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QUALITATIVELY ESTIMATING THE INCIDENCE OF  
WRONGFUL CONVICTIONS

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# Qualitatively Estimating the Incidence of Wrongful Convictions

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## I. Introduction

### A. *Setting the Stage: How Many Wrongly Convicted?*

Within the past decade innocence consciousness—the sense that wrongful convictions regularly occur, that they result from structural flaws in the criminal justice system, and that as a result improvements need to be undertaken—has gained a foothold in the legal and criminal justice communities.<sup>1</sup> Under the innocence banner a host of reforms have begun to move the adversary and criminal justice systems toward positive changes in police interrogation, forensic science, and many other areas.<sup>2</sup> This article reviews the still hazy but basic issue of wrongful conviction incidence.<sup>3</sup> It offers a tentative *qualitative* estimate

<sup>1</sup>See, e.g., *Achieving Justice: Freeing the Innocent, Convicting the Guilty*, in Report of the ABA Criminal Justice Section's Ad Hoc Committee to Ensure the Integrity of the Criminal Process (Paul Giannelli & Myrna Raeder eds., 2006); Final Report of the New York State Bar Association's Task Force on Wrongful Convictions (2009), available at <http://www.nysba.org/Content/ContentFolders/TaskForceonWrongfulConvictions/FinalWrongfulConvictionsReport.pdf> (last visited Nov. 23, 2010); Jon B. Gould & Richard A. Leo, *One-Hundred Years Later: Wrongful Convictions After a Century of Research*, 100 *J. Crim. L. & Criminology* 825 (2010).

<sup>2</sup>Tom Hays, *NYPD to Tape Grillings*, *Newsday*, Feb. 19, 2010, at A26 (taping interrogations planned on pilot basis; detectives and prosecutors expressed opposition); Committee on Identifying the Needs of the Forensic Sciences Community, *Strengthening Forensic Science in the United States: A Path Forward* (2009) [hereinafter *Committee on Identifying*]. I count these and other reforms as “positive” because I believe that they have the potential to make the criminal justice system more accurate and efficient. My position does not mean that all innocence reforms will have such effects, and encompasses the understanding that reforms can have negative and unintended consequences. Reforms disturb the distribution of material and symbolic goods and invariably generate resistance and counter-reform.

<sup>3</sup>The terms prevalence and incidence are sometimes confused. “Prevalence is a frequently used epidemiological measure of how commonly a disease or condition occurs in a population. Prevalence measures how much of some disease or condition there is in a population at a particular point in time. The prevalence is calculated by dividing the number of persons with the disease or condition at a particular time point by the number of individuals examined . . . . Prevalence is often expressed as percentage, calculated by multiplying the ratio by 100 . . . . The incidence of a disease is another epidemiological measure. Incidence measures the rate of occurrence of new cases of a disease or condition. Incidence is calculated as the number of new cases of a disease or condition in a specified time period (usually a year) divided by the size of the population under consideration who are initially disease free.” Brenda Roe & Helen Doll, *Prevalence of Urinary Incontinence and its Relationship With Health Status*, 9 *J. Clinical Nursing* 177, 188 (2000).

The percentage estimate I use herein is the incidence of wrongful convictions among all felony convictions occurring annually in the United States. Incidence is an easier figure to assimilate. Estimating the prevalence of wrongful convictions would have to also estimate the number of wrongly convicted who leave prison or society (by death).

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and an explanation of why the estimate is plausible. Professor Samuel Gross observed the fascination and policy implications of this issue: “The most important question about false convictions is also the most basic: How frequently are innocent people convicted of crimes? If false convictions really were vanishingly rare—0.027% or some other absurd figure—they would not be much of a problem.”<sup>4</sup>

The incidence issue has drawn at least three responses from scholars, activists, and justice system personnel. Most innocence movement advocates simply assume that the number of wrongful convictions is high enough to justify innocence reform activity.<sup>5</sup> The lack of a reliable quantitative methodology to assess the size of the problem has encouraged sniping from innocence movement critics.<sup>6</sup> They suggest that the number of wrongful convictions is vanishingly small and the costs associated with reducing a few miscarriages of justice are so great that innocence reform should be curtailed. Professors Gross and O’Brien appear to agree with the first position but have staked out a third, intermediate, position by raising red flags about the unknowns regarding the incidence of wrongful conviction.<sup>7</sup> These cautions are generated by a caveat raised by social scientists that without “investigating every conviction *there is no way to know* what proportion of those presently imprisoned are factually innocent.”<sup>8</sup> Strictly interpreted, this suggests that all attempts to estimate the incidence of wrongful conviction are useless. It could also be used to

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<sup>4</sup>Samuel Gross, *Convicting the Innocent*, 4 Ann. Rev. L. Soc. Sci. 173 (2008).

<sup>5</sup>See, e.g., Rodney Uphoff, *Convicting the Innocent: Aberration or Systemic Problem?* 2006 Wis. L. Rev. 739 (2006); Keith A. Findley, *Toward a New Paradigm of Criminal Justice: How the Innocence Movement Merges Crime Control and Due Process*, 41 Tex. Tech. L. Rev. 133 (2008).

<sup>6</sup>Stephen J. Markman & Paul G. Cassell, *Comment: Protecting the Innocent: A Response to the Bedeau-Radelet Study*, 41 Stan. L. Rev. 121, 126–33 (1988); Joshua Marquis, *The Myth of Innocence*, 95 J. Crim. L. & Criminology 501 (2005); Morris B. Hoffman, *The Myth of Factual Innocence*, 82 Chi.-Kent L. Rev. 663 (2007); Ronald J. Allen & Larry Laudan, *Deadly Dilemmas*, 41 Tex. Tech L. Rev. 65 (2008). A closer examination of the positions of these critics, which I hope to undertake in a later article, shows that Hoffman, and Allen and Laudan, actually assume that the number of wrongful convictions is close to that assumed by innocence activists, but they draw different conclusions as to the proper response that should be taken by the policy community. These criticisms are not directly discussed in the present article.

<sup>7</sup>Samuel R. Gross & Barbara O’Brien, *Frequency and Predictors of False Conviction: Why We Know So Little, and New Data on Capital Cases*, 5 J. Empirical Legal Stud. 927 (2008); see also Gross, *Convicting*, *supra* note 4.

<sup>8</sup>Robert Carl Schehr, *The Criminal Cases Review Commission as a State Strategic Selection Mechanism*, 42 Am. Crim. L. Rev. 1289, 1291 (2005, emphasis in original). Likewise: the “overall rate of error in the criminal justice system is unknown, and unknowable.” Dan Simon, *Are Wrongful Convictions Episodic or Epidemic?*, Paper presented at the annual meeting of the Law and Society Association (2006) (quoted in

justify the proposition that criminal justice produces only a few wrongful convictions that are minor deviations from a nearly perfect conviction-accuracy record. Instead, if the caveat and Gross and O'Brien's concerns are read in a criminological context, neither consequence is warranted.<sup>9</sup> Indeed, scholars with social science credentials or credibility who review this issue assume or state that thousands of wrongful convictions occur, but express discomfort with more concrete statements in the absence of something like the "Uniform Miscarriage Reports."<sup>10</sup>

In 2008 my colleagues and I published a study exploring the general incidence of wrongful convictions. We surveyed the relevant literature and reported on our replication of research that sought opinions of justice system actors on the issue.<sup>11</sup> We also offered a subjective estimate of the likely incidence of wrongful convictions, not directly derived from the opinions of the justice system professionals surveyed. Reflection on several important recent articles touching on this policy-

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Gould & Leo, *supra* note 1, at 832) (emphasis added). This concern is discussed in Part II C *infra*.

<sup>9</sup>See *infra* Part II C. Indeed, even scholars with social science credentials who quote these statements and take them seriously feel confident in making grounded estimates about wrongful conviction incidence.

<sup>10</sup>See especially Gross et al., *infra* note 16. I believe that this is the position of Jon Gould and Richard Leo. See also Richard A. Leo & Jon B. Gould, *Studying Wrongful Convictions: Learning From Social Science*, 7 *Ohio State J. Crim. L.* 7 (2009); Gould & Leo, *supra* note 1. In a recently published article, Professor Risinger repeats caveats against extrapolating a general wrongful conviction rate from his "empirically warranted factual wrongful conviction rate for . . . capital rape-murders from the 1980s." Michael Risinger, *Tragic Consequences of Deadly Dilemmas: A Response to Allen and Laudan*, 40 *Seton Hall L. Rev.* 991 (2010). I review Risinger's original research and respond to his caveats in Part II C *infra*. In any event, my effort is not the extrapolation of a wrongful conviction rate from a quantitatively derived figure but a qualitative estimate that is based primarily on an understanding of the state of the criminal justice process today, which relies on Risinger's empirically generated rate and subjective estimates of justice officials that cabin a qualitative estimate.

<sup>11</sup>Marvin Zalman et al., *Officials' Estimates of the Incidence of 'Actual Innocence' Convictions*, 25 *Just. Q.* 72 (2008). This research replicated Robert J. Ramsey & James Frank, *Wrongful Conviction: Perception of Criminal Justice Professionals Regarding the Frequency of Wrongful Conviction and the Extent of System Errors*, 53 *Crime & Delinq.* 436 (2007), which replicated and extended of C. Ronald Huff et al., *Guilty Until Proved Innocent*, 32 *Crime & Delinq.* 518 (1986). My colleagues and I conducted further analysis on the data we collected in Brad Smith et al., *How Justice System Officials View Wrongful Convictions*, 57 *Crime & Delinq.* 663 (2011) (Online First, published May 8, 2009, available at <http://cad.sagepub.com/content/early/2009/05/08/0011128709335020> (last visited Dec. 20, 2011)).

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relevant question has clarified my thinking.<sup>12</sup> The present Article is a postscript to the replication study, a line of research that has been criticized as a deeply flawed method and collective guesswork in assessing the incidence of wrongful convictions.<sup>13</sup> In reassessing this earlier work, I seek to advance our thinking about the sound qualitative judgment that supports the conclusion that wrongful convictions occur frequently enough to justify the innocence movement.

It is useful to have in mind the numbers who would be affected if assumptions about wrongful conviction rates are accurate. There are approximately one million felony convictions of all kinds in the United States each year and the prison rate is about 40%.<sup>14</sup> An estimate as high as two percent would mean that each year American prisons receive about eight thousand new inmates (excluding parole violators) who were factually innocent. To accept the low figure of 270 factually innocent people convicted each year by plea and trial means that for every 100,000 convictions fewer than 30 miscarriages of justice would occur and about 11 innocent inmates would be incarcerated.

Table 1. Wrongful convictions assuming one million felony convictions each year, and 40% sentenced to prison.

	All wrongful convictions	Sentenced to Prison
Assume 2.0% wrongful conviction rate	20,000	8,000
Assume 1.0% wrongful conviction rate	10,000	4,000

<sup>12</sup>Gross, supra note 4; Gross & O'Brien, supra note 7; Leo & Gould, supra note 10; Gould & Leo, supra note 1. In none of these articles was the incidence of wrongful convictions a central issue.

<sup>13</sup>Hoffman, supra note 6, at 668 n.23; Gould & Leo, supra note 1, at 833-34 n.44.

<sup>14</sup>Hoffman, supra note 6, at 668 n.23; Gould & Leo, supra note 1, at 833-34 n.44.

The average number of estimated felony convictions for 5 years between 1994 and 2006 was 962,514. Sean Rosenmerkel, Matthew Durose, and Donald Farole, *Felony Sentences in State Courts, 2006 -Statistical Tables* (Bureau of Justice Statistics NCJ 226846, 2009)., at tbl 1: "Number and rate of persons sentenced to felony in state courts" [Estimated number for 1990: 829,340; 1994: 872,220; 1998: 927,720; 2002: 1,051,000; 2006: 1,132,290]; Bureau of Justice Statistics, Dec. 2009, NCJ 226846; Thomas H. Cohen & Tracey Kyckelhahn, *Felony Defendants in Large Urban Counties (2006)*; Bureau of Justice Statistics, May 2010, NCJ 228944, at 12, tbl.12: "Most severe sentence received by convicted offenders, by most serious conviction offense, 2006" (row 2, column 5, 40% of all felony convictions).

Assume 0.5% wrongful conviction rate	5,000	2,000
Assume 0.027% wrongful conviction rate	270	108

### **B. Disagreement Between Friends**

By 2008, as noted above, the few writings about wrongful conviction incidence (often blended into works on other issues) led to a stalemate on the question. Although there clearly could be no wrongful conviction rate based on counts akin to crime statistics, innocence advocates assumed that the real number of wrongful convictions was larger than the small but steadily increasing number of DNA exonerations<sup>15</sup> or the 340 exonerees over a fifteen-year period identified in an important national survey led by Professor Gross.<sup>16</sup> The atmospheric difference among innocence movement supporters, between those who assume the incidence of wrongful conviction justifies action, and the more cautious third response, was noted in a recent exchange between Professors Jon Gould and Richard Leo on the one hand, and Professors Samuel Gross and Barbara O'Brien on the other.<sup>17</sup>

Gross and O'Brien's 2008 study, which compared characteristics of 105 exonerated death row defendants with 137 executed capital defendants, offered some thoughts about the frequency of wrongful convictions. They demonstrated a 2.3% capital exoneration rate among death sentence cases that were old enough for the review process to have run its course.<sup>18</sup> Given that this figure was based on precise data (i.e., the number of exonerations divided by the number of recorded death sentences), they could not simply extend it to convictions in general, and concluded "we do not know how many false convictions

<sup>15</sup>Innocence Project, available at <http://www.innocenceproject.org/> (last visited Dec. 27, 2011 (listing 283 exonerated)).

<sup>16</sup>Samuel R. Gross et al., Exonerations in the United States, 1989 through 2003, 95 J. Crim. L. & Criminology 523 (2005).

<sup>17</sup>Gould & Leo, *supra* note 1 (commenting on the cautions raised by Gross et al., *supra* note 16, and Gross & O'Brien, *supra* note 7). This led to an exchange of letters regarding methodological differences). Samuel R. Gross & Barbara O'Brien, Letter to the Journal, 8 Ohio St. J. Crim. L. 273 (2010); Richard A. Leo & Jon B. Gould, Response, 8 Ohio St. J. Crim. L. 277 (2010).

<sup>18</sup>Gross & O'Brien, *supra* note 7, at 944-47. There were 54 exonerations out of 2,394 death sentences pronounced between 1973 and 1984, or 2.3% and an identical exoneration rate among death sentences imposed through 1989.

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occur, but it is clear that there are many more false convictions than exonerations.”<sup>19</sup>

Gross and O’Brien canvassed the modes of assessing wrongful convictions in a negative vein. Estimation methods like surveying officials (“just collective guesswork”) and statistical models based on disagreements between judges and jurors (“unclear . . . to what extent [they] are able to estimate the proportion of convicted defendants who are factually innocent”) were deemed unreliable.<sup>20</sup> Several methods of social analysis were off the table or lacked appropriate or sufficient data bases: (a) experimentation; (b) inferential causal analysis on samples of cases in which an investigation technique is used (e.g., lineups); or (c) analysis of a set of cases “in some well defined category” (specifically, closed rape files with biological evidence for the analysis of rape cases).<sup>21</sup> A “legitimate third-best” backup research strategy would be to compare the variables in a set of known exoneration cases with a matched sample of cases of purported actual guilt to see whether there are systematic differences implying that certain variables are associated with wrongful convictions. The Achilles heel of the latter method is that relatively rare homicide and rapes cases account for most known exonerations. Despite their illuminating research, Gross and O’Brien stated that as for estimating a general wrongful conviction rate for all rape convictions, “the task is impossible” because not enough is known about “the histories of rape prosecutions and rape convictions in general.”<sup>22</sup> Thus, while acknowledging that “there are many more false convictions than exonerations” Gross and O’Brien accentuate the negative.<sup>23</sup>

In a review article appearing in the same year, Gross continued this theme.<sup>24</sup> A “small, assorted, messy data set” of about 600 to 700 exoneration cases found in four sets or sources of data tell us “almost everything we know about false convictions in the United States,” and yet these cases, because they have put “names and faces” on wrongful conviction cases, “have been highly influential, . . . responsible for a spate of new laws” and reforms designed to reduce the alleged

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<sup>19</sup>Gross & O’Brien, *supra* note 7, at 940.

<sup>20</sup>Gross & O’Brien, *supra* note 7, at 929–30.

<sup>21</sup>Gross & O’Brien, *supra* note 7, at 936–67. Regarding the last option, see George “Woody” Clarke, *Justice and Science: Trials and Triumphs of DNA Evidence* (2007) (prosecutor’s DNA project examining prior prosecutions with biological evidence — no mismatches found).

<sup>22</sup>Gross & O’Brien, *supra* note 7, at 938.

<sup>23</sup>Gross & O’Brien, *supra* note 7, at 940.

<sup>24</sup>Gross, *supra* note 4.

causes of wrongful convictions.<sup>25</sup> He then raised the theme of the present Article: “The most important question about false convictions is also the most basic: How frequently are innocent people convicted of crimes? If false convictions really were vanishingly rare—0.027% or some other absurd figure—they would not be much of a problem.”<sup>26</sup> As will be explained below, several good estimates of death sentence errors have been made.<sup>27</sup> Gross refused to extrapolate a general wrongful conviction rate from these studies.<sup>28</sup> He nevertheless simultaneously signaled a belief that the general wrongful conviction rate, while probably lower than the death penalty error rate, was likely higher than the “absurd” vanishingly small rate suggested by prosecutor Joshua Marquis and Justice Antonin Scalia. The only speculation offered was that

Gross & O’Brien point out that if the capital exoneration rate applied to all prison sentences, there would have been approximately 87,000 non-death-row exonerations from 1989 through 2003, more than 300 times the number reported. Similarly, if the false conviction rate for prison sentences were 2.3%, about 185,000 innocent American defendants were sent to prison for a year or more from 1977 through 2004. These estimates could be about right, but there are strong theoretical reasons to believe that the rate of false convictions is higher for murders in general, and for capital murders in particular, than for other felony convictions.<sup>29</sup>

Leo and Gould in 2008, in partial disagreement with Gross and O’Brien, essentially brushed aside the incidence question:

[I]t is not necessary to know the incidence or prevalence of a phenomenon to study it empirically or scientifically. Virtually every aspect of the study of American crime and criminal justice contains some incomplete or missing information. Scholars need not exaggerate the significance of the “dark figure” of wrongful conviction or the implications of imperfect knowledge or the absence of pristine pre-existing data sets. In this age of 24/7 media coverage, electronic media and scholarly databases, specialized websites and blogs, Lexis, Westlaw and Google, advanced internet search engines, and innocence projects and innocence commissions, there is no shortage of public information about wrongful convictions in America . . .

