

# Actual Innocence and Wrongful Convictions

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*In response to wrongful convictions, there has been a revolution in criminal procedure and in research in law and science. Scholars have increasingly studied the characteristics of known wrongful-conviction cases and they have conducted interdisciplinary research designed to assess potential changes to procedures used in criminal cases. Scientific bodies have made important recommendations based on this research, and in response, a wide range of jurisdictions have adopted noteworthy changes designed to safeguard crucial types of evidence, such as confession, forensic, and eyewitness evidence, during police investigations and at trial. As a result, both law and science have come together to produce tangible improvements to criminal justice.*

## INTRODUCTION

An entire criminal justice system can learn from its mistakes: just take the case of wrongful convictions, which, after coming to light as never before, including due to the modern technology of DNA testing, contributed to a wide variety of changes to criminal justice in the United States. Judicial opinions, academic research, criminal procedure reform legislation, changed post-conviction standards, new police practices focused on accuracy, new prosecution practices, and changes to legal education have all flowed from this focus on innocence. While in decades past it was thought to be rare if not impossible to convict the innocent, large numbers of exonerations in the U.S. have prompted wholesale re-examination of traditional rules that limited ability to raise new evidence of innocence post-conviction, as well as investigative procedures that did not accurately collect or document evidence. Indeed, similar forces have prompted a range of changes in other countries across the globe.

Accuracy has become an increased concern in criminal justice. Two broad areas of research into the nature of these wrongful convictions have influenced the understanding of how law and policy can improve accuracy of criminal convictions. First, descriptive research has analyzed the characteristics of

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known wrongful-conviction cases. One set of research has examined DNA exoneration cases, including due to their prominence and the clarity of the evidence of innocence in those cases. Post-conviction DNA testing has proven over 350 men and women innocent; 20 had been sentenced to death.<sup>1</sup> Additional research has studied broader groups of exonerations. The best known such research is that reported by the National Registry of Exonerations, which documents over 2,000 individuals who have been exonerated in the United States in just the past 20 years.<sup>2</sup> A body of empirical research has now explored the facts underlying DNA exonerations in the United States.

A second body of research, both scientific and legal, has increasingly focused on the causes of wrongful convictions and what mechanisms can improve accuracy. Archival and descriptive research has examined not just the characteristics of exoneration cases, but detailed how evidence became altered or erroneous during the investigation and adjudication of those cases. Qualitative and sociological research has studied the attitudes and culture of actors that can produce wrongful convictions. Experimental research has tested mechanisms that can produce errors in criminal investigations. Theoretical research has examined sources for cognitive errors and statistical errors, for example, that underlie wrongful convictions. Thus, wrongful-conviction research has involved interdisciplinary contributions from the social sciences, neuroscience, genetics, statistics, and law, among the relevant fields.

Each of these fields of study has resulted in suggested changes that can, for example, improve the accuracy of eyewitness identification procedure, confession procedures, forensics used in crime laboratories, and investigations more broadly. While responses to wrongful convictions differ widely across different jurisdictions, all legislatures in the United States have enacted statutes to permit broader post-conviction access to new evidence of innocence, and many have improved procedures concerning interrogations, lineups, and other types of evidence. Still larger numbers of individual policing agencies have adopted changes, with national and international agencies endorsing changes and a new focus on accuracy in policing. Likewise, prosecutors have created

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1. For a current count of such cases, see *Exonerated by DNA*, THE INNOCENCE PROJECT, <http://www.innocenceproject.org/all-cases/#exonerated-by-dna> (last visited July 30, 2017). For an in-depth study of the first 250 such cases, see BRANDON L. GARRETT, *CONVICTING THE INNOCENT: WHERE CRIMINAL PROSECUTIONS GO WRONG* (2011). For detailed data regarding DNA exoneration cases, see *CONVICTING THE INNOCENT: DNA EXONERATIONS DATABASE*, <http://www.convictingtheinnocent.com/> (last visited July 30, 2017).

2. A current count of all exonerations may be found on the National Registry's website. See NATIONAL REGISTRY OF EXONERATIONS, <https://www.law.umich.edu/special/exoneration/Pages/about.aspx> (last visited July 30, 2017).

“Conviction Integrity Units” tasked with reinvestigating closed cases. This chapter will discuss characteristics of known exoneration cases, the research on wrongful convictions, and then specific research focusing on particular ways to improve accuracy in order to prevent wrongful convictions. Some of those topics are explored in greater detail elsewhere in this volume so they will be only summarized here. Finally, this chapter concludes by describing accuracy-based policy reforms flowing from this body of research.

## I. THE RISE OF EXONERATIONS

### A. A DEATH ROW EXONERATION

“From this day forward, I no longer shall tinker with the machinery of death,” wrote Supreme Court Justice Harry Blackmun in 1994. Justice Blackmun added that “human error is inevitable,” and “our criminal justice system is less than perfect.”<sup>3</sup> What about “the case of the 11-year-old girl raped by four men and then killed by stuffing her panties down her throat,” Justice Antonin Scalia raged in response. “How enviable a quiet death by lethal injection compared with that!”<sup>4</sup>

The Justices were talking about the cases of Henry McCollum and Leon Brown, two brothers sentenced to death in North Carolina. The North Carolina courts had reversed the brothers’ convictions in 1988 on appeal due to an error in the jury instructions. After new trials, in 1991 McCollum was sentenced to death again and Brown was resentenced to life in prison.<sup>5</sup> When McCollum’s case did reach the Supreme Court in 1994, Justice Blackmun insisted that although the crime was “abhorrent,” there was “more to the story.” After all, McCollum had “an IQ between 60 and 69 and the mental age of a 9-year-old. He reads on a second-grade level.” Justice Blackmun wrote, “This factor alone persuades me that the death penalty in his case is unconstitutional.”<sup>6</sup> Yet the Supreme Court denied relief.

