued the marks were the direct result of the police's violent interrogation. In addition, though he was only 15, his parents were not notified of his whereabouts during the interrogation. Towers also testified that

he was intimidated and physically abused into confessing and reiterated all that was said in his earlier affidavit. In addition, the defense argued it would have been impossible for Towers, who was found near the crime scene and was in police custody less than two hours after the murder, to have driven all the way across town with no car and license to dispose of the purse. Defense counsel also accused police of racial profiling without thoroughly canvassing the area for suspects.

STOP: Please answer #1-4 on the case evaluation sheet before reading the remainder of the narrative.

RESUME: Now please continue to read about the exoneration and answer #5-8 on the case evaluation sheet.

The Acquittal

The jury acquitted Towers after approximately one hour of deliberation. The jurors found Towers's testimony, along with the photo, to be critical in convincing them that the defendant had been coerced into falsely confessing. However, Detective Sussey continued to deny the allegations of misconduct against him, and State's Attorney Patricia Rosengold maintained there was no proof Towers had been physically abused during his interrogation.

The Exoneration

In early November 2000, a client of Towers's former public defenders came to them and said he had overheard a man named Bing Lopez talking about the Rogawsky case. The client said Lopez had admitted over the phone that he committed the murder with the help of Cliff Johnson, who served as the getaway driver. The public defenders went to the Sheriff's Office with this new information. The Sherriff, father of Detective Sussey, was initially reluctant to re-open the case, but finally agreed.

When experts finally reviewed the fingerprints found on the victim's recovered purse, they concluded that the prints on the purse belonged to Bing Lopez. Three months later, police finally located Lopez and Johnson. Lopez matched Mr. Rogawsky's description of the killer and lived in

a building very close to the dumpster where the victim's purse was recovered. Lopez's criminal record also included a robbery similar to what happened the day of the slaying. Johnson had been arrested about an hour after the shooting on a driver's license violation after running a stop sign across town, but he was not initially linked to the slaying. Police arrested and charged both men with murder. Johnson pled guilty to second-degree murder in the case and was sentenced to ten years in prison after he agreed to testify against Lopez at trial. Lopez was convicted of first-degree murder in 2001 and sentenced to life in prison.

In light of the new evidence, on January 3, 2001, the State's Attorney took the unusual step of publicly apologizing to Towers for admittedly being too rash to charge him with the crime. As the Louisiana Times reported in January 2001, Rosengold said words could not express the "regret of [her] entire office for the ordeal Mr. Towers and his family wrongly endured." Police and prosecutors said they had no doubt that Towers was innocent, and that the testimony of the victim's husband Mr. Rogawsky had been mistaken. Miriam Foster, the foreman of the jury that acquitted Towers, said police and prosecutors should have apologized to Towers long ago.

The governor appointed a special prosecutor to lead a grand jury probe into the actions of the police and prosecutors in the Towers case. Although the grand jury found no evidence of criminal conduct, they were critical of the individuals and offices involved and recognized that the evidence against Towers was not thoroughly reviewed before his indictment.
Towers's family filed a civil suit against the city of New Orleans in 2001, seeking $8.3 million in damages. They settled in March 2002 for $780,000, citing the length of time the case would drag

on and the difficulty in proving the case under federal civil rights law as reasons for the settlement.

VIII.G.6. Near Miss Exemplar: Weak Prosecution and Highly Probative Defense

Michael Kincaid

The Crime

Between 4 and 6 a.m. on the morning of May 24, 1981, Kara Lewis, a 12-year-old African-American girl, was raped and bludgeoned to death, and her 10-year-old brother Jamal was beaten unconscious. The crime occurred in their home in a poor neighborhood of Detroit, MI.
When the Detroit Police Department began investigating, they found a blood-stained pipe in an alley behind the Lewis home. In addition, a neighbor, Jenny Baker, reported seeing an African-American teenager leaving the alley at about 6 a.m., clad in a dark knee-length coat and a hat and carrying a red tote bag.

On May 31, a week after the crime, police went to the hospital to talk to Jamal, who was finally able to speak with difficulty and respond to simple verbal cues. The detectives attempted to interview him, but Jamal found it difficult to talk, so the officers told him to signal "yes" or "no" by squeezing the officer's hand. Jamal uttered the name "Michael" and then through hand signals conveyed the message that "Michael" was the assailant and that Michael was a teenage gang member who lived near the Lewis home and had lighter skin than Jamal.