<sup>25</sup>Gross, *supra* note 4, at 176–8.

<sup>26</sup>Gross, *supra* note 4, at 176.

<sup>27</sup>See Part II B *infra*.

<sup>28</sup>Can we generalize from the false conviction rate for capital murder? Should we assume that the error rate for other crimes is at least as high [as capital cases], and perhaps higher considering that fewer resources are devoted to less serious cases? We don’t know, of course—there are no useful data—but my best guess is the opposite.

Gross, *supra* note 4, at 178.

<sup>29</sup>Gross, *supra* note 4, at 178.

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Our disagreement with Gross and O'Brien's "gloomy message" is not merely an academic matter. Wrongful convictions cry out for reform and prevention. It bears remembering that there is no worse routine error in the American criminal justice system—*that the criminal justice system itself causes*—than the wrongful conviction of a factually innocent person. There is no worse error, period, in the criminal justice system than the wrongful execution of a factually innocent person, which numerous scholars and activists believe has already occurred many times over in the United States.<sup>30</sup>

Two years later, in reviewing a century of innocence research, Gould and Leo touched on "the prevalence of wrongful convictions" and reviewed much of the work examined in the present Article.<sup>31</sup> The existence of wrongful convictions is no longer denied and several studies "cap estimates at around three to five percent of convictions."<sup>32</sup> After admonishing that the true rate of error is unknowable and that estimates are derived only from the most serious crimes, they cautioned that "it is essential that observers consider the method of extrapolation made by researchers, for the numerator and denominator in such estimates must be comparable."<sup>33</sup> Their caveat applies to the qualitative methodology of the present Article, which does not seek to *calculate* a general estimate based on available data (because, aside from death sentences, such data do not exist), but to reveal the basis of an estimate using qualitative methods.<sup>34</sup>

There is some justification to the positions of both Gross & O'Brien and Gould & Leo regarding whether little or much is known about wrongful convictions. For all of their concerns about how little we know about wrongful convictions, the discussions by Gross and O'Brien about wrongful convictions in rape cases and in general clearly imply that the incidence is large enough to require a policy response.<sup>35</sup> Leo and Gould, emphasizing the dynamism of innocence research and policy action, relegate the incidence issue to a back room. As a policy matter, Gross and O'Brien were right to be concerned. However weak the numbers floated by conservative critics of the innocence movement, some of their policy concerns are sufficiently plausible to require a response. Given the toxic quality of policy debates at the national,

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<sup>30</sup> Leo & Gould, *supra* note 10, at 29 (emphasis in original, footnote omitted).

<sup>31</sup> Gould & Leo, *supra* note 1, at 832–36. Denominating the figure as "prevalence" suggests an attempt to measure all who are identified as wrongly convicted at the present time. However, most estimates are of incidence, i.e., occurrence within a specific period of time, usually a year.

<sup>32</sup> Gould & Leo, *supra* note 1, at 832.

<sup>33</sup> Gould & Leo, *supra* note 1, at 835–36.

<sup>34</sup> See Parts II B and V B *infra*.

<sup>35</sup> Gross, *supra* note 4; Gross & O'Brien, *supra* note 7.

state, and local levels today, the “dark figure” of wrongful convictions will remain an arguing point that individuals and organizations could dredge up to stymie innocence reform. It is therefore necessary to probe the issue with greater care. And the beginning of wisdom on this score is that an estimate of the incidence of wrongful conviction is an educated guess.

### **C. Summary Conclusion and Scope of this Article**

An estimate of a general wrongful conviction rate, based on qualitative analysis, is offered herein. This may appear paradoxical. First, under existing conditions of justice-system knowledge and information gathering, the general rate of wrongful convictions cannot be known with the precision of crime rates.<sup>36</sup> Second, despite this, a generalized and nation-wide *assumption* that between .005 (one half of one percent or 0.5%) and .01 (one percent or 1.0%) of all felony convictions are of factually innocent defendants is more plausible than the conjecture that the number of false convictions is vanishingly small. Third, the Estimate (when capitalized, shorthand for “a general felony wrongful conviction rate of between 1/2 of 1% and 1%”) is not based on the cataloguing that supports estimates of crime rates or even the rate of wrongful death sentences. Rather, it is a subjective judgment based on an assessment of the present overall condition of the criminal justice system in the United States.<sup>37</sup> It is more like making national security intelligence estimates than measuring crime.<sup>38</sup>

Although the Estimate is an estimate, I believe it is an appropriate working figure for the purposes of understanding wrongful convictions, for supporting innocence reforms in general, and for crafting innocence reforms. The Estimate is not the wishful fancy of ideologically driven activists (although the ideology, activism, and institutional contexts of actors and writers on *all* sides of this issue ought to be acknowledged), but a sound assessment of the country of criminal justice made by those who travel there. This Article concludes with a normative assertion that convicting 1% of defendants who are innocent, or even 1/2 of 1%, is worth the present efforts of innocence projects and is a reason to support innocence reforms.

Innocence activists, although acknowledging the lack of certifiably accurate incidence figures, continue their innocence work and scholar-

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<sup>36</sup>Actually, estimates of crime. Although some crime statistics may be stated to the digit, criminologists know that government-produced crime rates are estimates. This issue is discussed in Part II C *infra*.

<sup>37</sup>See Parts V *infra*.

<sup>38</sup>See Part IV A *infra*. On the relation of words and numbers in making estimates, see Sherman Kent, *Words of Estimative Probability*, 8 *Studies in Intelligence* 49 (1964).

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ship with an *implicit* rate in their heads, that might range from one-half of one percent to two or three or higher percentages of wrongful felony convictions. Because the debate involves a statistic, a rate, it seems to have generated a felt need for a “scientific” basis. If data to calculate a general rate were available, they would be used. Estimating a general rate in the absence of such data is justifiable because of the importance of the issue, and in the context of an innocence movement that is advancing policy prescriptions. I will proceed in the manner of a historian, intelligence analyst, or qualitative scholar, by gathering relevant and accurate information and data that are germane to the issue, and by reviewing such information to arrive at the author’s reasoned judgment.

What is the basis of the Estimate? The foundation of the qualitative assessment is the degree to which the criminal justice system operates (or appears to operate) with professional efficacy. The information and the assessment is found in Part V B, which presents careful reviews of the criminal justice system’s likely accuracy. I conclude that a fair observer can agree with some confidence that the criminal justice system has such a large number of weaknesses and problems, that that a 1% nationwide general felony wrongful conviction rate is plausible. Conversely, it is highly implausible to conclude that the criminal justice system almost never convicts an innocent person. Part V C argues that a plausible estimate that at least 2,000 innocent defendants are imprisoned each year justifies efforts to institute innocence reforms. Critics could argue that the limited sources accessed in Part V B are selectively chosen to focus on system flaws. My answer is first, that the sources are recent and provide wide-ranging examinations of American criminal justice, and second, the number of sources detailing serious procedural and substantive failings in the investigation, prosecution, and adjudication, processes that I encounter almost daily in news and legal sources are legion and could, with great tedium, be extended.

Other factors and studies suggest that the Estimate is within a plausible range. The three studies that surveyed the estimates of officials provide a kind of triangulation.<sup>39</sup> These estimates were general surveys that did not probe the respondents’ specific knowledge bases, and so were guesses. They were guesses, however, of professionals who were close to the phenomena that generate convictions and so were in better positioned than others to make estimates. There is no

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<sup>39</sup>Huff et al., *supra* note 11; Ramsey & Frank, *supra* note 11; Zalman et al., *supra* note 11.

indication that the respondents gamed the surveys.<sup>40</sup> As Part II A explains, these surveys have been misinterpreted as a methodology for directly estimating wrongful conviction incidence. Instead, they provide some assurance that wrongful convictions exist (a contested finding in the 1980s) and that a figure of at least 0.5% is plausible.<sup>41</sup>

Another information set that grounds the Estimate are wrongful death sentence studies discussed in Part II B. They calculated error rates in death sentences at about 3%. Innocence scholars fear that extrapolating from death penalty error rates to a general wrongful conviction error rate is uncalled for.<sup>42</sup> Nevertheless, the death penalty rate, like the use of officials' estimates, offers some confidence that a general wrongful conviction error rate of at least 0.5%, below any of the death penalty error estimates, is plausible.

Part II A reviews earlier research and writing that touched on the matter of the size of the wrongful conviction problem. Pioneering research in the 1980s occurred in an innocence vacuum —a time when nothing resembling innocence consciousness in criminology or criminal law scholarship existed, to say nothing about the general population. One study catalogued false convictions in death penalty cases, a second explored estimates made by criminal justice officials, and a third speculated on the contrast between studies of eyewitness identification by psychologists and assumptions about miscarriages of justice. A major work published in 2005 sought to catalogue every known exoneration over a fifteen year period. Parts II B and C review quantitative estimates of factual error in capital convictions and the discussion about extrapolating from these figures to other felonies. Part II C also includes an argument justifying a qualitative estimate of

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<sup>40</sup>Zalman et al., *supra* note 11, at 87–90. In another co-authored article published shortly before the present article but written at about the same time, my co-authors and I compared estimates of wrongful convictions given by Michigan's justice officials in Zalman et al., *supra* note 11, with opinions of a scientifically drawn sample of Michigan's population. Citizens estimated a higher percentage of false convictions than officials. We could not say whether the lower estimates by officials reflected their more accurate estimate of the criminal justice system, or whether officials downplayed errors to make their work appear more accurate. See Marvin Zalman, Matthew J. Larson and Brad Smith, *Citizens' Attitudes Toward Wrongful Convictions*, \_\_\_ *Criminal Justice Review* \_\_\_ (DOI: 10.1177/0734016811428374; published online 8 December 2011).

<sup>41</sup>Zalman et al., *supra* note 11, at 77–79 (who also reviewed catalogues of wrongful convictions, concluded that a catalogue could never provide an accurate wrongful conviction census, and argued that this deficiency provided that rationale for an alternate, second-best, method to gain some information about a serious issue).

<sup>42</sup>Gross & O'Brien, *supra* note 7, Part I B *supra*; see D. Michael Risinger, *infra* note 43, Part II C *infra*.

wrongful conviction when a quantitative estimate or extrapolation is impossible.

Part III reviews the definitions of the terms “wrongful conviction” and “exoneration.” A basic issue in understanding and assessing the likely numbers of wrongful convictions is the need to differentiate factual from procedural error, a point that has been well accepted.<sup>43</sup> This section elaborates on the issue of defining these terms and demonstrates that the terms are operationally variable and subject to institutional needs and pressures. As a result, attempts to derive the numbers of wrongful convictions by a census or quantitative means are theoretically unstable.

Part IV lays a foundation for the use of a qualitative methodology to estimate wrongful convictions by reviewing two estimation practices, national intelligence estimates and Professor Simon Cole’s method for generating a fingerprint examination error rate. Cole’s study is not a precise model to be followed, but is an example of how various factors can be thought through to derive such an estimate. The heart of the paper, Part V B, is a qualitative analysis of information about the criminal justice system that supports the substantive basis of the Estimate. Part V C argues that a plausible number of 2000 innocent persons sent to prison every year justifies innocence reform efforts.

## II. Foundations

### A. Pioneering Wrongful Conviction Research

The 1980s were the seed time for innocence consciousness in the United States.<sup>44</sup> In previous decades lawyers’ and journalists’ books compiled miscarriages-of-justice stories in readable vignettes and added some commentary.<sup>45</sup> In the 1980s a few scholars turned to the question of wrongful convictions with more analytic methods. Hugo Bedau and Michael Radelet set out to catalogue every error in capital cases to provide a census of the most serious miscarriages of justice. Despite an attack on the study’s veracity by Justice Department officials Stephen Markman and Paul Cassell, the plausible conclusion

<sup>43</sup>D. Michael Risinger, *Innocents Convicted: An Empirically Justified Factual Wrongful Conviction Rate*, 97 *J. Crim. L. & Criminology* 761, 762 n.2 (2007); Gould & Leo, *supra* note 1, at 832–36; Zalman et al., *supra* note 11, at 75–76.

<sup>44</sup>Marvin Zalman, *An Integrated Justice Model of Wrongful Convictions*, 74 *Albany L. Rev.* 1465 (2011).

<sup>45</sup>Edwin M. Borchard, *Convicting the Innocent: Errors of Criminal Justice* (1932); Erle Stanley Gardner, *The Court of Last Resort* (1952); Jerome Frank & Barbara Frank, *Not Guilty* (1957); Edward D. Radin, *The Innocents* (1964). For analysis of this literature, see Richard A. Leo, *Rethinking the Study of Miscarriages of Justice: Developing Criminology of Wrongful Conviction*, 21 *J. Contemp. Crim. Just.* 201 (2005).

that most of their cases were indeed miscarriages began to infuse death penalty scholarship and the thinking of legal scholars.<sup>46</sup>

At that time another attempt to assess a set of American error-cases was gathered by sociologist Arye Rattner from published sources and more recent news accounts; his data set totaled 205 cases.<sup>47</sup> Given the millions of convictions over the half-century during which these scattered cases were identified, this study did not assess the possible incidence of wrongful convictions.

A couple of years earlier, however, Rattner, together with colleagues Ronald Huff and Edward Sagarin, surveyed the opinions of state attorneys general and Ohio justice officials and defense lawyers about wrongful conviction annual incidence. Noting that there is no definitive answer regarding the frequency of “unknown (and largely unknowable) false convictions,” they nevertheless asserted that, “[m]ost of those who have addressed the problem of wrongful conviction have *come away convinced* that it is not a rare phenomenon.”<sup>48</sup> Because jurists and others previously gave the authors informal estimates ranging from 5 to 20%, and given the impossibility of a systematic or state-run program to count errors, they decided to add some light to the issue. Huff et al. stated that opinions of judges, prosecutors, police chiefs and defense lawyers were “not an actual measurement of the phenomenon.” Instead, by gathering “a broader sampling of expert opinion” than the informal estimates they received, they wished to provide *some boundaries* for “our own estimate” of the incidence of wrongful convictions.<sup>49</sup> The justice system professionals’ estimates in the 1980s ranged from never (5.6% of respondents), to less than 1%

<sup>46</sup>Hugo Adam Bedau & Michael L. Radelet, Miscarriages of Justice in Potentially Capital Cases, 40 Stanford L. Rev. 21 (1987); Markman and Cassell, *supra* note 6. The Bedau and Radelet article was cited in the legal literature 21 times between 1987 and 1990, and 72 times between 1991 and 1995. Lexis US & Canadian Law Reviews, Combined library, Search: Radelet and Bedau and date aft 1986 and date bef 1990 / aft 1990 and date bef 1996.

<sup>47</sup>Most of the 205 cases were murder (88), robbery (60) or forcible rape (24); 21 received death sentences, and 58 received life sentences; eyewitness misidentification was found in 100 of the cases and the next most frequent factor was witness perjury in 21 cases; in 77 of the cases the actual culprit confessed; 49 were pardoned based on new evidence, and in 39 the convictions were set aside by the court. Arye Rattner, *Convicted But Innocent: Wrongful Conviction and the Criminal Justice System*, 12 Law & Hum. Behav. 283 (1988). This work grew out of Rattner’s Ph.D. dissertation research. Samuel R Gross, *Loss of Innocence: Eyewitness Identification and Proof of Guilt*, 16 J. Legal Stud. 395, 411 n.55 (1987).

<sup>48</sup>Huff et al., *supra* note 11, at 520 (emphasis added).

<sup>49</sup>Huff et al., *supra* note 11, at 521 (emphasis added).

(71.8%), to 1–5% (20.3%), to 6–10% (2.3%).<sup>50</sup> Assuming a wrongful conviction rate of one-half of one percent (.005 or 0.5%) based on the plausibility of these estimates, and extrapolating this percentage to an estimated 1.1 million felony convictions in the United States, Huff and colleagues suggested that 5,729 wrongful convictions were handed down in 1983.<sup>51</sup>

This method (which my colleagues and I have replicated) has been dismissed by Judge Hoffman (“ . . . a deeply flawed method . . . ”),<sup>52</sup> Gross and O’Brien (“ . . . but that is just collective guesswork . . . ”),<sup>53</sup> and by Gould and Leo (“These findings do not reflect a precise, underlying error rate in the real world of criminal justice, as they are essentially collective guesswork”).<sup>54</sup> These critics are quite right that officials’ estimates cannot be taken as *the* rate of wrongful conviction. But the criticism is misplaced in assuming that officials’ estimates were taken as a way of *precisely measuring* wrongful convictions. A closer examination of Huff et al.’s words shows that these researchers ultimately made their own judgment, based on their explorations of what was known about wrongful convictions to date, bolstered and *cabined* by the survey. In effect Huff et al. said that a .005 error rate (0.5%) was sufficiently plausible to assert as a problem of justice requiring attention. This is not to entirely exonerate the researchers who have used method. Huff et al., Ramsey and Frank, and my colleagues and I, while being careful to not make claims for precisely measuring wrongful convictions,<sup>55</sup> have nevertheless set loose into the sphere of innocence research and activism the impression that the

<sup>50</sup>Huff et al., supra note 11, at 523; these percentages were adjusted after the 52 missing responses from the total responses of 229 (22.7%) were removed.

<sup>51</sup>Huff et al., supra note 11, at 523. The findings of this study and of Rattner, supra note 47, were reported in their later book, C. Ronald Huff et al., *Convicted But Innocent: Wrongful Conviction and Public Policy* (1996).

<sup>52</sup>Hoffman, supra note 6, at 668 n.23.

<sup>53</sup>Gross & O’Brien, supra note 7, at 930. They also set aside inferences of wrongful conviction rates generated by statistical analyses “based on the frequency of disagreements on verdicts between trial judges and juries.” Gross & O’Brien, supra note 7, at 929–30.

<sup>54</sup>Gould & Leo, supra note 1, at 833–34 n.44. Professor Larry Laudan wrote of Huff et al., supra note 11: “While this is only anecdotal evidence, it is impressive for all that . . .” Larry Laudan, *Truth, Error, and Criminal Law: An Essay in Legal Epistemology* 71 (2006).