“Get to know Henry McCollum. He RAPED AND MURDERED AN 11 YEAR OLD CHILD,” screamed the political ads in North Carolina in 2010, attacking a “criminal coddler” candidate who supported a law to examine whether the death penalty was racially discriminatory. If that law passes, McCollum “might be moving out of jail and into your neighborhood sometime soon.”<sup>7</sup> The law

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3. Callins v. Collins, 510 U.S. 1141, 1145 (1994) (Blackmun, J., dissenting from denial of certiorari).

4. *Id.* at 1143 (Scalia, J., concurring in denial of certiorari).

5. State v. McCollum, 364 S.E.2d 112 (N.C. 1988).

6. 512 U.S. 1254, 1255 (1994) (Blackmun, J., dissenting).

7. Joseph Neff, *New DNA Evidence Could Free Two Men in Notorious Robeson County Case*, NEWS & OBSERVER (Aug. 30, 2014).

did pass, but the then-majority leader of the General Assembly and an attorney-general candidate were both defeated after being on the receiving end of these flyers.<sup>8</sup> Decades later, McCollum's case was still a poster child for death-penalty supporters in North Carolina.

Yet in September 2014, a standing ovation shook the walls of the Robeson County courtroom, with relatives of Henry McCollum and Leon Brown weeping for joy. The judge ordered their convictions reversed. A special guest sat in the room: Judge I. Beverly Lake Jr., who several years earlier had stepped down as Chief Justice of the Supreme Court of North Carolina. Before he retired, Judge Lake spearheaded the creation of the North Carolina Actual Innocence Inquiry Commission in 2007, the first of its kind in the U.S., an independent agency that investigates potential wrongful convictions. The Center for Death Penalty Litigation had been pushing for years to get cigarette butts and other crime-scene evidence tested, but police had said for years that the evidence was all lost. In fact, the box had been sitting in storage. However, once the Commission took the case, the Commission's investigators tracked down the evidence box and conducted DNA tests. The tests cleared both brothers and implicated another man who had lived a block from the murder victim and had been convicted of another rape and murder in the town of Red Springs. Based on the DNA tests, the Commission recommended that the court reverse both of their convictions. It had taken thirty years to finally set the brothers free.

All that happened in McCollum and Brown's case is part of a familiar pattern. For decades, courts had assumed the brothers were guilty because they had confessed in detail to a brutal murder. Yet we now know that the police, during lengthy and overbearing interrogations, had put words in their mouths. They were innocent and had no way of knowing how the crime happened. At trial, though, the jury heard the prosecutor and the detectives describe how the brothers had supposedly volunteered inside information that only the killers could have known. Although no other evidence connected them to the crime and they had no criminal records, they were sentenced to death.

Twenty individuals have been exonerated from death row based on DNA evidence in the United States, and many more have been exonerated from death row based on other new evidence of their innocence. The system did not quickly recognize their innocence. Almost half, like McCollum and Brown, endured multiple criminal trials before DNA exonerated them. Six had two trials and two had three criminal trials before their eventual exoneration. Eight cases involved eyewitness identifications, and sometimes multiple eyewitnesses who

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8. John Boyle, *No GOP Apologies for Nasty McCollum Ad*, CITIZEN-TIMES (Sept. 6, 2014).

were all mistaken about what they had seen. Kirk Bloodsworth was the first to be exonerated, from Maryland's death row: five eyewitnesses had misidentified him. Fourteen involved forensic evidence, including a series of cases with unreliable and flawed forensics. Ten cases had microscopic hair-comparison evidence, a type so unreliable that the FBI and crime labs in several states are conducting full audits into decades of testing and testimony. Two more had quite similar fiber comparisons. Two had still more notoriously unreliable bite-mark comparisons, a type of forensics that the scientific community has stated should not be used to identify individuals until meaningful research is done to validate it. Some had more than one type of unreliable forensics. The crime-lab analysts, who typically worked for law enforcement, often described the forensics like smoking-gun evidence, telltale traces pointing straight to the murderer. In these cases, the evidence against innocent individuals seemed strong. In hindsight, we might think we would not have convicted them, and we would not have sentenced them, but the truly frightening prospect is that, hearing the same evidence, we might actually have done exactly what the jurors did in the case of Henry McCollum and Leon Brown.

#### B. CRIMINAL PROCEDURE, FINALITY, AND ACCURACY

In the past, wrongful convictions were thought to be rare if not impossible occurrences. Judge Learned Hand famously called "the ghost of the innocent man convicted" an "unreal dream."<sup>9</sup> Justice Sandra Day O'Connor touted how "[o]ur society has a high degree of confidence in its criminal trials, in no small part because the Constitution offers unparalleled protections against convicting the innocent."<sup>10</sup>

Constitutional criminal procedure long reflected traditional view. A classic expression of these concerns can be found in the U.S. Supreme Court's 1993 ruling in *Herrera v. Collins*. In declining to recognize a freestanding constitutional claim of actual innocence, the Court noted the "disruptive effect that entertaining claims of actual innocence would have on the need for finality," as expressed in the limitations periods that prevent late filing of new trial motions.<sup>11</sup> But this sentiment extended beyond cases dealing directly with claims of innocence, as other criminal procedure rulings incorporated a view that reliability and accuracy of criminal judgments was not of central concern. For three decades, the Supreme Court has not revisited the factors set out in *Manson v. Brathwaite* for examining eyewitness identifications tainted by

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9. United States v. Garsson, 291 F. 646, 649 (S.D.N.Y. 1923).

