CALCULATING THE VALUE OF ONE'S LIFE: AN IN-DEPTH LOOK AT COMPENSATION PAYOUTS FOR WRONGFULLY CONVICTED PERSONS

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ABSTRACT

This paper examined compensation packages of wrongfully convicted individuals to answer two main questions: (1) What types of wrongful conviction cases receive compensation? and (2) How does this compensation vary based on factors such as state, DNA evidence, reason for wrongful conviction, type of crime, years spent in jail, sex, age, and race? With a subset of data ($N = 2150$) from wrongfully convicted individuals, I used a difference in differences model to identify the impact of state compensation statutes and other factors on the amount of compensation received from statutes, the amount of money received from lawsuits, and the total amount received. In particular, I observed thirteen factors and their subsequent effects on the amount of compensation obtained. My findings indicated that a dummy interaction term between exoneration date and state statute implementation date had a statistically significant, positive effect on both compensation and total payouts. Additionally, time served, DNA evidence, and various contributing factors had significant, positive effects on compensation. Of interest is the significant, negative effect of false confessions on money received from state statutes and the significant, positive effects of false confessions on lawsuit money and total money awarded.

In spite of the lack of exact data on how prevalent wrongful convictions are in the United States, they are certainly more prominent than once thought. Ample research has shown that wrongful convictions have six main causes: false confessions, mistaken witness identification, false or misleading forensic evidence, perjury or false accusation, official misconduct, and inadequate legal defense. Since 1989, 2,515 individuals have been exonerated of crimes. However, not all of those exonerated of their convictions received money for time served. In the current landscape, compensation can be attained in three ways: state statutes, lawsuits, and private bills. Although each avenue has its flaws, state statutes are generally regarded in the most positive light. But, currently only 35 states, the federal government, and the District of Columbia have compensation statutes and, even then, they all differ drastically from one another. To alleviate these differences in compensation payouts across wrongful convictions, I propose a federally implemented compensation statute with a minimum amount to be provided for each year served and an offering of a variety of immediate services.

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INTRODUCTION

Compensation with money can never make up for these losses. It can't make up for all of those years of your life where you were just rotting away in a hole and everybody else was growing, living, moving on with their lives. It can never make up for that.

But if you don't have any money and you don't have any compensation and you can't afford medical care and you can't afford psychotherapy and you can't get a car to drive around and you can't get a job and you can't further your own education, well, it gets all that much worse, doesn't it? And that's what happens to so many of these people.

– Barry Scheck, Co-Director, The Innocence Project in The Burden of Innocence, Frontline, Public Broadcasting System, Dir. Ofra Bikel (2003).

In recent years, wrongful convictions[1] have brought to light disturbing fissures and trends in our criminal justice system, highlighting systematic faults which give rise to egregious violations of justice. Estimates of the prevalence of wrongful conviction vary drastically. The most conservative estimate, cited in Justice Scalia's concurrence in *Kansas v. Marsh* (2006), is 0.027 percent[2], while Tony Poveda estimated a much higher wrongful conviction rate of 37.7 percent[3] (2001). Of course, both of these estimates were generated by methods that are flawed in their own ways and, consequently, it is easy to see how estimates can vary so drastically. Though the exact rate of wrongful conviction in the United States is still unknown, the most widely accepted estimates range between 1 and 5 percent (Gross, Hu, Kennedy, & O'Brien, 2014;

[1] For the purposes of this paper, a wrongful conviction will be defined as a case in which a person was wrongly convicted of a crime and later cleared of all the charges based on new evidence of innocence. This is also known as an exoneration (The National Registry of Exonerations, 2019).

[2] In making this estimate, Justice Scalia used a *New York Times* article written by Joshua Marquis. Using a journal published in the Winter 2015 edition of the *Journal of Criminal Law and Criminology*, Marquis noted that only 340 inmates in a study of exonerations around the country ranging from 1989 to 2003 were eventually freed. He gave the author of the study the benefit of the doubt and assumed that he understated this number by roughly a factor of 10, meaning that there were actually 4,000 people in prison that were not involved in the crime in any way. Given that, during those 15 years there were more than 15 million felony convictions across the country, Marquis calculated an error rate of 0.027 percent.

[3] Poveda relied on data collected through self-reporting by convicted individuals and estimated the wrongful conviction rate of 37.7 percent.

Gross, 2008; Radin, 1964; Gould, Carrano, Leo, & Young, 2010; Ramsey & Frank, 2007; Zalman, 2012).

In spite of the lack of reliable data regarding the true prevalence of wrongful convictions, wrongful convictions are certainly more prominent than once thought. Since 1989, 2,526 have been exonerated of crimes (The National Registry of Exonerations, 2019). To date, DNA testing has been used to exonerate 367 people in the United States, 21 of whom served time on death row. Notwithstanding an average of 14 years spent in prison before release, 100 (27 percent) of these exonerees were compensated for their time served (Innocence Project, 2019).

Given that the United States has the largest prison population in the world, with 2.3 million people currently detained in the American criminal justice system, even a conservative wrongful conviction rate of 1 percent means that 23,000 people have been convicted of crimes they did not commit (Sawyer & Wagner, 2020). In addition to removal from family and loved ones and placement into the unfamiliar and overwhelming environment of incarceration, a wrongfully convicted individual must also face the unique challenge that accompanies serving time for a crime he did not commit. In fact, the trauma of wrongful conviction is so great that it has been compared to the trauma suffered by veterans of war, torture survivors, concentration camp survivors, and refugees and asylees who similarly have been arrested, wrongfully incarcerated, and released back into society as survivors of "'sustained catastrophes' that extend over long periods" and that can change the lives of individuals and their loved ones forever (Chinn & Ratliff, 2008; Westervelt & Cook, 2008, p. 34). The psychological burden of mental health symptoms like anxiety, depression, and posttraumatic stress disorder (PTSD) must be shouldered in addition to the many other adverse psychological effects of incarceration such as delusion, claustrophobia, stress, phobias, and the potential for self-destructive behavior (Curtiss,

2007; Weigand, 2008; Tomar, 2013). Due to the less-than-desirable conditions and psychological damage that wrongfully convicted individuals often face, individuals should receive some sort of reparation for their time served.

Wrongful convictions shatter the lives of not only those who are wrongfully convicted, but those of family and friends closest to them as well. Even after release from jail, the exonerated face an uphill battle in everything from finding a job and reliable transportation to expunging their criminal record. Take, for example, Kristine Bunch. On June 30, 1995, a fire in her trailer home in Indiana claimed the life of her three-year-old son, Anthony. While Kristine mourned the loss of her child, a state arson investigator concluded that the fire had started in two places and that a liquid accelerant had been used to start it. Six days later, Kristine was charged with arson and felony murder. Despite testimony from an independent arson investigator that the cause of the fire should have been "classified as undetermined" due to "a probability" that it had been accidental, Kristine, then 22 and pregnant with her second child, was found guilty of murder and arson. She was sentenced to concurrent prison terms of 60 years for murder and 50 years for arson. Despite numerous appeals, petitions for post-conviction relief, and previously undisclosed documents from the prosecution showing that no accelerant had been present anywhere in the home, Kristine was not released from jail until 17 years, one month, and 16 days after her wrongful arrest. It wasn't until nearly four and a half months later that the prosecution dropped the charges (Center on Wrongful Convictions).

Although Kristine had the support of her family throughout the ordeal, the road to recovery after her release was anything but easy. She admits that, at first, "[she] wanted [her son] to go back and be little again so that [she] could see [his life]." However, she had to come to accept that "[she was] never going to get that back" and that she needed to "concentrate on what

[she had] with him right now" (Contreras, 2019). In addition to attempting to make up for time lost with her son, she received no post-release assistance. At the time of Kristine's release, former convicted criminals in Indiana, such as parolees and people on probation, received help with job placement, housing, resume training, Medicaid, food stamps, and bus passes, while wrongfully convicted individuals were entitled to nothing. Her lack of a criminal charge just left a blank. Kristine says that "it [looked] like [the wrongfully convicted individual was] on vacation for 15, 17, 20, 25 years." She didn't have a credit score or a renter's history, and she no longer had a valid driver's license. She just had to start over completely (Evans, 2018).

In 2004, Congress passed the Justice for All Act with bipartisan support. The law guarantees individuals exonerated of federal crimes $50,000 for every year spent in prison and $100,000 for every year spent on death row (Rodd, 2017). However, it does not apply to cases prosecuted at the state level, such as Kristine's case. Instead, the decision to implement compensation requirements for the wrongfully accused in cases prosecuted at the state level is left to each state's discretion. Currently, only 35 states and the District of Columbia have compensation statutes for wrongful convictions and, even then, this legislation varies greatly in the monetary amount compensated per year, non-monetary services provided, and even in the body that decides if, and how much, compensation will be awarded. For example, while Texas provides up to $80,000 per year of wrongful incarceration, plus an annuity, tuition assistance, medical expenses, job search assistance, counseling services, and re-entry services, wrongfully convicted individuals in West Virginia are entitled to "fair and reasonable damages" and *no* non-monetary services are provided to them. Even worse are the 15 states which have no compensation statute currently in place: Alaska, Arizona, Arkansas, Delaware, Georgia, Idaho,

Kentucky, New Mexico, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, and Wyoming ("Compensation Statutes: A National Overview," 2018).

Based on the ambiguity surrounding the prevalence of wrongful conviction, the life-shattering effects that these wrongful convictions exert, and the fact that compensation for wrongful conviction varies drastically across states, it is crucial that research is conducted into both factors that affect whether compensation is attained and, for cases in which it is attained, the factors that affect the amount of compensation received. While ample research has been conducted on wrongful conviction rates, the causes behind wrongful convictions, the differences in state wrongful conviction compensation packages and the elements included in these packages, the deciding body for these compensation payouts, and the source of the compensation money, less research has focused on who does and does not get compensation packages and how the amount of money awarded to these individuals is determined. This research will therefore attempt to fill this gap and shed light on how the United States treats those who have been victims of a system that is supposed to bring about justice and lend advice as to how best to proceed.

Using a subset of data ($N = 2150$) from wrongfully convicted individuals, a difference in differences model will be used to identify the impact of state compensation statutes and other factors on the amount of compensation received from statutes, the amount of money received from lawsuits, and the total compensation received. This approach aims to answer two main questions: (1) What types of wrongful conviction cases receive compensation? and (2) How does this compensation vary based on factors such as state, DNA evidence, reason for wrongful conviction, type of crime, years spent in jail, sex, age, and race? There are two main limitations with this approach. First, my sample is limited to individuals who were cleared of all the charges

based on new evidence of innocence. There are certainly still individuals in the system who are convicted of crimes they did not commit. This problem could introduce selection bias, meaning that the sample of wrongfully convicted individuals in the data differs in some way from the total wrongfully convicted population. However, only using data from those who have been cleared of all charges should prove perfectly useful for the purposes of this research because they are the only ones who may be entitled to compensation. Second, because compensation information is collected largely through self-reporting after the original exoneration is recorded, the rates should be regarded as an underestimate. Assuming that this underreporting is fairly equally distributed across all states and individuals, this should result in a slight downward bias of estimates of the impact of state compensation statutes.

