

Geographical Disparities in Wrongful Conviction Cases

A THESIS

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Abstract

The horrors of a wrongful conviction have become a reality for too many Americans. As forensic science has matured, along with the evolution of interrogation techniques, the occurrence of wrongful convictions has become more apparent. Fortunately, there are many groups in the United States devoted to overturning wrongful convictions. While it is good news that innocent people are being released from prison, the question remains as to why, and where, people are wrongfully convicted. The purpose of this thesis was to examine geographical locations of wrongful convictions to determine if there is a higher instance of wrongful convictions in rural areas as opposed to urban areas in the United States. From these findings, recommendations can be made for future research on this subject, along with recommendations for possible improvements to avoid wrongful convictions in the future.

Introduction

Wrongs are committed by human beings. Some of those wrongs rise to the level of crimes—wrongs that are (for lack of better terms) wrong enough that society as a whole must take both notice and action. People murder, steal, rape, defraud, assault, and embezzle from one another. If everyone committed such grievous wrongs, it would be easy to spot the guilty. But not everyone commits a serious crime; only some do. These facts motivate the existence of a system of justice—a system of rules, regulations, people, forensic and detective techniques, and institutions which are tasked with catching and punishing all those who are guilty, and only those who are guilty (i.e. not those who are not guilty) of the commission of wrongs. This much should be uncontroversial—a justice system exists to right, as far as may be possible, all wrongs and to bring all parties, offender as well as victim, back into the balance of fairness. The point of having a justice system is to effect justice, in all its points, in society.

As a human institution, no system of justice could ever perform its task perfectly. Mistakes are inevitable, and at least sometimes even understandable. Nevertheless, it seems clear that it should be a goal of any justice system to strive to be as close to perfect as possible. That is, those who work in the justice system should strive to minimize mistakes as much as possible. In light of this understanding, what should be said about wrongful convictions? Given the purpose of a justice system, and judging failure by whether individual outcomes match the expected outcome, it seems clear that when a person is convicted of wrongdoing which they did not commit, the system has made a mistake.

The Innocence Project states that they have been directly involved in reversing over 300 wrongful convictions since their inception (Innocence Project, 2013). While that number is striking, it only accounts for those cases that were exonerated as a result of the presentation of

DNA evidence. There are many more cases that have been overturned through evidence other than DNA. The National Registry of Exonerations (NRE) reports that there have been more than 1,200 exonerations since 1989 (The National Registry of Exonerations, 2013). While it is highly likely that there were exonerations that occurred before 1989, the NRE has used this year as the starting point for creating the first national registry of exonerations due to the availability of records.

These numbers, compelling as they are, merely scratch the surface. Let's engage in a few speculative calculations. Assume *arguendo* that 99.5 percent of all convictions in the United States are convictions of persons who are actually guilty of the crime for which they are convicted. If so, this means that there are still nearly **10,000 wrongful convictions every year** in the United States (Huff, Rattner, & Sagarin, 1996, emphasis added). Suppose, furthermore, that one third of those wrongfully convicted suffer a major penalty—hefty fines or prison time. There are, in such a case, over 3,000 people per year who suffer such a major penalty unjustly. If it is assumed that a third of those unjust penalties are at least one year in prison, then 1,000 human beings per year are sent to prison unjustly. This point is made all the more urgent, since the percentage of just convictions is almost certainly lower than 99.5 percent, implying that the estimated number of people currently incarcerated for crimes they did not commit is almost certainly higher than .5 percent. In his study of convictions in capital rape-murder cases in the 1980's, Risinger (2007) arrived at a minimum of 3.3 percent and a likely maximum of five percent for wrongful convictions. A recent study by Gross et al, finds that approximately 4.1% of inmates on death row would likely be exonerated for their crimes (Gross, O'Brien, Hu & Kennedy, 2014).

It is important to distinguish between exonerations and exoneration rates on the one hand, and wrongful convictions and wrongful conviction rates on the other. These numbers are merely a starting point as many wrongful convictions have either not been reported or have not yet been discovered. Most wrongful convictions only come to light when the wrongfully convicted person is exonerated.

Taking these numbers as a guide, simple math provides a view of wrongful convictions in the U.S. that is absolutely staggering. Let us assume (again, *arguendo*) that three percent of all convictions are wrongful. Under the assumptions made above, 60,000 people per year suffer a harsh penalty unjustly, and 18,000 people per year spend hard time in prison for crimes they did not commit. Every year, 18,000 people are added to the list of those who have served prison time in this country, but wrongly so.

An error rate of three percent may look like a positive achievement from the point of view of a statistician. But criminal trials do not occur instantaneously. They are preceded by a great deal of scrutiny by everyone from law enforcement officials, prosecutors, and judges to defense attorneys. Each trial is itself a microcosm of circumstances and events in which there are many opportunities to get things right and see justice done. Viewed from this perspective, it might be better to think in terms of the numbers of likely wrongful convictions calculated above. A three percent error rate means that every year, roughly 18,000 human beings with lives of their own, loved ones and family members, goals and dreams, suffer unjust fines and or prison sentences. Viewed from this perspective, each wrongful conviction is not merely a mistake, but a travesty of justice that cries out to be righted.

The cases of the wrongfully convicted are difficult to read. Their accounts of lost years, ruined careers, and suffering families are harrowing. While the overall number of known

wrongful convictions in the United States is relatively small, reading a first-person account of someone who has been convicted of killing their loved one and then sentenced to death focuses the issue in sharp relief. There are dozens of books, scholarly articles and documentaries that delve into the lives of the wrongfully convicted. It is not merely time spent in prison; even after a person who was convicted is exonerated and released, crippling psychological problems linger. Such individuals often have serious trouble finding a job or getting a decent education. The life of a wrongfully convicted person is often ruined due to an event that never should have happened.

Wrongful convictions are not merely tragic from the point of view of the wrongfully convicted; properly understood, they are also tragic from the point of view of the victim. A wrongful conviction, by definition, almost always¹ means that the person who committed a crime is not the person convicted of that crime. In everyday terms, a wrongful conviction means that the actual criminal gets away with his or her crime, and does not have to suffer the consequences. Given that a wrongful conviction is both a failure to catch the actual perpetrator of a crime, and also a horrifying experience to the wrongfully convicted, society should never be satisfied with our efforts to guard against wrongful convictions. Righting or preventing a wrongful conviction not only removes one injustice, it keeps investigators focused on finding the real perpetrator of a crime. The overall effect of efforts to guard against, or to right, wrongful convictions strengthens the justice system.

While much is known about the causes of wrongful convictions in the United States, there is very little research investigating the geographical distribution of wrongful convictions, and what locale can reveal about wrongful convictions. In this thesis, the following working

¹ The one exception is when multiple people are convicted of the same crime when one of them is actually guilty, and the rest are not.

hypothesis has been adopted - wrongful convictions occur at a higher rate per capita in rural areas of the country, than in urban areas. There are a number of reasons for thinking this hypothesis would be true. Common sense suggests a relative lack of resources in rural areas as compared to urban ones, and common experience suggests that the "good 'ole boy" mentality can be sustained through generations in rural areas. This mentality may be partially attributed to education levels as those living in rural areas tend to have a lower college completion rate than their counterparts in urban areas. The United States Department of Agriculture (USDA) reports that the percentage of those living in non-metropolitan areas that have completed a Bachelor's degree is 17.5 percent, compared with 30 percent for those residing in metropolitan areas (USDA Economic Research Service, 2013). Even with a Bachelor's degree, those in non-metropolitan areas earn over \$10,000 less per year than those in metropolitan areas (USDA Economic Research Service, 2013). While lower education levels and earnings are not definitive markers for sub-standard criminal investigations and subsequent prosecutions, they may contribute to the overall issue of wrongful convictions.

In many rural counties in the United States, the Sheriff of the county has supreme authority over all criminal investigations. Most residents never question this authority and normally feel a sense of ease that they know the person in charge when faced with a criminal issue. This sense of trust and camaraderie, which can add to the allure of living in a rural county, can backfire when the person in charge knows the residents personally. A suspect, possibly not knowing they are a suspect, may never question the interrogation techniques of local law enforcement if the party doing the questioning is also perceived as a friend. In many cases of wrongful convictions, law enforcement officials either knowingly or unknowingly abuse their authority in the course of investigating a crime or interrogating a potential suspect.

Networks of communication in small towns tend to rely on word-of-mouth methods of disseminating information. Word-of-mouth networks are notoriously bad at accurately preserving the content of information. Everyone remembers the old "telephone" game where a bit of information is given at the head of the line and turns out to be totally different information by the time it reaches the end. Acquaintance with the histories of wrongful convictions reveal that law enforcement officials are sometimes too willing to place their faith in word-of-mouth networks as a means of guiding investigation into a crime. The errors that naturally arise in such networks contribute to errors in an investigation itself, and those errors have sometimes resulted in wrongful convictions (Scheck, Neufeld, & Dwyer, 2000).

Another issue that may play into more wrongful convictions occurring in rural counties of the United States is the idea of the town "bad guy" or "boogeyman." When a crime occurs, investigators start comprising a list of possible suspects, if one is not readily apparent. In smaller communities the "weird guy" may be at the top of the list. Past behavior, along with peculiar tastes or customs, may factor into officials' decision to pursue a particular suspect, even if there is no current evidence that points at that particular person. Unfortunately, race can also be an issue when officials put together a list of suspects. While the United States has made great strides in racial equality in the last 50 years, there are pockets of the country where those of a different race than the majority are considered suspects based only on their skin color (Scheck, Neufeld, & Dwyer, 2000).

These points paint the distinction between rural and urban areas with a broad brush. The researcher has used the distinction between rural and urban areas as a hermeneutic device to introduce and communicate some points about wrongful convictions. In fact, geographic disparities in the causes of wrongful convictions, and in the distribution of resources available to

minimize wrongful convictions, are more nuanced. The current research, as detailed in this thesis, shows that there are geographical disparities in wrongful convictions, but those disparities are not easily divided along rural vs. urban lines.

Nevertheless, these points about wrongful convictions in rural versus urban areas may not be necessarily incorrect. The major identifiable causes of wrongful convictions are factors that would be expected to be distributed roughly evenly across all areas of the United States. For instance, eyewitness mistakes are involved in over 75 percent of known wrongful convictions (Lithwick, 2009). Eyewitnesses are (presumably) not inherently worse in New York City than they are in Chicago, but disparities in exoneration rates where eyewitness misidentification played a role in the wrongful conviction are marked between these two urban areas. There are, therefore, epistemic issues to be hashed out—society does not really know about cases of wrongful convictions except through cases of exoneration. There are undoubtedly many cases of wrongful convictions that never come to light.

The purpose of this research is ultimately to help improve the U.S. system of justice; there is no intent to disparage those who work in the justice system. Wrongful convictions are nevertheless errors, and it is important to study such errors in order to prevent their recurrence. In this thesis, the researcher took as a starting point the assumption, mentioned above, that the most common causes of wrongful convictions are likely to be roughly evenly distributed across all areas of the United States (taking into account population density and other such factors). But as the research shows, exoneration rates exhibit geographic disparities even when comparing areas that are demographically similar, such as New York and Chicago or Dallas and Houston. There are two possible explanations for this fact. First, it may be that the assumption is incorrect—though this would be very odd. Again, it seems very unlikely that people in one area

are all inherently much better witnesses than those in another demographically comparable area. It seems just as unlikely that defense lawyers in one area are much more incompetent, as a group, than in another comparable area. The second possible explanation is that the causes of exoneration are not evenly distributed across comparable demographic areas. In this thesis, it is hypothesized that this second explanation is the correct one.

When a wrongful conviction occurs, exoneration is not guaranteed. Resources are required in order to bring a wrongful conviction to light, and to ultimately convince the proper authorities that a conviction has indeed been wrongful. But these resources are not equally available in all areas of the United States. The direct consequence of this fact is that it is likely, in some areas that many wrongful convictions pass without being redressed, with all the injustices this implies.

To test the hypothesis, the researcher first gathered as much information about exoneration rates as possible, so as to form as complete a picture of exonerations in the United States in recent years as possible. Exoneration rates were examined and compared by geographic region to other demographically comparable areas. As will be shown, several anomalies arose, and those anomalies were investigated to find their causes. The research has largely confirmed the hypothesis that there are geographical disparities in wrongful convictions cases, but those disparities were not as easy to identify as originally believed.

Literature Review

The literature on wrongful convictions is divided into three categories. First are case studies or collections of case studies that narrate actual instances of wrongful conviction. These include books written by criminologists, journalists, defense attorneys, and in some cases the wrongfully convicted themselves, as narratives of the salient events and features of wrongful conviction cases.