<sup>55</sup>“Officials’ estimates, although not a direct measure of wrongful conviction incidence, offer a plausible range of wrongful conviction frequency in light of recent research about the numbers and causes of wrongful convictions.” Zalman et al., supra note 11, at 74. And at the conclusion to this paper we wrote, “The inherent limits of estimates recommends continuing work on the catalogue method.” Zalman et al., supra note 11, at 95. Some scholars have been scrupulous in stating that the

figures are close to a measure. Speaking only for the publications by me and my colleagues, we have not fully explained why the estimates of officials were convincing. This has been a source of confusion and a failing that I seek to clarify in this article.

Law professor Samuel Gross, the other explorer of the relatively uncharted sea of wrongful convictions in the 1980s, examined 136 wrongful prosecutions and convictions that resulted from faulty eyewitness identification. He also drew cases from earlier published books and from news accounts.<sup>56</sup> His detailed review explored the nature of the cases over time, the processes that led to conviction and exoneration, and methods that could reduce error.<sup>57</sup> This was preceded by a review of a possible paradox: that eyewitness identification is known to be faulty and the “basis of numerous guilty verdicts,” but yet “the source of only a small number of wrongful convictions.”<sup>58</sup> The first assumption was based on the plausible conjecture that laboratory studies tend to overstate the effect of eyewitness error in actual prosecutions. A paradox arose because actual convictions are based on other kinds of evidence and are produced by laborious screening processes.<sup>59</sup> Although Gross did not try to guess at the “magnitude of the problem” of eyewitness misidentification, let alone wrongful conviction

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estimates stated in of Huff et al. were only the “*perception* of the frequency of wrongful convictions in the criminal justice system” by officials. Mitch Ruesink & Marvin D. Free Jr., *Wrongful Convictions among Women: An Exploratory Study of a Neglected Topic*, 16 *Women & Crim. Just.* 1, 3–4 (2005) (emphasis in original).

An overlooked value of our estimation research is that it can shed light on the willingness of system actors to undertake reform efforts. A follow-up article drawn from our 2005 survey sought to examine the attitudes of system actors for the effect they might have on reform efforts: “the attitudes of justice system professionals will have a more direct effect on innocence policies [than general public opinion]. It is police, prosecutors, defense lawyers, and judges who will implement or subvert reforms. Knowing what they believe about the causes of wrongful convictions will be useful in understanding and implementing reform strategies.” Smith et al., *supra* note 11, at 664.

Dan Simon wrote: “I feel that the surveys are valuable for another purpose: they demonstrate the law enforcement personnel’s unwavering trust in their own performance (though not of their colleagues across county lines). This sense of infallibility is important, because it makes them less likely to admit errors and to resist reform.” Private communication, Aug. 8, 2010.

<sup>56</sup>Gross, *supra* note 47, at 410–12. Many of these cases overlapped with and were even drawn from Rattner’s 1988 sample. The study was an empirical reaction to the legal changes generated by the Supreme Court’s lineup cases.

<sup>57</sup>Gross, *supra* note 47, at 412–49.

<sup>58</sup>Gross, *supra* note 47, at 396.

<sup>59</sup>Gross, *supra* note 47, at 397–98, 405–08.

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tions in general, he assumed that they existed.<sup>60</sup> His overall research strategy of closely examining 136 such cases had to be an exercise in futility if not intended to make the point that the problem is real and needed policy attention. One detects in his heroic effort a tension between the established dogma of a very accurate justice process and a troubling factor (eyewitness misidentification) that hinted at a much darker reality.

As the innocence agenda grew in the 1990s, innocence movement action and scholarship focused on the prominent causes of wrongful convictions.<sup>61</sup> The growing concern among conservative as well liberal jurists implied that a “critical mass” of justice system officials believed that innocent persons were convicted at unconscionable rates,<sup>62</sup> an implicit belief that ran into the criminological concern that without “investigating every conviction *there is no way to know* what proportion of those presently imprisoned are factually innocent.”<sup>63</sup>

This focus on actual innocence established a frame of reference for the next pioneering study, published in the mid-2000s, again by Professor Gross and colleagues. They scoured the country and identified 340 certified felony conviction exonerations for the years 1989 to 2003.<sup>64</sup> But the point to be emphasized here is that to Gross et al. these 340 exonerations were the tip of the iceberg. “Any *plausible guess* at the total number of miscarriages of justice in America in the last fifteen years must be in the thousands, perhaps tens of thousands.”<sup>65</sup> Several reasons were given for this assertion. Exonerations excluded facially false convictions for defendants offered pleas of guilt or no contest in return for time served, and excluded acquittals

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<sup>60</sup>Gross, *supra* note 47, at 396.

<sup>61</sup>Leo & Gould, *supra* note 10, at 18–19 (explaining that legal scholars’ usage of wrongful conviction “causes” does not meet social scientific criteria).

<sup>62</sup>See, e.g., Christine C. Mumma, *The North Carolina Actual Innocence Commission: Uncommon Perspectives Joined by a Common Cause*, 52 *Drake L. Rev.* 647 (2004) (describing initiative of North Carolina Chief Justice I. Beverly Lake, Jr., a conservative jurist); Innocence Commission for Virginia, *A Vision for Justice: Report and Recommendations Regarding Wrongful Convictions in the Commonwealth of Virginia* (Mar. 2005), available at [http://www.exonerate.org/ICVA/full\\_r.pdf](http://www.exonerate.org/ICVA/full_r.pdf) (last visited Sept. 2, 2010) (established a designedly non-partisan board, with liberal and conservative representatives).

<sup>63</sup>Schehr, *supra* note 8, at 1291 (emphasis in original).

<sup>64</sup>Gross et al., *supra* note 16. It was this numerator (slightly inflated) that was divided by all felony convictions in those years that led Marquis and Scalia to say that the rate of wrongful convictions was minuscule. Marquis, *supra* note 6; Joshua Marquis, *Op-Ed.*, *The Innocent and the Shammed*, *N.Y. Times*, Jan. 26, 2006, at A23; *Kansas v. Marsh*, 548 U.S. 163, 193, 126 S. Ct. 2516, 165 L. Ed. 2d 429 (2006) (Scalia, J., concurring).

<sup>65</sup>Gross et al., *supra* note 16, at 551 (emphasis added).

after retrial where prosecutors perversely or out of cognitive biases refused to acknowledge powerful evidence of innocence. Known mass exonerations were excluded. Pending cases that should have been exonerations were excluded.<sup>66</sup> But these surely do not amount to tens of thousands missing exonerees. More to the point, Gross et al. speculated that many wrongly convicted who were sentenced to only a few years (or probation) were released before any of the incredibly arduous efforts required to exonerate a wrongly convicted person could be mounted.<sup>67</sup> Also, in more numerous crimes like robbery, where usable DNA evidence is unlikely and convictions are based in part on eyewitness identification, errors may be quite high.

At one point Gross et al. opened the door to a stark possibility: that if a 2.07% error rate in death sentences applied to all felony convictions “there would have been *over 29,000 non-death row exonerations* in the past fifteen years rather than the 266 that have in fact occurred—including more than 3,700 exonerations in non-capital murder cases alone.” Admitting that this “is a shocking prospect,”<sup>68</sup> Gross et al. partially closed the door on it by turning to the plausible reasoning that wrongful convictions are likely to be higher in capital cases.<sup>69</sup> Nevertheless, they continue to worry the matter.

Considering the huge discrepancies between the exoneration rates for death sentences, for other murder convictions, and for criminal convictions generally, the truth is probably a combination of these two appalling possibilities: We are both much more likely to convict innocent defendants of murder—and especially capital murder—than of other crimes, *and* a large number of false convictions in non-capital cases are

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<sup>66</sup>Gross et al., *supra* note 16, at 533–40.

<sup>67</sup>Gross et al., *supra* note 16, at 535–37; see also Nate Blakeslee, *Tulia: Race, Cocaine, and Corruption in a Small Texas Town* (2005); Margaret Edds, *An Expendable Man: The Near-Execution of Earl Washington, Jr.* (2003). This factor also incorporates the social reality that pro bono attorneys and others have made extraordinary efforts for allegedly innocent death row prisoners that were not made for murder and other defendants sentenced to life imprisonment. Gross & O'Brien, *supra* note 8, at 945. Dennis Fritz commented on the fact that he may have remained in prison for life had not efforts on behalf of his co-defendant Ron Williamson, who was sentenced to death, led to a federal habeas release, see Dennis Fritz, *Journey Toward Justice* (2006).

<sup>68</sup>Gross et al., *supra* note 16, at 532.

<sup>69</sup>The reasoning for this is developed in Samuel R. Gross, *The Risks of Death: Why Erroneous Convictions are Common in Capital Cases*, 44 *Buff. L. Rev.* 469 (1996). Not every scholar is convinced. See, e.g., Risinger, *supra* note 43, at 787 n.54, who remains “agnostic” on the point.

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never discovered because nobody ever seriously investigates the possibility of error.<sup>70</sup>

This article is an interesting combination of scientific and legal analysis and writing. It was an arduous and path-breaking study of exonerations that was meticulous in its analysis of the data collected. In the tradition of a scientific article, it sought not to extent its discussion beyond the data. Yet in the tradition of law review articles, which typically drive toward policy conclusions and are often journalistic in their sources and use of data, it strove to convey the seriousness of the wrongful conviction problem. As a result this article maintained its “scientific purity” by not asserting a general rate of wrongful convictions, as it had no supporting data, but in powerful undertones offered reasoning and (non-numerical) extrapolations that suggested a problem of sufficient size to call for a policy response.<sup>71</sup>

### **B. Counting and Estimating Wrongful Death Sentences**

In the 1990s the Death Penalty Information Center (DPIC), the Innocence Project, and the Center on Wrongful Conviction began to post attention-getting lists of the wrongly convicted on their web sites.<sup>72</sup> The Innocence Project number, climbing steadily each year, was important because each DNA exoneration was virtually beyond criticism. Although the DPIC list was subject to the criticism that some of its exonerees might have been factually guilty, most viewers, including research scholars, did not notice this fact.<sup>73</sup> And more to the point, given the known number of death sentences, others could extrapolate a *rate of erroneous capital* convictions at 1.55 or 1.5 or 2.3% based on death sentences and exonerations in different time frames.<sup>74</sup>

More recently, two careful estimates of wrongful convictions

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<sup>70</sup>Gross et al., *supra* note 16, at 533.

<sup>71</sup>I am not suggesting that the article was deliberately disingenuous in the way that skillful trial attorneys must often be to move a jury toward nullification, by rhetorical strategies that support the facade of the law while subversively undermining it by statements that subtly appeal to jurors' value systems that may not be in alignment with the law's requirements. There is no doubt in my mind that the “tip of the iceberg” statements were carefully designed to accord with the authors' view of the overall reality of wrongful convictions, a view that I share.

<sup>72</sup>Zalman et al., *supra* note 11, at 77–78.

<sup>73</sup>See, e.g., J. D. Unnever & F. T. Cullen, *Executing the Innocent and Support for Capital Punishment: Implications for Public Policy*, 4 *Criminology & Pub. Pol'y* 3 (2005).

<sup>74</sup>Gross & O'Brien, *supra* note 6, at 944–45 (1.5% for sentences and exonerations between 1973 and 2004; for death sentences imposed between 1973 and 1984 the exoneration rate was 2.3%). Gross & O'Brien acknowledged the fact that a few exonerees were probably guilty in the factual sense. See Zalman et al., *supra* note 11, at 78 (1.55%). The lower estimates did not take into account the fact that more recent death sentences had not had the time to be subjected to the kind of complete post-conviction review that has led to exonerations.

incidence in murder and capital cases came very close to this mark. These works were based on identifiable exonerees and reasonable estimates of the cohorts from which exonerated death penalty inmates were drawn. Sociologist Tony Poveda estimated a wrongful conviction rate of 1.4% for released New York inmates convicted of murder.<sup>75</sup> A more arresting and influential study by evidence law expert D. Michael Risinger established a wrongful conviction rate based on eleven rape-murder convictions that were tried between 1982 and 1989 and later found to be false based on post-conviction DNA testing. Despite the strong belief that DNA exonerations exclude the possibility of masking a wrongful acquittal, Risinger set the numerator at 10.5 instead of 11 to satisfy the doubts of innocence critics and to produce a more conservative estimate. The denominator of 319 was determined by estimating the number of those sentenced to death for rape-murders in the same time frame when the exonerees were convicted, discounted by the rate of similar cases where no usable DNA was available.<sup>76</sup> This resulted in a wrongful conviction rate of 3.3% (or 2% before discounting the denominator for cases in the same period for which no usable DNA was available). Risinger also speculated that in some rape-murder cases the facts of guilt were so clear that DNA testing was not requested, which would further deflate the denominator of rape-murder death sentences consistent with the 11 (or 10 1/2) exonerees, possibly yielding a maximum exoneration rate for this crime of 5%.<sup>77</sup>

The chances of killing two, three, or five innocent people per

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<sup>75</sup>Tony G. Poveda, Research Note: Estimating Wrongful Convictions, 18 *Just. Q.* 689, 695–97 (2001). Poveda's estimate was based on several assumptions: (1) that seven murder inmates (21.2% of the 1989 murder inmates who were granted new trials) in a 1989 official New York study (in which five were either acquitted after retrial and two had their cases dismissed by prosecutors) were factually innocent; (2) that the cases of 21.2% of 1995 murder inmates discharged for new trials (5/24) were for substantial error; (3) that these five cases were committed to the New York Department of Correctional Services in 1992 when 357 murder commitments were made. Poveda, *supra* note 75, at 698, also reported a similar study by the New York State Defenders Association using similar methodology that estimated a 15 wrongful conviction rate in murder cases.

<sup>76</sup>Risinger, *supra* note 43, at 775–78. The government census of death sentences does not include the specific crime. The proportion of death sentences for rape-murder was derived from a combination of two data sets of capital appeal cases from the Liebman et al. study for 1982–1989 for rape murder, which was 21.45%. This produced a denominator of 479. This was discounted by a figure obtained from an Innocence Project study of its case files finding that 36.3% of their cases had no available DNA for testing, yielding a denominator of 319. James S. Liebman et al., *A Broken System: Error Rates in Capital Cases 1973–1995* (2000), available at <http://www2.law.columbia.edu/instructionalservices/liebman/> (last visited Sept. 2, 2010).

<sup>77</sup>Risinger, *supra* note 43, at 778–79.

hundred sentenced to death by juries was sufficiently unnerving to have severely weakened death penalty support.<sup>78</sup> The quantitative death penalty wrongful conviction estimates raised the possibility that these rates could be extrapolated to other felonies. Risinger addressed this question in his 2007 article and thought it not worth answering.<sup>79</sup>

**C. Extrapolating a General Wrongful Conviction Rate**

Professor Risinger, who generated the most robust death sentence wrongful conviction rate estimate, did not favor extrapolating a general wrongful conviction rate from the death penalty error rate.

It seems likely to be quite common for people who begin pondering the question of wrongful conviction to ask themselves questions like, “What do you suppose the number of factually wrongful convictions per thousand convictions is generally?” or similar questions. There are two reasons why we should resist the temptation to expend much effort in pondering such a general average factual wrongful conviction rate: first, we are unlikely to ever be able to derive it very specifically, and, second, it would not tell us anything very important if we knew it. Both facts are largely the product of a common reality, which is also intimately involved in the issue of what the capital rape-murder data from the 1980s can tell us about other crimes and other times: the universe of criminal convictions is almost certainly heavily substructured in regard to factual innocence rates.<sup>80</sup>

Yet, Risinger’s caveat should not be an injunction to avoid the issue.<sup>81</sup> His point that a specific rate cannot be derived echoes the point made by Schehr and Simon and approved by most innocence scholars.<sup>82</sup> As suggested in Part I, these statements were made in a criminological context. The need for data and the uses to which they are put tend to dictate the effort expended to gather the kind of data that meets the

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<sup>78</sup>Frank R. Baumgartner et al., *The Decline of the Death Penalty and the Discovery of Innocence* (2008).

<sup>79</sup>“But can we generalize this rate (or rate range) [of factual error for capital rape-murders in the 1980s] to other sets of criminal convictions?” Risinger, *supra* note 43, at 782.

<sup>80</sup>Risinger, *supra* note 43, at 783.

<sup>81</sup>It is an injunction to be cautious. The best known extrapolation of a wrongful conviction figure, the infamous “0.027%” concocted by prosecutor Joshua Marquis and incautiously adopted by Justice Scalia, citations in *supra* note 65, ought to be an embarrassment to them. The error of misunderstanding what the numbers Marquis manipulated stood for have been analyzed (actually, skewered) by Samuel R. Gross & Souter Passant, *Scalia Rampant: Combat in the Marsh*, 105 Mich. L. Rev. First Impressions 67 (2006), available at [http://students.law.umich.edu/mlr/firstimpressions/vol\\_105/gross.pdf](http://students.law.umich.edu/mlr/firstimpressions/vol_105/gross.pdf), and by Gould & Leo, *supra* note 1, at 835 (saying that “their analysis is ‘flat wrong and badly misleading. In fact, [the error rate is] much higher,’ ” quoting Dan Simon, *supra* note 8).

<sup>82</sup>See *supra* note 8.

need. The notion that without counting every wrongful conviction a rate cannot be known reflects the context of crime statistics. Lawyers and the general public take crime statistics for granted. Criminologists, however, know that the very idea of crime statistics is based on a nineteenth century insight that crime is a recurrent social phenomenon. It took about 150 years from Adolphe Quetelet's insights to the get to the development of a fairly complex (and fairly reliable but far from perfect) set of measures of crime collected by government agencies. Crime measurements, from prisons statistics, to court records, to crimes known to the police, are as much measures of official bureaucratic behavior as they are of actual crime. Even the national victimization survey that supplements the Uniform Crime Reports is subject to methodological limitations.<sup>83</sup> As a result, all crime measures are estimates and are produced by arduous and expensive bureaucratic endeavors. The effort to produce quantitative crime estimates reflects the socio-political reality that they are worth the expenditure of public funds because they provide information deemed helpful to support a valued state function.<sup>84</sup>

Consequently, crime scholars doubt that governments will ever collect wrongful convictions statistics because (1) the operational definition of a wrongful conviction is highly problematic and contestable in many cases; (2) data gathering, storage, and usage is expensive; (3) institutions gather statistics for practical reasons based on perceived institutional needs; and (4) like gathering crimes-known-to-the-police data in America, criminal justice data collection is unusually tedious because of the hyper-fragmentation of criminal justice agencies in the United States. At present, the idea of wrongful convictions is too challenging to the legitimacy of criminal justice, and the practical problems

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<sup>83</sup>The National Crime Victimization Survey (NCVS); see also Bureau of Justice Statistics, NCVS Redesign, available at <http://bjs.ojp.usdoj.gov/index.cfm?ty=tp&tid=91> (last visited Mar. 18, 2011). See Colin Loftin and David McDowall, *The Use of Official Records to Measure Crime and Delinquency*, 26 *J. Quant. Criminology* 527 (2010).