Additionally, included in this paper is a review of the rationale behind providing compensation, factors that lead to wrongful conviction, and the compensation packages (what's in it, who gets it, barriers to applying for and receiving it, and state factors) that may be provided for these wrongful convictions. The hope is that the findings of this research can be used to galvanize serious policy discussions regarding how to level the playing field not only among wrongfully convicted people and the rest of society, but also between wrongfully convicted people throughout the United States.

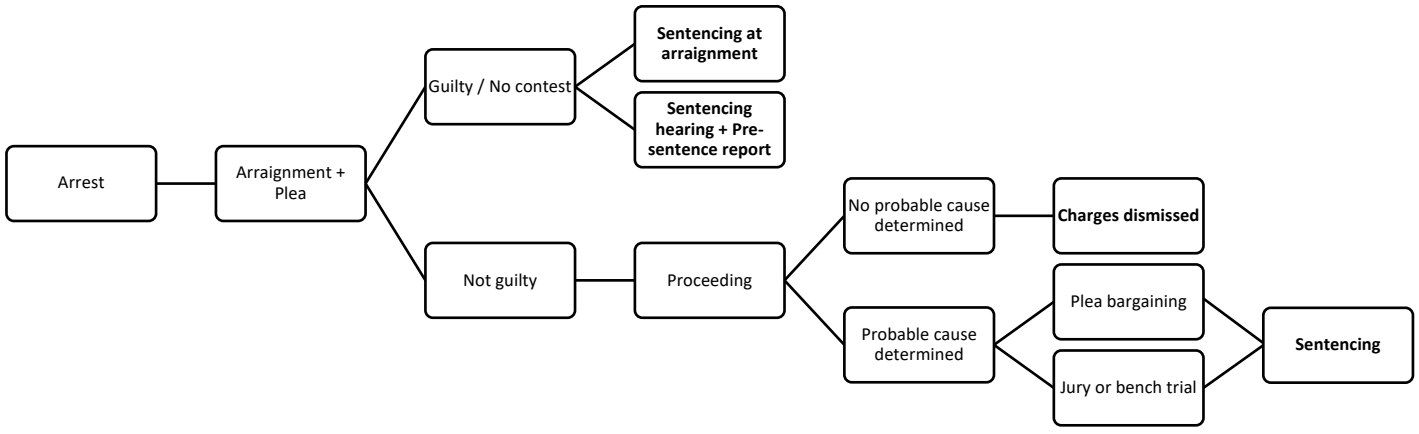
BACKGROUND

Legal Process

A wrongful conviction typically starts out like any other criminal case: with an arrest. After the arrest comes an arraignment[4], where the accused is expected to enter a plea in response to the charges brought against them. If the accused enters a plea of not guilty, the defense must

[4] An arraignment is a formal reading of the criminal charging document in the presence of the defendant to inform the defendant of the charges against the defendant.

build a case against the defendant with enough evidence to prove that the defendant committed the crime. If the accused enters a plea of guilty or no contest, the judge may (1) sentence the defendant at the arraignment or (2) set a sentencing hearing and request a pre-sentence report. For more serious crimes, like those that are typically seen in wrongful conviction cases, the latter is more common. If the defendant enters a plea of not guilty during the arraignment, the court must conduct a proceeding, in the form of either a preliminary hearing or grand jury proceeding. In these proceedings, the state is required to present enough evidence to establish "probable cause" to convince the judge that the defendant committed the crime. If the judge rules that the evidence presented does not sufficiently establish probable cause, he dismisses the charges. If probable cause is determined, the defendant can either (1) take a plea bargain[5] or (2) go through a jury or bench trial and receive sentencing at the conclusion of their trial.



[5] A plea bargain is an agreement between the prosecutor and defendant in which the defendant pleads guilty or no contest to a lesser charge in the expectance of leniency.

Figure 1. Typical legal process for a criminal case after an arrest

Traditional Judicial Remedies and Their Limitations

After a wrongfully convicted individual is sentenced for a crime he didn't commit, the long and grueling process has only just begun. There are three judicial remedies that the wrongfully convicted typically take to have their sentence vacated: motions for new trial, direct appeal, and postconviction review. It is important to keep in mind that during these processes, the innocent is still behind bars. Wrongfully convicted persons included in this study spent a shocking average of 10.3 years in jail between their sentencing and the time in which they were released.

Motions for New Trial

Every state allows those convicted at criminal trials to file a motion for a novel trial based on newly discovered evidence. In many states, new trial motions must be filed within a designated time period ranging from a month to three years after sentencing. Unfortunately, for the wrongfully convicted, evidence which demonstrates their innocence – undisclosed testimony and evidence, witness recantations, new scientific methods or discoveries, or new evidence of another's guilt – tends to surface with investigation assistance long after trial. States that do not have time restrictions on filing claims of innocence based on new evidence require that the evidence could not have been discovered in the initial trial, and that it is persuasive enough to convince the judge to predict that retrial will indeed end in acquittal[6]. One might find it reasonable that a judge who just sentenced a defendant may be "skeptical of claims that a defendant, fairly convicted, with proper representation by counsel, should now be given a second opportunity because of new information that has suddenly been acquired" (LaFave, Israel, King,

[6] An acquittal is a judgment that a person is not guilty of the crime with which the person has been charged.

& Kerr, 2007, § 24.11(d)). Despite the fact that this sentiment is reasonable, it completely undermines the point of the process: to show that newly discovered evidence may prove the petitioner's innocence.

Direct Appeal

Most states guarantee all convicted defendants the opportunity to attempt to overturn their convictions on appeal. In those states without this guaranteed right, the court grants appellate review at their own discretion. States are required to provide a trial transcript of the court proceedings, as well as a defense attorney, if the defendant cannot afford one. While direct appeal may seem like a fruitful way for the wrongfully convicted to overturn their sentences, it is of limited utility. Firstly, direct appeals are almost useless to someone who has pleaded guilty to a crime he did not commit. Later sections of this paper entail a discussion concerning why individuals may admit to something they did not do, but false confessions are more common than one may originally have thought. Entering a guilty plea means that the defendant waives their rights to appeal the very errors that may have led the defendant to conclude that pleading guilty was his best, or only, option. For instance, a defendant pleading guilty means that appellate courts cannot hear arguments that his confession was coerced, that a witness lied to police, or that forensic evidence was unreliable. Furthermore, once a defendant pleads guilty, he must usually show that his plea was involuntary or uninformed. These types of claims hardly succeed.

Another reason that direct appeals are of limited utility to a wrongfully convicted individual is that they correct only flaws in the process through which the defendant's guilt was determined and cannot second-guess the factual accuracy of a conviction (Findley, 2009). Appellate courts can only rely on the existing trial court record, meaning that appellate judges cannot consider new evidence. Therefore, if a claim of error relies on new evidence which is not

on record, an appellate court will not hear this claim. This restriction is especially problematic considering that evidence which exonerates the wrongfully convicted is typically new (King, n.d.). Tragically, such proof of innocence remains invisible to the court.

Using the existing trial court record, the court may be able to recognize some errors, such as claims that: the government's evidence should have been excluded; the judge unduly restricted the defense counsel's ability to challenge that evidence; the jury instructions mislead; or the prosecutor engaged in misconduct. However, even when a defendant can recognize an error in the existing trial court record, this error will only be considered if the defendant's trial attorney promptly objected when the error occurred. If there was no timely objection, the defendant must demonstrate that the error was obvious, and that a failure to grant in appellate relief would result in a miscarriage of justice. These rules effectively mean that defendants whose lawyers fail to raise viable objections miss their chance at appellate relief.

In the case that an error is evident in the record and it was upheld despite objection at trial, the legal standards that govern relief make it difficult to persuade a judge to overturn a conviction. This may be due to appellate courts' reluctance to second-guess jurors on the basis of a "cold" record, without access to the witness's demeanor, tone of voice, halting or nervous speech, nor to the reactions of the defendant. This is shown in the ruling of *Jackson v. Virginia* (1979), whereby the prisoner must show that no rational juror could find that the government proved guilt beyond a reasonable doubt when viewing the evidence in a light most favorable to the prosecution. Findley found that, when applying this standard, courts "uphold convictions unless there is essentially no evidence supporting an element of the crime" (2009, p. 602).

Postconviction Review

Postconviction review is the final judicial remedy that the wrongfully convicted can utilize to vacate their sentence. Postconviction review, provided in every state, is a judicial proceeding that allows a person to challenge his conviction using grounds that could not have been raised on direct appeal (King, n.d.). Essentially, postconviction review allows new evidence to be introduced while direct appeal must rely strictly on evidence that has already been presented in the original trial. In all but a handful of states, an application or petition for relief must be filed in the trial court where the petitioner was convicted. The grounds for relief, typically defined in a statute, include claims under both state law and federal constitutional law. If both direct appeal and postconviction review fail in state court, a state prisoner may also challenge his conviction by filing a petition in federal court seeking a writ of habeas corpus[7] under 28 U.S.C. § 2254. This option is available only if the petitioner can prove that a federal constitutional violation affected his case. Essentially, the writ of habeas corpus is an order that the state release or retry the petitioner.

Although postconviction review allows for petitioners to present new evidence that was not introduced at the original trial, it still presents barriers for those who have been wrongfully convicted. For one, postconviction review is limited to prisoners who are still incarcerated or on parole after completion of their direct appeals. This limitation means that the wrongfully convicted who have already served their sentence have no means of using postconviction to clear their name. Furthermore, some defendants who plead guilty as part of a plea agreement waive their right to challenge their conviction in postconviction proceedings. Federal habeas review, available to those who have unsuccessfully undergone both the appeals process and

[7] A writ of habeas corpus is a court order demanding that a public official deliver an imprisoned individual to the court to show a valid reason for that person's detention. It is used to determine if a state's detention of a prisoner is valid.

postconviction proceedings, is even more inaccessible. This type of review is out of reach for all but those who are serving the most serious sentences (King & Hoffman, 2011).

Even the filing of postconviction petitions is a complicated process. If the petitioner misses the filing deadline (usually a complex calculation that varies with the facts), the claim can be summarily dismissed. Unlike the direct appeal, where the Constitution guarantees counsel, most states do not systematically provide attorneys to help with investigation, composition, and litigation of postconviction petitions (King, 2013). Even when a successful petition is filed and considered, the review is usually brief. Despite the fact that postconviction courts can consider new evidence, in most states, evidentiary hearings are granted in only a small percentage of cases, and hardly ever in federal court (King, 2013; King & Hoffman, 2011).