Next are academic articles that focus on either the causes of, or attitudes toward, wrongful conviction. The most comprehensive of these have been published recently by organizations whose primary aim is to right wrongful convictions and minimize their occurrence. Reports by the National Registry of Exonerations and the Innocence Project are among the first to bring together data about wrongful convictions in a methodical and uniform manner. The most relevant articles and reports in this category to the present thesis are discussed below.

Finally, some studies of wrongful convictions may find occasion to refer to legal rulings or opinions about wrongful convictions or the procedures that lead to them. The primary focus of the present thesis was on the first two categories. In addition, studies about how human beings perceive and recall information about events that occur in their environment were used to elucidate some issues surrounding eyewitness misidentification.

Interest in wrongful convictions was inaugurated by Edwin Borchard in the first half of the 20th century. In 1913, Borchard's article, "European Systems of State Indemnity for Errors of Criminal Justice", exposed American observers to the plight of the wrongfully convicted by describing European approaches to righting the wrongs of erroneous convictions (Borchard, 1913). His book, *Convicting the Innocent: Actual Errors of Criminal Justice*, released twenty years later, caused an uproar when it identified sixty-five cases in which an innocent person had

been convicted. Borchard also classified the likely “sources of error including erroneous eyewitness testimony, false confessions, faulty circumstantial evidence, and prosecutorial excesses” (Borchard, 1933, p. viii). Yet, for the next fifty years, research on wrongful convictions was sporadic (Gould & Leo, 2010). The most likely explanation for this is that until the development of reliable DNA testing in the late 1980’s, it was seldom possible to present incontrovertible evidence of a convicted person’s innocence. It was, until that time, almost always possible to reasonably believe that a potential case of wrongful conviction was in fact not wrongful. But in a growing number of cases starting in the late 1980’s, the development and use of reliable DNA testing made such beliefs no longer tenable.

The first wrongfully convicted individual to be exonerated through DNA was Gary Dotson, who had been convicted in 1978 in Cook County, Illinois. Perhaps ironically, the crime for which he was convicted—rape—never occurred. His alleged victim, Cathleen Crowell, invented a story about being raped because she was afraid she had become pregnant through consensual intercourse with her boyfriend. She was discovered in a disheveled and injured state (all of which were self-inflicted) by a police officer, and taken to a local hospital, where a rape kit was gathered. Semen, which turned out to be from her boyfriend, was discovered, but DNA testing was unavailable at the time. Crowell identified Dotson in a photo lineup after police pressured her to do so, based on the fact that Dotson bore some resemblance to the made-up description of her imaginary attacker that she had given to police. She later testified in court that he had raped her. In addition, a poorly qualified forensic expert—who had undergone a two day course at the University of California, Berkeley—was called by the prosecutor. He gave testimony which misled the jury into believing there was physical evidence against Dotson, who was sentenced to 25 to 50 years. Only after a long string of mis-steps was Dotson finally

exonerated in 1989 through newly available DNA testing, after having served a total of 12 years behind bars (Northwestern Law). Stories such as these are typical in the narratives of exonerations.

Characteristic of such stories are each of the following factors:

- Gross errors in police investigation
- Gross excesses on the part of prosecutors
- Incompetence by defense attorneys
- Unsympathetic and even apparently irrational attitudes on the part of judges and district attorneys
- A seemingly impossibly long journey to revealing the truth

While not all of these factors are present in every narrative of wrongful conviction, most are, and each of them appears again and again in the course of the stories of the wrongfully convicted.

Books such as *The Abuse of Innocence* by Paul and Shirley Eberle, which narrates a single case in great detail, or *In Spite of Innocence* by Michael Radelet, Hugo Bedaut, and Constance Putnam, which gathers several such cases into a single book, have a singular aim. The stories of the wrongfully convicted are simply and obviously horrific. Both implicit, and at times explicit, in the work of these authors, or that of others writing similar books, is the clear need to work on wrongful convictions. More than anything, these works reveal a moral obligation to do something.

There have been great strides in the identification, investigation, and reversal of wrongful conviction cases in the last 20 years. The first and most well-known organization working to investigate and overturn wrongful convictions is The Innocence Project. The Innocence Project summarizes their work as follows.

Today, the Innocence Project (IP) is a non-profit legal clinic that ‘handles cases where post-conviction DNA testing of evidence can yield conclusive proof of innocence. As a clinic, students handle the case work while supervised by a team of attorneys and clinic staff.’ The IP has led successful efforts to exonerate hundreds of innocent defendants. It also has spawned the creation of regional innocence projects and legal clinics at law schools around the country (Gould & Leo, 2010, p. 830).

While the Innocence Project, founded in 1992 and operated in conjunction with the Benjamin N. Cardozo School of Law in New York City, pioneered the overturning of wrongful convictions, it is, fortunately, not alone in its efforts. There are over 20 other regional organizations—which often incorporate the words “innocence project” in their name—working towards righting wrongful convictions in the United States, usually in tandem with local law schools. Reports authored by such projects, and narratives gathered about wrongful convictions in their respective domains, are crucial to understanding the phenomenon of wrongful conviction. Innocence projects are able to provide valuable data to help “flesh out” the available information about wrongful convictions, without which it would be impossible to understand wrongful convictions.

However, innocence projects are primarily focused on securing exoneration for those they believe to have been wrongfully convicted. Information gathered by innocence projects remains largely anecdotal. While these can provide a great deal of material for case studies, there remains a need for more rigorous statistical treatment of the available data (Innocence Project, 2014).

The National Registry of Exonerations fills this need. It works to catalog and collate exonerations reported by organizations that help to secure exonerations for the wrongfully

convicted. It is a joint effort between the University of Michigan Law School and the Center on Wrongful Convictions at Northwestern University School of Law (National Registry of Exonerations, 2013). The NRE is the first project of its kind with a focus on a national repository of exonerated cases in the United States. The data collected and collated by the NRE has been invaluable in the present research.

More recently, the NRE has released a number of reports and analyses of the data they have collected. These reports summarize and bring out interesting points and trends in the data about wrongful convictions. Perhaps the single most important point about wrongful convictions brought out by such reports is that they occur more often than those working in the justice system would like to admit, and often in cases in which most people would find it difficult to believe that a wrongful conviction is possible. The NRE reports that in 2013, 17 percent of recorded exonerations occurred in cases in which the defendants had previously pled guilty (National Registry of Exonerations, 2013). Using data produced in part by the NRE, a report released by the National Academy of Sciences has concluded that at least 4.1 percent of inmates on death row are wrongfully convicted (Gross et al., 2014). To put this into perspective, this means that nearly one in 20 of all death row inmates is likely innocent of the crimes for which he or she now awaits execution.

The most up-to-date analysis of such data reveals some disturbing points about known wrongful convictions. The two biggest causes of known wrongful convictions are false testimony on the part of alleged eyewitnesses, which occurs in 55 percent of cases, and official misconduct, which occurs in 46 percent of cases (National Registry of Exonerations, June 2014 Update). In short, many of the wrongfully convicted are sent to prison because someone, whether witness, police officer, prosecutor, or judge, knowingly intends that they be sent to

prison unjustly. In some cases, such as that of Gary Dotson discussed above, this intent is a byproduct of another more understandable motive. Nevertheless, the most current information available strongly suggests that ignoble or dishonest human intent is a much larger factor than previously understood in wrongful conviction cases (NRE June 2014 Update).

Either despite such facts or perhaps because of them, interest in wrongful convictions among those who work in the justice system has been slow to develop—though, thankfully, this is changing. It has become more common for District Attorneys to appoint special commissions to independently review cases. Most recently, in Brooklyn, New York, the District Attorney has ordered a review of 50 cases brought to conviction through the work of a now discredited detective (Robles & Kleinfield, 2013). The District Attorney in Dallas County, Texas, has instituted a conviction integrity unit, whose aim is to review convictions after the fact and raise questions where it is possible the conviction could be in error (Gross & Shaffer, 2012).

Studies regarding perceptions on wrongful convictions seem to show a marked difference between those involved in the justice system and the public at large (Ramsey & Frank, 2007). This may be attributed to many factors. Zalman, Larson, and Smith (2012), state in their research, *Citizens' Attitudes Toward Wrongful Convictions*:

Only two respondents of the 737 interviewed believe that wrongful convictions never occur. The overwhelming majority reported that wrongful convictions occur at a rate of at least 1 percent. 30.4 percent of respondents report that wrongful convictions occur at a rate of 6-10 percent, while 21.2 percent believed that wrongful convictions occur at a rate of only 1-3 percent. 10.2 percent of respondents believed that wrongful convictions occur in at least 11 percent of cases (2012, p. 57).

To summarize these findings, just over 40 percent of the public believes that wrongful convictions occur in over six percent of convictions, with a smaller minority persuaded that wrongful convictions occur much more often. Not quite 60 percent of the public believes wrongful convictions occur in at least one percent of all convictions. It may be dangerous to speculate too far about the meanings of these beliefs, but it seems safe to assert that the general public believes there are a great many wrongful convictions which occur in the U.S. each year (Zalman, Larson, & Smith, 2012).

By contrast, in a study involving criminal justice professionals Ramsey and Frank (2007) found:

Respondents, as a group, perceive wrongful felony convictions occur in their own jurisdictions between .5 percent and 1 percent of the time. When responses across groups are compared, defense attorneys perceive higher rates of wrongful conviction in their jurisdiction than do judges, prosecutors, and police. In average, defense attorneys believe that in-jurisdiction wrongful conviction occurs in 1 percent to 3 percent of all felony cases (Ramsey & Frank, 2007, p. 452).

While it is clear from this data that judges, police officers, and prosecutors believe that wrongful convictions do occur, members of these groups generally seem to believe that wrongful convictions are rare when compared to the perceptions of the general public. One possible explanation for this is brought out by the recent analyses of the National Registry of Exonerations discussed above: wrongful convictions occur rather often as a direct result of misconduct on the part of police investigators or prosecutors (Zalman, Larson & Smith, 2012). Perhaps more simply, wrongful convictions are errors, and few people have an easy time facing up to their own mistakes, especially when such mistakes cost an innocent person time in prison,

social standing, money and careers, marriages and other relationships, and possibly even a life. It is understandable that some of those involved in the justice system would want to downplay the frequency at which wrongful convictions occur. While there is no data to indicate that there is a pattern of willful or malicious wrongful convictions in the United States, it appears many in the justice system would prefer to look the other way in these types of cases.

The criminal justice process is prone to error. "Justice system actors work under heavy caseload pressures, and few have the resources to investigate, prosecute and defend as they would like" (Smith, Zalman, & Kiger, 2011, p. 666). Agencies' official statistics ignore differences between easy to solve crimes and difficult "whodunits" that require extensive resources. It is among those cases where a solution is neither ironclad nor immediately obvious that errors are more likely to occur. The path to solving these cases is both longer and more complicated than in simple cases, which leads to more opportunities for error (Smith, Zalman, & Kiger, 2011). As a matter of practical concern, it seems to accord with common sense that detectives and prosecutors working in adverse conditions or on harder cases are more likely to make errors leading to both unsolved crimes and wrongful convictions. However, if the criminal justice system is expected to produce accurate results, this is a major problem that must be addressed.

One issue that might bear on the attitudes, and the procedures, of criminal justice officials is the concept of crime control versus the due process model. Officials following the crime control model may be more apt to push the limits of due process in order to place a suspect behind bars. Packer (1968) states "The presumption of guilt is what makes it possible for the system to deal efficiently with large numbers..." (p.160). Packer goes on to describe the crime control model as an assembly line, where the due process model can be seen as an obstacle

course. The due process model can be seen as a factory that devotes a substantial part of its input to quality control (Packer, 1968). While many of those outside of the criminal justice system may see this choice as elementary – the due process model being preferred, it is impossible for those on the outside to truly understand what these officials are facing on a daily basis.

It is clear that the public and justice professional perceptions of wrongful convictions vary widely. It has also become clear in recent years that the public wants to know the reasons for wrongful convictions and what can be done to keep wrongful convictions from happening in the future (Zalman, Larson, & Smith, 2012).

One of the most fruitful methods for reducing the number of wrongful convictions in the United States is to understand the common causes of wrongful convictions, so that appropriate actions can be taken to avoid these common causes in the future. As will be discussed in the following sections, the major common causes of wrongful convictions as identified by the National Registry of Exonerations are:

1. Eyewitness misidentification
2. Invalid or misapplied forensic science
3. Official misconduct
4. Bad lawyering (Gross & Shaffer, 2012).

Investigation of the causes of wrongful convictions not only helps in an immediate way to strengthen the justice system by suggesting remediating actions, it can also suggest avenues for further inquiry. Improvements can be made to minimize the impact of each of these categories of causes.