<sup>84</sup>Hermann Mannheim, *Comparative Criminology* 95–122 (1965); Piers Beirne, *A Note on Quetelet and the Development of Criminological Statistics*, 14 *J. Crim. Just.* 459 (1986); Callie Marie Rennison & Michael Rand, *Introduction to the National Crime Victimization Survey in Understanding Crime Statistics: Revisiting the Divergence of the NCVS and the UCR* 17 (James P. Lynch & Lynn A. Addington eds., 2003); Cynthia Barnett-Ryan, *Introduction to the Uniform Crime Reporting Program, in Understanding Crime Statistics: Revisiting the Divergence of the NCVS and the UCR* 55 (James P. Lynch & Lynn A. Addington eds., 2003); see also *Measuring Crime: Large-scale, Long-range Efforts* (Doris Layton MacKenzie et al., eds. 1990). The problems with how crime statistics are derived is well understood by Risinger, *supra* note 10, at 1015–17, when he notes that “the statistics are better for identifying trends over time than for establishing the actual incidence of crime.” Risinger, *supra* note 10, at 1015 n.82.

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are too daunting, for general data collection by the federal or state governments to be minimally plausible.<sup>85</sup>

Gross and O'Brien add, more fundamentally, that miscarriages of justice are invisible when they occur, so it is not possible to relate the "accident" to a contemporary context of similar cases.<sup>86</sup> When the wrong is discovered, years later, it is often by chance. Even today, with innocence projects reviewing prisoners' petitions, there are so many petitions for assistance and the selection standards are so high, that some actually innocent prisoners will be lost in the triage.<sup>87</sup> The possibility of getting a valid numerator for more run-of-the-mill felonies than death sentence cases is close to impossible at present. When an exoneration does occur years later, the records of other similar or matched cases are impossible to retrieve. Given the highly decentralized American justice system and the lack of retrievable case file data in all but a tiny fraction of cases, the denominator is also impossible to construct.

As a result, analysts like Robert Schehr, who have assumed that wrongful conviction estimates should be precise figures based on "counted" miscarriages of justice, are correct in concluding that such a "Uniform Miscarriage Reports," if you will, are not possible. Were such data available they could be used to compare the relative accuracy of different agencies, but such a vision is utopian as the data for making precise quantitative estimates of wrongful conviction are not available.

This does not mean that a *qualitative* estimate is without use. The purpose of a qualitative and plausible Estimate is to confirm the reality that wrongful convictions occur with regularity across the nation (but perhaps not in specific agencies or locales) and to provide a meaningful figure (even without the "precision" of a crime rate) that would justify innocence reforms. A plausible Estimate, grounded in available and accurate information, is also a useful counter to unfounded arguments of conservative critics.

Risinger's second point, "that it would not tell us anything very

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<sup>85</sup>What could occur is that some local police agencies led by executives with managerial approaches to policing could adopt an "accident" approach to wrongful convictions and begin to gather data on near-misses (investigations that get beyond initial screening and are near to adjudication before errors are discovered) and wrongful convictions to explore ways to improve their processes. Jon M. Shane, *What Every Chief Executive Should Know: Using Data to measure Police Performance* (2007); James M. Doyle, *Learning from Error in the American Criminal Justice*, 100 *J. Crim. L. & Criminology* 109 (2010).

<sup>86</sup>Gross & O'Brien, *supra* note 7, at 929.

<sup>87</sup>Gwendolyn Carroll, *Proven Guilty: An Examination of the Penalty-Free World of Post-Conviction Testing*, 97 *J. Crim. L. & Criminology* 665 (2007).

important if we knew it,” overlaps with Gould and Leo’s enthusiastic assertion that a lot is known about wrongful convictions. This knowledge helps generate error-reducing proposals to reform justice system practices and procedures, and to refine the panoply of reforms that have been suggested and are being adopted in many jurisdictions. The useful knowledge about wrongful conviction correlates and reforms are derived from case studies, qualitative studies, and quantitative analysis of the small (even tiny) number of known DNA exonerations, and not from general incidence estimates.<sup>88</sup> The second objection is therefore moot.

Risinger’s third point is that “the universe of criminal convictions is almost certainly heavily substructured in regard to factual innocence rates.” The term substructure, drawn from population genetics, simply means that instead of a uniform structure of results, results are unevenly distributed. In police operations a similar concept is that of crime “hot spots”— locations and times where certain kinds of crimes are concentrated, allowing police to focus resources.<sup>89</sup> There probably are wrongful conviction hot spots. Two journalists’ books, for example, about the offices of California county prosecutors portray one run by an extremely ambitious district attorney whose policies unleashed a torrent of wrongful convictions. The other office seemed to operate in accord with high ethical standards and in one instance corrected a possible wrongful prosecution midstream.<sup>90</sup> On the other side of the country, the heavy-handed interrogation tactics of Detective Robert Glenn Ford in Norfolk, Virginia (called Sipowicz by his colleagues), perhaps a one-man wrongful conviction hot spot, was a prime cause for a tragic run of wrongful convictions (but not exonerations) in the bizarre Norfolk Four case.<sup>91</sup> Tales of forensic fraud by a few forensic examiners, or a number of woefully substandard forensic laboratories is more anecdotal evidence that wrongful convictions pile up in some

<sup>88</sup>Brandon L. Garrett, *Convicting the Innocent: Where Criminal Prosecutions Go Wrong* (2011).

<sup>89</sup>J. E. Eck et al., *Measuring Crime: Understanding Hot Spots* (2005).

<sup>90</sup>Compare Edward Humes, *Mean Justice* (1999) (District Attorney Ed Jagels), with Gary Delsohn, *The Prosecutors—Kidnap, Rape, Murder, Justice: One Year Behind the Scenes in a Big-City DA’s Office* (2003) (District Attorney Jan Scully).

<sup>91</sup>Tom Wells & Richard A. Leo, *The Wrong Guys: Murder, False Confessions, and the Norfolk Four* 28 (2008). News that Mr. Ford was convicted by a federal jury of “two counts of extortion and one of lying to the FBI” have weakened his credibility (he had lobbied Virginia’s governor to not pardon the remaining Norfolk Four defendants still in prison) and has strengthened the case for full pardons of the Norfolk Four. Margaret Edds, *The Crumbling Case Against the “Norfolk Four.”* Wash. Post, Nov. 7, 2010, at C6.

locations while in others they may indeed be rare events.<sup>92</sup> Even if a comprehensive empirical study of the general incidence of wrongful conviction could be done at a local level (a remote possibility, but more feasible than a statewide or national study), the possibility of substructuring means that any results would not be generalizable. At the present time the idea of wrongful conviction hot spots is at most a useful heuristic device for descriptive studies. But to argue correctly that the present knowledge about wrongful convictions does not permit systematic *quantitative* analysis does not devalue the need for a plausible general Estimate, grounded in a careful assessment of criminal justice and cabined by other studies.

Faced with the virtual impossibility of generating a reliable rate of the general incidence of wrongful convictions based on empirical data, innocence scholars and actors are faced with the Gross and O'Brien position of living with radical uncertainty or with the Gould and Leo attitude of assuming that however weak the evidence, whether 1 or 2 or 3% makes sense, innocence projects and scholars should get on with the work of innocence reform. The problem with either stance is that although the early polemical attacks on the innocence movement have had little effect to date on innocence work, more serious challenges have been made that to some degree rest on a theoretical challenge to the extent of the problem.<sup>93</sup> Also, even logically weak or discredited arguments can gain traction in a polarized political context and be used to generate opposition.<sup>94</sup> With this in mind there is value in offering sound qualitative reasoning based on valid information to see if the Estimate—a conservative assumptions of a general wrongful convic-

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<sup>92</sup>George Castelle, Feature: Lab Fraud: Lessons Learned from the "Fred Zain Affair," 23 *Champion* 12 (1999); Paul C. Giannelli, Wrongful Convictions and Forensic Science: The Need to Regulate Crime Labs, 86 *N.C. L. Rev.* 163 (2007).

<sup>93</sup>Allen & Laudan, *supra* note 6. Risinger optimistically writes that some conservative critics "seem to agree that various sources of information, my own work among them, have established with reasonable certainty that there are at least some categories of crime for which there is a nontrivial percentage of factually innocent persons among the convicted." Risinger, *supra* note 10, at 999. My perspective is that of a criminal justice policy analyst who is concerned, among other things, about policy making at the county and state level, where the refined analysis of Prof. Risinger might not reach the local prosecutors and police chiefs who often line up to testify against innocence reforms. See, e.g., Hays, *supra* note 2. On the gap between national and local criminal justice policy arenas, see Lisa L. Miller, *The Perils of Federalism: Race, Poverty and the Politics of Crime Control* (2008).

<sup>94</sup>In areas of strong policy and even ideological differences, the minority positions held by social or natural scientists can be used by activists as "proof" to deny the consensus views of the relevant scientific community. This is the case in regard to the work of some economists regarding the deterrent effect of the death penalty in America. As for the global warming controversy, Wikipedia reports that "The controversy is significantly more pronounced in the popular media than in the scientific

tion incidence rate of between 1/2 of 1% to 1%—makes sense. And to be clear, the Estimate is not an extrapolation of the few studies death penalty error rates.

### III. Definitions

#### A. Defining Wrongful Conviction

Wrongful conviction incidence estimates herein refer to factual innocence and not to procedurally defective convictions. Evidence law expert D. Michael Risinger defined “wrongful conviction” in three ways:

[T]he term “wrongful conviction” simply cannot be comfortably avoided, but it must always be approached with caution, because it can easily lead to the conflation of three importantly different problems of justice. The first is the problem of convicting those who are factually innocent either because no crime was committed or, more commonly, because a crime was in fact committed, but by someone else (*wrongful conviction in the factual sense*). The second is the problem of convicting a person who has undoubtedly performed the actus reus of a crime for which they are not culpable, either because of insanity or the absence of some other required indicium of culpability, usually a particular required mental state (*wrongful conviction in the culpability sense*). The third is the conviction of persons who may very well be both factually guilty and culpable, but who were convicted in trials containing procedural errors not easily dismissed as harmless error (*wrongful conviction in the procedural sense*).<sup>95</sup>

From this unobjectionable start, it is helpful to observe the uses to which these distinctions are put. Innocence advocates, needing to prove that wrongful convictions exist and are a significant problem, strictly adhere to the most conservative definition of wrongful in the

literature.” Wikipedia, available at [http://en.wikipedia.org/wiki/Global\\_warming\\_controversy](http://en.wikipedia.org/wiki/Global_warming_controversy) (last visited Sept. 2, 2010).

<sup>95</sup>Risinger, *supra* note 43, at 762 n.2 (emphasis added); see also Poveda, *supra* note 75, at 691. The most common kind of wrongful convictions in the culpability sense may be self-defense cases. With the constitutionalization of personal gun ownership, a proliferation of “stand your ground” laws, and a possible rise of a vigilante mentality as government services are cut back, such cases may create substantial questions of justice. *District of Columbia v. Heller*, 554 U.S. 570, 128 S. Ct. 2783, 171 L. Ed. 2d 637 (2008); Dan M. Kahan & Donald Braman, The Self-Defensive Cognition of Self-Defense, 45 Am. Crim. L. Rev. 1 (2008). Scientific evidence can be critical in self-defense claims. A North Carolina man who killed his wife was acquitted on the basis of bloodstain evidence that supported his claim that she attacked him with a 7-foot spear. The evidence was presented by a defense expert witness after state forensic bloodstain examiners filed an erroneous account of the crime scene and then conducted unscientific tests to shore up the prosecution. Their actions fueled a growing scandal in North Carolina’s state forensic community that is stirring reforms. Joseph Neff & Mandy Locke, SBI Bloodstain Analysis Team Had No Guidelines for 21 Years, News & Observer (Charlotte, NC), Sept. 9, 2010, available at <http://www.newsobserver.com/2010/09/09/671509/sbi-bloodstain-analysis-teamwent.html> (last visited Dec. 20, 2011).

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factual sense. This was true of Edwin Borchard, who wrote *Convicting the Innocent* in 1932<sup>96</sup> with the express desire of promoting legislation to compensate the wrongly convicted.<sup>97</sup> Recent studies have pursued the same strategy.<sup>98</sup> The federal law that compensates the wrongfully convicted is not so stringent and allows the possibility of a person whose self-defense claim was improperly rejected to be exonerated and compensated.<sup>99</sup>

The conventional, layperson's view focuses on wrongful convictions only in the factual sense, and perhaps the culpability sense as well. It is worth considering, however, that the adversary process has developed theories and practices over centuries with the sophisticated understanding that ascertaining the truth of an event can be a devilishly difficult business. Adversary system dogma holds that reliance on procedures such as public adversary trials and standards like proof beyond a reasonable doubt will generate fewer errors than other

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<sup>96</sup>Borchard, *supra* note 45.

<sup>97</sup>"As you may know, I have for years been interested in having the state indemnify the victims of unjust convictions by the criminal courts. I have also for years had in mind the publication of a collection of cases in narrative form in which unjust convictions have actually taken place, usually on the basis of mistaken identity." Letter from Edwin Borchard to E. Russell Lutz, Apr. 15, 1929, Yale University Archives, Borchard collection, Box 111, folder 1065. I plan to elaborate on Borchard's project in other writings.

<sup>98</sup>See comments of the definition adopted by Gross et al., *supra* note 16. This is true of Barry Scheck et al., *Actual Innocence: Five Days to Execution, and Other Dispatches From the Wrongly Convicted* (2000). Stanley Fisher, *Convictions of Innocent Persons in Massachusetts: An Overview*, 12 B.U. Pub. Int. L.J. 1 (2002), studied wrongful convictions in Massachusetts to shed light on their causes and to "inform the continuing debate over whether to reinstate the death penalty in Massachusetts." Fisher, *supra* note 98, at 3. He "restrict[ed] the concept to those who are 'factually innocent' in the sense that they were not involved 'physically or legally' in the crime," Fisher, *supra* note 98, at 5, and specifically excluded not only the wrongly convicted in the procedural sense but in the culpability sense as well. In his study, "the category 'wrongfully convicted' excludes a convicted person who was 'legally' innocent because he lacked the required mens rea, had a good defense of excuse (e.g., insanity, duress) or justification (e.g., self-defense, necessity) . . ." Fisher, *supra* note 98, at 5 n.13).

<sup>99</sup>28 U.S.C.A. § 2513(a)(2) (Unjust conviction and imprisonment) includes the following element: "He did not commit any of the acts charged or his acts, . . . in connection with such charge constituted no offense . . ." (emphasis added). This law also reminds us that an official body, in this case the United States Court of Federal Claims, has jurisdiction to officially declare not only an exoneration, but actual innocence to boot. See 28 U.S.C.A. § 1495 (conferring jurisdiction on the United States Court of Federal Claims).

modes of trial.<sup>100</sup> By the time the Church banned trial by ordeal in 1215, cooler heads came to see the supposed judgment of God as a cloak for superstition or subtle evidence tampering. Thoughtful critics of the innocence movement have raised the concern that defining a wrongful conviction as actual innocence might undermine the vital defense function of holding the government to its proof.<sup>101</sup> This adversary system foundation does not mean that scholars and policy analysts should avoid exploring factual innocence, but it does suggest that defining wrongful conviction raises deep concerns.<sup>102</sup>

From a policy perspective, attempts to define and identify actual innocence (wrongful conviction in the factual sense) is contested ground. One of the premier academic studies of wrongful convictions, Bedau and Radelet's "Miscarriages of Justice in Potentially Capital Cases,"<sup>103</sup> was strenuously criticized by high-ranking Justice Department lawyers. They claimed that its methodology was overly subjective and generated one-sided descriptions of convictions that were often at odds with what they asserted were "the actual cases."<sup>104</sup> Although these critics seem to have been more interested in snuffing out any talk of factual innocence than in a dispassionate academic exchange, they

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<sup>100</sup>These concerns actually go further back in time, see James Q. Whitman, *The Origins of Reasonable Doubt: Theological Roots of the Criminal Trial* (2008). Although this procedural argument appears to favor those who would minimize efforts to reduce wrongful convictions, a procedural approach, if taken more seriously than is presently the case, would also expand the nature of appeals or post-conviction processes to facilitate the remediation of any wrongful convictions that slip through procedural safeguards at trial.

<sup>101</sup>Daniel S. Medwed, *Innocentrism*, 2008 U. Ill. L. Rev. 1549, 1555–56, 1566–70, countered the claims of defense-oriented critics and argued that innocence work is consistent with the need to strengthen procedural safeguards.

<sup>102</sup>Simon Cole hinted at the existential threat to the law posed by DNA exonerations: "For perhaps the only time in history, a technology has emerged with the epistemic authority to credibly challenge the law's claim to being a truth-producing institution." Simon Cole, *How Much Justice Can Technology Afford? The Impact of DNA Technology on Equal Criminal Justice*, 34 *Sci. & Pub. Pol'y* 95, 98 (2007).

<sup>103</sup>Bedau & Radelet, *supra* note 46; Hugo Adam Bedau & Michael L. Radelet, *Comment: The Myth of Infallibility: A Reply to Markman and Cassell*, 41 *Stan. L. Rev.* 161 (1988).