Making it even more difficult to secure postconviction relief are harmless error rules and deferential standards of review. Take, for example, a claim of ineffective assistance of counsel, one of the only claims available to a petitioner whose lawyer's failure to object at trial forfeited appellate review of what would have been a viable claim of error. The standard for proving such a claim requires the petitioner to demonstrate both incompetent performance by his lawyer, and that there is a reasonable probability he would not have been convicted had his lawyer acted competently. Such a high burden of proof results in extremely low success rates for these types of claims: roughly 1%-5% for all non-capital cases in state court and far less for federal habeas proceedings (King, 2013; 2012). One study found that, even when judges concluded that defense attorneys had been incompetent, they were typically so hesitant to disturb the verdict, or so convinced by the evidence of guilt that they concluded that competent assistance would not have made a difference in the jury's decision (Garrett, 2011). For those who are able to obtain counsel and file postconviction petitions as to adhere to all the filing rules and deadlines, postconviction

judges, much like appellate judges, largely proved incapable of recognizing and remedying their unreliable convictions.

Obtaining Compensation

After winning a motion for a new trial, a direct appeal, or a postconviction review, the next step is to win a new trial or have the state fail to retry the case and, thus, drop all charges. Now, the individual is officially exonerated and can make the decision on whether or not to pursue compensation. The two main theories behind compensation were first proposed by Borchard (1941). The first is the theory of eminent domain, which states that when the government takes property from a private citizen, it must compensate that person. The second argument, based on the strict liability theory, states that it is unfair for just a few individuals to be forced to bear the burden of errors of the criminal justice system when everyone reaps the rewards of that system. While few would disagree that wrongful conviction is one of the most grievous harms a member of society can suffer, and that those who suffer from this deserve to be compensated for those injuries, large numbers of exonerees do not seek compensation, and many file unsuccessful claims or lawsuits for compensation (Encarnacion, 2017; Gutman & Sun, 2019). The barriers to receiving and applying for compensation are discussed in later sections. For those who do choose to seek compensation, there are two primary ways to receive it: state statutes and lawsuits. A third way, private bills, can also be used to obtain compensation, but its use is much rarer. Nonetheless, it is still discussed briefly.

State Statutes

The first principal way to seek compensation is through state statutes, which currently[8] exist in thirty-five states[9] and the District of Columbia ("Compensation Statutes: A National Overview," 2018). State statutes generally have four requirements. First, the exoneree must have been convicted of a crime. This is typically a felony conviction, but it does not have to be. Second, to be eligible for compensation in most states, the claimant must not have pled guilty to the charged offense. Third, the claimant must have been both sentenced to and served time as a result of the conviction. Fourth, the claimant must establish actual (factual) innocence (Mostaghel, 2011).

These statutes are no-fault statutes, meaning they do not require the plaintiff or claimant to demonstrate that their wrongful conviction was the result of government misconduct. Yet, they generally require the plaintiff or claimant to show factual innocence (Gutman, 2017). The ways to show factual innocence, and the burden of proof required to demonstrate innocence, varies widely among states. The place of filing is also dependent upon the state. While some of these statutes require a civil suit to be filed in a state trial court, others call claimants to file claims with a state court of claims or claims board. Additionally, some states require a filing with a state administrative entity, one state decides compensation through General Assembly (the state legislature), and in other states particular forms of post-conviction relief, such as an award of a certificate of innocence or a finding of being a wrongfully convicted person, yield an essentially automatic compensatory award. This automatic compensatory award is made by a

[8] Currently is regarded as through November of 2019.

[9] Alabama (2001), California (2000), Colorado (2013), Connecticut (2008), Florida (2008), Hawaii (2016), Illinois (1945), Indiana (2018), Iowa (1997), Kansas (2018), Louisiana (2005), Maine (1993), Maryland (1999), Massachusetts (2018), Michigan (2016), Minnesota (2014), Mississippi (2009), Missouri (2006), Montana (2003), Nebraska (2009), New Hampshire (1977), New Jersey (1997), New York (1984), North Carolina (1947), Ohio (1986), Oklahoma (1978), Tennessee (1984), Texas (2001), Utah (2008), Vermont (2007), Virginia (2004), Washington (2013), West Virginia (1987), and Wisconsin (1913). Additionally, the District of Columbia (1981) and US (Fed) (1948). Years in parenthesis indicate the year in which the most recent version of the state compensation statute was passed.

court or administrative body without an explicit requirement to bring a separate civil or administrative action to once again prove factual innocence (Gutman & Sun, 2019).

Table 1. Breakdown of the places of filing for state compensation statutes

Places of Filing for State Compensation Statutes		
Place of Filing	**Number of States***	**States**
State trial court	17	Colorado, quasi-District of Columbia[10], quasi-Florida[11], Hawaii, Iowa, Kansas, Louisiana, Maine, Massachusetts, Mississippi, Missouri, Nevada, New Jersey, Ohio, Vermont, Washington, and West Virginia
State court of claims or claims board	7	Connecticut, Michigan, Nebraska, New Hampshire, New York, Tennessee, and Wisconsin
State administrative entity	7	Alabama (Division of Risk Management), Indiana (Indiana Criminal Justice Institute), Maryland (Board of Public Works), Montana (Department of Corrections), North Carolina (Industrial Commission), Oklahoma (Office of Management and Enterprise Services, Risk Management Division), and Texas (Comptroller)
General Assembly	1	Virginia
Automatic compensatory award	4	California, Illinois, quasi-Minnesota[12], and Utah
Total	**36**	

*Number of states includes the District of Columbia

State statutes guarantee different maximum amounts of money per year of wrongful incarceration. These amounts are as low as $5,000 per year and can go up to $200,000 per year. Ten states and the federal compensation statute[13] provide $50,000, the most common amount of money provided per year of incarceration ("Compensation Statutes: A National Overview," 2018).

Table 2. Breakdown of the maximum monetary compensation provided per year of wrongful incarceration

[10] A petitioner may seek compensation from a state trial court or from an administrative agency.
[11] A hybrid system is in place where a petition for status as a wrongfully incarcerated person is filed with the original sentencing court, but certain claims are heard by an administrative law judge, subject to court review.
[12] The person files a claim for compensation with the state Supreme Court after a court declares the petitioner eligible for compensation.
[13] The federal compensation statute applies to those wrongfully convicted of crime(s) at the federal level.

Maximum Monetary Compensation Provided per Year of Wrongful Incarceration		
Maximum Amount Provided per Year of Wrongful Incarceration	**Number of States***	**States**
$5,000-$25,000	1	Wisconsin
$18,250	2	Iowa and Missouri
$25,000	1	Louisiana
$30,000-$60,000	1	Vermont
$49,314-$131,506	1	Connecticut
$50,000	11	Alaska, Florida, Hawaii, Indiana, Michigan, Minnesota, Mississippi, New Jersey, North Carolina, Washington, and US (Fed)
$51,110	1	California
$52,625.18	1	Ohio
$65,000	1	Kansas
$70,000	1	Colorado
$80,000	1	Texas
$200,000	1	The District of Columbia
Range depending on the amount of time served	2	Illinois[14] and Nevada[15]
Overall maximum amount	6	Maine[16], Massachusetts[17], Nebraska[18], New Hampshire[19], Oklahoma[20], and Tennessee[21]
No limit	1	New York
Other	5	Maryland[22], Montana[23], Utah[24], Virginia[25], and West Virginia[26]
Total	**37**	

*Number of states includes the District of Columbia and the US (Fed)

[14] ≤5 years = $85,350 maximum; ≤14 years = $170,000 maximum; >14 years = $199,150 maximum, with cost of living adjustment increase.
[15] 1-10 years = $50,000 per year of wrongful incarceration; 10-20 years = $75,000 per year of wrongful incarceration; 20 or more years = $100,000 per year of wrongful conviction.
[16] A maximum of $300,000 may be awarded.
[17] A maximum of $1,000,000 may be awarded.
[18] A maximum of $500,000 may be awarded.
[19] A maximum of $20,000 may be awarded.
[20] A maximum of $175,000 may be awarded.
[21] A maximum of $1,000,000 may be awarded.
[22] Actual damages.
[23] Provides educational aid (expenses for tuition, fees, books, board, and room at any MT community college, unit of the MT university system, or accredited MT tribally controlled community college).
[24] For 15 years, petitioner may receive the monetary value of average annual nonagricultural payroll.
[25] 90% of the VA per capita personal income for each year of incarceration.
[26] Fair and reasonable damages.

In addition to providing monetary compensation, 19 states also provide non-monetary services, ranging from tuition assistance to counseling services ("Compensation Statutes: A National Overview," 2018).

Table 3. Breakdown of the non-monetary services provided

Non-Monetary Services Provided		
Non-Monetary Service	**Number of States**	**States**
Tuition assistance	14	Colorado, Connecticut, Florida, Kansas, Louisiana, Massachusetts, Minnesota, Montana, Nevada, New Jersey, North Carolina, Texas, Vermont, and Virginia
Medical expenses	9	California, Illinois, Kansas, Louisiana, Minnesota, Nevada, New Jersey, Texas, and Vermont
Job search assistance	7	California, Connecticut, Louisiana, Illinois, New Jersey, North Carolina, and Texas
Housing assistance	3	California, Kansas, and New Jersey
Counseling services	12	California, Connecticut, Indiana, Kansas, Louisiana, Massachusetts, Nevada, New Jersey, Texas, Vermont, Virginia, and Washington
Re-entry services	6	California, Connecticut, Illinois, Indiana, Nevada, and Texas
Immediate assistance upon exoneration	1	California
Total*	**19**	

*Total number of states does not double count states that were listed more than once

Lastly, five states have an offset provision for civil awards/settlements: Colorado, Kansas, Nevada, New Jersey, and Ohio. The state is reimbursed if the exoneree first receives state compensation under the law, and then wins a civil lawsuit against the local government actors that is greater than the amount of state compensation. If the exoneree first received a civil award/settlement stemming from the wrongful conviction, that amount would be deducted from any state compensation owed ("Compensation Statutes: A National Overview," 2018).

Lawsuits

The second principal way to seek compensation is to file federal civil rights cases pursuant to 42 U.S.C. § 1983 against counties, other municipalities, and state actors such as prosecutors, police officers, and/or state experts or others alleged to have engaged in forms of unconstitutional misconduct that led to the wrongful conviction. Some exonerees file state common law tort claims based on theories such as false arrest, false imprisonment, or malicious prosecution (Gutman & Sun, 2019).

Table 4. Breakdown of lawsuits filed in each state

Lawsuits Filed in Each State			
State	**Number of Lawsuits Filed**	**State**	**Number of Lawsuits Filed**
Alabama	2	Missouri	17
Alaska	1	Montana	2
Arizona	4	Nebraska	6
Arkansas	2	Nevada	3
California	84	New Hampshire	0
Colorado	0	New Jersey	9
Connecticut	7	New Mexico	1
Delaware	1	New York	97
District of Columbia	5	North Carolina	23
US (Fed)	20	North Dakota	0
Florida	11	Ohio	26
Georgia	9	Oklahoma	8
Hawaii	0	Oregon	4
Idaho	1	Pennsylvania	28
Illinois	110	Rhode Island	2
Indiana	14	South Carolina	2
Iowa	3	South Dakota	0
Kansas	3	Tennessee	8
Kentucky	4	Texas	20
Louisiana	15	Utah	4
Maine	1	Vermont	0
Maryland	5	Virginia	11
Massachusetts	30	Washington	19
Michigan	26	West Virginia	5
Minnesota	3	Wisconsin	8
Mississippi	6	Wyoming	2
Total	**367**	**Total**	**296**

Total	**663**

Private Bills

Private bills are the third way to obtain compensation. These private compensation bills are legislation written in order to compensate one particular individual and are used in lieu of creating a policy for compensation any time someone is proven innocent. Typically, this legislative process occurs in states that did not have relevant statutes at the time of compensation. Like any other bill, private compensation bills have to obtain a simple majority of votes in both chambers of the state legislation and a signature from the state governor.