By its nature, the phenomenon of wrongful conviction is only partially visible. It is reasonable to assume that all current exonerations represent a subset of outcomes in cases of

wrongful conviction—that is, that not everyone who is wrongfully convicted will eventually be exonerated. The data available derives only from known wrongful convictions. There are surely more wrongful convictions that remain unknown, and continued investigation is the only method of finding those cases.

In the meantime, the fact that wrongful convictions can be studied only through examination of exonerations presents difficulties peculiar to research into wrongful convictions. Not only is it the case that some wrongful convictions remain undiscovered, such undiscovered wrongful convictions are wholly occluded. It is not possible to know with any degree of certainty how many there are, whether there are any common factors that unite them, or other such possibilities. The only way to reach a moderately adequate grasp of wrongful convictions is through consideration and analysis of the causes of known wrongful convictions. The present research relies on extensive analysis of such causes to create a picture of the situation of wrongful convictions in this country, even though that situation remains obscured from more direct methods. By understanding the causes of wrongful conviction, it may be possible to understand a number of salient features of wrongful convictions and thus examine the possibility that geographical disparities in wrongful conviction rates exist. It is to the causes of wrongful conviction that this thesis now turns.

The Causes of Wrongful Conviction

Eyewitness Misidentification

Though it is only one, from among a number of kinds of evidence a prosecutor can present at trial, eyewitness testimony is singularly convincing.

Eyewitness testimony is likely to be believed by jurors, especially when it is offered with a high level of confidence, even though the accuracy and the confidence of that witness may not be related to one another at all. All the evidence points rather strikingly to the conclusion that there is almost nothing more convincing than a live human being who takes the stand, points a finger at the defendant, and says ‘That’s the one!’ (Watkins v. Sowders, (1981) dissenting opinion).

This may help to explain why, of all the known causes of wrongful conviction subsequently resulting in exoneration through DNA evidence, eyewitness misidentification is the most common. Of cases of wrongful conviction overturned through DNA testing, eyewitness misidentification played a role in the original conviction 75 percent of the time (Lithwick 2009). Among all cases of exoneration (whether through DNA evidence or other means), unwitting eyewitness misidentification occurs in 35 percent of cases, and willing misidentification occurs in 55 percent of cases (NRE June 2014 update). It is therefore important to understand eyewitness misidentification in order to understand wrongful convictions.

“The Supreme Court ruled in *Manson v. Braithwaite* (1977) that the suggestiveness, that can be inherent in eyewitness identifications, is outweighed by the ‘reliability test’” (Wells & Quinlivan, 2008, p.1). The court held that evidence could be seen as reliable if the information was received from a witness who has actually seen the event and can testify in court.

Unfortunately, seeing an event does not always mean that the witness will then be able to recall

the information or properly identify a suspect at a later date. It would be going too far to claim that eyewitness testimony is always, or even often, unreliable or untrustworthy. Without the testimony of witnesses who have personal knowledge of crimes through direct observation, it seems fair to say that it would likely never be known what happened in the vast majority of crimes. Nevertheless, a number of studies have shown that human beings are not perfectly reliable or trustworthy observers. Our perceptual skills are not perfect, and can be easy to trick (Hellman, Echterhoff, Kopietz, Niemeier, & Memon, 2011). Our memory of events, especially traumatic events, is often unreliable and can be fooled (Davies & Hine, 2007). Eyewitnesses also sometimes lie under oath for various reasons (Scheck, Neufeld, & Dwyer, 2000).

The causes of eyewitness misidentification are numerous. There is no single factor of human psychology that stands out as a chief villain in eyewitness misidentification. Nevertheless, in order to understand the phenomenon, it is necessary to categorize and examine these causes. Here, the causes of misidentification will be first broken down into non-volitional errors and volitional acts. Non-volitional errors are unintended mistakes that are not the result of a willful decision on the part of any person in the process of identifying a suspect. The non-volitional errors discussed in this section are:

1. Eyewitness misperception
2. Unreliable memory
3. Unwitting suggestions by law enforcement
4. Psychological pressure to identify a suspect

Volitional acts are the direct result of a willful decision to wrongly identify a suspect. Discussed in this section are:

1. Coercion by police

2. Retribution against a potential suspect by a witness
3. Attempts to shift blame onto a suspect by the guilty party who poses as a witness
4. Informants under pressure to meet a quota or generate leads or cases for law enforcement officials

These eight causes of eyewitness misidentification are discussed in order below.

Eyewitness Misperception

Our commonsense view of our perceptual apparatus suggests that, at any given time, a complete and accurate “picture” of our environment is apparent. What the eyes see is what is “really there,” and furthermore, the visual tableau is complete at all times—there is no extra stuff reflecting light into the eyes that is not seen. What the ears hear is a complete sonic library of the environment—heard are all the sounds that are close enough to be heard.

It is known that this commonsense view of human perception is false. At any one time, the picture that arises in consciousness of the environment is a palimpsest of the elements of that environment. When humans look at a complex object, such as a tree or the page of a newspaper, what is seen at any given moment is an edited version of the total available visual information. The process by which this editing occurs can give rise to perceptual errors. That is, our experience of an event, in the moment as the event is occurring, may differ substantially from the reality of the event itself (Hellman et al., 2011).

Consider, for instance, a study in which subjects were shown a re-enactment of a robbery. Halfway through the film, the actor portraying the robber was switched. Sixty-one percent of the subjects failed to notice the switch. Among those subjects who had not been briefed beforehand to pay close attention to detail in the film, fully 87 percent failed to notice any change in the identity of the thief (Davies & Hine, 2007). These findings are consistent with literature on the

general phenomenon of change blindness, in which subjects fail to notice significant changes in the environment under certain conditions. In the context of eyewitness misperception leading to misidentification, this study is of particular interest if it is considered how these subjects might have answered if both actors had appeared in a lineup as potential suspects of the robbery being enacted. If subjects failed so overwhelmingly to notice such a change, it should be inferred that eyewitnesses may face significant challenges in perception.

Again, it is important not to overstate what such research reveals. One obvious difference between this or similar studies and real-life situations is that subjects in this experiment are watching films, which themselves restrict the available sensible information. Films necessarily restrict point of view, for instance, and also present a distance between the subject and the events being filmed. Nevertheless, it would be incorrect to assume that the effects observed so often in laboratories play no role in cases of real-world perception, especially when there are documented cases of wrongful convictions based on errors in eyewitness perception.

In 1997 a man in a ski mask entered a Louisiana convenience store and demanded money. When the clerk refused, the man shot him four times, threw off his mask and ran out of the store, diving through the passenger window into a waiting car. Several witnesses said they saw the man who exited the store. One woman in particular, who had been sitting in her car, stated that she saw the man exit the store, fire shots in her direction then jump into the waiting vehicle. In a photo line-up she tentatively identified Ryan Matthews as the suspect. Two other witnesses also claimed to have seen the suspect fleeing the store. The driver said that he had seen the man in his rearview mirror while trying to use his car to block the suspects from leaving

the store. He later picked Matthews out of a photo lineup; the other witness could not make a positive identification.

Matthews and his friend, Hayes, who were both 17 at the time, were pulled over that night as their vehicle matched the description of the vehicle used in the robbery/murder. The boys were brought to the police station for questioning. Hayes originally stated that he and Matthews were nowhere near the store at the time of the robbery, but after six hours of questioning he confessed to being the driver while Matthews went in the store. Matthews maintained his innocence throughout the proceedings. The young men were both described as borderline mentally retarded. They were brought to trial and based mainly on the identification of witnesses were convicted of murder. Matthews was sentenced to death, while Hayes received life in prison.

Continued investigation by the defense team turned up DNA evidence on the ski mask left behind by the robber. When the DNA was compared to Matthews and Hayes, it matched neither one. Further investigation showed that another murder had occurred shortly after the robbery/murder at the convenience store. A local man had been arrested in that case and subsequently convicted. He apparently bragged in jail that he gotten "away" with another murder, the one that Matthews and Hayes were incarcerated for. Further DNA testing revealed that the DNA on the mask matched this man. Matthews was released from prison in June of 2004. After two more years of legal battles, Hayes was released in December of 2006 (Innocence Project, 2014).

In this case, the most likely explanation for why two witnesses identified Matthews in a lineup is misperception due to traumatic circumstances. Both witnesses had limited time to see the suspect's face, and shots were being fired around them. It is important to note that Matthews

and Hayes can be ruled out as actually having committed the crime for which they were convicted.

In analysis of eyewitness errors, it can be difficult to distinguish between mistakes of perception and mistakes of recall. A witness to a crime must employ two faculties in order to convey correct information about a crime to investigators. First, the witness must accurately perceive the events of the crime, including the appearance and identity of the perpetrator. Second, the witness must be able to correctly recall such perception when being interviewed by investigators or in a courtroom. Just as with perception, our commonsense picture of human memory, and how memory actually works, diverge significantly. It is easy to think of human memory as somewhat akin to a video recorder that stores impressions of events as they happen, and then plays those impressions back in the mind's eye. But in fact, "...episodic memory—the kind of memory that allows us to remember our personal experiences—is not a literal reproduction of the past, but is instead constructed by pulling together pieces of information from different sources" (Schacter & Addis, 2007, p.27). Human beings actually rewrite memories as they are recalled. The materials from which memories are written are associations—human beings are more likely than not to incorrectly remember elements, details, and episodes associated with some event as having been part of that event. For instance, if shown a group of words associated with sleep, none of which is the word "sleep," human beings often falsely recall that sleep was one of the words on the list (Schacter & Addis, 2007).

Determining guilt or innocence of a suspect often hinges on subtle but significant details which have no necessary association with a crime, but which a witness may personally associate with the crime, whether or not such details were part of the crime or not. Researchers have been able to demonstrate that eyewitness memory can be quite drastically manipulated and altered by

asking the witness to narrate the experience after the fact, provided the witness believes the audience has a particular view about the event. Subjects will describe the ambiguous behavior of a target in negative terms to audiences perceived to dislike the target, and in positive terms to an audience perceived to like the target (Hellman et al., 2011). Crucially, these effects are long-lasting; once a witness has described an event to an audience, they will tend to recall the event as described, rather than as initially remembered, later.

These effects merely scratch the surface of research into the ways that memory can go wrong. A full discussion of the vagaries of human memory is well beyond the scope of the present thesis. The common theme that runs through the preceding discussion is exactly the point brought forth in the beginning—human memory is constructed out of elements personally associated by the person doing the recalling, whether or not all the elements recalled were part of the event being recalled. It becomes apparent how this can lead to an eyewitness falsely identifying a suspect. If the suspect possesses features a witness associates with a particular event, present research predicts the witness will be more likely to recall that the suspect was involved in the crime, whether or not that suspect was actually involved (Davies & Hine, 2007).

One of the most famous cases of misidentification, and subsequent exoneration, involves Jennifer Thompson-Cannino and Ronald Cotton. Thompson-Cannino was a student at Elon College in Burlington, North Carolina in 1984. One evening, while she was alone in her apartment, she was brutally raped at knife point. Thompson-Cannino stated that she willed herself to remember every detail of her attacker's face so that she could positively identify him, if she survived. The police asked her to assist them in creating a composite sketch of her attacker. After an hour and a half they came up with a sketch that Thompson-Cannino admitted was not quite right - the mouth was off and the ears stuck out too much, but given what she had

just gone through she was satisfied "enough" with the result and wanted to try and get back to her normal life (Thompson-Cannino, Cotton, & Torneo, 2009).

Based on the police composite drawing that was released, Ronald Cotton was initially identified as a suspect. He wore white cotton gloves when he rode his bicycle; the rapist had also worn white cotton gloves. He was African-American and of the same general height and weight as the rapist. Cotton had also been previously charged in a sexual battery case with a white girl; he was a juvenile at the time and it turned out that the girl had been his girlfriend and the charges were filed after the girl's disapproving parents found the two of them together. These were all things that the police shared with Thompson-Cannino, aside from the truth of the sexual battery case, after she picked Cotton out of the photo lineup. Thompson-Cannino (a Caucasian) picked Ronald Cotton (an African-American) out of a photo line-up 11 days after she was raped. After identifying Cotton, the officers told her that she had done a good job. She picked him out of a physical line-up just a few days later and was again told by the officers "We thought that might be the guy...It's the same person you picked out from the photos" (Thompson-Cannino, Cotton, & Torneo, 2009, p.37).

Ronald Cotton maintained his innocence from the beginning and had gone to the police station voluntarily to "sort things out" when he heard the police wanted to talk with him. He initially gave the police incorrect information as to where he was the night of the rape due to general human error - he got his dates mixed up. This, along with his "criminal past" and the eyewitness identification made by Thompson-Cannino, made him the only suspect in the eyes of the law.