<sup>104</sup>Markman & Cassell, *supra* note 5, at 126–33. Markman and Cassell's approach was less scholarship than partisan advocacy, the core technique of trial lawyers. Bedau and Radelet, as death penalty opponents, certainly expressed policy goals in their scholarship. Markman and Cassell's in-depth analysis of a specific case was not designed to correct their analysis, but to suggest that Bedau and Radelet's approach was misguided, and to imply (without analyzing every case) that their entire list of cases included no or very few miscarriages of justice. What can be asserted is that in many cases a conclusion of innocence (or of guilt) requires careful parsing of the facts of a case and is often subject to challenge.

were correct that in many, and perhaps most instances, assessing whether a conviction was erroneous requires the application of human judgment to facts, a process that can be labeled pejoratively as “subjective.”<sup>105</sup> The word “subjective” carries the connotation of a decision being idiosyncratic or even illusory or fanciful. In another sense, however, it means that judgment follows from an individual’s process of observation and reasoning. In this sense, not only are assessments of wrongful convictions subjective, but so too are the original convictions themselves. A big lesson of wrongful conviction studies is that a broad range of decisions, including the fabled accuracy of fingerprint matches, are essentially subjective or dependent on human judgment.<sup>106</sup> Indeed, the laws of science ultimately rest on the collective judgment of a relevant community of scientists, who typically debate the implications of findings. None of this is to say that science is voodoo or that jurors throw darts to decide cases. While there are cases that “solve themselves,” many criminal cases require a police detective, a prosecutor, a defense lawyer, a judge, a jury, and possibly an appellate or a habeas corpus judge, to sort through complex and often contradictory evidence to get at the truth (or “truth”) of a case, to the best that is humanly possible. The task, although not easy, is not impossible. The question is not so much whether such judgments are subjective, but whether they are supported by a sufficient amount of verifiable data and cogent reasoning applicable to the task at hand. This approach will inform my search for an estimate of the incidence of wrongful convictions.

**B. The Meaning of Exoneration**

A “wrongful conviction” is not defined in a vacuum. We must ask who makes the decision and for what purposes. This quest is especially important in defining exoneration, a potentially confounding term, as it can refer to factual innocence or to legal innocence.<sup>107</sup> Also, in general parlance, exoneration can refer to an official act, like a jury’s acquittal, or have a looser social meaning. This yields four pos-

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<sup>105</sup>“A major issue in counting wrongful convictions is whether to use an objective standard or a subjective methodology. The former applies strict criteria that do not require human judgment while a subjective approach considers all the facts known about a case, but might be open to reinterpretation.” Zalman et al., *supra* note 11, at 75.

<sup>106</sup>See, e.g., David L. Faigman et al., *Modern Scientific Evidence: The Law and Science of Expert Testimony-Forensics* 4 (2009).

<sup>107</sup>The Oxford English Dictionary 926 (Compact ed. 1997) conflates the two meanings: “The action of disburdening or relieving, or the state of being relieved from a duty, office, obligation, payment, etc.; also, from blame or reproach; an instance of this, a formal discharge.” Any acquittal is a legal exoneration even if in a civil case the acquitted defendant is found liable in tort for the acts of the crime. Such an acquittal

sible definition-decider combinations (official: factual innocence; official: legal innocence; social: factual innocence; social: legal innocence). In the classic study of exonerations by Samuel Gross and his research colleagues, exoneration was defined as “an *official* act declaring a defendant not guilty of a crime for which he or she had previously been convicted.”<sup>108</sup> Such official acts do not result from routine procedures; they are very unusual. Gross and his research team scoured legal and journalistic sources, written and live, to uncover every post-conviction exoneration that had occurred in the United States between 1989 and 2003 that appeared to be based on factual innocence grounds.<sup>109</sup> They uncovered 340, more than half of which were non-DNA exonerations, and attributed them to four sources: pardons issued by governors or other executive officers based on evidence of innocence; cases dismissed by courts after new evidence of innocence, like DNA, was presented; acquittals in retrials but only if the basis of the acquittal was evidence that the defendants had no role in the crimes of the original convictions; and a few cases where “states posthumously acknowledged the innocence of defendants who had already died in prison.”<sup>110</sup>

Three years later, in a review essay entitled “Convicting the Innocent,” Gross offered a slightly revised formal definition in the *context* of wrongful convictions:

“Exoneration” in this context is a legal concept. It means that a defendant who was convicted of a crime was later relieved of all legal consequences of that conviction because of new evidence of innocence. Some exonerated defendants are no doubt guilty of the crimes for which they were convicted, in whole or in part, but the number is likely very small. It is

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may be viewed as a “wrongful acquittal” or “false negative” from a social science perspective.

<sup>108</sup>Gross et al., *supra* note 16, at 524 (emphasis added).

<sup>109</sup>Their definition was extremely conservative. For the purposes of avoiding any challenge like that launched against Bedau and Radelet, *supra* note 46, they excluded dismissals or acquittals in which the defendant played a role in the crime, or where a case was dismissed “in the absence of strong evidence of factual innocence, or in which — despite such evidence — there was unexplained physical evidence of the defendant’s guilt.” They also decided to exclude “mass exonerations.” The thirty-four defendants in the Tulia, Texas, scandal who were pardoned by the governor could be seen as resulting from one false conviction episode, where the number of defendants is fortuitous. Gross et al., *supra* note 16, at 524 n.4, 533–35; see also Blakeslee, *supra* note 68, at 409–17. Also, where other mass exonerations occur, like the Los Angeles Rampart scandal, it is not feasible to sort out the factually innocent defendants from other who may have been factually innocent.

<sup>110</sup>Gross et al., *supra* note 16, at 524, 527 n.10.

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extremely difficult to obtain this sort of relief after a criminal conviction in America, and it usually takes overwhelming evidence.<sup>111</sup>

This astute and conservative definition incorporates not only the “official act” component, but ties exonerations to “new evidence.” This eliminates post-conviction exonerations gained on procedural grounds from listings of wrongful convictions. It also acknowledges that the exercise of judgment precludes absolute certainty. This admission is tactically important because it insulates Gross’s innocence research from the kind of attack mounted by ideological critics who seize on any error as a ground to discredit the entire effort.<sup>112</sup>

The restrictive definition also has a directionality aspect: while exonerations in the sense denoted by Professor Gross can reasonably be taken to be wrongful or false convictions in the factual sense, a wrongful conviction is *not necessarily* the equivalent of an exoneration. For example, one can read a long, thoroughly researched, and carefully written study by a top-flight legal journalist and come to the conclusion that John Knapp did not kill his children in an arson fire, but that the fire was accidental. Nevertheless, the author’s judgment that John Knapp was wrongly convicted is not an exoneration. After multiple trials and nineteen years after the deaths and first conviction, in 1987 the state of Arizona, exhausted with the case and with new personnel, agreed to dismiss the case if Knapp pleaded no contest. “In exchange for letting the state score the Knapp prosecution as a conviction, the state agreed to stop trying to kill John Knapp and to leave him in peace. It was a bizarre resolution for a capital case.”<sup>113</sup> Given the steady work of innocence projects over the last decade there have been hundreds of actually innocent prisoners released, but not all were formally exonerated by a governor, a prosecutor, a judge, or a jury with acknowledgments of actual innocence. Whether or not the plea and release of Knapp was a strategy to get rid of a case where the state had come to doubt its original view of his factual guilt, justice system actors often have a

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<sup>111</sup>Gross, *supra* note 4, at 175; see Gross et al., *supra* note 16 (included the element of new evidence in the discussion of exonerations).

<sup>112</sup>See, e.g., Markman & Cassell, *supra* note 6. Conservative critics of the innocence movement, *supra* note 3, claim that innocence project cases claimed as wrongful convictions may in fact be false positives. This is an unfair criticism as innocence projects’ claims that exonerees are factually innocent are made only after careful review. See Jan Stiglitz et al., *The Hurricane Meets the Paper Chase: Innocence Projects New Emerging Role in Clinical Legal Education*, 38 Cal. W. L. Rev. 413 (2002); Daniel S. Medwed, *Actual Innocents: Considerations in Selecting Cases for a New Innocence Project*, 81 Neb. L. Rev. 1097 (2003).

<sup>113</sup>Roger Parloff, *Triple Jeopardy: How Determined Lawyers Fought to Save One Man’s Life* 402 (1996).

tendency to reject findings that convince other actors that a miscarriage of justice occurred. In the well-known 2002 reversal of the defendants' convictions in the "Central Park jogger" rape case for example, the prosecutor was convinced of innocence and initiated the case's dismissal, but the New York City Police Department vociferously asserted the defendants' guilt.<sup>114</sup> A typical scenario is the prosecutor's reluctance to believe in the correctness of a dismissal in the face of powerful evidence of innocence, whether perverse or the product of tunnel vision.<sup>115</sup>

Even then, an exoneration may not have the effect that would occur to most people, and harbors ambiguities. In parallel to the four officials or bodies identified by Gross and colleagues as sources of exonerations, courts and administrative agencies that hear wrongful conviction compensation claims also have the power to officially declare a status of actual innocence.<sup>116</sup> This source of information will increase as more states adopt exoneree compensation laws. It is possible that a person can be exonerated and released from prison on actual innocence grounds and yet found to be ineligible for state compensation on grounds of actual innocence. It happened to James Richardson, the man whose case was reexamined by Janet Reno as a Florida special prosecutor in 1989.<sup>117</sup> After his release Richardson got by on handouts

<sup>114</sup>Robert D. McFadden, *Boys' Guilt Likely in Rape of Jogger, Police Panel Says*, N.Y. Times, Jan. 28, 2003, at A2; Julia Vitullo-Martin, *The District Attorney vs. the Police*, Gotham J., Feb. 6, 2003, available at <http://www.gothamgazette.com/print/275> (last visited Sept. 1, 2010); Michael F. Armstrong et al., *Executive Summary, NYPD Central Park Jogger Report*, available at <http://fl1.findlaw.com/news.findlaw.com/hdocs/docs/cpjgr/nypd12703jgrrpt.pdf> (last visited Sept. 1, 2010). At the time of their exoneration, one of the soundest criminal justice scholars and police officials, the late James Fyfe, then a professor at the John Jay College of Criminal Justice and a Deputy Police Commissioner in the New York City Police Department expressed his conviction of the guilt of the Central Park jogger defendants to me in a telephone conversation, based on the tapes of their confessions. An ABC Nightline program deconstructing the confessions, however, provided a contrary view. *Nightline: False Confessions, Reversing the Central Park Jogger Case* (New York), Host Chris Bury (ABC Television Broadcast Dec. 3, 2002).

<sup>115</sup>Daniel S. Medwed, *The Zeal Deal: Prosecutorial Resistance to Post-conviction Claims of Innocence*, 84 B.U. L. Rev. 125 (2004).

<sup>116</sup>In addition to federal claims, described in passing, *supra* note 98, California courts can issue compensation based on actual innocence. Andrew D. Leipold, *The Problem of the Innocent, Acquitted Defendant*, 94 Nw. U. L. Rev. 1297, 1324–1326 (2000).

<sup>117</sup>This episode is described by James M. Doyle, *True Witness: Cops, Courts, Science, and the Battle Against Misidentification* 122–23 (2005) and in depth in Zalman, *supra* note 44. Richardson is listed as an exoneree by Gross et al., *supra* note

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from friends, but never put together a solid life.<sup>118</sup> As a plaintiff and defendant in civil suits resulting in minor settlements, he was never adequately compensated for his wrongful conviction. When Florida enacted the Victims of Wrongful Incarceration Compensation Act in 2009, Richardson petitioned for compensation.<sup>119</sup> A Florida newspaper editorial opined that “Florida owes Richardson some measure of fairness and compensation.”<sup>120</sup>

It was not to be. Administrative Law Judge (ALJ) Linda M. Rigot found, in *Richardson v. Florida*,<sup>121</sup> that he was not entitled to compensation. Under the statute a claimant must establish by clear and convincing evidence that he committed neither the act nor the offense that served as the basis for the conviction and incarceration, and that he did not aid, abet, or act as an accomplice to a person who committed the act or offense. In her decision ALJ Rigot, relying on specific affidavits, presented evidence that without doubt showed Richardson’s conviction to be wrongful in the procedural sense, and laid out evidence strongly pointing to Richardson’s actual innocence. However, in 1989 his case was dismissed on a nolle prosequere and the 35-page Nolle Prosequere Memorandum signed by Janet Reno “concluded that Petitioner ‘was probably wrongfully accused’ based upon the evidence that existed at the time.” As ALJ Rigot noted, “However, the inability of the State to prove Petitioner guilty beyond a reasonable doubt does not prove that Petitioner is actually innocent of committing the murders or aiding in the commission.”

[H]earsay evidence and suggestions that [Betsy] Reese, [the baby sitter], was guilty of the murders do not constitute verifiable and substantial evidence of Petitioner’s innocence. Opinion testimony does not constitute verifiable and substantial evidence of Petitioner’s innocence. The Nolle Prosequere Memorandum and the Response do not constitute verifiable and substantial evidence of Petitioner’s innocence. The testimony of [Assistant State Attorney Don] Horn and [Chief Assistant for Special Prosecutions Gertrude M.] Novicki, as to what they considered during their investigations does not constitute verifiable and substantial evidence of Petitioner’s innocence. Lastly, Petitioner’s own testimony denying his guilt is not verifiable and substantial evidence of his innocence. Simply

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16, at 556. Before he was exonerated, doubts about his guilt were raised. Mark Lane, *Arcadia* (1970).

<sup>118</sup>David Sommer, *For This Man, ‘There is No Justice’*, *Tampa Trib.*, July 4, 1996, at 1.

<sup>119</sup>Fla. Stat. ch. 961 (2009).

<sup>120</sup>Editorial, *End the injustice*, *Sarasota (Florida) Herald-Trib.*, Mar. 11, 2009, at A8.

<sup>121</sup>*Richardson v. Florida*, 2009 Fla. Div. Adm. Hear. LEXIS 294 (2009).

put, the evidence in this proceeding does not establish Petitioner's actual innocence.<sup>122</sup>

This result, outrageous to a rational layperson considering all the facts of the case, is not entirely surprising in the legal world where different processes and standards of responsibility can produce results that appear paradoxical, as where a defendant found not guilty of a crime is held liable for a tort based on the same facts in a civil court. On its own grounds, the decision reflects Florida's narrowly drafted compensation statute designed to reduce the number of awards.<sup>123</sup> But it also reflects the hall of mirrors one enters when trying to nail down the meaning or conclusion of factual innocence in case.

### ***C. The Instrumental Uses and Organizational Dynamics of Definitions***

Innocence projects strictly adhere to the factual innocence definition of wrongful convictions. Serious damage can accrue to an innocence project's credibility and to that of the innocence movement in general if it backed a prisoner or parolee for exoneration only to discover that the evidence did not support that conclusion.<sup>124</sup> In innocence project case reviews, "[e]stimates on the percentage of cases in which post-

<sup>122</sup>Richardson, 2009 Fla. Div. Adm. Hear. LEXIS, at \*22-\*23. This result means that a cloud continues to hang over Richardson's head. A similar cloud hung over the DNA exoneration of Kirk Bloodsworth until a DNA match led to the conviction of the real killer, see discussion in Zalman, *supra* note 44.

<sup>123</sup>The statute has been criticized for excluding prior felons from compensation or for disallowing attorney's fees. One eligible claimant initially refused to accept compensation as a protest, Jon Burstein, *Victim Of Wrongful Incarceration Refuses Reparations because His Legal Costs aren't Fully Covered: Leroy McGee Fears Setting a Bad Precedent for Others Sent to Prison by Mistake*, South Florida Sun-Sentinel, Oct. 31, 2009, available at <http://www.google.com/search?q=Burstein%2C+Victim+Of+Wrongful+Incarceration+Refuses+Reparations&rls=com.microsoft:en-us&ie=UTF-8&oe=UTF-8&startIndex=&startPage=1> (last visited Dec. 20, 2011); Jon Burstein, *Fort Lauderdale Man to Get \$179,000 Under New Law: He Unjustly Spent 3 Years, 7 Months in Prison*, South Florida Sun-Sentinel (Fort Lauderdale), Feb. 14, 2010, available at <http://www.palmbeachpost.com/news/state/fort-lauderdale-man-to-get-179-000-for-240898.html?printArticle=y> (last visited Dec. 20, 2011).

<sup>124</sup>For example, the DNA test that posthumously led to the conclusion that Roger Coleman was guilty of the murder for which he was executed was an embarrassment to the Centurion Ministries and is used as rhetorical fodder by innocence movement opponents. Hoffman, *supra* note 6; Todd E. Pettys, *Killing Roger Coleman: Habeas, Finality, and the Innocence Gap*, 48 Wm. & Mary L. Rev. 2313 (2007). Unlike some prosecutors who stonewall in the face of DNA evidence, the head of Centurion Ministries had the courage to admit his error: "We all make mistakes, and I made a whopper that was magnified a million times over, especially since the whole world seemed to be watching. However, I do not regret in the least that I pushed for the DNA to be done. Those of us who search for the truth must never be afraid of what we will find." Jim McCloskey, Letter, Centurion Ministries Website, June 7, 2006,

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conviction testing confirms the petitioner's guilt range from 'about half the cases,' to about 60% of cases in which testing 'further implicate[s] the defendant.'<sup>125</sup>

The procedures undertaken by innocence projects to ensure that they represent *only* the actually innocent begins with detailed questionnaires reviewed by an experienced staff attorney "who decides whether or not the petition has sufficient merit to advance to the next stage in the screening process." If so, law students under the direction of clinical law professors review reams of files which may include transcripts, appellate opinions, whatever evidence exists and "the prosecutor's theory of the evidence."<sup>126</sup> The final decision of whether to go forward with the case rests with the faculty or some other decision-making committee. The director of the New England Innocence Project estimated "that less than 10% [of the petitions] have actually received committee approval."<sup>127</sup> The actual decision process is, as it must be, subjective and even tenuous. Innocence project "[i]naccuracy and inadequacy of evaluation permeate even the rigors of the innocence project screening process"; an innocence project director was quoted regarding "the importance of instinct, derived from experience and lengthy exposure to the criminal process, in facilitating a person's ability to evaluate a claim."<sup>128</sup>

The credibility gained by innocence projects from their strict actual innocence stance has had a substantial effect on their ability to leverage policy making. The DNA exonerations listed by the Innocence Project are generally beyond attack by conservative critics and have provided information for analysis with significant policy heft.<sup>129</sup> What needs to be emphasized, in regard to the definition of wrongful convictions, is that innocence projects, to ensure to the greatest extent possible that wrongful convictions equate to factual innocence, undertake *subjective* case analyses, in the sense of measured judgment.

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available at <http://www.centurionministries.org/letters-060706.html> (last visited Dec. 4, 2010).