The Pre-Arrest Identification

Based on this interview, police began looking for persons who lived near the Lewis home and fit the description of "Michael." They discovered that Michael Kincaid lived a block away. An African-American, 18-year-old Metro High School senior and the editor of the school newspaper, Kincaid was called "the Professor" by his classmates due to his studious character. The police obtained a photograph of Kincaid -- his graduation photograph, which showed him in a suit -- and created a photo array with this photo and various mug shots.

Police took the photos to show Jamal. Moments before the officers spoke to Jamal, he overheard that his sister was dead and became agitated. The officers knew this, but proceeded with the photo line-up. They displayed Kincaid's picture first and asked Jamal whether he knew the person. He said yes, and the police then asked him whether this person was the assailant. Jamal did not respond. He remained unresponsive after being shown the rest of the pictures. In addition, just before the interview, Mrs. Lewis had told the officers that Jamal had been murmuring a name that sounded like "Michael Watson," "Michael Watkins," or "Michael Walton." In the interview, police heard Jamal repeat a name that sounded like "Watson."

After this second interview with Jamal, police tried to find a "Watson" in the Lewis neighborhood, but were unsuccessful. When the officers wrote up their memorandum on the progress of the case, they placed copies in the police department's "street files." These were files that the police did not turn over to the state's attorney's office as they did with their regular

investigative files. As a result, the street files were not available to defense counsel even if they contained exculpatory material.

The next morning the police went back to the hospital and repeated the photo line-up. Jamal was shown the pictures one at a time, starting with Kincaid's picture. Jamal made no response to it but upon seeing one of the subsequent pictures of another individual he cried out "Yep, yep, that's the one who did it to me." Police asked Jamal whether he knew the person's name; he made no response. He also made no response when asked whether he knew the person's nickname and whether it was "Professor."

The Post-Arrest Identification

After this third interview, police found Kincaid at his high school and arrested him. They searched his locker but did not find any clothes or bag that matched Jenny Baker’s description. They took him to the police station, where they questioned him and threatened him with the electric chair if he didn't confess. He denied having anything to do with the crime and was sent to the County Jail.

Kincaid's graduation photo was subsequently shown to Jenny Baker, who at first was uncertain. But after covering up part of the face with strips of paper, she said he was indeed the "clean looking" person she had seen emerging from the alley on the morning of the crime.

Accompanied by two assistant state's attorneys, the police brought Kincaid to Jamal's hospital room, ordered him to stand about three and a half feet from the bed, and asked Jamal whether this was the person who had hit him over the head. Speaking calmly, Jamal answered, "No, that's not the man, that's not the man, no, no, no." An officer ordered Kincaid to take off his glasses and stand within two feet of Jamal. He turned up the lights, then repeated the question. "No," said Jamal -- then, "Yes, that's him, yes"; then, "Yes, no, yes, no" over and over.

The morning after this "identification," a grand jury indicted Michael Kincaid for murder, rape, attempted murder, armed violence, burglary, and home invasion. On the same day (June 6), police signed the official arrest report, which was full of falsehoods. For instance, it stated that: Jenny Baker had picked out Kincaid's picture from a group of seven (his picture was the only one she had been shown), Kincaid's father had not seen him on the morning of May 24 (in fact his father had told the investigating officers that he had seen Michael at home that morning), and Jamal had said that his assailant attended Metro High School (Jamal had said no such thing). The report did not mention that Jamal had described his assailant as a gang member (Kincaid was not a gang member), as being a lighter-skinned African-American than Jamal (Kincaid is darker-skinned than Jamal), and as having a name like Watson. The report also did not mention that the doctors had warned the officers at least twice that Jamal's head injury had left him with serious memory problems.

New Evidence

On June 14, Mrs. Lewis reported to the police that she had found two pairs of pantyhose in her house that belonged neither to her nor to her murdered daughter. A new officer, Detective O'Brien, was assigned to investigate this evidence. O'Brien went to Jamal, who was still in the hospital, and asked him what he knew about the pantyhose. Jamal said for the first time that there had been two assailants and that both had worn stocking masks. Jamal referred to one of the assailants as Michael Watson and to the other as "twin brother Michael." He reiterated that Michael Watson was a gang member. O'Brien then went to his superiors and told him he was convinced the wrong person had been charged. His superiors told him to continue investigating but took no other action.