10. *Herrera v. Collins*, 506 U.S. 390, 420 (1993) (O'Connor, J., concurring).

11. *Id.* at 417 (majority opinion).

police suggestion, despite decades of research showing how faulty this test is.<sup>12</sup> For almost as long, the Court has adopted a view that absent sufficient evidence of coercion, a highly unreliable confession statement is not of constitutional concern. Such questions of accuracy and reliability were relegated to state evidence law or police practices. Today, this body of state evidence law and police practices has rapidly begun to change, and constitutional criminal procedure may eventually follow.

Take the example of post-conviction rules of finality, in which all jurisdictions in the United States experienced complete change in those rules in the space of about a decade. All jurisdictions had some provision in place for a new trial based on newly discovered evidence, but most states had rules limiting introduction of such new evidence of innocence to a time period of one to three years, or sometimes much less (in 1993, the Supreme Court reported in *Herrera v. Collins* that seventeen states had limitations periods of less than 60 days, and eighteen had limitations periods between one and three years).<sup>13</sup> The federal rule requires that a motion based on newly discovered evidence be filed within three years, and it may only be granted “in the interest of justice,” if a new trial “would probably produce an acquittal,” and if prior diligence had been exercised in seeking such evidence, among other requirements.<sup>14</sup> In the 1990s, only two states, Illinois and New York, had statutes providing a right to access post-conviction DNA testing.<sup>15</sup> Many of the people freed by DNA tests in the first decade and a half of its use waited years to obtain those DNA tests and relief. Clemency is one final avenue for those with evidence of factual innocence, but there has been a sharp trend toward declining grants of clemency applications.<sup>16</sup>

The innocence revolution changed all of that. As DNA exonerations showed how powerful new evidence of innocence could come to light years and even decades after a conviction, the law across the United States began to change.<sup>17</sup> In 2015, in the United States, six individuals were exonerated from death row, and Justice Stephen Breyer wrote an opinion calling for briefing

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12. *Manson v. Brathwaite*, 432 U.S. 98 (1977); see also *Perry v. New Hampshire*, 565 U.S. 228 (2012).

13. *Herrera*, 506 U.S. at 410–11.

14. FED. R. CRIM. P. 33.

15. Brandon L. Garrett, *Claiming Innocence*, 92 MINN. L. REV. 1629, 1631, 1646–50, 1673–75 (2008).

16. See Michael Heise, *Mercy by the Numbers: An Empirical Analysis of Clemency and its Structure*, 89 VA. L. REV. 239, 251 (2003); see also Mark Osler, “Clemency,” in this Report; Cara H. Drinan, *Clemency in a Time of Crisis*, 28 GEO. ST. L. REV. 1124 (2012).

17. See Garrett, *Claiming Innocence*, *supra* note 15; see also Daniel S. Medwed, *Up the River Without a Procedure: Innocent Prisoners and Newly Discovered Non-DNA Evidence in State Courts*, 47 ARIZ. L. REV. 655 (2005).

of the issue whether the current practice of the death penalty is categorically unconstitutional, including because of evidence from such exonerations.<sup>18</sup>

## II. RESEARCHING WRONGFUL CONVICTIONS

First, a set of research has examined the characteristics of exoneration cases. Initially, much of that research was conducted in the United States, given the large numbers of exonerations documented in the American legal system and access to good criminal justice records even in older criminal cases. One set of research has focused on DNA exonerations. In my book, *Convicting the Innocent*, I reported a set of studies of the first 250 DNA exonerations. In these cases, the average length of time from conviction to exoneration was 14 years.<sup>19</sup> The DNA exonerees were convicted mostly of rape, but also murder. Twenty had been sentenced to death.

Research has also focused on a broader set of exonerations, including non-DNA exonerations. Early research on wrongful convictions examined a broad range of new evidence involved in exonerations. In some of that work, the focus was on wrongful convictions defined in different ways, and there had been debates about how well the researchers identified cases involving innocent convicts. Recent research has tended to focus on exonerations defined procedurally, focusing on whether the court or executive vacated the conviction based at least in part on newly discovered evidence of innocence. Professor Sam Gross began to study exoneration cases, including non-DNA cases, and his work led to the creation of the National Registry of Exonerations, which now details such cases from 1989 to present. Eight percent of those known exonerations occur in cases in which defendants were sentenced to death. About 20% of the

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18. *Glossip v. Gross*, 135 S. Ct. 2726, 2757–58 (2015) (Breyer, J., dissenting); DEATH PENALTY INFO. CTR., THE DEATH PENALTY IN 2015: YEAR END REPORT (2015), <http://www.deathpenaltyinfo.org/YearEnd2015>; see also Carol S. Steiker & Jordan M. Steiker, “Capital Punishment,” in Volume 4 of the present Report.

19. See *DNA Exonerations in the United States*, INNOCENCE PROJECT, <http://www.innocenceproject.org/dna-exonerations-in-the-united-states/> (last visited July 30, 2017); see also GARRETT, *CONVICTING THE INNOCENT*, *supra* note 15, at 5 (finding an average length of time of 13 years from conviction to exoneration among the first 250 DNA exonerations). For updated data reflecting the first 330 DNA exonerations, see Brandon L. Garrett, *Convicting the Innocent Redux*, in *WRONGFUL CONVICTIONS AND THE DNA REVOLUTION: TWENTY-FIVE YEARS OF FREEING THE INNOCENT* (Daniel Medwed ed., 2017).