<sup>125</sup>Carroll, *supra* note 87, at 666 (footnotes omitted).

<sup>126</sup>Carroll, *supra* note 87, at 677.

<sup>127</sup>Carroll, *supra* note 87, at 678.

<sup>128</sup>Carroll, *supra* note 87, at 678.

<sup>129</sup>Cole, *supra* note 102, at 98 (referring to the "rhetorical power" of DNA exonerations, derived from "a technology . . . with the epistemic authority to credibly challenge the law's claim to being a truth-producing institution"). As for research applying the DNA exoneration cases, see Brandon L. Garrett, Judging Innocence, 108 Colum. L. Rev. 55 (2008); Brandon L. Garrett & Peter Neufeld, Invalid Forensic Science Testimony and Wrongful Convictions, 95 Va. L. Rev. 1 (2009); Brandon L. Garrett, The Substance of False Confessions, 62 Stan. L. Rev. 1051 (2010); Susan A. Bandes, Framing Wrongful Convictions, 2008 Utah L. Rev. 5 (2008).

In contrast, the Death Penalty Information Center (DPIC) utilizes an objective measure for listing an exoneree: “Defendants must have been convicted, sentenced to death and subsequently either a) their conviction was overturned AND i) they were acquitted at re-trial or ii) all charges were dropped, [or] b) they were given an absolute pardon by the governor based on new evidence of innocence.”<sup>130</sup> A logical understanding of the common law standard of proof beyond a reasonable doubt is that acquittals in re-trials after appeal [situation a) i)] can result in “wrongful acquittals” in the factual sense. The DPIC has paid attention to this criticism and has explained its “objective” decision rule.

Critics asserted that people on the list of exonerated death row inmates were not really innocent, despite the removal of all charges against them. In light of these criticisms, it is important to clarify the meaning of innocence in our society and to restate the criteria for DPIC’s innocence list.

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Cases are included in DPIC’s list based on objective criteria. These criteria differ markedly from subjective judgments about who is “actually innocent.” For example, some commentators have suggested that if the original prosecutor still thinks the defendant is “guilty,” even though the defendant has been unanimously acquitted, then such a person should be excluded from the list. But DPIC’s list avoids such personal suspicions and relies instead on the traditional source given the authority to separate guilt from innocence—our justice system. Our principal role has been to assemble these cases. We avoid subjective judgments or a hierarchy of innocence.

The people on DPIC’s list . . . are entitled to the status of innocence conferred on them by our legal system. In this system, as in our society generally, a person who has been cleared of all charges is just as innocent as a person who has never been charged.

To argue that people who have been acquitted at trial are not “actually innocent” because a prosecutor holds some lingering belief in the person’s guilt is to turn suspicion into a permanent stigma. That goes against the most fundamental principle of our constitutional system. No one should have to prove his or her innocence. The status of innocence is a person’s full right unless the state has proven them guilty beyond a reasonable doubt. If we throw out that protection, we have abandoned one of this country’s most important founding principles.<sup>131</sup>

This explanation is a skillful polemic that elides rather than meets the point that a person can have a conviction reversed on appeal and yet be guilty in the factual sense, a point that has opened the DPIC to

<sup>130</sup>DPIC, available at <http://www.deathpenaltyinfo.org/innocence-list-those-freed-death-row>.

<sup>131</sup>DPIC, available at <http://www.deathpenaltyinfo.org/innocence-and-crisis-american-death-penalty>.

strenuous criticism by prosecutors.<sup>132</sup> The DPIC makes a good point about prosecutors who dogmatically stick to their guns that the “first jury got it right” in the face of powerful evidence of factual innocence and an acquittal on retrial. But the DPIC avoids taking into account the real difference between idiosyncratic subjectivity and making careful judgments.<sup>133</sup> To take the high road of resting on *legal* innocence and exoneration does affirm constitutional principles and is akin to how the English system addresses miscarriages of justice.<sup>134</sup> Perhaps such a position would be sufficient in a culture that was not infused, as ours is, with the “presumption of guilt.”<sup>135</sup> The DPIC tries to have it both ways, heavily implying factual innocence but retreating to a legal innocence high ground when challenged.

If the DPIC statement seems tone-deaf to the needs of the innocence movement for strict adherence to factual innocence, it should be understood in its organizational context. The DPIC, a major anti-death penalty forum, can be expected to present material, however factual, in ways that raise opposition to capital punishment. Its website lists seventeen major issues other than innocence, even though the “discovery of innocence” has been the strongest force in reducing public support for the death penalty.<sup>136</sup> Innocence is not central to the DPIC agenda, but is instrumental to death-penalty opposition. The DPIC list’s objective criteria avoids the vagaries of subjective judgment, suggesting that it is worth taking hits from pro-death penalty prosecutors, even if there is potential collateral damage to the innocence movement. This is an object lesson that definitions of wrong-

<sup>132</sup>Brief of Amici Curiae of the States of California, etc. in the case of House v. Bell, 2004 U.S. Briefs 8990, 2005 U.S. S. Ct. Briefs LEXIS 836.

<sup>133</sup>Prosecutors also act out of their own institutional needs, ideologically-shaped beliefs, and organizational drives, see Heather Schoenfeld, *Violated Trust: Conceptualizing Prosecutorial Misconduct*, 21 J. Contemp. Crim. Just. 250 (2005).

<sup>134</sup>Michael Naughton, *Rethinking Miscarriages of Justice: Beyond the Tip of the Iceberg* (2007).

<sup>135</sup>Packer describes the presumption of guilt as the key to the operation of the crime control model of criminal justice. It is based on a supposition that “the screening processes operated by police and prosecutors are reliable indicators of guilt.” Herbert Packer, *The Limits of the Criminal Sanction* 160 (1968).

<sup>136</sup>Baumgartner et al., *supra* note 78. A propos of my point, Frank Baumgartner has in a private conversation said that the thesis that the dominance of innocence themes in the news media as a prime cause of the decline in the use of the death penalty and its popular support had not been met with complete acceptance by anti-death penalty groups he has addressed. Many in the abolitionist movement are motivated by strong moral and religious beliefs and would like others to come to share the moral convictions that they so strongly hold. A focus on bureaucratic ineptitude, cost, and similar topics can be taken as leading to the “right” decision, but for the “wrong” reason.

ful conviction and innocence are not academically pellucid categories of meaning, but are in part social constructs designed to achieve the goals of the agents and the organizations which use them.

#### IV. Making Estimates

##### A. Intelligence and Estimation

This article's analytic strategy bears some resemblance to intelligence estimating.<sup>137</sup> The products of intelligence (information) gathering, "finished intelligence", include "current intelligence [e.g., *President's Daily Brief*], warning intelligence, estimative and analytical intelligence, periodicals, and databases and maps."<sup>138</sup> I focus on estimative intelligence. At the apex of national security products are National Intelligence Estimates (NIEs), which are comprehensive threat assessments produced by the "Intelligence Community" jointly for the legislative and executive branches of government, and "which attempt to project existing, military, political, and economic trends into the future and to estimate for policymakers the likely implications of these trends."<sup>139</sup> The need to estimate intentions and future action of national leaders, states, and entities is a source of uncertainty and failure in estimative intelligence. However, estimative intelligence also applies to understanding current states of affairs by processes of induction. A classic article by Sherman Kent, "Words of Estimative Probability" poses three statements from a hypothetical briefing officer reporting on photo reconnaissance images: that (1) there *is* a runway; (2) that it "is *almost certainly* a military airfield" and (3) *it is possible* that the Blanks will improve the facilities for strategic purposes or, "more dar-

<sup>137</sup>Thanks to Amy Zalman, Ph.D., for suggesting this approach. National security intelligence is a large, continually controversial, and necessary enterprise that engages the efforts of tens of thousands government and contractual professionals in a score or more of military units and civilian agencies and in numerous private companies and universities. Jeffrey T. Richelson, *The U.S. Intelligence Community* (1999). The work of intelligence proper involves four functions: collection, counterintelligence, analysis, and covert action. Angelo Codevilla, *Informing Statecraft: Intelligence for a New Century 4* (1992). In a broader sense national security intelligence includes the decisions and actions of the consumers of intelligence — military and civilian policy makers up to the U.S. president.

<sup>138</sup>Richelson, *supra* note 137, at 315.

<sup>139</sup>Richelson, *supra* note 137, at 319–23. See also Harold P. Ford, *Estimative Intelligence: The Purposes and Problems of National Intelligence Estimating* 25–39 (1993). The public 2010 NIE, a 47 page document, was presented to the relevant Senate subcommittee by the Director of National Intelligence, joined by the Directors of the Central Intelligence Agency, Defense Intelligence Agency, Federal Bureau of Investigation, and the Acting Assistant Secretary of State for Intelligence and Research, Annual Threat Assessment of the US Intelligence Community for the Senate Select Committee on Intelligence, available at [http://isis-online.org/uploads/conferences/documents/2010\\_NIE.pdf](http://isis-online.org/uploads/conferences/documents/2010_NIE.pdf) (last visited Sept. 5, 2010).

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ingly,” that sooner or later they *probably will*. The second statement “is a judgment or estimate, . . . something which is knowable in terms of the human understanding but not precisely known by the man who is talking about it.”<sup>140</sup> The third statement is also a judgment or estimate “made almost without any evidence direct or indirect.” The second assessment or inference is based on known facts while the third is a guess about what the Blanks’ will do in the future.<sup>141</sup> My Estimate of wrongful conviction incidence, like the second statement, is a qualitative inference.

The “commonplace task” of intelligence analysts is to make “difficult but not impossible” estimates, an uncomfortable human task as evidenced by the use of qualifying adjectives like “apparently” and “seemingly.”<sup>142</sup> Given their importance, however, the cost of not making estimates is higher than the cost of putting off the task. “It is the role of intelligence to extract certainty from uncertainty and to facilitate coherent decision in an incoherent environment.”<sup>143</sup> In making decisions, humans wish that there would be an infallible test, like the judgment of trial by ordeal or the DNA “truth machine,” to help them.<sup>144</sup> For complex diagnoses and evaluations, modern analysts turn to the remarkable products of the sciences (including the social sciences) and technology to count, assay, or predict. But these are not always available. We cannot count wrongful convictions as we count crimes.

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<sup>140</sup>Kent, *supra* note 38, at 49 (Fall 1964). Sherman Kent, according to J. Kenneth McDonald, Chief, CIA History Staff, Foreword (Mar. 19, 2007), “is a larger than life figure in the history of the Central Intelligence Agency. His vigorous tenure as chairman of the Board of National Estimates from 1952 to 1967 was a major formative influence on the way that the Central Intelligence Agency and Intelligence Community prepare and present National Intelligence Estimates,” available at <https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/sherman-kent-and-the-board-of-national-estimates-collected-essays/foreward.html> (last visited on Sept. 5, 2010).

<sup>141</sup>Kent, *supra* note 38, at 49–50. The goal of Kent’s article, which might be of interest to those interested in standards of proof, was to explore the possibility of attaching numerical probability ranges to terms used in intelligence estimates, e.g., almost certain, probable, chances about even, probably not, and almost certainly not. For reasons that go beyond the needs of my Article Kent’s effort raised some opposition among his colleagues and was ultimately deemed futile.

<sup>142</sup>Kent, *supra* note 38, at 63. Serious national consequences ride on intelligence estimates, so these estimates are like important personal or professional decisions that can affect life, health, wealth and the like. Practicing lawyers constantly make such assessments or estimates about the outcome of litigation.

<sup>143</sup>Richard K. Betts, *Why Intelligence Failures Are Inevitable*, 31 *World Pol.* 61, 69 (1978).

<sup>144</sup>Michael Lynch et al., *Truth Machine: The Contentious History of DNA Fingerprinting* (2008); Marvin Zalman, *Book Review: Truth Machine*, 19 *Law & Pol. Book Rev.* 283 (2009).

Therefore, like intelligence analysts, I have drawn on whatever sources are available to make the Estimate.<sup>145</sup>

Judgment is central to the work of the intelligence analyst and estimator. The historian Walter Laqueur, seeking analytic parallels to intelligence analysis in meteorology and medical diagnosis, quoted a medical scholar in regard to medical diagnosis:

[W]hat the user of a practical art needs is less the strict and limited instrument of scientific method than what may be called a *soundly cultivated judgment*. This requirement is more difficult to specify and much more difficult to secure. Apart from inborn capacity, it seems to depend on familiarity with the material of the art, otherwise experience and on a broad and sound general culture which including a proper awareness of science, is by no means limited to it.<sup>146</sup>

This brings us to a first and potent source of likely resistance to the wrongful conviction Estimate: it seems “unscientific.” This can cause real intellectual discomfort, as noted by Laqueur, citing a physician-author of an earlier era regarding medical diagnosis:

Many phenomena remain as yet unknown but this does not prevent the physician from coping with them — many medical triumphs were achieved without knowledge of cause or even without diagnosis. Yet with all this, the role of judgment in diagnosis has in no way lessened, even though some researchers may consider the label of ‘art’ scientifically shameful; a few envisage that in fifty years doctors will be obsolete and replaced by computers.<sup>147</sup>

Some of the cautions against accepting the Estimate, therefore, may be based on a desire for “scientific” certainty or precision that does not fit the evidence available for the task at hand. Professors Allen and Laudan, critics of the innocence movement, for example, accept Risinger’s empirically derived estimate of the wrongful death sentence rate in rape-murder cases, but part company with his extrapolation of the 3.3% to 5.0% rate to rapes, capital murders, and non-capital murders. They emphasize the lack of specific data and the

<sup>145</sup>“Intelligence . . . consists of numbers, images, suggestions, appraisals, incitements.” Codevilla, *supra* note 138, at 3. The scope of national intelligence about a country requires combined assessments of its government, background, geography, economy, communications, transport systems, level of science and technology, its military and its intelligence. Scott D. Breckinridge, *The CIA and the U.S. Intelligence System* 146–47 (1986).

<sup>146</sup>Walter Laqueur, *The Question of Judgment: Intelligence and Medicine*, 18 *J. Contemp. Hist.* 533, 538 (1983) (emphasis added) (quoting Wilfred Trotter, a “great doctor of the inter-war period”).

<sup>147</sup>Laqueur, *supra* note 147, at 539. This attitude, reflective of a misplaced scientism, is being replaced by a more socially and psychologically aware understanding of the contours of medical diagnosis. Jerome Groopman, *How Doctors Think* (2007).

chance that error rates may differ for other crimes. They note the lack of hard evidence for Risinger's "striking claim" that error-rates "in plea-bargained cases could be as high as errors at trial." And, to stress my point, they reveal their concern when stating that his "unsubstantiated and highly improbable proposition stands in stark contrast to the *commendably empirical cast* to his article."<sup>148</sup> It would exaggerate their measured critique to say that "if you can't count it, it doesn't exist," but given the rather polemical cast of their article, it seems that they would wish away innocence movement research. Given my review of justice system flaws in Part V B, I do not think Risinger's proposition is highly improbable. It is also relevant that Risinger did not publish his speculation in a scientific journal, with strict canons of interpretation. The law review format allows more open interpretation and nowhere did Risinger assert that his findings regarding the error rate for capital rape-murder convictions could be automatically extrapolated to other crimes.<sup>149</sup> As a legal scholar Risinger was properly within his tradition to advance avenues of thought (certainly open to challenge) about a serious legal and systemic issue.

**B. Estimating Latent Fingerprint Identification Errors**

The difficulty of probing for an error rate regarding a process where data are not easily had was explored by Simon Cole, a scholar in the new sub-discipline of law, science and technology studies<sup>150</sup> and the

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<sup>148</sup>Allen & Laudan, supra note 5, at 69 (emphasis added). They take Risinger to task, arguing that "the error rate at trial cannot simply be hypothesized as the error rate of pleas." Allen & Laudan, supra note 5, at 69. For support they cite Garrett, Judging Innocence, supra note 129, for the equivocal nature of evidence in rape and murder cases "making them a dubious basis for generalizations." Allen & Laudan, supra note 5, at 70, and the sensible idea that plea rates are high in those crimes when evidence of guilt is clear. Then, using Garrett's data on the first 200 DNA exonerations (mostly rape and murder convictions) they adjust Risinger's numerator and denominator and generate "an error rate of .008371, .84%, or 8.4 out of 1000 convictions." They comment: "Frankly, this puts in stark relief some of the claims about errors. It is hard to imagine conducting a criminal justice system that makes substantially fewer errors." Allen & Laudan, supra note 5, at 71 (footnote omitted). Even if Allen and Laudan are correct, (1) their error rate (.84%) is higher than the lower bound of the Estimate, (2) their assumptions and data about wrongful conviction in murder pleas may differ for other felonies, and (3) their assessment that the criminal justice system likely generates wrongful convictions at least at a rate of 0.84% is sharply at odds with the Marquis-Scalia assumption. It may also be worth noting that modern scholars may be using "empirical" as a substitute for "quantitative," although the word is rooted in knowledge based on experience and might be better equated with "factual."

<sup>149</sup>Risinger, supra note 43.

<sup>150</sup>Lynch et al., supra note 144, at 14-16.

leading authority on forensic fingerprint identification.<sup>151</sup> He is as responsible as any scholar for demonstrating that while fingerprint analysis is not a “junk science” it is a method of comparative judgment that is not error-proof. In “More than Zero” he undertook to estimate a rate of false positive errors that “leave the laboratory.”<sup>152</sup> He noted that two methods of calculating an error rate, “neither of which is entirely satisfactory,” were not available.<sup>153</sup> Instead, Cole established a data base of “twenty-two reported cases of [fingerprint] misattribution using conservative selection criteria.”<sup>154</sup> As these cases were discovered in fourteen jurisdictions from 1920 and 2004, and as precise records of fingerprint identifications in criminal cases are not

<sup>151</sup>Simon A. Cole, *Witnessing Identification: Latent Fingerprinting Evidence and Expert Knowledge*, 28 *Soc. Stud. Sci.* 687 (1998); Simon A. Cole, *What Counts for Identity? The Historical Origins of the Methodology of Latent Fingerprint Identification*, 12 *Sci. Context* 139 (1999); Simon A. Cole, *Suspect Identities: A History of Fingerprinting and Criminal Identification* (2001); Simon A. Cole, *Fingerprinting: The First Junk Science?* 28 *Okla. City U. L. Rev.* 73 (2003); Simon A. Cole, *Grandfathering Evidence: Fingerprint Admissibility Rulings from Jennings to Llera Plaza and Back Again*, 41 *Am. Crim. L. Rev.* 1189 (2004); Simon A. Cole, *Jackson Pollock, Judge Pollak, and the Dilemma of Fingerprint Expertise*, in *Expertise in Regulation and Law* 98–120 (Gary Edmond ed., 2004); Simon A. Cole, *Does ‘Yes’ Really Mean Yes? The Attempt to Close Debate on the Admissibility of Fingerprint Testimony*, 45 *Jurimetrics* 449 (2005); Simon A. Cole, *Is Fingerprint Identification Valid? Rhetorics of Reliability in Fingerprint Proponents’ Discourse*, 28 *Law & Pol’y* 109 (2006); Simon A. Cole, *Twins, Twain, Galton, and Gilman: Fingerprinting, Individualization, Brotherhood, and Race in Pudd’nhead Wilson*, 15 *Configurations* 227 (2007); Simon A. Cole et al., *Beyond the Individuality of Fingerprints: A Measure of Simulated Computer Latent Print Source Attribution Accuracy*, 7 *Law, Probability & Risk* 165 (2008).