After O'Brien's visit, two other officers went to the hospital to interview Jamal yet again. Jamal repeated that there had been two assailants, both masked. But this time Jamal added that one of them had removed his mask during the assault. He was not asked to describe that assailant. The final official report omitted any reference to O'Brien and concluded that no further investigation was warranted. O'Brien wrote up his interview with Jamal as a supplement to the previous police reports in the case, but was told to make it an unofficial memo. The memo was placed in the street files.

A New Suspect

In August of the same year, 21-year-old Cynthia Marx was raped and bludgeoned to death, four blocks from the Lewis home. Jeremy Fuller was arrested and confessed to the crime. O'Brien thought Fuller matched Jamal's description of his attacker: Fuller went by the name "King Michael," was a gang member, and had lighter skin than Jamal. Questioned by O'Brien about the Lewis crime, Fuller said that it was possible he had committed it, but that as he had frequent blackouts, he wasn't sure. O'Brien reported this information to his superiors and asked to arrange for Jamal to view a line-up with Fuller in it. They refused on the ground that Jamal was not competent to make an identification, adding that because of Jamal's incompetence the prosecution of Kincaid had been abandoned. In fact, the case was still proceeding to trial. O'Brien filed a report opining that Fuller, not Kincaid, had committed the Lewis crime. The report was never forwarded to the state's attorney's office.

Forensic Evidence

In October, in preparation for trial, police laboratory technician Donna Ambrose analyzed the semen found in Cynthia Marx's vagina and determined that Kincaid had a different blood type than the contributor of the semen. Ambrose failed to include this information in the lab report that she was preparing for the prosecution. Kincaid's lawyers called Ambrose after her first report and asked about the blood results, so Ambrose subsequently issued a second report (which apparently was made known to both the prosecution and defense) with her findings that excluded Kincaid as the contributor of semen. Ambrose later testified that she "inadvertently" left things

out of both reports. Additionally, she placed in the Cynthia Marx file, but not in the Lewis file, the results of an examination of hair taken from the pantyhose that Mrs. Lewis had discovered. This examination indicated that one of the hairs found was not Kincaid's but might be Fuller's. The other hairs found in the pantyhose could not be tested.

STOP: Please answer #1-4 on the case evaluation sheet before reading the remainder of the narrative.

RESUME: Now please continue to read about the exoneration and answer #5-8 on the case evaluation sheet.

The Exoneration

Kincaid's trial began in the spring of 1982. When Detective O'Brien read about the trial in the newspaper, he was astonished because he had been told the prosecution was abandoned. He approached his superiors and reiterated his belief that an innocent boy was being falsely prosecuted; however, his superiors again declined to reopen the case. O'Brien then told Kincaid's lawyer about the exculpatory information secreted in the "street files." The lawyer promptly relayed O'Brien's disclosures to the judge, who declared a mistrial. Shortly afterward, the state's attorney dropped all charges against Kincaid.

Kincaid sued the City of Detroit, several Detroit police officers and Donna Ambrose, the crime lab technician, for false arrest, false imprisonment, intentional infliction of emotional distress, and malicious prosecution, as well as conspiracy to commit these wrongs. On October 2, 1988 a jury awarded him $801,000 in compensatory and punitive damages. The defendants appealed but the U.S. Court of Appeals found sufficient evidence of conspiracy and wrongdoing on the part of the City, its officers, and the technician to uphold the verdict.[35]

[35] Most of the facts in this narrative are taken from the U.S. Court of Appeals' opinion. The court was viewing the facts in the light most favorable to Kincaid, but it found sufficient evidence for a jury to conclude that this version of the facts, and the wrongdoing it implies, is true.