Registry cases include false confessions. A larger number, 28% of the Registry cases, involved false or misleading forensic evidence. Still more involved some form of witness perjury, false accusation, or “official misconduct.”<sup>20</sup>

Additional research from an array of disciplines explores the causes of wrongful convictions. Archival and descriptive research has examined not just the characteristics of exoneration cases, but detailed sources of error in those cases. Experimental research, including psychological studies, have tested mechanisms that can produce errors in criminal investigations, including by testing mock jurors, forensic analysts, and pressure on individuals to confess. Theoretical research has examined cognitive errors and statistical errors underlying wrongful convictions, and major reports from the National Academy of Sciences have provided the framework for large-scale research agendas and reform. Below I describe how wrongful-convictions research has involved interdisciplinary contributions from the social sciences, statistics, and law, by focusing on several of the key areas in which such research has been conducted.

#### A. EYEWITNESS MISIDENTIFICATIONS

Psychological research studying eyewitness memory predated the innocence movement by several decades, and beginning in the 1970s, psychologists embarked on memory research that would transform our understanding of human memory.<sup>21</sup> They uncovered how something as seemingly benign as a police lineup, designed to take some care to test the memory of an eyewitness, can actually reshape and alter an eyewitness’s memory. However, the experience of hundreds of DNA exonerees, whose cases heavily involved eyewitness errors, powerfully emphasized the importance of taking eyewitness memory research seriously and improving the way that lineups are conducted. Prompted by the experience of those exonerations and the decades of research, involving thousands of studies, the National Academy of Sciences produced a detailed report in 2014, informed by neuroscience, social science, and statistics, that set out best practices for policing agencies, recommendations for courts, and a research agenda for further eyewitness memory research.<sup>22</sup> Crucial recommendations included that all eyewitness identification procedures use

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20. As of 2016, 21 of 116 death row exonerations on the National Registry involved false confessions, 32 of 116 involved false or misleading forensics, and 81 involved perjury or false accusations, while 90 of the cases involved “official misconduct.”

21. See generally Gary L. Wells, “Eyewitness Identification,” in Volume 2 of the present Report.

22. See NAT’L RESEARCH COUNCIL OF THE NAT’L ACADS., IDENTIFYING THE CULPRIT: ASSESSING EYEWITNESS IDENTIFICATION (2014).

clear, standardized instructions, that they be conducted blind, so that the administrator does not know which is the suspect, that the confidence of the eyewitness be documented, and that the entire procedure be video-recorded.

### B. FLAWED FORENSIC ANALYSIS

The experience of exonerees, who were freed by DNA testing but who were (more often than not) convicted based on false or even falsified forensics, powerfully affected the forensics community as well.<sup>23</sup> Of the first 330 DNA exonerations in the United States, 71% or 234 cases involve forensic testimony.<sup>24</sup> The bulk of these DNA exoneree trials included traditional forensics, not DNA testing, and much of that evidence was presented in an outright erroneous or overstated manner, or in a vague manner. Of the 234 cases, 54% or 126 cases involved invalid, erroneous, or concealed forensics. Twenty-eight cases involved concealed and exculpatory forensic evidence that could have supported a claim of innocence at trial if it had been disclosed to the defense. Twenty-nine of the cases involved analysis that was erroneous, including due to lab errors. Of the remaining cases, not involving invalid or erroneous or concealed evidence, an additional 19 cases involved vague testimony that evidence like hairs or fibers or bite marks were “similar” or “consistent” with the defendant. Well over half of these DNA exoneration cases, at least 62% or 145 of the 234 cases, involved invalid, erroneous, concealed, unreliable, or vague presentation of forensics.

In response, scholars increasingly called for wholesale reforms of forensics, including independence of crime labs, scientific standards for reaching forensic conclusions, studies of error rates, and efforts to combat cognitive bias, as well as an end to the most unreliable forensic techniques. Those calls were echoed in 2009 by an influential National Academy of Sciences report that concluded: “With the exception of nuclear DNA analysis, however, no forensic method has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source.”<sup>25</sup> Seven years later, the 2016 report by the President’s Council of Advisors on Science and Technology (PCAST) issued a report highlighting that little had changed and more strongly stating that several forensic techniques should no longer be used in court until sufficient scientific

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23. See generally Erin Murphy, “Forensic Evidence,” in the present Volume.

24. See GARRETT, CONVICTING THE INNOCENT, *supra* note 15; Brandon L. Garrett & Peter J. Neufeld, *Invalid Forensic Science Testimony and Wrongful Convictions*, 95 VA. L. REV. 1, 68 (2009).

25. NAT’L RESEARCH COUNCIL OF THE NAT’L ACADS., STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD 7 (2009).

research is done to validate their accuracy and reliability.<sup>26</sup> That report also highlighted the need for information about error rates in forensic disciplines and proficiency of particular examiners and laboratories.<sup>27</sup> The report added: “courts should never permit scientifically indefensible claims such as: ‘zero,’ ‘vanishingly small,’ ‘essentially zero,’ ‘negligible,’ ‘minimal,’ or ‘microscopic’ error rates; ‘100 percent certainty’ or proof ‘to a reasonable degree of scientific certainty’; identification ‘to the exclusion of all other sources’; or a chance of error so remote as to be a ‘practical impossibility.’”<sup>28</sup> The National Commission on Forensic Science has similarly recommended that no examiner use “reasonable scientific certainty” conclusions.<sup>29</sup>

Research from several disciplines has aimed to redress some of the flaws in forensics. A new generation of statistical work has examined whether machine learning or more sophisticated statistical models can provide a sound empirical basis for traditional pattern-matching forensics like fingerprinting or ballistics, that have involved subjective and not quantitative conclusions in the past.<sup>30</sup> A new generation of psychological work has examined cognitive-bias issues in forensics, including how a range of biases in information and practices can alter the conclusions that forensic analysts reach. Studies of jury decision-making have examined how well fact-finders understand and how they evaluate the conclusions that forensic examiners reach, which in the past were often highly confident and exaggerated. Some of that research, as described below, has already led to improvements in how forensic work is done.