<sup>152</sup>Simon A. Cole, *More Than Zero: Accounting for Error in Latent Fingerprint Identification*, 95 *J. Crim. L. & Criminology* 985, 995–96 (2005). Errors could include false negatives where an individual is not reported “as the source of an impression when in fact she is” and false positives where a person not the source of an impression is so identified. Some errors are detected “in the laboratory” by examiners who verify or negate initial determinations. In other cases the examiner’s finding is reported to the criminal justice system; if erroneous, the “responsibility for exposure of the error rests with other actors, such as the prosecutor, judge, jury, or, most important, the defense expert, if there is one.”

<sup>153</sup>Cole, *supra* note 152, at 996. One method—to divide actual errors of examiners in the field by the number of cases in which fingerprint evidence was used—is impossible because the ground truth is unknown. The other method, a laboratory simulation in which “matches” and “no-matches” are known to the tester would be contested as too different from real-world conditions to be valid. The term “match” is a misnomer because “all fingerprints impressions, including those taken from the same finger, are in some way unique.” Cole, *supra* note 152, at 992.

<sup>154</sup>Cole, *supra* note 152, at 1017; the twenty-two cases are described in detail at 1001–16, and the information tabulated at 1067–70.

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available, it would seem foolhardy to try to generate an error rate.<sup>155</sup> Yet, because the “question of the ‘error rate’ of forensic fingerprint identification has become a topic of considerable legal debate in recent years” and “has been extensively . . . litigated” there was an impetus for exploring this “dark figure.”<sup>156</sup>

Cole’s mode of analysis bears resemblance to the wrongful conviction debate including the concern of some that the exposed cases of error represent the universe of error and the *assumption* of others that this simply cannot be true.

Although there is no information on how many times latent print identification has been used in crime investigation, the number is clearly large, and twenty-two cases pale in comparison. Some might even go so far as to suggest that this figure is so small that the characterization of the error rate of latent print identification as zero is warranted. However, before doing so, we need to understand the problem of exposure. That is, are these twenty-two cases the full complement of actual cases of latent print misattribution (or close to the full complement), or are they merely the tip of the iceberg? The following analyses will indicate why the latter is more likely the case.<sup>157</sup>

To explore the “tip of the iceberg” theory, Cole worked through five levels of analysis. First, regarding temporal trends, he noted that the twenty-two known errors occurred at an accelerating rate and were clustered in recent years.<sup>158</sup> He discounted a decline in the quality or vigilance of examiners as a reason for the acceleration and concluded “that misattributions are being brought to the public’s attention at a higher rate.”<sup>159</sup> Second, as to offense characteristics, the misattributions are over-represented in serious crimes and more than half were homicides. A study showing that fingerprint evidence was submitted in 40% of homicide cases in four cities suggested that the over-representation of error in homicide cases was not due entirely to the extra use of fingerprinting in those kinds of cases. Another explanation, which parallels Gross’s thesis that errors are excessive in murder

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<sup>155</sup>Cole, *supra* note 152, at 999. He points out that even in the twenty-two identified errors in “most cases there is no way of proving that the attribution was erroneous without assuming the very infallibility of latent print examiners’ consensus judgments that these cases undermine.” In other words, at some point Cole has to accept the consensus judgment even in the absence of complete agreement among examiners. As a result Cole excluded disputed attributions. In addition, these cases do not include fraud; they are cases of “unintentional misattribution.” Cole, *supra* note 152, at 1001 (emphasis in original).

<sup>156</sup>Cole, *supra* note 152, at 988–89.

<sup>157</sup>Cole, *supra* note 152, at 1017.

<sup>158</sup>Three were found in the 1920s and 1940s, seven in the 1980s, six in the 1990s, and six between 2000 and 2004. Cole, *supra* note 152, at 1017, 1067, 1069.

<sup>159</sup>Cole, *supra* note 152, at 1018.

investigations,<sup>160</sup> was that “the pressure to close a homicide case leads latent print examiners to ‘push the envelope’ further in these cases, elevating the potential for a misattribution.”<sup>161</sup> Still another explanation, that errors occurred at the same rate but were more likely to be found because of the increased attention to homicide cases, led Cole to speculate that this could have resulted in 600 “exposed” cases of fingerprint misattribution.<sup>162</sup>

The third factor, the fortuity of exposed cases, is strongly reminiscent of the chance exonerations in so many wrongful conviction cases, and deemed by Cole to be “the strongest evidence that the known cases of misattribution only represent the tip of the iceberg.”<sup>163</sup> In 63% of the cases, the error was discovered only by “extraordinary circumstances.” Cole thought that this gave the lie to the “system works” apologia.

It may, of course, be argued that each one of the known cases of misattribution demonstrates that “the system works,” precisely because it has become known to us. In [cases] where reputable defense experts offered clear and explicit testimony that the attribution was erroneous, this is a plausible argument . . . . But the majority of misattributions were not exposed through such routine reviews. Moreover, the “system works” argument puts those with fingerprint evidence adduced against them in a double bind: if errors are not exposed, latent print examiners claim that latent print identification is infallible; if errors are exposed, latent print examiners claim that their mechanisms for detecting errors “work.”<sup>164</sup>

The fourth factor was that safeguards against failure—including the competence of examiners, a high number of corresponding minutiae or points standard, verification by a co-worker, and even reexamination by defense experts—all failed, which “suggests that the underlying cause of misattributions runs very deep indeed.”<sup>165</sup> The reliance on vaunted safeguards is all too reminiscent of the oft-quoted statement of Learned Hand, a great early twentieth century jurist,<sup>166</sup> but one who reflected the ideas of his time when he wrote that

[u]nder our criminal procedure the accused has every advantage. While

<sup>160</sup>Gross, supra note 59.

<sup>161</sup>Cole, supra note 152, at 1019.

<sup>162</sup>This was estimated by assuming that homicides are 1% of felony cases, and that 12 homicide misattributions times 99 produces 1188, “divided by two to account for the greater prevalence of fingerprint evidence in homicide cases.” Cole, supra note 152, at 1019 n.232.

<sup>163</sup>Cole, supra note 152, at 1020.

<sup>164</sup>Cole, supra note 152, at 1021–22 (footnote omitted).

<sup>165</sup>Cole, supra note 152, at 1025.

<sup>166</sup>Gerald Gunther, *Learned Hand: The Man and the Judge* (1994).

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the prosecution is held rigidly to the charge, he need not disclose the barest outline of his defense. He is immune from question or comment on his silence; he cannot be convicted when there is the least fair doubt in the minds of any one of the twelve. Why in addition he should in advance have the whole evidence against him to pick over at his leisure, and make his defense, fairly or foully, I have never been able to see. No doubt grand juries err and indictments are calamities to honest men, but we must work with human beings and we can correct such errors only at too large a price. Our dangers do not lie in too little tenderness to the accused. Our procedure has been always haunted by the ghost of the innocent man convicted. It is an unreal dream. What we need to fear is the archaic formalism and the watery sentiment that obstructs, delays, and defeats the prosecution of crime.<sup>167</sup>

The quotation, by a good judge with a progressive temperament, reminds us that we can become so enamored with generally good procedures that we become lulled by their limitations, a sort of Maginot Line thinking error.

Cole's last factor was that only one of the then 155 DNA exonerations listed on the Innocence Project's website was caused in part by a fingerprint misattribution. That is, a fingerprint of concern appeared in only 0.6% of the DNA exonerations. This could be taken as "evidence of the high accuracy of latent print identification" when compared to the high percentage of cases in which microscopic hair comparisons (16%) and serology testing (57%) appeared.<sup>168</sup> Cole analyzed this proposition by noting that an independent study showed that in a sample of 1,713 cases with forensic biological evidence, 85.8% of the hair evidence cases were accompanied by biological evidence compared to only 28.5% of the fingerprint evidence cases.

These figures do not, of course, fully explain the greater presence of microscopic hair comparison and serology in the [Innocence Project] data set. But they do suggest that the reason there are fewer fingerprint cases than microscopic hair comparison or serology cases is not solely that fingerprint evidence is more accurate evidence. Rather, these figures suggest that the error rate for microscopic hair comparison may be around fourteen times that of fingerprint evidence. That is scant reason for comfort because microscopic hair comparison is widely considered to be very bad evidence indeed.<sup>169</sup>

Having carefully traversed the various factors that could shed some light on an *estimated* fingerprint misattribution rate, and applying external estimates of the error rates for microscopic hair comparisons (from 4% to 35%) and traditional serological testing (23 times that of fingerprinting evidence) to the existing data, Cole used these compara-

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<sup>167</sup> *U.S. v. Garsson*, 291 F. 646 (S.D. N.Y. 1923).

<sup>168</sup> Cole, *supra* note 152, at 1025.

<sup>169</sup> Cole, *supra* note 152, at 1026 (footnotes omitted).

tive ranges to “suggest error rates for fingerprint identification ranging from 0.2% to 2.5%. Given the acknowledged weaknesses in the studies that generated these false positive rates, these should be regarded as lower bounds of the actual error rate.”<sup>170</sup> Finally, Cole added, in an aside, that assessing the weaknesses in forensic methods from wrongful conviction cases probably distorts the “baserate” of guilt and understates the true rates of error and injustice, since forensic errors probably led also to false negatives, adding to the injustice of impunity.<sup>171</sup>

Professor Cole’s analysis provides an estimate built on assumptions from data generated for other purposes. It appears nevertheless to be a sound attempt to think through an area of criminal justice practice identified as a real problem. It may be criticized as built on assumptions, but it is preferable to the inane or instrumental position of the professional fingerprint examination community, which asserts that the *method* of fingerprint comparison is flawless although human error is possible—when the method *is* human estimation of the similarity of friction ridge impressions.<sup>172</sup> It is also preferable to the unlikely idea that the twenty-two errors, of which more than half were discovered by luck, represents the universe of fingerprint examiner errors in ten American states, by the FBI, and in England and Scotland over a period of 84 years. Cole’s method, while not directly applicable to making general estimates of wrongful convictions, is suggestive of the estimation procedures used by Professors Poveda and Risinger with available death sentence data.<sup>173</sup> I take his efforts, quantitative in part and estimative in part, as support for the qualitative analysis that follows to estimate a general rate of wrongful convictions.

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<sup>170</sup>Cole, *supra* note 152, at 1027 (footnotes omitted).

<sup>171</sup>Cole, *supra* note 152, at 1027 n.274. See also Brian Forst, *Errors of Justice: Nature, Sources, and Remedies* (2004).

<sup>172</sup>Cole, *supra* note 152, at 1036. For more on fingerprint error rates see Jonathan J. Koehler, *Fingerprint Error Rates and Proficiency Tests: What They are and Why They Matter*, 59 *Hastings L.J.* 1077 (2008) (explains different kinds of error; good proficiency testing could establish a better basis for estimating fingerprinting error rates). Cole continued to explore fingerprint errors. In Simon A. Cole, *The Prevalence and Potential Causes of Wrongful Conviction by Fingerprint Evidence*, 37 *Golden Gate U. L. Rev.* 39 (2006), he offered detailed reviews of recent and notorious fingerprint error cases (Cowans, McGee, McKie, Mayfield). The article reviewed a number of important issues including the paradox that the perceived strength of evidence reduces the likelihood of error exposure; the weakness of existing safeguards; context bias (e.g., overvaluing similarities in contiguous prints while undervaluing dissimilarities); the lack of error exposure by the fingerprint examiner community; the confounding of “clerical errors” with true errors; and the weakness of proficiency testing.

<sup>173</sup>Poveda, *supra* note 75; see Risinger, *supra* note 43.

## V. Estimating Wrongful Convictions

### A. Justifying the Estimate

Simon Cole's analysis to estimate a fingerprint comparison error rate involved a discrete practice and practice community with which he is intimately familiar. Thinking about a general wrongful conviction error rate forces us to mentally encompass the large number of places where the reliability of a criminal case can fail. Such an exercise can easily overwhelm one's cognitive capacities. The innocence paradigm has simplified the task by organizing errors under about nine or ten themes which can vary depending upon the source.<sup>174</sup>

Careful reconstructions of wrongful convictions have shown strong relationships between such "causes" and wrongful convictions. Gould and Leo provide an extended overview of such cases; they note that piling up a wealth of anecdotal examples is not proof of causal relationships, that correlation alone is not causation, and that there is a difference between contributing and exclusive causes.<sup>175</sup>

But there is more than a wealth of anecdotal sources in studies that deconstruct wrongful conviction cases. There are at least four competent empirical research studies that have compared similar samples of wrongful convictions with cases of apparent factual guilt using available rape and homicide cases.<sup>176</sup> Reviewing them together, Gould and Leo conclude that they provide empirical support for the proposition that some of the innocence paradigm factors identified as

<sup>174</sup>The development of the innocence paradigm is reviewed in Zalman, *supra* note 44. Summary factors related to wrongful convictions have been generated not by a priori reasoning but inductively by analyzing error-cases. For example Jon Gould, *The Innocence Commission: Preventing Wrongful Convictions and Restoring the Criminal Justice System* 77–8 (2008), lists nine primary factors that were derived from the Innocence Commission for Virginia's review of erroneous death sentences: honest mistaken witness misidentification, suggestive identification procedures, tunnel vision by police and prosecutors, antiquated forensic testing techniques, inadequate defense counsel, failure to disclose exculpatory reports, interrogation of suspects with mental incapacities, inconsistent statements by defendants, and inadequate post-conviction remedies. The list of factors in *Actual Innocence*, the ur-text of the innocence paradigm, Scheck et al., *supra* note 98, (derived from chapter themes) are: a porous adversary process prone to a cascade of errors, eyewitness misidentification, false confessions, forensic fraud, jailhouse snitches, junk science, prosecutorial misconduct, inadequate assistance of counsel, racial bias, and shrinking opportunities to get post-conviction review from death row. The list of "causes" differs when different studies are examined, although several causes frequently reappear.

<sup>175</sup>Gould & Leo, *supra* note 1, at 38–58. These insights lead Gould and Leo to propose that path analysis be used in the future to assess wrongful convictions; see also Leo & Gould, *supra* note 10.

<sup>176</sup>Talia Roitberg Harmon, *Predictors of Miscarriages of Justice in Capital Cases*, 18 *Just. Q.* 949 (2001); Talia Roitberg Harmon & William S. Lofquist, *Too Late for Luck: A Comparison of Post-Furman Exonerations and Executions of the Innocent*, 51

relating to wrongful convictions are indeed related, and that these factors play a role in the exoneration process.<sup>177</sup> It can be argued that this research is applicable only to the capital murder and rape cases on which more accurate incidence estimates were based.

My goal, however, is to build a case for the *plausibility* of the Estimate, not to *calculate* a general wrongful conviction rate by means of a census. On this basis I argue that the four aforementioned empirical studies, with their limitations, which “help to explain why some cases ‘go right’ in the system while others fail”<sup>178</sup> in regard to murder and rape cases, provide initial support for the conclusion that similar errors occur in less serious felonies, making it plausible that wrongful conviction rates are higher than “vanishingly small.”

The Estimate’s plausibility is also supported by Gross’s conjecture that error rates are higher in homicide and capital homicide cases because of factors are unique to first-degree murder investigations, prosecutions, and appeals compared to other crimes.<sup>179</sup> Appeals are examined more carefully after such convictions, exposing more wrongful convictions.<sup>180</sup> A higher proportion of homicides are investigated by the police raising the overall crime-to-conviction ratio and, *ceteris paribus*, generating a larger proportionate number of errors in the “whodunit” cases.<sup>181</sup> The high pressure to solve homicides raises the error rate because police may tend to cut corners, are cognitively biased to focus on early suspects (tunnel-vision), and are much less likely to drop marginal cases as they would in burglary or robbery investigations.<sup>182</sup> “The absence of eyewitness evidence in many homicides drives the police to rely on evidence from other sources: accomplices; jail-house snitches and other underworld figures; and confessions from the defendants themselves. Not surprisingly, perjury by a prosecution witness is the leading cause of error in erroneous capital convictions, and false confessions are the third most common

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Crime & Delinq. 498 (2005); see also Garrett, Judging innocence, *supra* note 129; Gross & O’Brien, *supra* note 7.

<sup>177</sup>Gould & Leo, *supra* note 1, at 858–64.

<sup>178</sup>Gould & Leo, *supra* note 1, at 861, although they referred specifically to the study by Gross & O’Brien, *supra* note 7. This point, this conclusion fairly applied to each of the four studies.

<sup>179</sup>Gross, *supra* note 69.

<sup>180</sup>Gross, *supra* note 69, at 473.

<sup>181</sup>Gross, *supra* note 69, at 477–78.