Ronald Cotton ultimately served more than a decade in prison for a crime that had been committed by Bobby Poole, an African-American man who had features that were similar to

Cotton. DNA ultimately proved Cotton's innocence, but Poole died in prison before he could be tried for Thompson-Cannino's rape. Even after she came to terms with all the tragic circumstances regarding the case, becoming friends with Ronald Cotton as they advocated against wrongful convictions, Thompson-Cannino still had no memory of Bobby Poole and stated "...no matter what the science told me, I saw the face of Ronald Cotton in my memories" (Thompson-Cannino, Cotton, & Torneo, 2009, p.236).

A special case of unreliable memory occurs when law enforcement officers unwittingly suggest the identity of a suspect to a witness. Here is an example case. Henry James spent 29 years in prison (on a life without parole sentence) for a 1982 rape and assault. He was later exonerated by DNA evidence. The victim knew James, and had in fact lived next door to him for several years. She told police that she did not know her attacker and described the man who raped her, who bore some resemblance to James. The next day, the police showed the victim a photo of James. She identified him based on the picture, which was presented to her alone and not as part of a lineup. The most likely explanation is that the presentation of the photograph by a person perceived to be in authority was enough to cause the victim to misidentify her attacker (Innocence Project New Orleans, 2014).

Witnesses often feel pressure to identify a suspect when a crime has taken place. Though at present no independent research exists that is directly relevant to this effect, witnesses have discussed feeling a need to identify a suspect even when uncertain about the identity of the perpetrator. This may be another cause in the witnesses misidentification of Ryan Matthews; confronted with pictures of (say) six men, witnesses felt pressure to choose one, and in the absence of clear perceptions and recall, they picked the same one, perhaps for no better reason than random chance. It is important to note that the odds of two people picking the same face

out of a photo lineup consisting of six photos are one in 36. If the lineup consists of eight photos, the odds are one in 64. Presumably, hundreds of thousands of such lineups occur every year in this country, ensuring that such coincidences occur with some frequency.

While errors of the sort so far discussed can lead, and have led, to innocent persons being convicted of crimes, such errors are understandable. It is difficult to blame a witness for making a misidentification based on undetected errors in perception or recall. But this is not true of willful misidentification of a suspect, whether by a witness, law enforcement officer, or other individual. Unfortunately, this is something that happens with some frequency. Of exonerations reported to the National Registry of Exonerations, 55 percent show evidence of intentional misidentification or perjury by a witness (NRE June 2014 Update).

Witnesses and law enforcement officials have various motives to willfully misidentify a suspect. Detectives and other police officers are sometimes under significant public pressure to catch the perpetrators of high-profile crimes. This can lead to officers deliberately singling out an innocent person to “take the fall” for a crime. Sometimes, especially in smaller communities, a single individual or group of individuals may acquire a reputation as weird or undesirable, and such individuals can come under undue suspicion by police. This seems the most likely explanation for the prosecution and subsequent conviction of the West Memphis Three.

In that case, a local detective took a photo of Damien Echols and began to show it around the town, asking if anyone recognized him or remembered seeing him at the crime scene or just generally doing anything odd or "satanic." The satanic theme rose in part, from Echols penchant for wearing black, listening to heavy metal music and having a passion for esoteric writings. Echols attended a Baptist church with a friend of his a year or two before the murders. There was a social gathering for teens at the church that evening and Echols wore his normal black get-

up including black boots, black trench coat and a black t-shirt that featured the band Iron Maiden and had the phrase "No Prayer for the Dying" written upon it. Although there was no talk of Satan, or anything untoward, that evening, that Baptist preacher would be seen on TV after the murders declaring that Echols was part of a deviant satanic group, determined to take over West Memphis and sacrifice all the children there. There had been no other interaction between Echols and this preacher, other than Echols' brief appearance at the "teen social".

Echols had been in minor trouble with the law in his teens, but there was nothing violent and nothing that should have led law enforcement to suspect him, without corroborating evidence, as a murderer. His juvenile probation officer, Jerry Driver, asked Echols about satanic activity in West Memphis on their first meeting. This was when Echols was arrested with his girlfriend for "breaking" into an abandoned trailer. The girl's parents, who were strict Christians, had forbidden her to see Echols after she had been caught ditching school with him the previous year. The same juvenile probation officer became convinced that Echols was a Satanist based upon his clothing and a notebook of "teenage poems" he found in Echols room when his parents allowed the officer to enter his bedroom without a warrant. Driver eventually convinced Echols' parents to commit him to a mental hospital in Arkansas where he was diagnosed as depressed. Echols was 18 when he was arrested for the murders so he would have no direct interaction with Driver at that point. In the book, *Devils Knot*, the author points out that Driver was there when the bodies of the three young boys were found in Robin Hood Hills. "When police speculated about the assailant, the juvenile probation officer (Driver) assisting at the scene of the murders speculated that Echols was 'capable' of committing the murders, stating "it looks like Damien Echols finally killed someone" (Leveritt, 2002, p.55).

Jesse Miskelley, whose IQ was measured at around 73, was only an acquaintance of Echols. When law enforcement were unable to find anyone to implicate Echols in the murder of the three boys, they brought Miskelley in for questioning. Although only 45 minutes of 12 hours of questioning were recorded, Miskelley had stated that the detectives who picked him up brought Echols up almost immediately in their questioning. Miskelley had stated that they would frame the events leading up to the murders, and the actual murders, in different ways until they got Miskelley to repeat the story that they wanted back to them. After 12 hours of questioning without an attorney or food, he finally gave them the story they were after. Echols and Baldwin were arrested a short time after the completion of the interview with Miskelley. Miskelley would later recant his confession, but the taped portion of his interview where he "confessed" was a major factor in the conviction of all three men, even though Miskelley refused to testify against Baldwin and Echols and never wavered on his recantation after the initial confession (Echols, 2012).

West Memphis is a relatively small town with relatively few judges. The young men were all tried by the same judge, David Burnett. Every motion that was brought up in the case of the West Memphis Three would have to go back through the same trial judge who handed down their conviction and sentencing. This is the same judge who would later deny Echols' petition for post-conviction relief based upon DNA evidence. In the end, the West Memphis Three took Alford pleas (pleading guilty, but maintaining their innocence) to get out of prison. Even though both sides knew that there would not be enough evidence to find them guilty on retrial, the men did not want to chance the fact that they could be convicted by a jury of their "peers" for a second time. While their case is one of the most famous wrongful convictions, it is not an exoneration because in the eyes of the Arkansas Judicial System, they are guilty - no matter what

kind of plea they took to avoid continued incarceration. They are not eligible for any compensation, restitution, or expungement of their records. Under the Alford plea, all three men were released with a ten year suspended sentence. Judge David Burnett has since moved on to serve in the Arkansas House of Representatives (Echols, 2012).

What is important to understand about this case is that it is unlikely that any of the officials involved in the case realized they were breaking protocol. As the “outcast” who was thought to worship the supreme evil being, the very enemy of all that is right and true, Damien Echols was perceived not merely as evil but also as threatening. The officers investigating the case received reinforcement from those who had contact with Echols that he was a bad man capable of murder. These reasons came to loom large in the eyes of law enforcement officers who became convinced on those grounds that Echols was guilty. The subsequent interrogation of Miskelley and other mistakes, and apparently willful instances of persecution in the case, were in the service of putting the perpetrators of a horrific crime against three children behind bars.

Witnesses are sometimes motivated by their own concerns to misidentify a suspect. Sometimes, a purported witness may be seeking surreptitious retribution against a person who becomes a suspect as a result of the purported witness statements to investigators. Individuals who engage in this kind of behavior are well aware of the need to keep their vendetta secret, and as a result it is very difficult for investigators and prosecutors to discover that their witness is lying. Such was likely the case in the wrongful conviction of Stephen Ashe for murder in Connecticut in 2001. Marvin Ogman, a friend of the victim, who himself had been shot but lived, turned out to have gang affiliations with an enemy gang to the one with which Ashe was associated. He identified Ashe and three of his associates as the shooters, and went on to testify against them in court. However, his statements were confused and contradictory, and it became

obvious during appellate hearings that he held a personal vendetta against Ashe for reasons having to do with the latter's gang affiliations, and nothing to do with whether or not he was the person who had shot Ogman (National Registry of Exonerations, 2014).

Another motive that sometimes leads a witness to lie to investigators, and later in courtrooms, is blame-shifting. The actual perpetrator of a crime may sometimes succeed in convincing law enforcement officials, and later juries, that an innocent person actually committed their crime. Due to modern investigatory techniques, this is a tactic that seldom succeeds, but cases in which it has have been identified (Scheck, Neufield, & Dwyer, 2000). One will be discussed below.

A special category of willful misidentification arises through misuse of police informants. A common practice in some jurisdictions is to make a deal with small-time criminals to serve reduced jail time, or to avoid it altogether, in exchange for information about other criminals. These informants may often be pressured to bring information to law enforcement officers on a regular basis, which can result in informants making false accusations against innocent people. These same informants often produce correct and reliable information to law enforcement officials, and so false information is readily believed. Such cases are not easy to detect (Scheck, Neufield, & Dwyer, 2000).

One case stands out as a clear instance of informant misidentification. Ron Williamson grew up in Ada, Oklahoma. In March of 1983, Williamson was questioned by Ada police about the murder of Debra Sue Carter, a murder that occurred in December of 1982. Williamson had a reputation in town as a hard-drinker who tended to intimidate women and was known to get physical when he was rebuffed. Williamson had become friends with Dennis Fritz in the years before the murder. The two men bonded over music and "chasing" women in bars. They often

took road trips together to larger towns. Williamson, who along with his drinking was an avid consumer of Quaaludes, began to alienate Fritz. Fritz was the more responsible one of the two. He was a widower (his wife had been murdered by a neighbor in 1975) with a young daughter and he taught science at the local junior high school. By the time Debra Sue Carter was murdered, Fritz had not hung out with Williamson in several months. But when the Ada police got Williamson on their radar as a suspect, they included Fritz as well, since he was a known acquaintance.

After an initial round of interviews, there was very little movement on the case until December of 1985 when an examiner in the Oklahoma state laboratory concluded that 13 of the hairs found around the body of the victim came from Fritz. The analyst also concluded that four other hairs found on the victim were linked to Williamson. This information on its own was not enough to bring a capital murder charge (there are, after all, any number of ways to pick up foreign fibers or hairs from the environment, and only a few involve murder). A few months later, the police received the information they were looking for from an informant named Terri Holland. Holland was a scam artist and a known check kiter; she was in the Pontotoc County jail from September 1984 until January 1985. During that time she claimed to have heard a fellow prisoner, Karl Fontenot, confess to a murder. Fontenot eventually went to death row partially on the basis of Holland's evidence. Holland in turn received a remarkably light sentence for her current charges after she testified against Fontenot in court. In February 1986, Holland was tracked down in New Mexico and was facing more felony charges in Oklahoma for check kiting. She told the detectives who came looking for her that she had also heard Williamson admit to killing Debra Sue Carter while Holland was in the county jail (Williamson was also there for unrelated reasons). She gave no good explanation for why she had previously failed to mention

Williamson, stating only that she hadn't thought it necessary to mention him since everyone knew he was guilty.

Even with this "informant" testimony, no charges were immediately filed in the Carter murder. There were no fingerprints or any other evidence to tie Williamson and Fritz to the crime. There was, however, mounting public pressure to solve the Carter case.

Perhaps in response to that pressure, the District Attorney (D.A.) charged the two men with murder. Williamson and Fritz were tried separately. The prosecutor's case was based on the hair evidence, Holland's testimony and the testimony of another local man, Glen Gore, who had testified that he saw Williamson and Fritz in the bar where Carter worked on the same night she was murdered. Both men were found guilty. Williamson received the death penalty and Fritz received a sentence of life imprisonment. Both men never wavered from their claims of innocence.

Since Williamson was sentenced to death, he had automatic appeals and was entitled to an attorney, free of charge. Fritz did not have the same options, but was able to retain an attorney. In 1995, his attorney suggested that he contact the Innocence Project in New York. They looked at the case and worked with a local attorney. This attorney worked on getting DNA tested from the scene, tests that were not available at the time of the murder. DNA was extracted from the hairs found at the scene, proving that they did not belong to Williamson and Fritz. There was also DNA recovered from semen on the victim. This DNA was eventually matched to Glen Gore, the witness who had testified against the two. Gore eventually told investigators that he had not seen the two men on the night in question, but that the D.A. had threatened to bring charges against him if he did not implicate the other men. Gore was on work-release program from prison when the DNA results came in. He ran, but turned himself in a week later for

Carter's murder. Holland never recanted her story of hearing Williamson confess, though the fact that she waited until further charges were pending against her to mention anything casts serious doubt on her motives and reliability.

Williamson himself came within five days of execution. Both he and Fritz were released in 1999. In this case, the actual murderer, Glen Gore, deliberately misidentified the suspects to police in order to shift blame away from himself. Additionally, a police informant whose information should have been recognized as faulty was allowed to testify, leading to two wrongful convictions and, very nearly, an execution (Scheck, Neufeld, & Dwyer, 2000).