VIII.H. Case Evaluation Sheet for Expert Panelists

Name of Panelist_____

DEFENDANT'S NAME_____

CONVICTION or INDICTMENT (circle one)

1. IN YOUR OPINION, WHAT EVIDENCE OF GUILT LED TO THE CONVICTION OR INDICTMENT?

_____

_____

_____

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_____

_____

_____

2. HOW STRONG WAS THE STATE'S EVIDENCE IN SUGGESTING THE DEFENDANT'S GUILT? (assign a number on a 1-3 scale to each type of evidence, 1 being weak evidence, 3 being strong evidence; elaborate if desired)

EYEWITNESS IDENTIFICATION:_____

CONFESSION/INCRIMINATING STATEMENTS:_____

NONEYEWITNESS TESTIMONY:_____

FORENSIC EVIDENCE:_____

OTHER EVIDENCE:_____

TOTAL EVIDENCE:_____

3. HOW STRONG WAS THE DEFENSE CASE? (assign a number on a 1-3 scale, 1 being weak, 3 being strong; elaborate if desired; if there was no discernible defense case, mark as N/A)

_____

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_____

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_____

_____

4. HOW REASONABLE WAS THE CONVICTION OR INDICTMENT AND WHY?

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_____

5. IN YOUR OPINION, WHAT ERRORS, IF ANY, LED TO THE CONVICTION OR INDICTMENT? (when appropriate, include errors made by both the state and defense)

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6. FOR WRONGFUL CONVICTIONS ONLY, WHAT EVIDENCE LED TO THE DEFENDANT'S EXONERATION AND WHO WAS RESPONSIBLE?

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7. FOR DISMISSALS ONLY, WHAT EVIDENCE, IF ANY, JUSTIFIED THE DISMISSAL IN YOUR OPINION?

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8. WHAT, IF ANYTHING, COULD HAVE BEEN DONE IN THIS CASE TO PREVENT THE WRONGFUL CONVICTION OR INDICTMENT?_____

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VIII.I. Technical Appendix

VIII.I.A. Multiple Imputation

Imputation is the process of filling missing data with plausible values. Rubin (1977) outlines the problems of simply filling in the mean of a series or some other naïve way to replace the missing value and argues for *multiple imputation*. Multiple imputation is a simulation technique where the missing values are replaced with m>1 versions of the data to reflect uncertainty in the estimates.[36] As King et al. (2001) note, methodologists and statisticians are nearly unanimous in their agreement that multiple imputation is a better technique to deal with missing data than the conventional applied data analysis approach—listwise deletion. When data are missing for the independent variables or dependent variable in many datasets, the entire case is thrown out.[37] If there are patterns of missing data across multiple variables, then a large portion of the cases will simply be discarded.

There are three reasons these data can be missing.[38] First, they can be *missing completely at random* (MCAR). If data are missing for this reason, then information related to the missing values will not help predict the missing values. Second, data can be *missing at random* (MAR). In MAR data, observable information can help predict the missing value. For example, if women tend to finish high school more often than men, we can use gender to predict the likelihood that a defendant has completed high school. The more variables that aid in the prediction, the better the estimate. Third, data can be *nonignorable* (NI) or missing due to unobserved factors. These data cannot be recovered from available information. For example, if

[36] The standard is to use five imputations, but any number can be used. Rubin (1987) suggests anywhere from two to ten imputations are sufficient for most applications. We use five but also use three and four as robustness checks and do not find any substantive difference in the results.
[37] We perform imputations for only a subset of the independent variables and not for the dependent variable.
[38] This discussion of the three types of missing data is informed by King et al. (2001). See this piece for a more technical account of these distinctions.

finishing high school is almost entirely related to the aptitude of the defendant, this may be difficult to directly observe and thus imputation using observable factors will not improve our predictions of high school completion.

The primary benefit of multiple imputation is retention of case data; thus, making inferences is more efficient than listwise deletion (King et al., 2001). Additionally, the inferences from multiple imputation are not biased under the MCAR and MAR assumptions (Little & Rubin, 1989; King et al., 2001). If data are missing because of unobservable factors (NI), then multiple imputation will not reduce the bias in the estimate but it will still likely be more efficient than listwise deletion. In sum, multiple imputation is no worse than listwise deletion and almost always an improvement.[39]