### C. FALSE CONFESSIONS

In the first 21 years of post-conviction DNA testing, 250 innocent people were exonerated, 40 of whom had falsely confessed.<sup>31</sup> In just the last five years there have been 26 more false confessions among DNA exonerations. In general, false-confession cases have been concentrated in cases involving a

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26. PRESIDENT’S COUNCIL OF ADVISORS ON SCI. & TECH., EXEC. OFF. OF THE PRESIDENT, FORENSIC SCIENCE IN CRIMINAL COURTS: ENSURING SCIENTIFIC VALIDITY OF FEATURE-COMPARISON METHODS 57, 102 (2016).

27. *Id.* at 12.

28. *Id.* at 19.

29. Memorandum from the Nat’l Comm’n on Forensic Sci., Nat’l Inst. of Standards & Tech., Testimony Using the Term “Reasonable Scientific Certainty” (Apr. 2013).

30. See, e.g., Ryan Spotts et al., *Optimization of a Statistical Algorithm for Objective Comparison of Toolmarks*, 60 FORENSIC SCI. 303 (2015); NICHOLAS PETRACO ET AL., APPLICATION OF MACHINE LEARNING TO TOOLMARKS: STATISTICALLY BASED METHODS FOR IMPRESSION PATTERN COMPARISONS (2012).

31. See Brandon L. Garrett, *The Substance of False Confessions*, 62 STAN. L. REV. 1051 (2010); GARRETT, CONVICTING THE INNOCENT, *supra* note 1, at 21–44; see also Richard A. Leo, “Interrogation and Confessions,” in Volume 2 of the present Report.

murder—20 had been sentenced to death. In the entire group of 66 exonerees who falsely confessed, 42 involved a rape and a murder, 9 a murder, and 15 a rape.<sup>32</sup> The cases invariably involved lengthy interrogations that took place for more than three hours, with few exceptions. Second, many exonerees waived their *Miranda* rights when they were questioned by the police. Third, 94% of false confessions by DNA exonerees to date were contaminated by allegedly “inside” information. Almost without exception, these confession statements were contaminated with crime-scene details, which in retrospect, could not have been known until the individuals being questioned learned of them from law enforcement.<sup>33</sup> Additional exonerees had been questioned informally by the police, outside of an interrogation room, and were reported to have made inculpatory statements.

Data on false confessions reveals disproportionate numbers of young people and individuals with disabilities make such confessions, including in studies of non-DNA exonerations and large-scale surveys of juveniles in the U.S. and in Europe.<sup>34</sup> In a group of 66 false confessions, for example, over one-third, or 22, were juveniles, and at least 20 had an intellectual disability or were mentally ill.<sup>35</sup> The American Law Institute is currently drafting a “Restatement on Children and the Law” which will address juvenile interrogations, including videotaping such interrogations.<sup>36</sup>

#### D. APPELLATE AND POST-CONVICTION LITIGATION

An earlier study of appellate and post-conviction litigation by DNA exonerees found that court opinions written before DNA exonerated the individuals concluded with some regularity that errors asserted by the later-exonerated defendants were harmless or otherwise failed to demonstrate

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32. Brandon L. Garrett, *Contaminated Confessions Revisited*, 101 VA. L. REV. 395, 400 & n.18, 402, 404 (2015); see also GARRETT, CONVICTING THE INNOCENT, *supra* note 1.

33. Garrett, *Contaminated Confessions Revisited*, *supra* note 32, at 402, 404; see also GARRETT, CONVICTING THE INNOCENT, *supra* note 1, at 20, 37.

34. See Steven A. Drizin & Richard A. Leo, *The Problem of False Confessions in the Post-DNA World*, 82 N.C. L. REV. 891, 944 (2004); see also Gisli H. Gudjonsson et al., *Custodial Interrogation, False Confession and Individual Differences: A National Study Among Icelandic Youth*, 41 PERSONALITY & INDIVID. DIFFER. 49 (2006); Ingrid Candel et al., “I Hit the Shift-key and then the Computer Crashed”: *Children and False Admissions*, 38 PERSONALITY & INDIVID. DIFFER. 1381 (2005); Allison D. Redlich & Gail S. Goodman, *Taking Responsibility for an Act Not Committed: The Influence of Age and Suggestibility*, 27 LAW & HUM. BEHAV. 141 (2003).

35. Garrett, *Contaminated Confessions Revisited*, *supra* note 32, at 399–400, n.16.

36. AM. LAW INST., RESTATEMENT ON CHILDREN AND THE LAW, PROJECTED OVERALL TABLE OF CONTENTS (2016), [https://www.ali.org/media/filer\\_public/71/bb/71bb767c-a5df-4561-806c-d0b881945992/pages\\_from\\_children\\_and\\_the\\_law\\_-\\_pd\\_2\\_-\\_online.pdf](https://www.ali.org/media/filer_public/71/bb/71bb767c-a5df-4561-806c-d0b881945992/pages_from_children_and_the_law_-_pd_2_-_online.pdf).

prejudice because of “overwhelming evidence of guilt.”<sup>37</sup> Evidence of innocence sufficient to persuade judges and executive actors to grant relief rarely surfaces until many years after convictions become final and initial rounds of post-conviction review are exhausted. Almost one-third of the first 250 people exonerated by DNA brought such claims.<sup>38</sup> They rarely succeeded, although about half of the exonerees who did obtain reversals of their convictions *before* they were exonerated by DNA testing did so based in part on prosecutorial misconduct and concealed exculpatory evidence.<sup>39</sup>