Official Misconduct

The majority of law enforcement officials, prosecutors, and judges are motivated to seek justice and find the truth when a crime is committed. Inevitably, as with any other field of human endeavor, a few who work in the justice system are motivated by less noble purposes. Unfortunately, everyone working in the justice system has a great deal of power, and when a single individual abuses this power, it can lead to wrongful convictions. A recent series of stories in the New York Times has brought this fact into sharp relief. A single detective named Louis Scarcella worked homicide in Brooklyn in the 1980's and 1990's, two decades which saw an average of six murders per week in Brooklyn alone. Scarcella worked over fifty cases during that time. It has since been revealed that Scarcella coached or solicited witnesses to lie and manufactured evidence in order to close cases and secure convictions. All 50 of his cases are now under review, and so far six convictions of suspects arrested and charged by Scarcella have been overturned. More will likely follow—the review of all Scarcella's cases has been prompted by information that came to light in the course of exoneration proceedings in these six cases.

The case of Robert Hill is typical of Scarcella's methods. Hill stood trial for two murders, both of which occurred on the same day in different locations, and both of which were, according to Scarcella, witnessed by Teresa Gomez, who had no other connection to Hill. Scarcella simply claimed that she was in the right places at the right times to witness these murders by coincidence. In the first murder, she claimed to have been hiding in a closet and witnessed Hill place a pillow over a man's face and shoot him. Investigators for the defense went to the crime scene and discovered there were no closets with keyholes. Other inconsistencies with her testimony were discovered during the course of the trial. Hill was acquitted of that murder.

In the second trial, Ms. Gomez's testimony was contradicted by other eyewitnesses, and was at times confused and muddled. She claims to have seen Hill shoot a man on the street, and then place him in a cab with instructions to take him to the hospital. Despite the weakness of her testimony, with no knowledge by the jury that she had testified in the other trial, Hill was convicted (Robles & Kleinfeld, 2013).

In fact, Scarcella used Ms. Gomez as an eyewitness in homicide cases no fewer than six times; it was the discovery of this fact many years later by a new district attorney that has led to the present review of Scarcella's cases. The salient point here is that one individual was able to cause the wrongful conviction of at least six men, all of whom are almost certainly innocent of the crimes for which they have spent years in prison. It can be speculated, to a reasonable certainty that other detectives, prosecutors, and judges have engaged in misconduct resulting in the wrongful conviction of innocent individuals. But, except where such behavior comes to light, the full scope cannot be known. By its very nature, willful misconduct of this kind is actively obscured by the men and women who engage in such behavior. Without heroic efforts,

it will be impossible to ever appreciate the true proportions of such misconduct as it causes wrongful convictions. Presumably, however, such behavior is limited to a relatively few individuals.

This does not mean that official misconduct can be ignored. A recent report by the NRE (NRE June 2014 Update) reveals that official misconduct plays a causal role in 46 percent of wrongful convictions. It is the second-largest cause of known wrongful convictions (the first is perjury or willful misidentification on the part of a witness. Unwitting eyewitness misidentification is the largest causal role of known wrongful convictions in exonerations through DNA evidence. Such exonerations are disproportionately people convicted of sex crimes, where unwitting eyewitness misidentification plays a larger role compared to other kinds of crime). A few individuals with less than noble intent are capable of having a significant negative impact on the justice system.

Another upshot of the fact that official misconduct is obscured is that there is no reliable evidence about the causes of such misconduct. Society is left to speculate based on commonsense knowledge of human beings in general. One intuitively appealing cause is pressure to perform. When a high profile crime occurs, or when crime rates are generally high, police officers and prosecutors come under pressure to locate the guilty parties and secure convictions against them. But in the course of responding to this pressure, some individuals may find reasons to justify serious misconduct. Of course, other motives are possible and even likely; again, there is an epistemic problem when it comes to understanding official misconduct. It is simply not known what the full scope is, or what causes it (NRE June 2014 Update).

It is unclear whether, or how often, official misconduct is the primary cause of wrongful convictions in cases where it occurs, or whether other factors are typically present. The most

that can be said is that official misconduct plays a significant role in the rate of wrongful convictions. A number of cases of wrongful conviction are known to have been caused largely by official misconduct.

One such case is The Norfolk Four. The Norfolk four are four men—Derek Tice, Danial Williams, Joseph J. Dick Jr. and Eric C. Wilson, who were convicted for the rape and murder of Michelle Moore-Bosko in Norfolk, Virginia. Their convictions were based on confessions, but from the start, this was a source of controversy, as each of the four claimed they were coerced into confessing with threats of receiving the death penalty. Moore-Bosko was the neighbor of Danial Williams. After the murder, another neighbor singled out Williams as being "obsessed" with Moore-Bosko. This is the only evidence that the police had when they brought Williams in for questioning. After 11 hours of aggressive interrogation, Williams confessed to the murder. When it was later discovered that the DNA found on the victim did not match Williams, he was interrogated again. After several hours, he told the detective of another person who was there, whom he forgot to mention during his previous interrogation. When this second person was brought in, he too confessed after hours of interrogation, but it turned out that his DNA did not match the sample found on the victim either. This continued until there were six suspects in custody. Of those six, the four men named above confessed to the murder, but the DNA found on the victim matched none of them. Eventually a different suspect, who had no connection to the four men in custody, was found to have the same DNA as the sample found on the victim. He not only confessed to the murder, he also maintained, and still does, that he acted alone in the murder of Moore-Bosko (Norfolk Four, 2014).

The confessions of the four men are deeply problematic, containing details that are contradicted by the evidence at the scene of the crime, and often contradict each other. Tice, for

instance, claimed in his confession that the crime was committed by eight men, not four, four of whom he could not remember with enough detail to give their names. Tice also claims that the eight men forced open the victim's door with a claw hammer—a point in his confession which received little attention, despite the fact that no signs of forced entry were discovered. Williams' narrative of the crime changed with each new interrogation; he now maintains he was threatened to change his story as new DNA evidence continued to emerge in the case. Both Wilson and Tice claim that the detective who interrogated them hit and threatened them during the course of the interrogation and fed them details about the crime to include in their confessions. Unfortunately, not a single minute of the several hours-long interrogation sessions from any of the four men was recorded (Berlow, 2007).

The four men convicted for the murder all served time of varying lengths. Although they are all free today, they were released for many different technical reasons. None have been officially exonerated. Nevertheless, recent developments give a strong indication that their convictions were due to official misconduct. The detective who originally interrogated the Norfolk Four, Robert Glenn Ford, has been convicted on corruption charges related to his work as a detective. Counsel for the Norfolk Four issued the following statement concerning the conclusion of Ford's trial in the United States District Court in Norfolk:

“Today, following a seven-day trial in the federal courthouse in Norfolk, former Norfolk homicide detective Robert Glenn Ford, the detective responsible for the wrongful conviction of the Norfolk Four, was convicted of multiple counts of extortion and lying to federal law enforcement officials. The evidence heard by the jury strongly supports this verdict, and further establishes a larger pattern of unlawful and dishonest conduct on

the part of Ford during his tenure as a homicide detective in the Norfolk Police Department.

The jury heard from more than 25 witnesses, including FBI agents, Norfolk police detectives, Ford's own former partner, as well as several defendants. The evidence proved that Ford sought out and accepted tens of thousands of dollars in bribes, and then provided perjured testimony and false statements to help drug dealers remain on the streets. As the prosecutors asserted in their closing arguments, Ford was a 'corrupt cop' who 'conned' judges and prosecutors" (Norfolk Four, 2011).

To be clear, Ford's conviction does not include misconduct specifically related to the case of the Norfolk four. However, given the changing nature of the successive confessions, the fact that the confessions contain many implausible details or details which are flatly contradicted by the known facts of the case or the confessions of the other men, the allegations about coercive tactics on Ford's part are plausible. The fact of his conviction on other misconduct charges serves as background. Following his conviction, it becomes much easier to believe that Ford used such tactics in this case.

Bad Lawyering

It is difficult to measure underperformance by a defense attorney. However, the details of wrongful conviction cases, taken as a whole, suggest that this cause is pervasive. When eyewitnesses misidentify a suspect and such misidentification is later exposed, it is often clear that with enough effort, the misidentification could have been known at trial. It is primarily the job of a defense attorney to discover key evidence that contradicts eyewitness testimony or to find logical gaps in such testimony. If such evidence or logical gaps exist, it is the responsibility of the defense attorney to present them at trial. Similarly, if expert witnesses present invalid or

misapplied forensic science at trial, it is the job of a defense attorney to bring this forward in such a manner that a jury understands it (Scheck, Neufeld, & Dwyer, 2000).

Of course, sometimes defense attorneys do these things and wrongful convictions still occur. The fact that it is difficult to determine whether bad lawyering played a role in each instance of a wrongful conviction that comes to light doesn't mean all cases are unclear. When, for instance, a defense attorney calls a single witness and fails to cross examine most prosecution witnesses, it should be obvious (other things being equal) the defense attorney has not done his or her job. It is often the case that defense attorneys who try cases that result in a wrongful conviction are not the same attorneys whose efforts eventually lead to exoneration. Bad lawyering is clearly recognizable in many cases of wrongful convictions (Scheck, Neufeld, & Dwyer, 2000).

Consider the case of Greg Wilhoit. Wilhoit's wife, Kathy, was found brutally murdered in her apartment on June 1, 1985. He and Kathy had separated a month earlier and she and their two young daughters were living in an apartment in a part of the city of Tulsa that is located in Osage county. It is routine to question the spouse any time a married person is murdered, and the police did question Greg Wilhoit about the murder. They found no cause to suspect him. Nine months later, however, Wilhoit was arrested for the murder of his wife. The only evidence that the Osage County District Attorney had for his case was a bite mark found on Kathy's breast. The D.A. had two "expert" witnesses who were willing to testify that the bite came from Greg. The D.A. announced that he would seek the death penalty—which may perhaps be an indication of how strong the general belief in the validity of bite mark evidence was. Greg's parents spent their life savings hiring two defense attorneys whom they believed to be the best in the state of Oklahoma.

But, after a cursory search for an expert to rebut the State's evidence which came up empty (as cursory searches often do), the attorneys suggested that Greg accept a plea deal. He refused, never wavering from the claim that he was entirely innocent of the crime that had befallen his wife. Due to the lack of preparation by the attorneys, and their insistence that the D.A. had a "smoking gun" with the bite mark evidence, the Wilhoits fired the attorneys three weeks before the trial was to begin in May of 1987.

The Wilhoits looked for a local attorney in Pawhuska, the county seat of Osage County, since they felt that person would be more familiar with the jury pool and judges of the county. They hired a new attorney who convinced them he would be ready to go to trial in three weeks and would not need a continuance. The new attorney failed to follow through on this promise. He did not find, and apparently did not search for, an expert witness to analyze the bite mark evidence. He failed to adequately prepare for the trial and often missed appointments. When the Wilhoits would come to his office for a meeting he was often late, if he showed up at all, and usually smelled of alcohol. When the trial began, it became painfully clear how inept and unprepared the new attorney was. Unfortunately for Wilhoit, the prosecutor was well prepared. The difference in competence and smoothness of presentation was clearly persuasive to the jury.

In an act of desperation the Wilhoits hired a private investigator (PI) midway through the trial. The same day that he was hired by the Wilhoits, the P.I. found a dentist in Kansas who had the expertise they needed. He also happened to be the president of the American Board of Forensic Odontology. While it was too late for him to be called as witness at trial, he agreed to look at the evidence and give his opinion about whether Greg could have made the bite mark on Kathy's breast. He came back with a definitive no. This dentist agreed to confer with Wilhoit's current lawyer and offer strategy on how to counter the claims made by the D.A.'s expert

witness. For reasons never explained, Greg's lawyer refused to meet with the expert. The trial continued with the predictable result. After brief deliberations, Greg was found guilty of Kathy's murder and was sentenced to death.

Since Greg's parents had spent all of their money on attorneys, all of whom turned out to be worthless, and all Greg's property had been sold to finance the defense, Greg was able to receive the services of an attorney from the Oklahoma Indigent Defense System (OIDS). This attorney would handle his automatic appeal. Luckily, the new attorney agreed to meet with the forensic odontologist from Kansas. The dentist had been so appalled at the trial that he wanted to help in any way possible. They sent the bite mark evidence to twelve forensic odontologists across the country. All twelve came back with the same opinion - the bite mark on Kathy's breast could not have come from Greg.

Four years after his conviction, Greg was granted an evidentiary hearing. During this hearing, Greg's OIDS lawyer brought up Greg's ineffective counsel, the disputed bite mark evidence, and the lack of any other evidence. The case was eventually overturned due to incompetent counsel. The appellate court stated that he "effectively had no counsel and would have been better off defending himself" (*Wilhoit v. State*, 1991).