To impute our project data, we used a chained imputation procedure outlined by Royston (2004). Chained imputation allows for imputation in a row of data that might have multiple missing values and can be used when many variables are used as predictors (Van Buuren et al., 1999). It involves a variable-by-variable approach that involves all other variables as predictors (Horton & Kleinman, 2007). Continuous variables are estimated using OLS regression, counts using a negative binomial estimator, and dichotomous variables using a logit/probit model. In Horton and Kleinman's (2007) simulated comparison of multiple imputation methods, the chained equation technique used here performed as well as most other procedures in reducing both bias in the coefficient estimates and standard errors. We used logit models to predict the series of dichotomous variables. Since our continuous or near continuous measures of Death Penalty Culture (Death Penalty Culture1, Death Penalty Culture2, Punitive Rank)[40] are bounded

[39] See Shafer (1997) for a nontechnical overview of multiple imputation.
[40] Death Penalty Culture 1 is constructed as the total number of executions per state divided by population in a given year. Death Penalty Culture 2 is the total number of executions per state divided by the total number of homicides

(see Table 30), we used a truncated regression to limit the possible values to those that appear in the actual data. Since Age of Defendant is a count, we use a negative binomial regression model to impute its values. To impute the Logged Time from Arrest to Indictment, (days and months) we use a linear regression. As Rubin (1996) makes clear, these imputations do not have to be exactly like the observed data. Table 31 shows the summary statistics of the observed data.

The role of the imputed values should be to result in data that allow for valid statistical inference. To do this, we use as much information as we can (all of the variables for which we have complete data) and use estimators for imputation that can approximate the data generating process.

The chained imputation models generate five imputed datasets. Table 32 provides summary statistics for the observed and complete data (summary statistics of the combined datasets).[41] Figures 5 and 6 show the observed, imputed and complete (observed + imputed) data densities. These figures show that the imputed data for these measures are not exactly the same as the observed data but approximate the mean and standard deviations, and have little effect on the distributions of the final series.[42]

VIII.I.B. Receiver-Operating Characteristic Curves

Evaluating model fit in binary dependent variable models is different than ordinary least squares regression. Since the dependent variable only has two potential outcomes, Aldrich and Forrest (1984: 15) claim that the "use of the coefficient of determination [R^2] as a summary statistic should be avoided." Different pseudo R^2 measures have been generated to approximate

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in a given year. The Rank variable is based on a rank of state punitiveness developed by Kutateladze (2009); see footnote 15.

[41] We use Klein's *misum* command for Stata to generate these summaries.

[42] Thanks to Wes Eddings for providing the Stata routine *midiagplots* that generates these figures (Marchenko and Eddings 2011).

this statistic that reports explained variation. Since these models are calculated using maximum likelihood, they are quite different than what is reported in an ordinary least squares model. Each of these pseudo measures can generate substantially different values, thus limiting their utility in assessing model fit (Long & Freese, 2006).

Most scholars instead use one of three alternatives: percent correctly predicted (PcP), the percent reduction in error (PRE), or the Receiver-Operating Characteristic (ROC) curve. The PcP examines each case of the model and compares the true outcome (in this project whether the case was an erroneous conviction (1) or a near miss (0)) to the expected outcome given the prediction of the model. Since this is a predicted probability, this number will range from zero to one. If the prediction is above 0.5, then the observation is coded as a likely erroneous conviction (1). If it is below 0.5, it is coded as a near miss (0). Then, the actual value of the dependent variable is compared. The percentage of cases correctly predicted then gives the analyst a summary statistic for the model fit (in-sample). The problem with the PcP approach is that it treats a prediction of 0.4999 as a 0, but a prediction of a 0.5001 as a 1. Moreover, if the threshold for what is considered a 1 changes, the PcP can change.

The PRE is a measure of the reduction in error based on our model when examining our guesses of 1s and 0s as compared to a naïve guess. A naïve guess is just assuming the outcome of the dependent variable is its modal category. If, for example, we know that 56.5% of our cases are erroneous convictions, then guessing erroneous conviction for each case would lead to us being correct 56.5% of the time (and wrong 43.5% of the time). The PRE is calculated by adding up our model's successful guesses of zeroes and ones and then comparing this to the naïve model. The final number is a percentage improvement in our accuracy. Again, this measure is sensitive to the threshold we use to establish a 1.