LITERATURE REVIEW

Causes of Wrongful Convictions

While the judicial process behind how wrongful convictions are identified and compensation is acquired has been reviewed, the causes of these wrongful convictions still must be identified. It is incredibly difficult to boil down a wrongful conviction case to a single cause or action. Typically, a myriad of factors is working against a wrongfully convicted individual in order to secure a sentence. Yet, experts have been able to narrow down the causes of wrongful convictions to six common factors: false confessions, mistaken witness identification, false or misleading forensic evidence, perjury or false accusation, official misconduct, and inadequate legal defense. Although these few commonalities do not encompass all of the reasons that an individual could be wrongfully convicted, they do begin to shed some light on trends to look out for in particular interrogations, cases, witness testimonies, police departments, or forensic techniques.

False Confessions

It seems counterintuitive to confess to a crime one did not commit, but out of 1,810 exonerations in the United States since 1989 (as of June 7, 2016), 227 cases included innocent men and women who confessed, nearly 13 percent of the total. These numbers increase when considering suspects who falsely confessed but were never convicted. A 2004 study found that in 125 proven false confessions, 83 did not result in exoneration after conviction, nearly two-thirds of the total. The remaining false confessions were dismissed before trial or never filed at all. False confessions are problematic not only because they put innocent people in jail, but because they disproportionately keep them in there (as compared to other wrongful convictions)[27]. To overcome the weight of a confession, exonerations of defendants who confessed are more likely to depend on the most unassailable evidence, DNA. Twenty-one percent of exonerees who had not confessed were cleared by DNA tests, compared to 42 percent of exonerated defendants who had confessed (Gross & Possley, 2016).

False confessions expert Saul Kassin's research reveals that the most vulnerable in our society, including teenagers and those with intellectual impairments and mental illness, are more likely to implicate themselves, especially when under pressure by interrogators. Prolonged, sleepless interrogation session and trauma can also lead innocent people to believe they committed a crime (Lu, 2015). Additional factors, such as systematic police interrogation tactics aimed at influencing, persuading, and ultimately gaining compliance from the accused, also contribute to false confessions.

In *Miranda v Arizona*, 384 US 436 (1966) the Supreme Court of the United States recognized the overly coercive ways in which police attempt to get confessions from suspects during custodial interrogations. This case represented a culmination of 30 years of Supreme

[27] This finding is for known wrongful convictions that resulted in exonerations.

Court cases designed to protect suspects from abuse in police interrogations. One of the earliest decisions in *Miranda* prohibited violence and torture. However, this ruling may have inadvertently led to the current state of false confessions in America. By aiming to eliminate violence in interrogations, *Miranda* ratified the "modern practice of in-custody interrogation [which] is psychological rather than physically, oriented." This meant that officers who conducted interrogations could lie about the evidence; tell the suspect that a codefendant already confessed and put the blame on him; tell him that his fingerprints were found at the scene; and tell him that he was seen by an eyewitness.

During interrogations, officers try and sympathize with the suspect, saying that what he did was understandable and that this is his only chance to tell his side of the story and help his cause. Interrogators can threaten consequences such as the death penalty and imply leniency if the suspect admits to the crime. These physically and mentally exhausting tactics can continue for days, in isolation, with officers repeating their claim of suspect guilt, statements of overwhelming evidence, and that this is the suspect's only chance to help himself. Although the Supreme Court acknowledged the heavy toll on individual liberty and the trades on the weaknesses of individuals brought about by this process, it did not forbid any of the above practices. Instead of offering regulations for how to conduct a non-violent interrogation, the court simply required police to give warnings before the start of it (commonly referred to as Miranda warnings) (Gross & Possley, 2016).

During a police-elicited false confession, three sequential errors lead to a wrongful conviction. First, there is the misclassification of an innocent person as guilty, referred to as the misclassification error. Next, officers subject the suspect to an accusatory interrogation that regularly includes lies about evidence as well as the use of implicit and explicit promises and

threats. This is referred to as the coercion error and it is where the false confession starts. Finally, the suspect is pressured by investigators to detail a postadmission narrative. This narrative is jointly shaped by both the interrogator and the interrogatee, with officers often supplying suspects with both public and nonpublic facts of the crime in order to taint the suspect's narrative. This final step is called the contamination error and its product is the false confession of an individual (Leo, 2009).

In helping to create the false confession, interrogators pressure the suspect to accept a particular account and suggest facts of the crime to him. These suggestions and pressure contaminate the suspect's postadmission narrative. Given that the suspect did not learn facts of the crime from outside sources such as media, then his account of the crime should be rife with errors, especially in responding to interrogator's questions that cannot be easily guessed, unless the answers are implied, suggested, or told to the suspect.

The *Miranda v Arizona* decision (1966) forever changed the landscape of police interrogations. In trying to reduce abuse in police interrogations, the Supreme Court inadvertently encouraged overly coercive tactics in interrogations. These coercive tactics can lead to false confessions and, then, wrongful convictions when three sequential errors occur: the misclassification error, the coercion error, and the contamination error. Moreover, these false confessions are extremely hard for a wrongfully convicted person to overcome as juries and judges alike fail to comprehend why someone would admit to a crime they did not commit.

Mistaken Witness Identification

There is mounting evidence that the human mind can does not function like a tape recorder in that events are not recorded exactly as they have been seen nor can they be rewound for recall ("Causes of Wrongful Convictions," 2020). Yet, police investigators rely heavily on

eyewitness testimony in their initial investigation of a crime (Fisher & Geiselman, 1992). Eyewitness identifications from photospreads and lineups occur frequently and, in criminal trials, the eyewitness is one of the most common forms of witnesses (Brigham & Bothwell, 1983; Goldstein, Chance, & Schneller, 1991).

Despite the popularity of eyewitness identification, the criminal justice system also recognizes the fallibility of eyewitness identification. Notwithstanding the oftentimes moving and seemingly reliable testimony of eyewitnesses on the stand, there is little correlation between people's confidence in their memories and the consistency with which they remember event details (Neisser & Harsch, 1992; Schmidt, 2004; Schmolck, Buffalo, & Squire, 2000; Talarico & Rubin, 2003). Eyewitness identification mistakes may occur for a variety of reasons: weak memories for the event, the deliberate or accidental subjugation of eyewitnesses to investigation procedures that compromise the quality of their identification, or some degree of both (Cutler & Penrod, 1995).

These mistakes and reasons behind them have long interested researchers. Through the use of both laboratory experiments and well-controlled experiments in more realistic field settings, some researchers (Brigham, Maass, Snyder, & Spaulding, 1982; Krafka & Penrod, 1985; Pigott, Brigham, & Bothwell, 1990; Platz & Hosch, 1988) have attempted to estimate the effects of an isolated factor on identification accuracy. While Brigham et al. (1982) and Platz and Hosch (1988) looked at the influences of both witness and perpetrator race on identification accuracy, Krafka and Penrod (1985) focused on the influence of procedures designed to improve eyewitness identification accuracy and their subsequent influence. Furthermore, Pigott et al. (1990) examined the relationship between accuracy of eyewitnesses' descriptions and identifications. All studies were conducted in more realistic settings.

The first of these experiments, conducted by Brigham et al. (1982), used a procedure in which two males interacted with a convenience store clerk in two different, unusual manners for approximately 3-4 minutes. After these interactions, clerks were asked to identify the customers from photoarrays. They found that, after 24 hours, only 7.8% of clerks were able to correctly identify the customers, an accuracy rate comparable to what one would observe just from guessing. After modifying the experiment to test for the accuracy rate of eyewitness identification after only 2 hours, 34.2% of clerks correctly identified the men. In this particular experiment, false identification rates could not be estimated because customer-absent photoarrays were not used. These results should be concerning for the accuracy of eyewitness to crimes. Although the average time period between eyewitness to a crime and examination on the crime is unknown, it is likely longer than 2 hours and more similar to the 24 hour mark, if not longer. If true, this could result in an even lower eyewitness identification rate in real life.

The Krafka and Penrod (1985) experiment used a similar procedure. Either 2 or 24 hours after a customer entered convenience stores and purchased an item using a traveler's check, clerks were asked to identify the customer from either a customer-present or customer-absent photoarray. In the customer-present condition, 41% of the clerks correctly identified the customer. However, in the customer-absent photoarray, 34% of clerks falsely identified a photograph as that of the customer. Parallels can be drawn between this experimental design and a real-life identification from a photoarray. In particular, the 34% misidentification rate is referred to as the rate of mistaken eyewitness identification.

Another Krafka and Penrod (1985) experiment used a design similar to Brigham et al., except that three accomplices entered the store instead of two. In this experiment, the first two men engaged in the same routines as used in Brigham et al.'s experiment, while the third man

tried to pay for a purchase using a combination of dollars and pesos. Then, 2 hours after the three customers entered the stores, clerks were tested using customer-present photoarrays. Overall, 44.2% of the identifications were correct. Again, false identification rate could be not be estimated due to the lack of customer-absent photoarrays.

In the next experiment, Pigott et al. (1990) used local banks for their field study. In this experiment, one or two accomplices attempted to cash a "crudely altered United States Postal Service money order" and became irate and argumentative when the clerk refused their request. These interactions took place for about 90 seconds. After four or five hours, an experiment, posing as a law officer, asked the clerk to identify the accomplice(s) in either a customer-present or a customer-absent photoarray. Among those shown the customer-present array, 47.8% made a correct identification. However, among tellers shown a customer-absent photoarray, 37.5% made a false identification. This false identification rate is especially concerning because of the realistic field settings. It is not uncommon to hear of crimes that occur in banks, bank tellers who identify the criminal(s), and law officers presenting eyewitnesses with photoarrays.

Out of the four experiments listed and detailed, the correct identification average is 41.8% while the false identification average is 35.8%. From these experiments, it is clear that when individuals are seen briefly in nonstressful conditions and attempts to recall their identity take place after brief delays, these attempts are frequently inaccurate. While two out of five guilty persons were correctly identified in customer-present photoarrays that represent the situation in which the suspect is guilty, one out of three innocent persons were falsely identified in customer-absent photoarrays that represent the situation in which the suspect is innocent. Even more alarming is that, in the Pigott et al. (1990) experiment, the mock-eyewitnesses were bank tellers, 77% of whom reported that they had received training for eyewitness situations.