But, Wilhoit's nightmare was not over. The District Attorney, perhaps unable to admit that he had convicted an innocent man, filed charges a second time. On his second filing, he alleged that Greg had hired someone to kill Kathy, who also bit her, while Greg watched the entire scene. At the conclusion of the second trial, the evidence against Wilhoit was so flimsy that the judge entered a directed verdict of not guilty. Wilhoit was finally free, but only after having spent four years in prison, and at the cost not only of all his property but also his parents' savings (Vollertsen, 2011).

Unreliable Forensic Science

Another, perhaps surprising, common source of wrongful convictions is unreliable or invalid forensic science. After eyewitness testimony, testimony by individuals perceived to be expert in some relevant field is very convincing to juries. Forensic science, or generally any science, is obscure to the average person likely to end up on a jury; if an expert witness takes the stand and explains that science implicates the accused, it is powerfully persuasive to a jury. Implicit in this attitude is a general trust of science and scientists. However, a large number of wrongful convictions have turned on unreliable or non-validated forensic science, represented as valid and reliable in court. In 49 percent of DNA exonerations, unvalidated or improper forensic science contributed to the wrongful conviction (Innocence Project, 2014).

As with eyewitness misidentification, there are a number of aspects of how unreliable or invalid forensic science can lead to wrongful convictions, each of which should be understood in order to in turn understand the phenomenon of wrongful convictions. However, unlike eyewitness misidentification, there are fewer categories of causes to consider. In fact, there are only two. A particular test or technique in forensic science may itself be unreliable or invalid. Or, it may be that the science itself is valid, but misapplied in some particular case (Scheck, Neufeld, & Dwyer, 2000).

In the first instance, it is more likely that, rather than a technique or test being wholly invalid, its level of validity is not correctly appreciated. Such seems to have been the case in the misidentification of Oregon attorney Brandon Mayfield in the terrorist bombings in Madrid in 2004. In that case, Spanish authorities sent digital images of fingerprints associated with the bombings to the FBI, who matched them to Mayfield on the basis of eight points of similarity, considered sufficient at the time when working with digital images. Mayfield was arrested and

held incarcerated for 17 days before it became apparent that the identification was a mistake. Mayfield was released (and another man—one of the actual terrorists—was arrested), but it was a clear case in which accepted points in the science of forensic fingerprint analysis turned out to be incorrect (Coles, 2005).

It ought to infer that other such erroneous doctrines in forensic science are at least possible. A test may be thought to be wholly reliable, but is in fact only reliable under certain conditions or to a certain degree. When this fact is not explained in court or understood by a jury, it can result in misjudgment of crucial details of a case, and this in turn can lead to a wrongful conviction.

The misapplication of a valid test or technique is more common. Human beings are error-prone, and even well-intentioned forensic experts can make mistakes which may result in a wrongful conviction. One such example is the case of Stephen Cowans, convicted of shooting a police officer on the basis of eyewitness identification and fingerprint analysis at the scene of the shooting. Six years into Cowans' sentence, DNA testing ruled him out as a possible suspect. That, along with better fingerprint analysis that corroborated this result, led to his exoneration (Coles, 2005).

Juveniles

Special attention is required when considering cases of juvenile wrongful conviction. Of course, wrongful convictions are not confined to adult cases; the same mistakes and willful misconduct that cause wrongful convictions of adults can cause wrongful convictions of juveniles.

While it can be debated whether juveniles should be interrogated in the same manner as adults, there are several issues that should be discussed when considering adult versus juvenile

interrogation practices. The main issues that have come to light are juvenile maturity (both cognitive and physical), law enforcement perceptions of juveniles, and case law regarding juvenile interrogations (Vilijoen, Klaver & Roesch, 2005) .

Understanding the law, and how it works, is very important to anyone in police custody. Juveniles normally lack this understanding and it is especially marked in juveniles under the age of 15. During their study of 152 juvenile defendants, aged 11 to 17, Vilijoen, Klaver and Roesch (2005) found that defendants with a poor understanding of interrogation rights, as most juveniles are, were more likely to report that they had waived their right to counsel. It is quite possible that many youths waive this right without truly understanding the repercussions of their actions. These same defendants are also much more likely to accept plea bargains, argue with their appointed counsel, and disclose confidential information (Vilijoen, Klaver & Roesch, 2005). While most would not expect a juvenile to know the full extent of their legal rights, it is apparent that their lack of knowledge and exposure to dramatized legal proceedings on television have an impact on their ability to make good legal decisions.

Deception is a popular tool used by investigators during interrogations. Courts have consistently held that confessions obtained using deceptive practices do not make the confession involuntary. As long as the suspect eventually confesses, and signs a statement to that effect, the police have what they need. Law enforcement, much like the rest of the population, has a hard time believing that anyone would confess to a crime that they did not commit. Juveniles who have been taught to respect authority and be truthful with police may not know that the police may lie to them during an interview. Many think that if they tell the police what they want to hear, they will get to go home (Scott-Hayward, 2007).

There are many real-life cases of this happening. In 1998, 14 year-old Michael Crowe became a suspect when his 12 year-old sister was stabbed to death in her bedroom in their California home. Crowe was taken into custody and questioned without an attorney or his parents present. The officials in the case gave Crowe a "Computer Voice Stress Analysis Test" and then told him, incorrectly, that he had failed this test. Even though Crowe had no memory of the crime, and there were reports of a drifter in the neighborhood, he eventually confessed to the crime. A classmate of Crowe's was also questioned and admitted to helping Crowe commit the murder. Eventually, the drifter, Richard Tuite, a convicted felon, was found to have the sister's blood on his clothing and was convicted of the crime. The two juveniles were awaiting trial when Tuite was caught (Scott-Hayward, 2007). Would Crowe have confessed to the crime if officials had not lied to him? There is no way to know for sure, but in this case it certainly appears that the lie by interrogators lead this juvenile to believe, that although he had no memory of it, he had killed his sister.

To be fair, it should be noted that lying to suspects is commonplace in the law enforcement industry and many officers are trained to use this, and many other, questionable techniques during interrogations. This is certainly not a new tactic and can be used successfully in many cases. The main issue at play is how juveniles perceive and understand the tactics used by professionals. Many investigators use the "Reid technique" during interrogations. This method of interrogation is taught, and sold, by John E. Reid & Associates. According to Kostelnik and Reppucci (2009) "the Reid training manual states that when interrogating a juvenile 'the same general rules prevail as for adults', but the Reid website mentions "every investigator must use extreme caution and care when interviewing or interrogating a juvenile" (p.364).

The fact remains that currently there are two different systems—one for juveniles and one for adults—and the criminal justice community must decide the best way to utilize these systems so that juveniles are not at such a high risk for false confessions. Citing Gross, et al., Kostelnik and Reppucci (2009) state that "42% of the cases of juvenile exonerees involved false confessions, compared with 13% of adult exonerees" (p. 363). Recent studies have shown that youthfulness is negatively related to comprehension of Miranda rights and positively related to the decision to waive these rights (Viljoen, Klaver & Roesch, 2005). Youthfulness is positively related to measures of psychosocial immaturity which is associated with diminished decision making abilities within the legal context; it is also positively associated with susceptibility to stress (which has been shown to impact judgment) and finally, youthfulness has been shown to be positively related to measures of interrogative suggestibility (which is associated with false confessions) (Kostelnik & Reppucci, 2009).

The Causes of Exoneration

The causes of wrongful conviction are, in some indirect sense, causes of exoneration—if there were no wrongful convictions, there could be no exonerations. However, it should be clear that while the causes of wrongful conviction are necessary to exonerations, they are far from sufficient as causes of exoneration. Wrongful convictions are simply a necessary background condition. Other conditions must be met before an exoneration can occur; in order to get a firm grip on wrongful convictions and what the data on exonerations reveals about wrongful convictions, it is also necessary to understand how exonerations come about. What factors are necessary before an exoneration can occur? Are there common themes in the stories of exonerees which may distinguish the events of their incarceration from others who may be innocent but in prison, or actually guilty? Previously, the researcher detailed the causes of wrongful conviction. This was possible in part due to extensive data available from the National Registry of Exonerations. No such database exists by which it is possible to collect and categorize the causes of exoneration. Nevertheless, the available literature on wrongful convictions describes some common conditions that come before exoneration.

The requisite conditions or causes of exoneration are fewer in number than the causes of wrongful conviction. Essentially, there are only four causes or requisite conditions that, in addition to at least one cause of wrongful conviction in each case, are individually necessary and jointly sufficient for exoneration.

1. It is essential that a wrongfully convicted individual have access to someone who is willing to listen and help, and with the power to do the same.
2. Closely related to the first condition, the wrongfully convicted person needs access to competent counsel.

3. It is critical that counsel for a wrongfully convicted person have access to all evidence in the case.
4. Finally, no exoneration is likely to occur without appropriately neutral attitudes on the part of the Judiciary and District Attorneys.

Once a person is convicted (whether wrongly or not), funds to continue a legal fight are typically exhausted. Indigent defense funds are available in many states, but often have stringent requirements in terms of records and other documentation that must be produced, and this can be quite difficult for a person behind bars to overcome. Innocence projects and similar organizations have, most recently, filled the need represented in the first condition. Of course, the number of potential wrongful convictions far exceeds the collective ability of all such present organizations to examine or help. It is rare for an innocence project to get involved with anyone who is sentenced to less than 15 years (National Registry of Exonerations, 2014).

Of the 1,140 cases in the NRE database, only 195 were individuals sentenced to less than 15 years in prison. It is unclear how many of the cases in the database had an innocence project involvement. This data indicates that those wrongfully convicted of lesser crimes, or who are for some reason given a lighter sentence, are relatively unlikely to either seek aid or attract the attention of those who can help. Given the number of potential cases and the time it takes to secure an exoneration in most cases, innocence projects typically only become involved with individuals serving longer sentences. Not only is there a dearth of resources with which to manage and investigate cases where shorter sentences are involved, often by the time an exoneration is secured, a person serving a shorter sentence will already have been released (National Registry of Exonerations, 2014).

Despite these remarks, innocence projects have proven to be effective in a number of cases. Unfortunately, no data exists on the outcomes of all cases taken on by innocence projects. When examined from the human perspective, however—from the point of view of an innocent person whose freedom is finally and rightly restored—innocence projects are often nothing short of a godsend. The data in the NRE database bears out the impact that innocence projects can have. Locales that are near a local innocence project are more likely to have higher exoneration rates than demographically similar areas which lack such local access. For example, exonerations in Chicago are higher than in either New York City or Los Angeles—despite the fact that both of the latter cities have larger populations and comparable crime rates (NRE database, 2013). One simple reason for this is that a number of innocence projects and legal clinics established to help the wrongfully convicted exist in and around Chicago—the most famous (and also one of the largest) is operated by Northwestern University law school. Innocence projects provide not only a screening process, but most importantly, access to competent counsel for cases they decide to handle (National Registry of Exonerations, 2014).

Bad lawyering is often a cause of wrongful convictions. It follows that a continuation of bad lawyering is unlikely to secure an exoneration. Access to competent counsel is almost always necessary to right a wrongful conviction. While innocence projects often provide access to competent counsel, such organizations are not the only means by which an innocent person sitting behind bars may get access to such counsel. By whatever avenue a wrongfully convicted individual is connected to competent counsel, this is the most essential step in the process. Persons unfamiliar with the law and the justice system have little hope of navigating the necessary steps to getting their case re-examined in court (Innocence Project, 2014).

Additionally, competent attorneys, especially those who have worked on wrongful conviction cases in the past, bring a number of professional contacts with them. Through a competent attorney, access to forensic experts, private investigators, and other such individuals can often be secured.

Once competent counsel is secured, it is necessary to re-examine the evidence in the case, whether or not such evidence was presented at trial. Very often, a critical piece of evidence is ignored and never placed in front of a jury. Other times, a piece of evidence is presented at trial but misinterpreted, or contradicted by other more conclusive evidence. Such is often the case with eyewitness testimony, which, given its unreliability, should be discounted if directly contradicted by DNA or other more incontrovertible forensic evidence (Innocence Project, 2014).

Many jurisdictions only retain physical evidence for a few years, and have shoddy filing practices once a case results in a conviction and the person is sent to prison. One of the major reasons the wrongfulness of the conviction does not come to light is that crucial evidence is lost or destroyed. Without access to all records and evidence, it may be impossible to secure an exoneration in cases of a wrongful conviction. But, conversely, when all evidence and records are maintained indefinitely, an innocent person has the best possible opportunity to be exonerated (National Registry of Exonerations, 2014).