### E. PROSECUTORIAL MISCONDUCT

An Innocence Project study found that 37% of the DNA exoneration cases involved the suppression of exculpatory evidence, 25% involved the knowing use of false testimony, and 11% involved the undisclosed use of coerced witness testimony.<sup>40</sup> Subsequently, those allegations regarding concealed evidence resulted in 24% of those convictions being overturned.<sup>41</sup> A similar pattern can be observed among death-penalty cases generally, and not just those that eventually resulted in exonerations from death row, in which as many as one-fifth resulted in reversals due to concealed exculpatory evidence that came to light years after the conviction and death sentence.<sup>42</sup> Of course, evidence that is not disclosed to the defense (and perhaps not even to prosecutors) may never come to light. We have no way of knowing just how common such discovery and constitutional violations are in practice. Indeed, most cases are plea-bargained and discovery may be more informal and limited. Plea bargaining and its largely unregulated procedures itself contributes to wrongful convictions.<sup>43</sup> Guilty pleas by the innocent may often go undetected, including because persons who plead waive their rights to appeal or post-conviction review,

37. Brandon L. Garrett, *Judging Innocence*, 108 COLUM. L. REV. 55, 109 (2008). For a general discussion of issues in appellate review, see Nancy J. King, “Criminal Appeals,” in the present Volume.

38. GARRETT, CONVICTING THE INNOCENT, *supra* note 1, at 205 (based on review of those cases with available written opinions).

39. *See id.* at 207–08

40. BARRY SCHECK, JIM DWYER & PETER NEUFELD, ACTUAL INNOCENCE (1st ed. 2001). For a discussion of disclosure issues, see Darryl K. Brown, “Discovery,” in the present Volume.

41. *See* EMILY M. WEST, THE INNOCENCE PROJECT, COURT FINDINGS ON PROSECUTORIAL MISCONDUCT CLAIMS IN POST-CONVICTION APPEALS AND CIVIL SUITS AMONG THE FIRST 255 DNA EXONERATION CASES 1, 4, 5 (2010), [https://www.innocenceproject.org/wp-content/uploads/2016/04/pmc\\_appeals\\_255\\_final\\_oct\\_2011.pdf](https://www.innocenceproject.org/wp-content/uploads/2016/04/pmc_appeals_255_final_oct_2011.pdf).

42. *See* JAMES S. LIEBMAN, JEFFREY FAGAN & VALERIE WEST, A BROKEN SYSTEM: ERROR RATES IN CAPITAL CASES, 1973-1995, at 5 (Columbia Law Sch., Pub. Law Research Paper No. 15, 2000), [http://www2.law.columbia.edu/instructionalservices/liebman/liebman\\_final.pdf](http://www2.law.columbia.edu/instructionalservices/liebman/liebman_final.pdf) (documenting Brady violations in 16% to 19% of capital cases).

43. Albert W. Alschuler, *A Nearly Perfect System for Convicting the Innocent*, 79 ALB. L. REV. 919 (2015). *See generally* Jenia I. Turner, “Plea Bargaining,” in the present Volume.

and they may be barred from later obtaining exculpatory evidence such as DNA. Each of those studies—showing how serious discovery violations occur in high-profile wrongful convictions and in the most serious capital cases, and how innocent people feel pressure from prosecutors to plead guilty—lends support to further work aimed at improving criminal discovery and the adjudication process.

### III. PREVENTING WRONGFUL CONVICTIONS

In its 2009 report, the National Academy of Sciences recommended that a comprehensive regulatory approach be adopted for our entire system of forensics, including oversight by a National Institute of Forensic Science that would promulgate scientific standards, audit labs, and conduct basic research to shore up forensic disciplines.<sup>44</sup> While legislation has been introduced in Congress, no such agency has been created. However, federal agencies have improved their funding and support for basic research to support forensics. The National Commission on Forensic Science has supported efforts to consider scientific standards for forensics.

Nevertheless, highly unreliable forensics continue to be used. Scientific standards are still needed for a wide range of forensic disciplines.<sup>45</sup> Quality controls at labs are still lacking, and large-scale scandals involving lab errors persist. Indeed, new unreliable forensic techniques continue to be introduced, and new errors from low-copy DNA, poor interpretation of DNA mixtures, use of field drug tests of uncertain reliability, use of new algorithms for facial recognition without scientific testing, and more, raise a host of new challenges. Still, some labs have adopted independent scientific oversight and have created new quality controls, such as blind proficiency testing and blind verification. Researchers have conducted more “black box” studies, or at least a few more, that begin to document error rates in forensic disciplines. Far more needs to be done.

In fall 2014, the National Academy of Sciences published an important report, *Identifying the Culprit: Assessing Eyewitness Identification*.<sup>46</sup> The report evaluated decades of research on eyewitness memory, and it details scientific procedures that can help to prevent error. Those recommended procedures include conducting identifications “blind” or “blinded” so that the person running the procedure cannot inadvertently signal the answer. More agencies are improving their eyewitness-identification procedures. In 2017, the U.S. Department of Justice adopted a set of guidelines on the best practices for

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44. See STRENGTHENING FORENSIC SCIENCE, *supra* note 25, at 7.

45. See Murphy, *supra* note 23.

46. See IDENTIFYING THE CULPRIT, *supra* note 22. As a matter of full disclosure, I was a member of the committee that produced the report.

federal law enforcement agencies. More state courts have recognized the importance of the issue and ruled that jurors should hear from experts who can explain eyewitness memory issues to them, or alternatively offered model jury instructions detailing the sometimes counterintuitive research on eyewitness memory. More research needs to be done to examine how to best present that science to jurors. Many more police agencies need to use blind lineups, and record and carefully document lineup procedures. And more research needs to be done on new possibilities for assessing eyewitness reliability.