While the scenarios above do not resemble the events in many violent crimes, the results are still relevant. Sometimes eyewitnesses are asked to identify persons whom they did not know were perpetrators at the time an interaction occurred. Other times, eyewitnesses are asked to identify perpetrators whom they viewed fleeing a scene. Additionally, the above scenarios and many crimes have a similar time during which the to-be-recognized person was available for viewing. However, the four experiments did not simulate the emotional duress experienced by an eyewitness to a violent crime. In general, the effects of emotional duress on eyewitness memory are less clear (Christiaanson, 1992). In 2009, Kensinger looked to more closely study these effects. She noted that there is extensive evidence for arousal-mediated enhancement of memory in which positive and negative arousing events are more likely to be remembered than nonarousing events (McGaugh, 2004; Phelps, 2004).

When it comes to whether negative experiences are more strongly remembered than positive ones, the literature is less clear. In her 2009 study, Kessinger found that, when remembering the details of emotional events, there are many instances in which there are stronger focal enhancements for negative experiences than for positive experiences. Valence-dependent engagement of sensory processes lead negative affect to focus attention on intrinsic details and positive affect to increase the likelihood that the details of an event are forgotten but the gist of it are remembered. Essentially, Kessinger concluded that individuals are more likely to remember specific details of negative events (like a crime) and the gist of positive events.

According to Kissenger's (2009) findings, it may follow that a negative experience, such as being an eyewitness to a crime, would mean an increased focal enhancement and, thus, a greater likelihood of remembering the perpetrator's identity. However, while this may be true for groups of individuals, not everyone remembers the same details of an experience. Individuals

who can devote only limited cognitive resources to event processing (due to performance of a secondary task or because they have relatively poor cognitive control ability) tend to have much larger emotion-related memory trade-offs as compared to individuals who can devote more cognitive resources to event processing (Waring, Payne, Schacter, & Kensinger, 2010). The way in which cognitive resources are devoted toward event processing may be determined by personality differences or anxiety level. People high in anxiety tend to focus more automatically on negative event details, meaning they remember those details better (Ferguson, Moghaddam, & Bibby, 2007; MacLeod & Matthews, 2004). However, these individuals cannot remember contextual details, presumably because they cannot focus on nonemotional event details due to their focus of attention on the emotional aspects (Waring, Payne, Schacter, & Kensinger, 2009). Furthermore, neurotic individuals are more likely to dwell on the negative and, therefore, tend to better remember negative elements as compared to nonemotional or positive elements of presented information (Chan, Goodwin, & Harmer, 2007).

Contrasting literature surrounding PTSD suggests just the opposite of what Kissenger found. Current theories of PTSD propose that impaired retrieval of trauma memories may impede processing of these memories and subsequent trauma recovery (Kenny, 2006). Furthermore, impaired survivors of trauma exhibit avoidant encoding and impaired memory for traumatic information (McNally, Metzger, Lasko, Clancy, & Pitman, 1998). These findings can take on a more anecdotal form when looking at the fragmented and incomplete memories of rape and trauma survivors. It is not entirely uncommon to hear of a victim who misidentifies their rapist.

One difference between the view that negative experiences inhibit memory and the memory of eyewitnesses is the focus of research on the victims of these negative experiences.

For instance, many studies focus on survivors of physical or sexual assault, victims of crimes, or those who were the direct target of violence, rather than individuals who experience these traumatic events from the periphery. Witnesses to crimes can still suffer the traumatic consequences of these events, but this distinction is something to make note of.

There are additional factors that can influence the way in which cognitive resources are devoted toward information processing. Individuals in a powerless position may process information in different ways than individuals with power over a situation (Guinote, 2007). Individuals who are not attempting to regulate their affective reactions to events may process information differently than individuals who are attempting to do so (Richards & Gross, 2000). An identifier as innate as a person's gender may also influence their capacity of remembering emotional events (Cahill, 2003; Hamann & Canli, 2004). Through the multitude of studies and areas of research aimed at this topic, one thing is clear: the effect of emotion on memory is person and situation dependent. Even the most confident of eyewitnesses can be incorrect in their identification of the perpetrator of a particular crime, as demonstrated by the fact that people sometimes hold tight to memories that are inaccurate. In fact, there has been research that has suggested that overconfidence and memory recognition bias could occur more often for emotional memories than for memories of mundane experiences (Schmolck, Buffalo, & Squire, 2000; Windmann & Kutas, 2002; Dougal & Rotello, 2007). This means that for an emotional memory, such as witnessing a horrific and potentially trauma-inducing crime, overconfidence does not mean accuracy. In fact, it could mean just the opposite.

False or Misleading Forensic Evidence

Another cause of wrongful conviction is junk science, when forensic testing methods are applied with little or no scientific validation and with insufficient proof of their reliability or

significance. As a result, forensic analysts testify in cases without the proper scientific basis for their findings. In some cases, it has been discovered that forensic analysts have engaged in misconduct ("Causes of Wrongful Convictions," 2020). One such example of false forensic evidence is Shaken Baby Syndrome (SBS), which has been argued in 15 different cases that have resulted in wrongful convictions in the United States. SBS is a brain injury diagnosed in infants and toddlers who fall victim to injury or death as a result of forceful shaking. SBS was previously considered to be based on concrete science and analysis, but new findings show that SBS has been dramatically overdiagnosed. Many symptoms previously considered to be indicative of SBS have been found in infants or toddlers who have not suffered from SBS. This discovery has led to a shift in thinking in which SBS is no longer the automatic assumption as the cause of injuries ("Shaken Baby Syndrome," 2020).

Perjury or False Accusation

The National Registry of Exonerations states that 57% of all exonerations involve perjury or false accusations. These numbers are even higher in homicide (70%) and child sex abuse (85%) cases (2019). Perjury and false accusations happen in many ways and for many reasons. First, an accuser may have something against the accused and want to see him suffer. Second, there may be pressure from an outside source for the accuser to implicate the accused. This outside pressure can be the threat of physical harm to the accuser if he does not go through with his accusation, the promise of money or other goods if he follows through with his accusation, or even a deal for reduced sentence time from prosecutors or the police if the accuser finds himself in legal trouble. Third, the accuser may accuse someone in an effort to deflect attention away from his own crime or involvement. Accusers who lie can be known or unknown to the accused

and they can be lay people or officials, such as police. Police perjury will be discussed further in the next section regarding official misconduct.

Official Misconduct

Official misconduct, defined as police, prosecutors, or other government officials who significantly abuse their authority or the judicial process in a manner that contributes to the exoneree's conviction, is an especially concerning cause of wrongful conviction considering that it is carried out by the very people responsible for insuring truth and justice in our criminal justice system (Center on Wrongful Convictions). In wrongful conviction cases, misconduct is most frequently carried out by two players: law enforcement and prosecutors. This misconduct can be carried out in several different ways. First, law enforcement may employ suggestions to eyewitnesses when conducting identification procedures. These suggestions can be verbal or nonverbal, such as explicitly telling the eyewitness to identify a particular individual or making nonverbal cues, like head nodding or pointing, at a particular individual. Second, law enforcement can coerce false confessions. Third, law enforcement can lie or intentionally mislead jurors about their observations. Fourth, law enforcement can fail to turn over exculpatory evidence to prosecutors. If a law enforcement officer thinks that a suspect is guilty, he may be inclined to not pay attention to particular evidence that shows the contrary. Finally, law enforcement can provide incentives to secure unreliable evidence from informants.

Prosecutors can engage in misconduct through withholding exculpatory evidence from the defense, such as the case with Kristine Bunch which resulted in her wrongful imprisonment for over 17 years. Second, prosecutors can deliberately mishandle, mistreat, or destroy evidence. Third, prosecutors can allow witnesses that they know or should know are not truthful to testify. Fourth, prosecutors can pressure defense witnesses not to testify. This is a form of witness

tampering[28]. Fifth, prosecutors can rely on fraudulent forensic experts. And finally, prosecutors can make misleading arguments that overstate the probative value[29] of testimony (Girod, 2015). In the case that prosecutors introduce evidence with a low probative value, a judge may tell a jury to disregard that evidence. However, some evidence suggests that instructing jurors to disregard certain types of information (such as emotionally charged information) can actually enhance the impact of that information on the jurors (Edwards & Bryan, 1997).

Inadequate Legal Defense

The last cause of wrongful conviction is inadequate legal defense. Inadequate legal defense is defined as a case in which the exoneree's lawyer at trial or on appeal provided obviously and grossly inadequate representation (Center on Wrongful Convictions). A review of convictions by the Innocence Project found that, in the worst case scenarios, lawyers have fallen asleep in the courtroom during trial, been disbarred shortly after finishing a death penalty case, failed to investigate alibis, failed to call upon or consult forensic experts, or even failed to show up for hearings. While these examples highlight some of the more extreme cases, shrinking funding and access to resources for public defenders and court-appointed attorneys is only making the problem worse (Innocence Project). The overwhelming majority of the failures of defense counsels are sins of omission, particularly the failure to investigate. Unless these failures are litigated, they largely go unmentioned. This sort of failure, however damaging it may be, cannot be raised on appeal because it was not included in the original trail. While it can be raised separately after appeal, it is uncommon because most defendants cannot afford to hire a lawyer,

[28] Witness tampering is the act of attempting to improperly influence, alter, or prevent the testimony of witnesses within criminal or civil proceedings.
[29] The probative value is the ability of a piece of evidence to make a relevant disputed point more or less true.

and counsel is not appointed to them at that stage (Center on Wrongful Conviction). This just goes to show that, when a defense lawyer fails to do his job, the defendant is the one who suffers.

Shortcomings in Current Compensations Avenues

While some form of a compensation statute is better than none, current state statutes still display some common shortcomings. For one, among state legislation there is a refusal to enact uniform, statutory access to wrongful conviction compensation. The numerous different approaches to obtain compensation work to confuse the wrongfully convicted and further complicate the process. Furthermore, the use of private compensation bills and civil lawsuits politicize compensation and drive recently released exonerees to mount costly and demanding political campaigns which is, oftentimes, infeasible. Secondly, some existing legislation prohibits those who were deemed to "contribute" to their wrongful conviction, such as through explicit or implicit coercion that led to a false confession, from gaining compensation. This unfairly affects those who were coerced into falsely confessing and those who took a guilty plea with a lesser sentence as a way to try and get out of the mess they were in. Third, some statutes disqualify wrongfully convicted individuals who have unrelated, felony convictions from seeking compensation (Innocence Project, 2019).

A fourth common requirement is for an individual to have been pardoned in order to recover claims. This forces the wrongfully convicted to enter back into the political mess and puts them and their livelihood at the political will of the executive. Fifth, nearly half (18 out of 37 statutes) do not provide non-monetary services to wrongfully convicted individual such as job search assistance or counseling services. Sixth, only four states and the federal government provide additional compensation for years on death row and/or post-release supervision (Bernhard, 2009). Seventh, current wrongful conviction statutes do not pay much attention to

their sources of funding. Leaving the source of funding unspecified could result in a failure to produce the compensation that wrongfully convicted individuals so rightfully deserve (Mostaghel, 2011).