Such opportunities will seldom be realized without an appropriately neutral attitude on the part of the judiciary and district attorney's offices. If an appellate court is convinced that wrongful convictions are vanishingly rare, only the most compelling evidence is likely to result in an exoneration, even if the evidence sufficient for conviction in a particular case is singularly weak. Similarly, without cooperation from district attorneys, who may be tempted to view

exonerations as a threat to the record or legacy of their offices, attempts to obtain an exoneration are often futile. By contrast, if a court is advised of current research on wrongful convictions, and district attorneys view rightful exonerations as the expression of justice rather than an attack on their offices, the path to exoneration is at least fair (Innocence Project, 2014).

Methods

The hypothesis was that there would be more wrongful conviction cases in rural counties of the United States, opposed to urban counties. The dependent variable was wrongful conviction. This variable was defined as those cases retrieved from innocence projects and National Registry of Exoneration data that shows that an individual was exonerated for a crime for which he/she had previously been convicted. The independent variable was geographical location based on data from the 2010 U.S. Census. This variable was defined as the county where the wrongful conviction occurred and if that county was identified as either rural or urban based on the 2010 U.S. Census. Since all the data used was publicly available, no Institutional Review Board (IRB) application was necessary.

Sample

Data was retrieved from the database maintained by the NRE to create an adequate sample. This data was cross-referenced with exoneree data listed on various innocence project websites to ensure there was no duplication of cases. Information retrieved included conviction year, county where conviction took place, exoneration year, and exoneration reason. The sample consisted of 1,140 wrongful conviction cases in the United States, as this was the number of individual exoneration cases available from the NRE database at the time research began. Purposive sampling technique was used, as the only data to be included in the sample was location of wrongful conviction. Purposive sampling is a type of non-probability sampling where a researcher consciously selects particular elements or subjects to be included in a study. It normally targets a particular group of people, in this case those individuals who had been exonerated of a crime. It was not necessary to include data on convictions that did not include an

exoneration. The only cases that were included in the NRE database, that are not included in this sample are those that took place under federal jurisdiction, as opposed to state.

Data Collection

Data was gathered concerning wrongful convictions from 25 innocence projects (see appendix A) and the NRE database (see appendix B). All data was current as of November 1, 2013. Organizations doing work to overturn wrongful convictions maintain databases which list the accused, the location where he/she was convicted and in some cases, the evidence that was used to prove the accused was wrongfully convicted. While the data collection method utilized secondary data from the different innocence projects and the NRE, it would be possible to confirm the information is correct through publicly available court records. Using both methods to verify the data could help alleviate any potential bias on the part of the innocence projects and the NRE in making the public aware of these wrongful conviction cases. Due to time constraints, examination of public records was not performed for this project.

Once gathered, the data was compiled in an Excel spreadsheet listing the name of the exoneree, the county where the conviction took place and the reason for the exoneration. The reason for the exoneration was considered ancillary data and was not actively used in this research. Data was also gathered from the 2010 U.S. Census that lists rural and urban criteria for all U.S. counties. Since the U.S. Census does not specify if a county is strictly urban or rural, a determination was made that if more than 50 percent of a county is classified as urban by the U.S. Census, the county will be listed as urban for this research. All U.S. Census data was compiled in an Excel spreadsheet, listing each U.S. county and if that county is considered urban or rural based on previously mentioned criteria.

Data Analysis

From the cases gathered, it was determined in what county the individual was originally convicted. Each case was coded as to where the wrongful conviction took place and whether that location was urban or rural based upon the geographical definition in the 2010 U.S. Census. A spreadsheet containing the previously mentioned criteria was created (see appendix B). From this spreadsheet, a cross-query was run that compares the two spreadsheets and codes the county of wrongful conviction as rural or urban. Once the spreadsheet that lists all known wrongful conviction cases, including the county where the wrongful conviction occurred, was complete, those counties were queried in the U.S. Census database using a tool called VLOOKUP in Microsoft Excel. VLOOKUP allows a user to set up specific parameters in a query between two spreadsheets with the program returning specific results if the defined parameter is found. If the county was listed on the U.S. Census database as 50 percent or more urban, it would populate a new field, in the wrongful conviction database, as urban. Those under 50 percent were populated as rural. Once this analysis was complete, the percentage of wrongful convictions that occur in urban counties as opposed to rural counties was available.

Limitations

There are a few limitations to this type of sample, including unintentional bias in gathering data. Every effort was made, based on the data available, to pull wrongful conviction cases from as many geographical locations in the U.S. as possible. A search of all innocence projects available on the Internet was made (see appendix A) and this data was cross-referenced with the data from the NRE to avoid duplications and include as many cases as possible. While the NRE includes cases beginning in 1989, the compilation of the data only started in the last few years and may be somewhat limited. The NRE is also dependent on "word of mouth" or cases profiled

in the media to be included in their data as there is no national system, or requirement, for reporting exonerations. Rural areas of the U.S. may not have the proper resources available to document wrongful convictions when those cases are brought to light. A final limitation was in using secondary data for this sample. The researcher was dependent upon other individuals who have previously compiled the data on wrongful conviction cases.

Discussion

Wrongful convictions are only known through exonerations. There may occasionally be a wrongful exoneration (an exoneration of a guilty person), but given the scrutiny which accompanies a typical exoneration, these are likely very rare, if they occur at all.

To recap, the causes of wrongful conviction are:

1. Eyewitness misidentification
2. Invalid or misapplied forensic science
3. Official misconduct
4. Bad lawyering

This list conforms to the list of causes of wrongful conviction assembled by the National Registry of Exonerations; the only difference is that the present list subsumes certain causes on the NRE list as sub-categories. This researcher has gone into some detail about the causes of wrongful conviction to establish a central point related to the present thesis. Specifically, it is expected the causes of wrongful convictions will be unaffected by geography or locale. That is, the causes of wrongful conviction should be distributed evenly across the country provided demographic similarities are taken into account. Two cities with roughly similar demographics should, if the analysis below is correct, have roughly equal numbers of wrongful convictions over any given period of time.

The data presented here show significant disparities among demographically similar cities in exoneration rate. Again, the causes of wrongful conviction and the causes of exoneration differ. But given that a wrongful conviction is wrong (which seems true by definition) and hence unjust, the goal of our system of justice should be to right wrongful

convictions. If this goal were being met, then, as this researcher will presently argue, exoneration rates should also be distributed evenly with respect to per capita conviction rate.

It is not possible to present empirical evidence that the causes of wrongful conviction are distributed evenly. This is because, again, wrongful convictions are only discovered through exonerations, and there are almost certainly many wrongful convictions that never come to light. However, in this case, available evidence and common sense are more than sufficient to establish the critical point that the causes of wrongful conviction should be distributed evenly.

Consider first eyewitness misidentification. The causes of unwitting misidentification are the unreliability of the human perceptual system, the unreliability of human memory, unwitting suggestion by law enforcement, and psychological pressure to identify a suspect. The errors inherent in the human perceptual system and the causes of unreliable memory are intrinsic features of human beings. People in Chicago do not have inherently more reliable senses or memories than do people in New York City. Unwitting suggestion by law enforcement is by definition not understood or predicted (though it may be predictable), and so the distribution of such events should be random. Psychological pressure to identify a suspect derives from intrinsic features of human psychology that are, again, present in every human being. It would be a very strange world, indeed, if there were significant, or even detectable, differences in the distribution of any of these factors across differing locales.

The causes of willful misidentification are similarly not susceptible to geographic disparity. It would be odd, for example, if very many more people hold vendettas, and are hence willing to perjure themselves to ensure the conviction of an enemy, in one locale as compared to a demographically similar locale. It would be equally odd if those who are actually guilty of a crime are in one locale so honest as to seldom try to shift the blame onto another person, while in

a similar locale criminals do attempt blame-shifting behavior. The same could be said for police informants; the pressure an informant feels, and the inappropriate actions informants take in response to such pressure, is a manifestation of a universal psychological tendency in human beings. The fact that willful misidentifications play so strong a role among the causes of known wrongful convictions is further indication that willful misidentification is spread evenly with respect to locale.

The same remarks about willful misidentification made above apply also to official misconduct. Again, the world would be a very odd place if prosecutors, police officers, and judges in, say, Dallas, were all incorruptible paragons of justice and right while those in Houston were all slaving and scurrilous knaves motivated by a lust for power and greed. It is much more likely that most justice system officials are human beings in both locales—flawed, perhaps, but most desirous of doing a good job and finding the truth, while a few are corrupt and willing to engage in misconduct to secure a conviction, whether or not it is right. Detailed data is available in the NRE database to support the claim that official misconduct is evenly dispersed with respect to locale. Of the cases tracked through the end of 2013, official misconduct is cited as a causal factor in exonerations in 40 of the 48 states with at least one exoneration on the list. Again, it is impossible to present data that establishes this point conclusively. Misconduct is by nature willful, and is therefore actively hidden from the view of others. The fact that only an indeterminate fraction of wrongful convictions are recognized is a major factor preventing full appreciation and disclosure of the extent of official misconduct in wrongful convictions. However, the prevalence of official misconduct as a cause, and the fact that it is found in at least 40 of 50 states is a strong indication that this cause of wrongful convictions is spread evenly with regard to geography.

When some aspect of accepted forensic science turns out to be incorrect, until it is found to be incorrect, it is likely that forensic scientists more or less universally believe it to be valid. As a cause of wrongful conviction, invalid forensic science is almost certainly distributed evenly with respect to geography. The same conclusions follow for mistakes in applying forensic science correctly. The sources of human error are evenly distributed; and everyday errors are also evenly distributed. It would be strange indeed if this specific subset of errors were confined to some locales and not others. The fact that forensic experts are often called upon to cross state or regional borders lends further support to this point. If this were not the case, it could be that perhaps a good forensic science program in one city would lead to fewer mistakes there than in another city with a mediocre program—though national accreditation standards will tend to militate against this potential effect. But people do not necessarily settle where they graduate from their degree program. Individuals qualified to analyze forensic evidence can be called to testify anywhere in the U.S., not merely where they live. In short, it is likely that this cause of wrongful convictions can be found in any locale.

As mentioned in the discussion of bad lawyering, this cause is difficult to quantify. As a simple matter of incompetence, however, the remarks made above about mistakes in application of forensic science and official misconduct also apply. There is a special additional reason to believe that bad lawyering is likely to be distributed without regard to locale. Our system of justice is contentious. Other factors being equal, the side whose attorney makes the best case in court is likely to win. But presumably, if all the lawyers in a particular locale are incompetent when compared to those in another, this would include prosecutors as well as defense attorneys. In order to think that bad lawyering, as a cause of wrongful convictions, is not distributed

without regard to locale, one would have to hold that the prosecutors in that locale are competent, but the defense attorneys tend not to be. Such a situation would be doubly strange.

For these reasons, this researcher concludes that the causes of wrongful conviction are likely to be distributed evenly over the U.S., with no one locale any more likely to contain such causes than any other. The reason this is important is because this researcher has discovered a number of disparities in exoneration rates from one locale to another that is demographically similar. If the efforts to right wrongful convictions were adequate, there should be no such disparities. Ergo, efforts in this direction are not adequate.

Consider, for example, New York City and Chicago. Demographically, both are similar locales, with New York City being nearly four times as populous per the 2010 census. Both are urban areas in “blue” states with crime rates that are roughly similar. Since the NRE started keeping records, there have been 92 exonerations in Chicago, but only 57 in New York City. If it can be assumed that crime rate, conviction rate, and wrongful conviction rate track roughly with population, there should be over 360 exonerations in New York City (NRE database, 2013).

Another instance can be found by comparing Dallas and Houston. Again, these two cities are similar demographically, with Houston home to one million more people than Dallas. The same pattern is evident. In Dallas, since records began accumulating in the NRE database, there have been 49 exonerations, but only 21 in Houston. If the same exoneration rate were present in Houston as in Dallas, there should be 83 exonerations to date in Houston. If this researcher is correct that the causes of wrongful conviction are present in roughly even proportion across demographically similar locales, these kinds of disparities require explanation (NRE database, 2013).

In fact, such explanations are not difficult to find. Northwestern University Law School is heavily involved in the work of the innocence project and runs a legal clinic to help those who may be wrongfully convicted. While there are such clinics in New York, they are so far not as robust or as well funded. The District Attorney's office in Dallas has a long-standing policy of reviewing cases after conviction. The Dallas D.A., Craig Watson, created a special Conviction Integrity Unit that reviews all cases to ensure that any potential errors are treated appropriately. Additionally, the forensics lab in Dallas maintains all evidence it analyzes, making it available for DNA or other testing later. No such policies exist in the Harris County District Attorney's office or forensics labs; many attempts at exoneration have met with frustration due to evidence having been destroyed shortly after a conviction is secured (NRE June 2014 update).