Fortunately, the Receiver-Operating Characteristic (ROC) curve can remedy the shortcomings of the PRE and PcP. The ROC curve provides a graphical display of how well the model predicts true positives, or sensitivity, compared to false positives, or 1-specificity. As we increase the threshold for what is considered a positive, it should cut down on false positives but may cut down on true positives as well (Beck et al., 2001). The ROC curve then can provide a summary of the predictive ability of the model while adjusting the threshold for what is considered a positive outcome.

Figure 2 offers an example ROC curve. This is a curve generated after estimating a simple model using the control variables and nature of the crime measures (see Table 24). The Y axis is the sensitivity, or the true positive rate, and the X axis is the 1-specificity, or the false positive rate. The 45 degree line represents the 50/50 probability of a dichotomous outcome (if we used a coin flip to predict the dependent variable). As the ROC curve extends beyond this 45 degree line, we are better able to predict true and false positives (beyond a coin flip). The area under the ROC curve and above the 45 degree line gives a unique measure of model fit.

[Figure 2 about here]

In Figure 2, this area under the ROC curve is 0.816. In short, this model accurately predicts about 82% of the 1s and 0s given varying thresholds for what is considered a positive prediction. In the models that we estimate, we use this area under the ROC curve statistic as the measure of model fit. While there is not a standard for what this number should be, between 80 -

89% is generally considered a good model and above 90% is an excellent model at predicting the outcome of interest.[43]

VIII.I.C. Prediction/Forecasting

As the ROC curves show, the statistical model is able to predict erroneous convictions at a high rate (0.908) (Figure 3). Nearly 91% of the time, the model can accurately predict an erroneous conviction versus a near miss. Even in the more simple models (Tables 24-28), the area under the ROC curve is between 0.801 and 0.827. While this evidence suggests that the models are useful, there is a concern with *overfitting*. In short, when data are used to estimate a model, then the fit we find may be particular to these data. The model may be good at predicting outcomes in the same data used to estimate the model (in-sample prediction) but we do not know how the predictive ability of the model will apply to other datasets (out-of-sample prediction).

Ideally, we would estimate this model and then examine whether the relationships and estimates hold when using new data. Given the difficulty and time it took to collect the current set of cases that meet our definition, it seems unlikely that we could find a new sample to estimate another model. Fortunately, statisticians have developed a procedure called *cross-validation* to perform this task. There are many ways to do cross-validation, but the intuition of all of these algorithms is the same. First, the analyst divides the data into a certain number of groups (we use four groups, for example). The groups are then divided into two sets: a training set and a test set. The training set *trains* the model. These data are used to establish estimates for the model. The results are then *tested* on the test set. In sum, the test set is not used in the

[43] See http://gim.unmc.edu/dxtests/roc3.htm and http://www.cpdm.ufpr.br/documentos/ROC.pdf for discussions of this rule of thumb.

training of the model and thus the predictions of the test set are *out of sample*. In this way, cross-validation can avoid the criticism of *overfitting* and allow for an out-of-sample test of the model. Second, this procedure is replicated for all of the groups in the data. With four groups, each has a turn to be the test set. This way, the results should not be sensitive to how the data are divided. Third, the results are then averaged across the groups. This again should average out any divergent outcomes caused by an arbitrary division of the data. Finally, this process is repeated *n* number of times (we used ten iterations for each data set).

Usually more of the data is used to train the model, and less is used to test the model. In our case, we used three groups to train the model and one group to test the model. In our data, we randomly assigned a group of data to the test (115 observations out of 460) or training set (345 observations out of 460). We had each group serve as the test group and then predicted an ROC curve for the group not used to train the model. This process was done ten times for each data set. We performed four tests per division ten times for each data set (40 models times five data sets equals 200 total out of sample forecasts of the ROC curve).[44] We then averaged the results of the ROC curves for each dataset to attain a final out of sample ROC curve estimate of 0.8709. In sum, our model is able to predict over 87% of the cases of erroneous convictions *out of sample.* This is a slight decrease as compared to the in-sample forecasts (91%) but the forecasts are still high, suggesting overfitting is not a serious problem with the model. We expect that this model could be used to predict future cases across the United States that are likely to be erroneous convictions with a high degree of accuracy.

[44] This is a procedure called K(4)-Fold Cross-Validation. See Ward et al. (2010) for a complete description.