Building My Model Using Existing Literature

One of the most difficult things to do when using statistical models is to determine what variables to include in the model itself. Specific coding choices for each model will be further discussed in the Methods section, but to begin I first had to determine which variables to include and which variables to omit. This narrowing down of variables is particularly difficult due to the large gap in literature surrounding how different places of filing weigh evidence and assess claims. One very recent study did look at the trends in wrongful conviction and their subsequent effects on compensation (Gutman & Sun, 2019). This study differs from my own in that it looked at various factors pertaining to wrongful convictions and then separately looked at their effects on the amount of compensation received. For example, the authors noted that males consistently filed and won claims at higher rates than women and that these compensation awards were larger. However, they were unable to definitively conclude that these differences were a factor of gender, rather than something else. Conversely, my model will aim to paint a bigger picture of how various factors influence and affect the amount of compensation received, as well as determine the factors that influence the amount of money a wrongfully convicted individual receives.

Although the aforementioned study had a different approach than the present paper, it still lends helpful knowledge on the correlations between various factors and compensation amounts. I plan to use this understanding, as well as my own knowledge about wrongful conviction compensation statutes and lawsuits, to help select the variables for my model. First, as

indicated above, gender may play a role in compensation amounts. Likewise, race was found to have an impact on compensation. The authors theorized that the causes of the wrongful conviction and the crime for which individuals were wrongly convicted have an impact as well. I plan to include both in my model. As indicated by Gutman & Sun (2019) and an abundant amount of other wrongful conviction literature, DNA evidence has an impact on compensation received as its practically unassailable. Finally, as many compensation statutes pay out based on the amount of years an individual is wrongfully imprisoned, years lost to wrongful imprisonment will likely have an impact.

METHODS

Data

The data used in this paper is from the National Registry of Exonerations. The Registry provides detailed information about every known exoneration in the United States since 1989. Although there are some cases that occurred before 1989, the database is much more limited for exonerations prior to that time. Data points collected by The National Registry of Exonerations include individual identifiers, locational information, information about the convicted crime and sentence, the year of conviction and exoneration, and factors contributing to the exoneration and wrongful conviction.

In total, as of November 2019, there were 2,516 wrongful convictions in the Registry. However, because the dependent variable in the analysis was compensation received and some compensation cases were (1) pending or (2) settled for undisclosed amounts, the only data that was used was from cases where (1) compensation/lawsuit was applied for/filed and the decision had been finalized for a disclosed amount or (2) compensation/lawsuit was not applied for/filed. Therefore, the analysis included 2,150 cases in total.

While all of the independent variables in the analysis were available in a downloadable spreadsheet, the dependent variable was self-entered. In order to do this, I went through detailed summaries on all 2,516 wrongfully convicted individuals to see if they filed for state compensation, if they filed a lawsuit based on their wrongful conviction, or if they received compensation through a private bill. The third way to receive compensation, private bills, was extremely uncommon[30] and, for the purposes of simplifying my analysis, I chose to classify it as state compensation[31]. This information was then coded into my data in three separate ways: "Compensation Money Awarded[32]," "Lawsuit Money Awarded[33]," and "Total Money Awarded." I chose to label the dependent variable in such a way because it enabled me to better look at how my different independent variables affected compensation statute and lawsuit earnings both independently and when combined. These findings and implications will be discussed further in later sections.

The "Total Money Awarded" amount was just the "Compensation Money Awarded" and the "Lawsuit Money Awarded" amount added together. For instance, a wrongfully convicted person could file a compensation claim with their state and be rejected but still sue the police department of their county and win money through that lawsuit. In that case, the money they won from the lawsuit would be amounted for in both the "Lawsuit Money Awarded" and the "Total Money Awarded" amounts.

Difference in Differences Model

[30] Private bills were only filed by two individuals, once in Alabama and once in Pennsylvania.
[31] As mentioned earlier in the Background section under "Private Bills," this legislative process typically occurs in states that did not have relevant statutes at the time of compensation. As such, filing these compensation claims under state statutes was the reasonable decision.
[32] Compensation money was defined as money received from the state for a wrongful conviction.
[33] Lawsuit money was defined as money received from a lawsuit against a party that contributed to the wrongful conviction of an individual.

I ultimately decided to use three different linear probability models to examine the effects of thirteen separate independent and control variables on three different dependent variables: (1) the amount of compensation received from statutes, (2) the amount of money received from lawsuits, and (3) the total compensation received. I implemented a difference in differences (DiD) design in order to identify the impact of state compensation statutes on the three different types of compensation received. DiD is a popular design used to evaluate casual effects of policy interventions. In its canonical format, there are two time periods and two groups: in the first period neither group is treated, and in the second period one group is treated (referred to as the treated group) while the other group is not (referred to as the control group). In this case, treatment is the implementation of a state statute at a specific point in time while the control group is composed of states that do not have statutes enacted.

This design assumes that, in the absence of treatment, the average outcomes for treated and control groups would have followed parallel paths over time (referred to as the parallel trends assumption). If this is the case, then it is possible to estimate the average treatment effect for the treated subpopulation (ATT) by comparing the average change in outcomes experienced by the treated group to the average change in outcomes experienced by the control group. In more clear terms, it would be possible to see the effect of the implementation of a state compensation statute on the three different types of compensation received by comparing the average change in compensation received for those in states before and after implementation of a statute to those in states without any statutes (Callaway & Sant'Anna, 2019).

The parallel trends assumption can be confirmed by plotting data from the two groups before and after the treatment is implemented. If the lines on both sides of the implementation point appear to be continuous, then the assumption is confirmed and the DiD method can be

used. Below, I have included the trends from both Michigan and Louisiana. These have been compared to a control group that is composed of all 15 states without compensation statutes enacted.

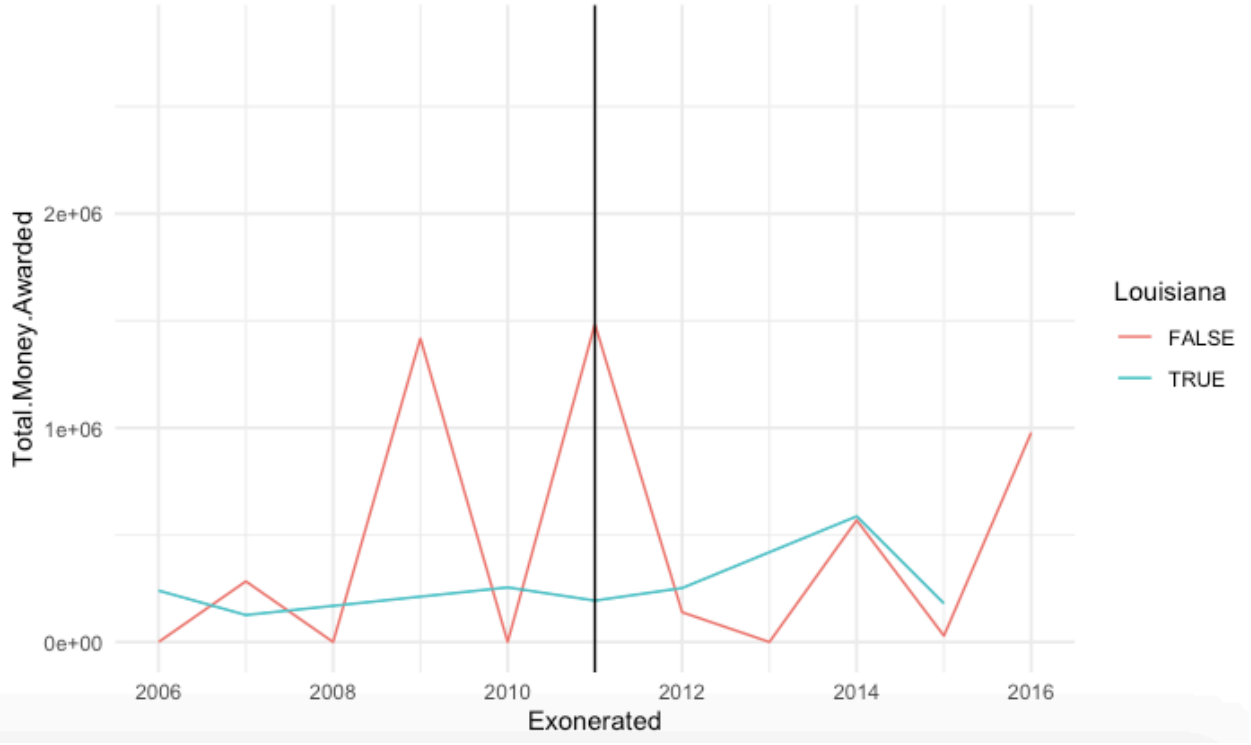


Figure 2. Parallel trends assumption for Louisiana and control group

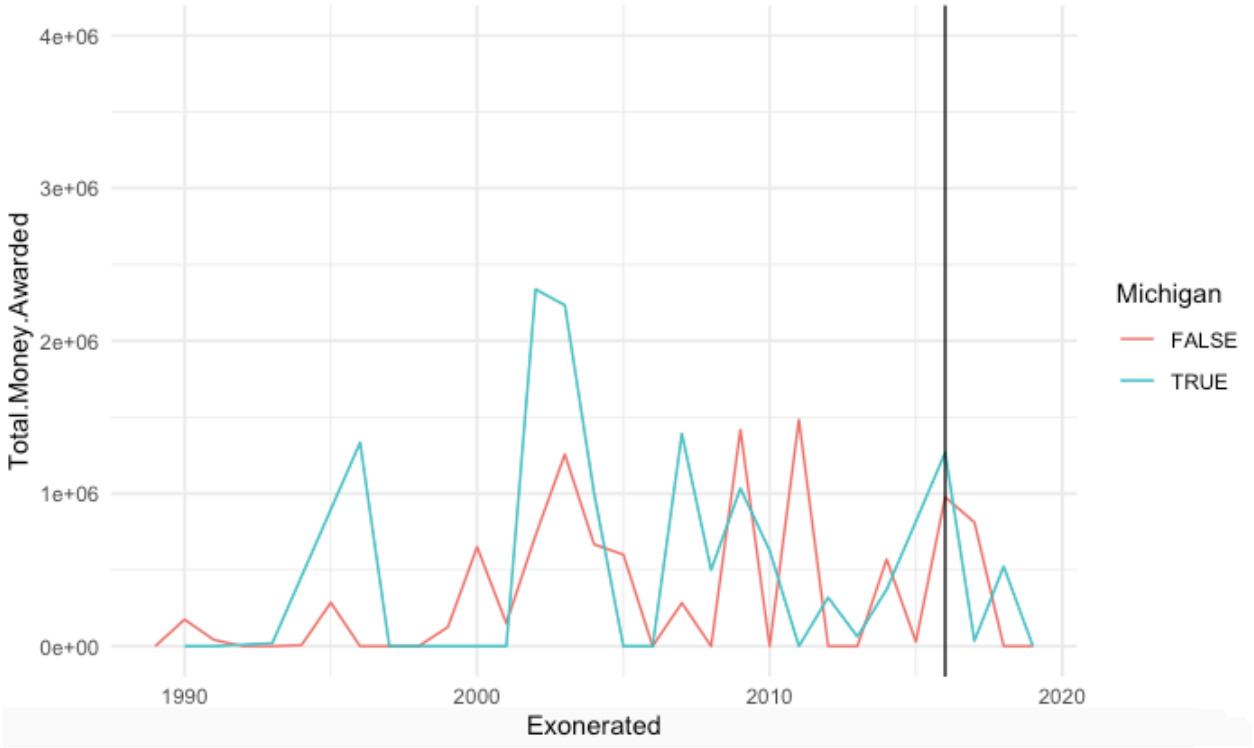


Figure 3. Parallel trends assumption for Michigan and control group

While these two graphs certainly looked like they violated the parallel trends assumption, I believed that this was due to a variety of reasons that were a bias of the data set and were not representative of the actual trend. For one, the way in which the dates were coded in the original dataset made it so that analysis at a more granular level was impossible. I believed that, if particular dates were provided, as they occurred in real life, the total money awarded amounts would be more spread out and the data would appear less staggered. Additionally, I thought the small number of awards, but potentially large in amount, given out each year in individual states, such as Louisiana and Michigan, biased the data and caused huge spikes in the trends. To avoid this potential problem in my analysis, I created one dummy variable that constituted the interaction term for all of the states in the DiD design. Although this did not allow for state to state comparison, it increased the number of awards given in a particular year. That is a tradeoff I was willing to make. With this slight change and the knowledge of yearly data, I was

comfortable with ascertaining that the parallel trends would hold and I decided to continue with the DiD models.