The takeaway from this is a fairly simple point. The causes of exoneration are not evenly spread with respect to locale. If this nation's system of justice is to be actually just, they should be. The causes of exoneration are largely resources available to those who claim to be wrongfully convicted and access to individuals who can help them prove their case. Efforts such as those by Dallas D.A. Craig Watson should be standard procedure in D.A. offices across the country, or, failing that, some procedure which achieves the same ends should be established. In general, to affect true justice in the justice system, it is necessary to ensure that the causes of exoneration are as present in all places and times as are the causes of wrongful conviction.

Initial findings indicate that there is not a higher instance of wrongful convictions in rural areas as compared to urban areas. Approximately 1,140 exoneration cases were examined and the findings show that roughly 10 percent of exonerations occurred in rural counties. While this information is not consistent with what was posed in the original hypothesis, it is not definitive as it relates to overall exoneration trends. Nor is it the case that the initial hypothesis is

disproven. Instead, the present research uncovers other interesting points. Among these is that data on exonerations does not reveal a complete picture of wrongful convictions. Gaps in the reporting of exonerations are certainly problematic to those studying the subject of wrongful convictions. But more urgent is the fact that not all wrongful convictions result in exonerations. The examination of exonerations by locale has revealed that a primary cause of this unfortunate fact is the uneven availability of needed resources for the wrongfully convicted.

The National Registry on Exonerations discussed the issue of under-reported exonerations, among other issues, in their first official report. They state:

The 873 exonerations in the registry come from 43 states, the District of Columbia, the Commonwealth of Puerto Rico, 19 federal districts and the military. They are very unevenly distributed by state, and especially when broke down by county. This suggests we are missing many cases - both innocent defendants from jurisdictions where exonerations are vanishingly rare, and exonerated defendants whose cases have received little or no public attention (Gross & Shaffer, 2012, p.32).

The issue is hopefully being mitigated by the proactive efforts of the National Registry of Exonerations. This group is now actively trying to document all exonerations in the United States. This is a herculean effort as there are no known state or federal laws which require this reporting to be done. The authors of the NRE report state that there are multiple cases that came to their attention either by word of mouth or by having a colleague directly involved in an exoneration case (Gross & Shaffer, 2012).

While this issue has not been a major focus of the present thesis, it is relevant to a more general theme that looms large in the preceding work: the need for more accurate and complete data. It is likely, upon reflection, that exonerations in urban areas are more likely to be reported

to the NRE database simply because of a greater concentration of resources in urban areas, and the prevalence of innocence projects there as opposed to rural areas. These and other issues mentioned in the present thesis have made it impossible to either confirm or disconfirm the original hypothesis; the best that the present researcher can say is that much more work is required before a picture of wrongful convictions in the U.S., which is complete enough to support investigation of such a hypothesis, is available.

In the meantime, extensive investigation of the causes of wrongful conviction strongly suggests that such causes are evenly distributed, without regard to locale. Discovered disparities in the geographic distribution of exonerations among demographically similar areas (of which New York and Chicago, and Dallas and Houston, served as case examples), and available correlations between the causes of exoneration in those areas, strongly suggests that more exonerations would likely occur in such areas were more resources to be devoted to righting wrongful convictions.

The numbers available, therefore, do not bear out the hypothesis of more wrongful convictions in rural counties. But this does not necessarily mean that it is not the case that there are more wrongful convictions, or more wrongful convictions per capita, in rural areas. To repeat a point that has been made a number of times above: wrongful convictions can only be discovered directly through exoneration. It may be the case that many wrongful convictions occur in rural areas, and that those wrongful convictions never progress to exoneration. It is worth noting that there will always be more exonerations in urban counties since there are more convictions in those areas. But, even looking at the exoneration rates at a per capita basis in rural versus urban counties, the urban counties still have higher numbers of exonerations overall.

Conclusion

While the initial hypothesis turned out to be impossible to prove or disprove, the findings have uncovered several previously overlooked issues - reporting of exonerations, the impact of innocence projects in urban areas, and the uneven availability of resources for those who are wrongfully convicted. Most innocence projects are located in urban counties and work directly with a school of law in that area. It does not take a leap of faith to see that there will be more exonerations in areas where innocence projects are hard at work to help those wrongfully convicted when compared to areas where no such aid is possible.

If it is the case that wrongful convictions are unjust (as they are) and the justice system exists to prevent injustice, wrongful convictions are clearly significant errors that require immediate attention. From the point of view of the innocent person incarcerated, and possibly awaiting execution, for a crime of which the person is innocent, wrongful convictions are a nightmare. Conviction of a felony in the United States, whether wrongful or not, is devastating to the life prospects of the convicted person. When a person is wrongfully convicted, it is a fact that such devastation is undeserved. For this reason, it is imperative that more resources be funneled into helping the wrongfully convicted. Such resources should be made available without regard to geographic area including access to competent counsel, availability of all evidence from a case, and appropriate attitudes among the judiciary and district attorney's offices. Additionally, district attorney's offices should house conviction integrity units, staffed by independent researchers who examine present or past cases for potential errors. The goal of a district attorney is to seek justice, not gratuitous convictions, and such units help to ensure this goal remains primary.

Future studies into wrongful convictions should expand on the efforts of the present research. There is a general paucity of available information on the psychology of official misconduct; solid academic work into this major cause of wrongful convictions is sorely needed. It should be possible to interview those officials who have behaved in a dishonorable manner with the aim of gleaning some insight into the psychological processes which led to such behavior. While the present researcher is reasonably confident that the claims about official misconduct made here have been correct, it is all too evident that such claims have been rather thin when compared to the claims made about unwitting eyewitness misidentification—a subject on which there exists a cornucopia of evidence from many different directions of inquiry.

Similarly, there is not a great deal of research on the causes of willful eyewitness misidentification. Presumably, lying in a court room or in the course of a police investigation involves the same or similar psychological factors, regardless of whether one is a witness or an official in the justice system. Nevertheless, this presumption should be tested. Many of those who perjure themselves in order to secure a conviction against an innocent person are required to serve time in prison and may be required to attend counseling while there. Notes from such counseling sessions, stripped of all identifying information, would be of great value in understanding how wrongful convictions happen. It would also aid both law enforcement officials and prosecutors in ensuring the integrity of their cases by providing background data on why witnesses sometimes offer malicious lies.

Finally, it is to be hoped that statutes are passed, or procedures voluntarily adopted, requiring the reporting of exonerations to a national database. While this will not resolve all the issues preventing unobstructed study of wrongful convictions, it will provide much more clarity

than exists at present. Such clarity will, in turn, only aid in the efforts to improve the justice system and right wrongful convictions.

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Appendix A

State	Website	County?	Reason for Exoner-ation?	Approx. number of records	Listed on NRE?
Arizona	http://www.azjusticeproject.org/	No	Yes	12	Yes
	http://arizonainnocenceproject.org/AzIP_4/Home.html	No	Yes	10	Yes
California	http://californiainnocenceproject.org/	Yes	Yes	25	Yes
	http://law.scu.edu/ncip/	Yes	Yes	12	Yes
Florida	http://www.floridainnocence.org/	Yes	Yes	13	Yes
Georgia	http://ga-innocenceproject.org/index.html	Yes	Yes	5	Yes
Idaho	http://innocenceproject.boisestate.edu/	Yes	Yes	1	Yes
Illinois	http://www.luc.edu/law/experiential/lifeafterinnocence/index.html	No	Yes	17	Yes
	http://www.law.northwestern.edu/legalclinic/wrongfulconvictions/	Yes	Yes	150	Yes
	http://www.uis.edu/innocenceproject/	Yes	Yes	6	Yes
Kentucky	http://dpa.ky.gov/kip/	Yes	Yes	10	Yes
Louisiana	http://www.ip-no.org/	Yes	Yes	40	Yes
Michigan	http://www.law.umich.edu/clinical/innocenceclinic/Pages/default.aspx	Yes	Yes	18	Yes
Mississippi	http://mississippiinnocence.org/	Yes	Yes	11	Yes
New York	http://www.innocenceproject.org/	Yes	Yes	311	Yes
North Carolina	http://www.nccai.org/index.html	Yes	Yes	6	Yes
Ohio	http://www.law.uc.edu/o-i-p	No	Yes	8	Yes
Washington	http://www.law.washington.edu/Clinics/IPNW/Default.aspx	Yes	Yes	12	Yes
Wisconsin	http://law.wisc.edu/fjr/clinicals/ip/	No	Yes	10	Yes

Midwest	http://www.themip.org/	No	Yes	9	Yes
Mid-Atlantic	http://www.exonerate.org/	Yes	Yes	40	Yes
New England	http://www.newenglandinnocence.org/	Yes	Yes	39	Yes
Rocky Mountains	http://rminnocence.org/	Yes	Yes	3	Yes
Faith Based	http://www.centurionministries.org/	Yes	Yes	52	Yes
Exonerations	http://www.law.umich.edu/special/exoneration/Pages/about.aspx	Yes	Yes	1271	

Appendix B²

Last Name	First Name	Age	Race	Sex	State	County	Percent Urban	Urban?
Abbitt	Joseph Lamont	31	Black	Male	North Carolina	Forsyth	92.65	URBAN
Abdal	Habib Warith	43	Black	Male	New York	Erie	90.6	URBAN
Acero	Longino	35	Hispanic	Male	California	Santa Clara	98.92	URBAN
Adams	Johnathan	12	Caucasian	Male	Georgia	Carroll	58.17	URBAN
Adams	Jarrett M.	17	Black	Male	Wisconsin	Jefferson	65.95	URBAN
Adams	Sandra	29	Black	Female	New York	Monroe	93.55	URBAN
Adams	Sean	21	Black	Male	Connecticut	New Haven	96.36	URBAN
Adams	Randall D.	28	Caucasian	Male	Texas	Dallas	99.31	URBAN
Adams	Anthony	26	Hispanic	Male	California	Los Angeles	99.39	URBAN
Adams	Laurence	19	Black	Male	Massachusetts	Suffolk	99.93	URBAN
Adams	Kenneth	21	Black	Male	Illinois	Cook	99.95	URBAN
Adams	Don Ray		Black	Male	Pennsylvania	Philadelphia	100	URBAN
Addison	Ronald	20	Black	Male	Maryland	Baltimore City	100	URBAN
Aguirre	Omar	28	Hispanic	Male	Illinois	Cook	99.95	URBAN
Aldape Guerra	Ricardo	20	Hispanic	Male	Texas	Harris	98.79	URBAN
Aldridge	Robert	24	Caucasian	Male	Ohio	Montgomery	95.67	URBAN
Alejandro	Gilbert	35	Hispanic	Male	Texas	Uvalde	68.62	URBAN
Alexander	John Randall	22	Caucasian	Male	Mississippi	Panola	21.06	RURAL
Alexander	Richard	29	Black	Male	Indiana	St. Joseph	91	URBAN
Algarin	Albert	21	Hispanic	Male	New York	Bronx	100	URBAN
Allen	Dante	16	Black	Male	Ohio	Hamilton	97.77	URBAN
Allen	Billy Frederick	37	Caucasian	Male	Texas	Dallas	99.31	URBAN
Allen, Jr.	George	25	Black	Male	Missouri	Cole	70.93	URBAN

² This table is a sample of the full database, which is available upon request from the author.

Alvarado	Victor	26	Hispanic	Male	Illinois	Cook	99.95	URBAN
Alvarez	Jesse	19	Hispanic	Male	California	Los Angeles	99.39	URBAN
Alvarez	Jorge	23	Hispanic	Male	California	Los Angeles	99.39	URBAN
Ambler	Peter	24	Caucasian	Male	Wisconsin	Rock	79.58	URBAN
Amezquita	Gilbert	21	Hispanic	Male	Texas	Harris	98.79	URBAN
Amirault	Violet	59	Caucasian	Female	Massachusetts	Middlesex	96.97	URBAN
Amrine	Joseph	28	Black	Male	Missouri	Cole	70.93	URBAN
Anderson	Marvin	18	Black	Male	Virginia	Hanover	60.91	URBAN
Anderson	Roland	32	Black	Male	Mississippi	Hinds	84.72	URBAN
Anderson	James S.	26	Black	Male	Washington	Pierce	93.41	URBAN
Andrews	James	21	Black	Male	Illinois	Cook	99.95	URBAN
Anthony	Obie	19	Black	Male	California	Los Angeles	99.39	URBAN
Appling	Riolordo	28	Black	Male	California	Los Angeles	99.39	URBAN
Arledge	Randolph	26	Caucasian	Male	Texas	Navarro	47.34	RURAL
Armstrong	Richard	25	Caucasian	Male	Michigan	Otsego	34.34	RURAL
Armstrong	LaMonte	38	Black	Male	North Carolina	Guilford	87.31	URBAN