In the area of false-confession research, an important white paper from the American Psychology and Law Society lays out a set of reforms to prevent contaminated and false confession statements. Most important is that entire interrogations be videotaped.<sup>47</sup> However, more research and policy is being directed at considering less coercive models for police interrogation. Those concerns also extend to the use of police informant and other incentivized witnesses, who claimed to have overheard inculpatory statements in DNA exoneration cases.<sup>48</sup> Far more research needs to be done to examine how to safeguard informant testimony, if it is to be permitted.

### RECOMMENDATIONS

To prevent inevitable errors, we must invest in getting criminal investigations right, not just in death-penalty cases, but in all cases relying on confessions, eyewitnesses, forensics, informants, and the rest. Our criminal justice system is less than perfect, but even without the death penalty, the same challenges remain. We must take measures to protect against wrongful convictions. What practical, accuracy-enhancing measures have been identified?

1. **Interrogations should be videotaped in their entirety—and not just the confession statement itself, but the questioning that came before and after.** There should be a record of who said what during interrogation. Judges should carefully review the reliability of all interrogation evidence. Police should not be allowed to use coercive interrogation tactics. Experts should be allowed to explain the phenomenon of false confessions to jurors. And police should be trained to take special care when questioning juveniles or disabled or other vulnerable individuals.

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47. See Saul M. Kassin et al., *Police-Induced Confessions: Risk Factors & Recommendations*, 34 LAW & HUM. BEHAV. 3, 19 (2010).

48. See generally Daniel Richman, “Informants and Cooperators,” in Volume 2 of the present Report.

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2. **Informant testimony, whether jailhouse informants or other incentivized witnesses, should not normally be allowed, at least not without written police policies set out concerning their use, videotaped interviews, and careful screening for reliability.** Very little has been done anywhere in the country to prevent false convictions due to incentivized testimony of informants.
  3. **Eyewitness evidence should be used only when eyewitnesses are tested using reliable and non-suggestive lineups.** Most important is that the lineup be conducted blind, so that the person administering the lineup does not know which person or photograph is the suspect. Judges should carefully review eyewitness evidence to assure its reliability and they should not allow dramatic, but potentially misleading, in-court identifications. Experts should be used to explain eyewitness memory to jurors. The National Academy of Sciences has laid out detailed reforms and recommendations to safeguard eyewitness evidence in our courtrooms, but much work needs to be done to ensure that police and judges actually use the evidence properly. Many police departments traditionally had no written policies at all on how to do lineups. Now that is changing, but many (if not most) police departments still use outdated procedures that can outright contaminate the memory of an eyewitness. Good evidence that can be used to convict guilty people may be routinely lost, and flawed eyewitness identifications continue to be used to convict the innocent.
  4. **Forensic evidence should be carefully collected by trained crime-scene analysts and analyzed by impartial, independent scientists, with clear scientific standards for what they can say about the forensics.** The National Academy of Sciences and other scientific bodies have laid out detailed reforms and recommendations to improve the use of forensics in this country. After all, most criminal cases, even murders, do not have any DNA to test. The same types of unreliable forensics are still commonly used today, and more research needs to be done to provide a more reliable scientific basis for fingerprint and ballistics and other types of comparisons. Slowly, crime labs have started to audit the forensics they used back in the 1980s and 1990s, and the community has started to consider scientific standards for what can be said in the courtroom. Quality controls in crime labs will hopefully improve too, but like so much in our criminal system, when police and crime labs mass process vast numbers of cases, quality suffers when quantity is overwhelming.

In response to mass forensic errors, some jurisdictions have developed aggregate remedies to reopen large numbers of cases, and best practices should be put into place to handle such systemic problems.<sup>49</sup>

5. **Ineffective assistance of counsel is an endemic problem.**<sup>50</sup> Most exonerees were indigent and could not afford counsel; as a result, many received substandard representation, including failure to litigate their innocence, and when they tried to litigate the ineffectiveness of counsel post-conviction, they typically failed. Plea bargaining makes it all the more challenging to assess what adequate counsel could have obtained for a client. As a result, a focus on accuracy must be complemented by a focus on funding for adequate defense resources, including to conduct investigations. Sentencing errors, while not a main topic in this chapter, are also a serious problem, and defense resources to investigate issues such as mitigation, are also essential to ensure accuracy in sentencing.
6. **Criminal discovery practices should be revamped, with judicial supervision, and broad disclosure of evidence from investigations, in court, and in an ongoing manner.** Prosecutors and police should not be able to hide evidence supportive of claims of innocence, as was done in so many DNA exoneree cases. In many cases, it was only because of the special energies dedicated to death-penalty cases that lawyers eventually uncovered evidence of innocence after years of trying. One wonders how often evidence is poorly documented, concealed, or disregarded in more routine criminal cases. Open-file discovery should be required of police and prosecutors so that the defense can see all of the evidence that they have, with representations in open court concerning what evidence has been gathered. Fortunately, more jurisdictions, including North Carolina and particularly Texas, which has a robust court-supervised model, are adopting these improvements, often in response to the stories<sup>51</sup> about what death-row exonerees had endured.
7. **Post-conviction rules should be adapted to the modern era as well.** New evidence of innocence should not be restricted. The federal law that impedes exonerations—the Antiterrorism and Effective Death Penalty

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49. For an evaluation and comparison of such mechanisms, see Brandon L. Garrett, *Bad Hair: The Legal Response to Mass Forensic Errors*, 42 LITIGATION 32 (2016).