The three regressions estimated the conditional difference in difference estimate of the effect of a state statute on varying types of compensation, using those exonerated after the passing of a compensation statute in their respective state as the treatment group. The regression equation, not including the other independent variables, was as follows:

$$compensation = \beta_0 + \delta_0 poststatute + \beta_1 exonerationpoststatute + \delta_1(exonerationpoststatute\ x\ poststatute) + \varepsilon$$

Where ε is the white noise error term, and δ_1 is the effect of the treatment on the treated. The coefficient on $(exonerationpoststatute\ x\ poststatute)$ is the value of interest.

Independent and Control Variables

In total, I included thirteen independent and control variables in my final linear probability models. These variables aimed to measure five different categories: individual identifiers, locational and compensation statute information, crime and sentence information, amount of time served, and contributing factors. First, to measure individual identifiers, I included age at time of the reported crime, race, and sex. Age was already reported in whole numbers, so no further manipulation was needed. Race was recoded so that all race outputs in the regression were compared to African Americans. In the limited literature related to compensation, this was the standard (Gutman & Sun, 2019). Sex was also recoded so that all sex outputs were compared to males. This is because the overwhelming majority of exonerees in the subset of data were male, making it the default option.

Table 5. Breakdown of individual identifier variables

Individual Identifiers

Variable Name	Possible Responses
Age	11 – 83
Race	Black, Asian, Hispanic, Native American, Other, White
Sex	Male, Female

Next, I included locational and compensation statute information. This variable constituted the interaction term for the DiD design (δ_1). I created a dummy variable that used the state in which the wrongful conviction took place in, the year of exoneration, and the year of state statute implementation[34]. In this dummy variable, '0' indicated that, at the time of an individual's exoneration, a state statute was not in place in that individual's state. On the other hand, a '1' indicated that, at the time of an individual's exoneration, a state statute was in place in that individual's state. To begin, I automatically assigned a '0' to the 15 states in which there was never a compensation statute passed. For the remaining 35 states, the District of Columbia, and federal cases, in which there were compensation statutes, I assigned a '1' to cases where the individual had been exonerated after the compensation statute took effect, and a '0' to cases where the individual had been exonerated before the compensation statute took effect.

Table 6. Breakdown of locational and compensation statute information variable

Locational and Compensation Statute Information	
Variable Name	**Possible Responses**
DiD	0, 1

Then, I included information about the convicted crime. Originally, 42 different crimes were reported. However, I recoded them into 11 broader categories, such as "Abuse" instead of "Child Abuse" and "Dependent Adult Abuse," in order to narrow down the options[35]. I placed

[34] See note 9 for the years that each state implemented their state statutes.

[35] **Abuse** (Child Abuse, Dependent Adult Abuse), **Violence** (Assault; Kidnapping), **Arson** (Arson), **Financial Crime** (Forgery; Fraud; Tax Evasion/Fraud; Bribery; Failure to Pay Child Support), **Killing** (Accessory to Murder; Attempted Murder; Attempt, Violent; Murder; Manslaughter), **Narcotics** (Drug Possession or Sale), **Nonviolent Crime** (Other Nonviolent Felony; Other Nonviolent Misdemeanor), **Other** (Destruction of Property; Filing a False Report; Harassment; Immigration; Menacing; Military Justice Offense; Obstruction of Justice; Official Misconduct;

crimes into each category based on general knowledge. There were two main motives behind this categorization: to simplify the linear regression analyses and to increase the number of cases in each category. For example, before recoding, there were only two cases convicted due to "Failure to Pay Child Support." However, after changing "Failure to Pay Child Support" to "Financial Crime," there were 55 different cases in that category. The amount of cases that fall into each specific category can be found in Table 8.

Table 7. Breakdown of information about the convicted crime variable

Information About the Convicted Crime	
Variable Name	**Possible Responses**
Crime	Abuse, Violence, Arson, Financial Crime, Killing, Narcotics, Nonviolent Crime, Other[36], Property, Sexual, Weapon

Table 8. Breakdown of broader categories of the convicted crime

Broader Categories of the Convicted Crime	
Category Name	**Number of Cases**
Abuse	10
Violence	105
Arson	19
Financial Crime	55
Killing	876
Narcotics	259
Nonviolent Crime	13
Other	51
Property	153
Sexual	573
Weapon	36

Next, I included the amount of time the individual was wrongfully incarcerated. Originally, this was listed as two separate variables: the year of conviction and the year of exoneration. By taking the year the individual was convicted and subtracting it from the year the

Other; Perjury; Other Violent Felony; Possession of Stolen Property; Solicitation; Stalking; Supporting Terrorism; Threats; Traffic Offense), **Property** (Burglary/Unlawful Entry; Robbery; Theft), **Sexual** (Sex Offender Registration; Sexual Assault; Child Sex Abuse), **Weapon** (Weapon Possession or Sale).

[36] Crimes were placed in "Other" if they had few observations and did not fit neatly into another category.

individual was exonerated, I was able to obtain the amount of time served. Although this is not a perfect measure because it only gives me the amount of years rather than a more granular amount of time, it was as close as I could get given the information available to me.

Table 9. Breakdown of amount of time served variable

Amount of Time Served	
Variable Name	**Possible Responses**
Time Served	0 years – 52 years

Finally, I measured the contributing factors, both to the exoneration and the wrongful conviction. First, I included the contribution of DNA evidence to the exoneration because it is known to increase the probability of exoneration, so I presumed that it may also have an effect on compensation received (Gross & Possley, 2016). Because DNA evidence is a binary variable, where it either exists or does not, I created a dummy variable, where cases received a '0' if there was not DNA evidence that led to an exoneration and a '1' if there was. Then, I coded for the six different causes of wrongful conviction: false confession, mistaken witness identification, false or misleading forensic evidence, perjury or false accusation, official misconduct, and inadequate legal defense. Again, all six of these causes are binary variables so I turned them into dummy variables, where cases received a '0' if there was not that particular cause that led to a wrongful conviction and a '1' if there was that particular cause.

Table 10. Breakdown of contributing factors variables

Contributing Factors	
Variable Name	**Possible Responses**
DNA	0, 1
False Confession	0, 1
Mistaken Witness Identification	0, 1
False or Misleading Forensic Evidence	0, 1
Perjury or False Accusation	0, 1
Official Misconduct	0, 1
Inadequate Legal Defense	0, 1
DNA	0, 1

Using these thirteen independent variables, including the interaction term for the DiD design, I ran three linear regressions. The first regression analysis regressed these variables on "Compensation Money Awarded," the second linear regression regressed these variables on "Lawsuit Money Awarded," and the final linear regression regressed these variables on "Total Money Awarded."

FINDINGS

Statute Model

The first linear regression regressed the amount individuals received only from state compensation statutes on age, race, sex, state dummy, crime categories, time served, and seven dummy variables for contributing factors. The results are as follows:

Table 11. Linear regression analysis of state statute treatment on state statute compensation

Linear Regression Analysis of State Statute Treatment on State Statute Compensation				
Variable	**Estimate**	**Std. Error**	**t Value**	**p Value**
Intercept	-36029.4	229393.8	-0.157	0.8752
Age	-872.1	1626.4	-0.536	0.5918
Asian	-50531.7	149513.2	-0.338	0.7354
Hispanic	191.8	49084.2	0.004	0.9969
Native American	-172348.3	168719.0	-1.022	0.3071
Other (Race)	65274.2	193864.4	0.337	0.7364
White	-31124.4	35344.2	-0.881	0.3786
Female	-28242.5	53122.3	-0.532	0.5950
Arson	49921.2	269271.9	0.185	0.8529
Financial Crime	-115695.7	240421.3	-0.481	0.6304
Killing	40009.0	221463.9	0.181	0.8567
Narcotics	-113562.2	224457.5	-0.506	0.6130
Nonviolent Crime	-103176.1	291409.0	-0.354	0.7233
Other (Crime)	-82564.1	241315.6	-0.342	0.7323
Property	-21190.0	227482.5	-0.093	0.9258
Sexual	38745.4	222449.3	0.174	0.8617
Violence	12523.9	230226.0	0.054	0.9566
Weapon	-96309.4	248988.1	-0.387	0.6989
Time Served* **	19764.2	1999.9	9.883	< 2e-16
DNA* **	204786.3	45902.2	4.461	8.57e-06
False Confession*	-133131.9	52546.2	-2.534	0.0114
Mistaken Witness Identification	-3333.8	42915.4	-0.078	0.9381

False or Misleading Forensic Evidence	-52200.1	37923.4	-1.376	0.1688
Perjury or False Accusation	-32271.5	38425.2	-0.840	0.4011
Official Misconduct	-3154.5	34903.9	-0.090	0.9280
Inadequate Legal Defense*	-71157.5	35883.6	-1.983	0.0475
DiD***	214479.9	33864.4	6.333	2.92e-10

Statistically Significant:
***** → 0**
**** → 0.001**
*** → 0.01**
. → 0.05

As shown in the table above, amount of time served, DNA evidence, and the DiD interaction term were all highly significant. All else held equal, for every one year increase in amount of time served, state compensation awards increased by an average of $19,764.20. The standard error for time served was extremely low; on average, any given estimate would be only $1,999.90 from the average estimate. Whenever DNA evidence was involved, all else held equal, state compensation awards increased by $204,786.30 on average. The difference in the amount of state compensation received between those exonerated after a compensation state was enacted and those exonerated before a compensation statute was enacted is $214,479.90 greater in states where there was a statute. Alternatively, the difference in state compensation received between those in or not in a state with a compensation statute is $214,479.90 smaller among those who are exonerated before a compensation statute was enacted. None of the above results were particularly surprising given the literature discussed.

Both false confession and inadequate legal defense were significant at the $p<0.01$ level. Whenever false confessions and inadequate legal defense were the reason for wrongful conviction, all else held equal, state compensation awards decreased on average by $133,131.90 and $71,157.50, respectively. The finding for false confessions was consistent with states that do

not allow those who are deemed to have "contributed" to their wrongful conviction to file for compensation. The inadequate legal defense finding was more surprising. This may have something to do with the troubles that these individuals face in getting declared as wrongfully convicted, but more research needs to be done to determine the specificities of this potential relationship.

Lawsuit Model

The second linear regression regressed the amount individuals received only from lawsuits on age, race, sex, state dummy, crime categories, time served, and seven dummy variables for contributing factors. The results are as follows:

Table 12. Linear regression analysis of state statute treatment on lawsuit winnings

Linear Regression Analysis of State Statute Treatment on Lawsuit Winnings				
Variable	**Estimate**	**Std. Error**	**t Value**	**p Value**
Intercept	-1207332	1040452	-1.160	0.24602
Age	7080	7377	0.960	0.33727
Asian	93601	678145	0.138	0.89023
Hispanic	288540	222629	1.296	0.19510
Native American	-1086266	765254	-1.418	0.15629
Other (Race)	148430	879304	0.169	0.86597
White	75490	160371	0.471	0.63789
Female	190313	240964	0.790	0.42973
Arson	26205	1221325	0.021	0.98288
Financial Crime	-266169	1090487	-0.244	0.80719
Killing	544221	1004491	0.542	0.58802
Narcotics	116068	1018068	0.114	0.90924
Nonviolent Crime	-48085	1321739	-0.036	0.97098
Other (Crime)	-245299	1094528	-0.224	0.82269
Property	9192	1031782	0.009	0.99289
Sexual	-428541	1008954	-0.425	0.67107
Violence	-332852	1044226	-0.319	0.74994
Weapon	-73656	1129330	-0.065	0.94800
Time Served* **	77319	9071	8.524	< 2e-16
DNA* **	980666	208200	4.710	2.64e-06
False Confession **	675050	238395	2.832	0.00467
Mistaken Witness Identification	-208927	194744	-1.073	0.28347
False or Misleading Forensic Evidence	-19107	172039	-0.111	0.91158

Perjury or False Accusation*	346700	174559	1.986	0.04715
Official Misconduct**	487647	158416	3.078	0.00211
Inadequate Legal Defense	-3260	162775	-0.020	0.98402
DiD	226569	153632	1.475	0.14043

Statistically Significant:
***** → 0**
**** → 0.001**
*** → 0.01**
. → 0.05

When the same independent and control variables were regressed on the amount received from lawsuits, time served and DNA remained highly significant. False confession and official misconduct were significant at the $p<0.001$ level. Of interest was the fact that false confessions wielded an increase in money awarded as opposed to a decrease in the model above. This was likely because 180 of the 225 cases of false confessions were also labeled as official misconduct. Similarly, perjury or false accusation was significant at the $p<0.01$. Out of the 225 false confessions, 148 were also labeled as perjury or false accusation. Surprisingly, the DiD interaction term did not have an effect on lawsuit compensation. Although some states forbid the wrongfully convicted from pursuing compensation through lawsuits after they received state compensation, it may have been the case that lawsuit amounts are much larger, offsetting this effect. More analysis must be done before concluding anything.

Combined Model

The final linear regression regressed the amount individuals received from both compensation statutes and lawsuits on age, race, sex, state dummy, crime categories, time served, and seven dummy variables for contributing factors. The results are as follows:

Table 13. Linear regression analysis of state statute treatment on total money awarded

Linear Regression Analysis of State Statute Treatment on Total Money Awarded				
Variable	**Estimate**	**Std. Error**	**t Value**	**p Value**
Intercept	-1247853	1063405	-1.173	0.24075

Age	6187	7540	0.821	0.41198
Asian	45762	693101	0.066	0.94736
Hispanic	292009	227540	1.283	0.19952
Native American	-1259555	782134	-1.610	0.10746
Other (Race)	212746	898701	0.237	0.81289
White	42635	163846	0.260	0.79472
Female	161679	246260	0.657	0.51155
Arson	76999	1248268	0.062	0.95082
Financial Crime	-375553	1114525	-0.337	0.73618
Killing	584783	1026644	0.570	0.56900
Narcotics	5856	1040522	0.006	0.99551
Nonviolent Crime	-146242	1350890	-0.108	0.91380
Other (Crime)	-324786	1118672	-0.290	0.77159
Property	-7460	1054545	-0.007	0.99436
Sexual	-391170	1031212	-0.379	0.70448
Violence	-317280	1067263	-0.297	0.76628
Weapon	-165574	1154238	-0.143	0.88595
Time Served* **	96998	9271	10.463	< 2e-16
DNA* **	1186345	212790	5.575	2.79e-08
False Confession*	551330	243589	2.263	0.02371
Mistaken Witness Identification	-211657	198944	-1.064	0.28749
False or Misleading Forensic Evidence	-65754	175802	-0.374	0.70843
Perjury or False Accusation.	321549	178128	1.805	0.07119
Official Misconduct**	483028	161805	2.985	0.00287
Inadequate Legal Defense	-73152	166346	-0.440	0.66016
DiD**	438863	156986	2.796	0.00523

Statistically Significant:
***** → 0**
**** → 0.001**
*** → 0.01**
. → 0.05

Once again, time served and DNA evidence were highly significant. Individuals with DNA evidence, all else held equal, received a staggering average of $1,186,345 more than individuals without. However, the standard error for DNA evidence was quite high. False confession ($p<0.01$), perjury or false accusation ($p<0.05$), official misconduct ($p<0.001$), and the interaction term ($p<0.001$) were once again significant.

POLICY RECOMMENDATIONS AND IMPLEMENTATION

Recommendations for Current Wrongful Conviction Compensation Payouts

States that currently have statutes to compensate the wrongfully convicted can still do more. First, all states should provide a minimum of $50,000 per year to those who were wrongfully convicted. Additionally, states that do not provide any social services should do so. For the largest impact, these services should be made available immediately to help ease the transition from incarceration to outside life. States that require the wrongfully convicted to seek compensation through private compensation bills or through some private lawsuit should stop this practice immediately. Not only do these attempts politicize compensation based on the individuals and policymakers involved, but they also require exonerees to take on costly and demanding political campaigns. Furthermore, states must stop prohibiting those who have been deemed to have "contributed" to their wrongful conviction from filing for compensation. The phenomena of false confessions are well documented in literature, and this policy is extremely outdated. Likewise, the prevention of compensation for individuals with unrelated, felony convictions is unjust. If the felony conviction was unrelated to the wrongful conviction, then it should have no weight on whether or not one receives compensation.

All of the above recommendations can be accomplished with more concrete sources of funding in compensation statutes. Current wrongful conviction compensation statutes do not pay much attention to the sources of funding, which could lead to states escaping pay for the harm it has tolerated. Funding can be provided through several avenues: higher taxes that go directly to a wrongful conviction compensation fund, a national funding pool with contributions from every state, or an independent wrongful convictions funding pool for each state that becomes so large that compensation is paid from the interest it generates and not the principal. The last fund could

include money pooled from the attorney general's office, the corrections budget, and money saved from a now-exonerated prisoner (Mostaghel, 2011).

Recommendations for Future Wrongful Conviction Compensation Payouts

While more and more states have continued to implement compensation statutes throughout the years, the payouts are still not fair and equitable, especially between those states with and without these statutes in place. To avoid the impact of state compensation statutes on the total compensation received, my first recommendation is to institute a federal wrongful conviction compensation statute. The process and place for filing for this compensation should be uniform across all states, to simplify the process and help alleviate confusion. As suggested by the Innocence Project, a federal statute should include a minimum amount to be provided for each year served (2019). In addition to setting a minimum amount, they suggest a variety of immediate services to become available to the individual. Their suggestions are as follows: 1) financial support for basic necessities, including subsistence funds, food, transportation; 2) help in securing affordable housing; 3) health services such as medical/dental care and psychological and/or counseling services; 4) support for education and the development of critical workforce skills; and 5) legal services that can be used to obtain public benefits, expunge criminal records, and regain custody of children (Innocence Project, 2019). Additionally, such a statute should provide an extra annual amount for each year an individual spent on death row.

Of course, to make a federally instituted wrongful conviction compensation statute feasible, states would need to work with the federal government in various ways. First, states and the federal government would have to decide who would pay for this statute. If states were left to pay for it, it is imperative that the federal government oversee the set up and follow through of these funds, to ensure that no states sweep it under the rug, so to speak. Additionally, if states

were left to oversee the filing process, the federal government would need to provide a lot of supervision in the beginning to ensure a uniform procedure across different cities, counties, and states. States and the federal government would need to decide upon a reasonable burden of proof and what the process would look like after a claim is filed: who decides; how long does the decision take; after the decision, how long until the wrongfully convicted receives his money; is it paid out in yearly lump sums or monthly annuities. To properly implement such a widespread federal initiative, I suggest a committee be created in Congress. Ideally, this committee would include one person from each state.

CONCLUSION

While a wrongful conviction can never be rectified, compensation for those who have suffered these injustices may be the closest that society can get. However, not all wrongfully convicted individuals received money for the time they were incarcerated. This may be partly due to the lack of a federal, overarching compensation statute. Rather, states are individually left to compensate the wrongfully convicted at their own will. There are three avenues to receive compensation: state statutes, lawsuits, and private bills. Currently, 35 states, the District of Columbia, and the federal government have statutes. Yet, not much is known about the types of wrongful conviction cases that receive compensation and how this compensation may vary based on state, contributing factors, reason for wrongful conviction, type of crime, years spent in jail, sex, age, and race. With a subset of data (N = 2150), I used a difference in differences model to identify the impact of thirteen factors on the amount of compensation received from statutes, the amount of money received from lawsuits, and the total amount of compensation received. In general, an interaction term between time and treatment (state statute or no state statute), time served, and DNA evidence had significant, positive effects on money received in all three

conditions. False confession and inadequate legal defense both had significant, negative effects on state statutes, while false confession had significant, positive effects in the other two conditions.

Several things can be done today to help level the playing field among wrongfully convicted individuals and between the wrongfully convicted and the rest of society. All states with statutes should provide at least $50,000 per year to the wrongfully convicted, along with other social services. To ensure that this is feasible, states should establish more concrete sources of funding in compensation statutes from pooled funds or money saved in associated incarceration fees on now-exonerated individuals. The ideal solution is the creation of a federal compensation fund with collaboration between federal and state governments. A committee in Congress with representation from every state could prove invaluable in this venture. While nothing will ever be enough to get back the years that one has lost, a fair and comprehensive federal statute may be the best start.

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