50. See generally Eve Brensike Primus, “Defense Counsel and Public Defense,” in the present Volume.

51. TEX. CODE CRIM. PROC. ANN. art. 39.14; see also Janet Moore, *Democracy and Criminal Discovery Reform After Connick and Garcetti*, 77 BROOK. L. REV. 1329, 1384–86 (2012); Miriam H. Baer, *Timing Brady*, 115 COLUM. L. REV. 1 (2015).

Act of 1996 (AEDPA)<sup>52</sup>—should be scrapped or at least overhauled with a clear exception for claims of innocence. Innocence commissions should be created, like the one in North Carolina and those established in many other countries, tasked with carefully investigating innocence claims. Conviction Integrity Units, in which prosecutors reopen closed cases, should be established across the country, as is beginning to happen.

- 8. Police departments should generally focus on accuracy, both in procedures and in responses to errors, by considering scientific research and conducting risk assessments and sentinel events analysis when evidence does go wrong.** This approach is recommended by leading organizations such as the International Association of Chiefs of Police and the Presidential Task Force on Twenty-First Century Policing have recommended.<sup>53</sup>

How do jurisdictions consider making such changes? Take the case of Timothy Cole, convicted in 1986 and exonerated by DNA testing in 2010. He was exonerated 11 years too late; he died in prison in 1999. But Texas is now a poster-child state for reforms to prevent wrongful convictions. Lawmakers convened a Timothy Cole Advisory Panel on Wrongful Convictions. In 2011, that commission recommended an entire platform of reforms. Most have since been enacted. Texas adopted a law requiring all police to use best practices for eyewitness-identification procedures. A law broadened access to DNA testing. A statute to permit post-conviction challenges based on changed science was passed. A Texas Forensic Science Commission made recommendations and conducted audits of old cases involving potentially erroneous forensic evidence. A Michael Morton Act, named after another Texas DNA exoneree, adopted in 2013, requires broad and shared discovery in criminal cases.<sup>54</sup> A Timothy Cole Exoneration Review Commission in 2016 recommended still additional changes, including that interrogations be recorded.<sup>55</sup> If one had a scorecard for states' adoption of measures to improve the accuracy of criminal cases, Texas would now score fairly high on the list.

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52. Pub. L. No. 104-132, 110 Stat. 1214 (1996).

53. INT'L ASS'N OF CHIEFS OF POLICE, NATIONAL SUMMIT ON WRONGFUL CONVICTIONS: BUILDING A SYSTEMIC APPROACH TO PREVENT WRONGFUL CONVICTIONS (2013), [http://www.theiacp.org/portals/0/documents/pdfs/Wrongful\\_Convictions\\_Summit\\_Report\\_WEB.pdf](http://www.theiacp.org/portals/0/documents/pdfs/Wrongful_Convictions_Summit_Report_WEB.pdf); PRESIDENT'S TASK FORCE ON 21ST CENTURY POLICING, FINAL REPORT OF THE PRESIDENT'S TASK FORCE ON 21ST CENTURY POLICING 22–23 (2015), [https://cops.usdoj.gov/pdf/taskforce/taskforce\\_finalreport.pdf](https://cops.usdoj.gov/pdf/taskforce/taskforce_finalreport.pdf) (Recommendation 2.3).

54. TEX. CODE CRIM. PROC. ANN. art. 39.14; *see also* MICHAEL MORTON, GETTING LIFE: AN INNOCENT MAN'S 25-YEAR JOURNEY FROM PRISON TO PEACE (2014).

55. TIMOTHY COLE EXONERATION REVIEW COMMISSION (2016), <http://www.txcourts.gov/media/1436589/tcerc-final-report-december-9-2016.pdf>.

Perhaps the growing body of interdisciplinary research aimed at preventing wrongful convictions, and the spread of criminal procedure reforms can be of some comfort, at least, to the innocent people who suffered for so many years in prison for crimes that they did not commit. There are many paths toward adoption of the improvements described in this chapter. In many states, as in Texas, lawmakers have enacted legislation after study commissions initially examined the causes of wrongful convictions, familiarized themselves with the research discussed here, and then adopted responses. In other jurisdictions, it was law enforcement agencies that led the way by changing their policies. In some places, it was the courts that adopted rules to address accuracy concerns.

New types of errors that come to light as well as new research will continue to suggest new types of reforms. New research regarding sentencing errors, misdemeanor justice, bail decisions, mental-health diversion, juvenile justice, and many areas discussed in this volume,<sup>56</sup> will produce changes that can promote accuracy. New research regarding eyewitness memory, forensic science, and cognitive science research may produce still more improvements in the years ahead.<sup>57</sup> DNA exonerations placed the U.S. at the forefront of using science to improve the accuracy of criminal justice. That progress will continue to be made and it will expand.

The same practical problems have driven reform across a host of very different jurisdictions. Indeed, outside the United States, a range of civil- and common-law countries have similarly experienced exonerations in recent years and have also responded by adopting reforms, from new post-conviction rules to new interrogation methods.<sup>58</sup> There is increasingly an international dialogue among researchers, innocence projects, and policymakers regarding the causes and cures for wrongful convictions. Wrongful convictions provide us all with an opportunity to improve the accuracy of criminal justice.

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56. See, e.g., Alexandra Natapoff, “Misdemeanors,” in Volume 1 of the present Report; Megan Stevenson & Sandra G. Mayson, “Pretrial Detention and Bail,” in the present Volume; Stephen J. Morse, “Mental Disorder and Criminal Justice,” in Volume 1 of the present Report; Barry C. Feld, “Juvenile Justice,” in Volume 1 of the present Report.

57. See, e.g., Wells, *supra* note 21; Murphy, *supra* note 23; Leo, *supra* note 31.

58. For an overview, see Brandon L. Garrett, *Towards an International Right to Claim Innocence*, 105 CAL. L. REV. (forthcoming 2017).