<sup>182</sup>Gross, *supra* note 69, at 478–79.

cause.”<sup>183</sup> The threat of the death penalty has caused some innocent defendants to plead guilty to a lesser crime.<sup>184</sup> Prosecutors, like police investigators, find it difficult to dismiss murder cases with equivocal evidence and are criticized when they do.<sup>185</sup> Other factors that increase the likelihood of conviction in death penalty cases compared to other trials, and thus could elevate the number of errors, include publicity, death-qualified juries, and the psychological effects on the jury of the crime’s heinousness, although these factors could be offset by factors like high-quality defense counsel.<sup>186</sup>

Gross’s conjecture about a higher rate of error in murder and capital cases has become the received wisdom in innocence research. It is plausible and suggests that the general wrongful conviction rate (the Estimate) is lower for other felonies than the approximately 1.5 to 5% range of the error estimates in murder and death penalty cases. But conjecture is not proof, and the likelihood of a general wrongful conviction rate even higher than the Estimate, say at 2%, might be entertained.<sup>187</sup>

**B. A System This Bad Cannot Be Free of Error**

Most of the speculation that the criminal justice system is not close to perfectly reliable is derived from innocence-oriented research and writing, creating a risk of innocence-oriented tunnel vision. In addition, justice system critiques that are prompted by concerns about its flaws, but not written as wrongful conviction exposés, may be more ideologically neutral and more facially credible. A few remarkable works by journalists fit this category. Journalism has played a strong role in advancing the innocence agenda and a large number of superb inquiries by investigative reporters have helped to create a more sober

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<sup>183</sup> Gross, supra note 69, at 481. Gross detailed cases of perjury by the real killer and false confessions. Gross, supra note 69, at 481–86.

<sup>184</sup> Gross, supra note 69, at 487–88.

<sup>185</sup> Gross, supra note 69, at 489–92.

<sup>186</sup> Gross, supra note 69, at 494–97.

<sup>187</sup> A few scholars have not accepted the Gross conjecture one way or the other. “Let us just say that I remain agnostic.” Risinger, supra note 43, at 787 n.54. “But, it could be just the opposite, that errors are more common, and more commonly accepted, in cases where neither police nor prosecutors have as much time, resources, or pressure to investigate cases thoroughly, and where the lesser stakes of punishment do not command as many or zealous advocates to investigate cases post-conviction.” Gould & Leo, supra note 1, at 836. This may be a researchable question (if and when the means to empirically evaluate a general incidence rate arises) but can also be confounded by the wrongful conviction hot-spot thesis.

assessment of the criminal justice system.<sup>188</sup> Journalistic sources can be criticized as anecdotal. The sources I review here differ somewhat because they mix journalism with social research techniques that provide more systematic justice process evaluations.

One series that deserves far wider acknowledgment, and that provides a template for social science research, is “Tainted Trials, Stolen Justice,” by Pulitzer Prize winning journalist and lawyer Fredric N. Tulsky. It appeared in the *San Jose Mercury News* in January 2006.<sup>189</sup> This series is extraordinary because it was not based on a snowball method of data collection, but on the records of every criminal jury conviction decided in the Santa Clara (San Jose) County Court over a five-year period that resulted in appeals decided by the California 6th District Court of Appeal: 727 cases in all. “In addition, the newspaper uncovered about 200 cases of questionable conduct that were not part of the study period, by reviewing files and interviewing lawyers.”<sup>190</sup> These cases were then reviewed by a panel of seven respected and experienced lawyers and jurists who assessed whether errors existed.<sup>191</sup> The newspaper published five major articles that included an overview of the trials, and more focused assessments of defense lawyers, prosecutors, trial judges, and appellate judges. The

<sup>188</sup>Rob Warden, *The Revolutionary Role of Journalism In Identifying and Rectifying Wrongful Convictions*, 70 *UMKC L. Rev.* 803 (2003). The investigative reporting for the *Chicago Tribune* by reporters Ken Armstrong, Steve Mills, and Maurice Possley has been exemplary in at least seven series between 1999 and 2004 that included at least 50 articles and editorials in seven different investigations of local and national issues. There have been many other excellent investigative journalism series devoted to wrongful convictions.

<sup>189</sup>Fredric N. Tulsky, *Tainted Trials, Stolen Justice*, *San Jose Mercury News*, Jan 2006., available at <http://www.mercurynews.com/taintedtrials> (last visited Aug. 23, 2010).

<sup>190</sup>Tulsky, *supra* note 189.

<sup>191</sup>The panelists included Bennett L. Gershman, professor at Pace University School of Law and expert on prosecutorial misconduct; Alvin Goldstein, retired Marin County Superior Court judge; Laurie L. Levenson, professor at Loyola Law School in Los Angeles and expert on criminal procedure; John T. Racanelli, retired presiding justice of the First District Court of Appeal, and previously the presiding judge of Santa Clara County Superior Court; David A. Sklansky, professor at Boalt Hall School of Law, University of California-Berkeley, a former federal prosecutor and expert on police issues and evidence; Edmund B. Spaeth Jr., retired president judge of the Pennsylvania Superior [appellate] Court, who taught ethics and evidence at the University of Pennsylvania Law School. In addition, Arlin Adams, a retired member of the U.S. Court of Appeals, Third Circuit, and a former special federal prosecutor, responded to questions about the judiciary, *About the Review*, *San Jose Mercury News*, Jan. 21, 2006. The only comparable academic study that I’m aware of is Jon B. Gould & Stephen D. Mastrofski, *Suspect Searches: Assessing Police Behavior Under the U.S. Constitution*, 3 *Criminology & Pub. Pol’y* 315 (2004) (constitutionality of police auto stops assessed by panel of experts).

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errors were distributed among each of the system actors with some cases having more than one kind of error.

The review [of 727 case by the panel of experts] established that in 261 of the appellate cases reviewed—more than one in every three of the total—the criminal trial had been marred by questionable conduct that worked against the defendant. In only about one in 20 cases did the defendant win meaningful relief—either a new trial or a significantly reduced sentence—from higher courts.<sup>192</sup>

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In nearly 100 cases, the prosecution engaged in questionable conduct that bolstered its effort to win convictions . . . . In 100 cases, defense attorneys acted in ways that harmed their clients. In nearly 50 cases, the attorneys failed to take the most basic of measures, from properly investigating their case to presenting the evidence they gathered. Defense attorneys failed in dozens more cases to object as prosecutors or judges engaged in questionable conduct, in effect excusing the mistakes . . . . In more than 150 cases, judges made missteps or questionable rulings that favored the prosecution. Violating legal precedents, trial judges allowed evidence that unfairly tainted defendants and prohibited evidence that might have supported their defense. Repeatedly, judges failed to properly instruct jurors on legal principles, instead offering direction that made a guilty verdict more likely . . . . The 6th District Court of Appeal, the primary court of review for Santa Clara County cases, upheld verdicts in more than 100 cases even as it acknowledged errors had occurred. The appellate court simply concluded those errors made no difference in the outcome of the case. Sometimes those conclusions were appropriate, but a review of the appellate record and consultations with experts established that in more than 50 cases the court misstated facts, twisted logic and devised questionable rationales to dismiss the error.<sup>193</sup>

Although the series was not designed to ferret out wrongful convictions it identified three: Miguel Sermeno (hit and run—bad identification), Bobby Herrera (shooting assault—false accusation by key witness), and Frederick Brown (sentenced to 26 years to life for possessing stolen property for stripping a truck that had been abandoned near his home for a year).<sup>194</sup> Descriptions of a few other cases raised a possibility that the convictions were wrong in the factual or culpability sense.<sup>195</sup> As the study did not review plea bargains, or focus on uncovering wrongful convictions, it is possible that other

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<sup>192</sup>Fredric N. Tulskey, Review of More than 700 Appeals Finds Problems Throughout the Justice System, San Jose Mercury News, Jan. 22, 2006, available at [http://www.mercurynews.com/search/ci\\_5127591](http://www.mercurynews.com/search/ci_5127591) (last visited Dec. 20, 2011).

<sup>193</sup>Tulskey, *supra* note 192.

<sup>194</sup>Tulskey, *supra* note 192.

<sup>195</sup>E.g., the case of Sonya Daniels, whose young son, Jory, starved to death in 1994; psychiatric evidence of Battered Women's Syndrome not admitted by trial

false convictions occurred in the San Jose courts during that time period. Indeed, follow-up reporting of the cases uncovered at least two other wrongful convictions.<sup>196</sup> The cases, of course, were rife with serious procedural errors, although two-thirds were found by the experts to have been well-trying.<sup>197</sup>

The level of error uncovered by Tulsky's project in an urban court in a relatively wealthy region makes plausible the hypothesis that trial and appellate processes in criminal cases in the United States are seriously flawed. The sample of cases suggests that the results of the series were reliable because they were systematic (a universe of all appealed convictions in trial cases), large in number (727), and conducted over an extended period (five years). The results have face validity as they were the judgments of experienced and respected jurists, lawyers and scholars.<sup>198</sup>

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judge and no reversible error found by appellate court, which did rebuke trial attorney who tried strenuously to have evidence admitted. Tulsky, *supra* note 192.

<sup>196</sup>Fredric N. Tulsky, Wrongly Convicted, Man May Be Freed: Judge Overturns Jury's Verdict Because of Error, San Jose Mercury News, Jan. 29, 2006, available at <http://groups.yahoo.com/group/patrickcrusade/message/27805> (last visited Dec. 20, 2011) (Paul Magnan, 25 years to life for methamphetamine dealing— prosecutors failed to disclose that woman sitting in the pickup truck at time of Magnan's arrest was suspected in separate incident; district attorney's office said it would not seek retrial after judge dismissed case); Fredric N. Tulsky, Inmate Finally Released: Conviction Overturned after Mercury News Investigation, San Jose Mercury News, Aug. 17, 2006 (Michael Hutchinson, 7-11 store robbery by masked intruder, 11 year sentence — bad eyewitness identification, possible unconscious transference; actual robber caught on video camera, deciphered by photographic forensic expert hired by the *San Jose Mercury News*). A total of 5 wrongful convictions out of 727 trials produces a rate of 0.68%, which is within the Estimate.

<sup>197</sup>A year later the newspaper reported that in the wake of its series a number of system-changes had been instituted. "A new district attorney has vowed to end a "win at all costs" culture in the office . . . And the decisions of the 6th District Court of Appeal, which oversees cases in Santa Clara and three neighboring counties, appear to demonstrate a new forcefulness. In the past year, the court has increasingly chastised local judges, prosecutors and defense attorneys for mistakes and misconduct. The court is reversing criminal cases at a rate higher than at any time in at least 18 years, a new *Mercury News* analysis shows." Fredric N. Tulsky, Tainted Trials: One Year Later: Evidence of Reform in Wake of Series on Troubling Treatment of Defendants, San Jose Mercury News, Jan. 28, 2007, available at <http://www.highbeam.com/doc/1G1-158499759.html> (last visited Dec. 20, 2011).

<sup>198</sup>Other investigative journalism investigations challenge the accuracy of the justice system. New Orleans: Richard A. Webster, New Orleans City Business: Hidden Innocence: Wrongful Convictions Ripple Through Court System, May 28, 2007, available at [http://findarticles.com/p/articles/mi\\_qn4200/is\\_20070528/ai\\_19183158](http://findarticles.com/p/articles/mi_qn4200/is_20070528/ai_19183158) (focuses on prosecutorial withholding of evidence); Richard A. Webster, Life Sentence, Monday, June 4, 2007, available at <http://www.neworleanscitybusiness.com/viewStory.cfm?recID=19189>; Richard A. Webster, Exonerated Shreveport Man

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Another journalistic research project, *Harmful Errors: Investigating America's Local Prosecutors*, was conducted by the Center for Public Integrity under the direction of Steve Weinberg, a professor at the Missouri School of Journalism.<sup>199</sup> The report examined 2,012 law cases culled from 11,452 reported opinions decided between 1970 and 2003 in which trial and appellate judges cited prosecutorial misconduct as a factor in dismissing charges, reducing sentences, or reversing convictions. In light of the San Jose articles in which legal experts found appellate courts too quick to find harmless error in criminal appeals, it seems that a 17.6% rate of findings of prosecutorial misconduct in *Harmful Errors* is plausible evidence for the proposition that prosecutorial misconduct is widespread.

Without knowing how the cases were selected, and without more information about the criteria used to evaluate the cases, *Harmful Errors* does not adhere to the highest standards of social research. As a study of appellate cases its observations of the dynamics of prosecutorial misconduct are filtered through the appellate process. On the other hand, the sample of cases is quite large, there is no facial reason to disbelieve the general soundness of the judicial findings, and direct studies of misconduct are infeasible.<sup>200</sup> Although the study was not conducted primarily to investigate wrongful convictions, “[i]n 28 cases, involving 32 separate defendants, misconduct by prosecutors led to the conviction of innocent individuals who were later exonerated.”<sup>201</sup>

In its summary, *Harmful Error* listed thirteen “lessons” that sum-

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Must Prove His Innocence In Court to [sic], June 6, 2007, available at [http://findarticles.com/p/articles/mi\\_qn4200/is\\_20070606/ai\\_n19290292/](http://findarticles.com/p/articles/mi_qn4200/is_20070606/ai_n19290292/) (last visited Dec. 8, 2010) (a three-part series spotlighting individuals who have been wrongfully convicted, the reasons why and the impact on their lives). Cleveland/Cuyahoga County, Amanda Garrett & John Caniglia, Cleveland Plain Dealer, Presumed Guilty: Prosecutions without Evidence, Nov. 21–27, 2010, available at [http://www.cleveland.com/rule-29/index.ssf/2010/11/presumed\\_guilty\\_prosecutions\\_w\\_8.html](http://www.cleveland.com/rule-29/index.ssf/2010/11/presumed_guilty_prosecutions_w_8.html) (last visited Dec. 8, 2010) (5 part series focusing on dismissals of prosecutions before the end of trial for lack of evidence in 5% of bench trials between 2000 and 2009); Federal Prosecution: Brad Heath & Kevin McCoy, USA TODAY, Justice in the Balance, Sept.–Dec. 2010, available at <http://projects.usatoday.com/news/2010/justice/> (last visited Dec. 10, 2010).

<sup>199</sup>Steve Weinberg et al., *Harmful Error: Investigating America's Local Prosecutors*, Center for Public Integrity (2003). While providing data that would be inaccessible without the archival research that took three years to compile and write, *Harmful Error* was written in an engaging journalistic style rather than in the drier voice of an expert governmental or academic report. The report also praised prosecutors' innovations designed to improve justice. Weinberg et al., *supra* note 199, at 5.

<sup>200</sup>Problems with the sample and the culling of data from appellate cases are discussed in Weinberg et al., *supra* note 199, at 4.

<sup>201</sup>Weinberg et al., *supra* note 199, at 91–100. The appendix listing the wrongful convictions identified several who are well known in the wrongful conviction literature

marized the problems of prosecutors' actions and inactions detected in the cases. Although each lesson highlighted weakness that could lead to wrongful convictions, the first and the last were specific: "premature conclusions can ensnare the innocent" and "police and prosecutors sometimes do little to search for the actual perpetrators of a crime after learning that the original suspect is innocent."<sup>202</sup> The study also hints at the possibility of prosecutor error hot spots.<sup>203</sup>

Journalist-lawyer, Amy Bach, in *Ordinary Injustice*, wrote a study that illuminates the general through the particular.<sup>204</sup> She explored problems regarding indigent defense, judging in a low level municipal court, the *avoidance* of prosecution, and a complex wrongful conviction case, in two rural counties in Georgia and Mississippi, a small city (Troy, New York), and Chicago. Her analysis was deepened by repeated visits to the locations over a period of years, extensive and perceptive interviewing, and relating the problems she perceived both to legal themes, constitutional rights, and administrative studies. None of the actors responsible for the problems were demonized, as she plumbed her sites for administrative, fiscal and, human weaknesses that sadly resulted in frustrations and injustices of due process and impunity.<sup>205</sup> The failure of indigent defense in a rural county served by a solo lawyer in a contract defense system was the tale of a well-meaning man overwhelmed by too many cases and a lack of resources, enabled by a standardless trial system.

Bach detailed efforts by the Georgia state bar association, the Supreme Court Chief Justice's committee, and the indefatigable Stephen Bright in the gadfly role, to finally pass legislation that helped create model indigent defenders' systems in some counties. The

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and have been the subject of books or film documentaries: Cases where courts found harmful prosecutorial error: Randal Dale Adams, Kirk Bloodsworth, Clarence Brandley, Kerry Max Cook, Rolando Crux, Alejandro Hernandez, Verneal Jimerson, Ray Krone, Steven Paul Linscott, James Joseph Richardson, Frank Lee Smith; Cases where appellate courts found prosecutorial error harmless: Gary Dotson, Yusuf Salaam, Kevin Richardson, Antron McCray, Raymond Santana (last four are the defendants in the "Central Park Jogger case).

Thirty-two exonerated out of 2,012 cases produces an exoneration rate of 1.59%. It seems that these exonerations are wrongful convictions in the factual sense.

<sup>202</sup>Weinberg et al., *supra* note 199, at 14–33.

<sup>203</sup>"[T]he Center found some prosecutors who had convicted innocent defendants in more than one case over the course of their careers; some of these prosecutors were cited multiple times for misconduct in other cases as well." Weinberg et al., *supra* note 199, at 4.

<sup>204</sup>Amy Bach, *Ordinary Injustice: How America Holds Court* (2009). For a brief summary, see Amy Bach, *Extraordinary Wrongful Convictions, Ordinary Errors-Why Measurement Matters*, 73 *Alb. L. Rev.* 1219 (2010).

<sup>205</sup>Forst, *supra* note 171.

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reformed model did not work automatically but succeeded in one county because of an effective director of a public defender's office. The story's happy ending was that the overwhelmed attorney who had provided inadequate defense under the contract system, was hired by the county with the model defender's program, and proved to be an effective defense lawyer. The canons of social science research limit the generalizability of Bach's analysis, but the extensive literature on the crisis in indigent defense<sup>206</sup> suggests that the problems she analyzed exist in many other jurisdictions. It is hard to come away from this book with a confident feeling that the American adversary system generates close to no wrongful convictions.

The innocence movement, and especially DNA testing, generated a crisis in the forensic sciences. Many wrongful convictions had occurred because of honest errors by forensic examiners, the reliance of prosecutors on highly subjective techniques that were dubbed "junk science,"<sup>207</sup> erroneous results produced by substandard forensic laboratories, and a few notorious cases of examiners who routinely falsified their results to favor the prosecution.

The forensic science community did not bury its collective head in the sand. Instead, a Congressionally mandated study by the National Academies of Science acknowledged that "in some cases substantive information and testimony based on faulty forensic science analyses may have contributed to wrongful convictions of innocent people."<sup>208</sup> Despite the defensive language, the report leaves no doubt that there is a sufficiently large crisis in forensic science and forensic examination that require major reforms across a range of forensic methodologies, among medical examiners, and in the presentation of forensic testimony in court.<sup>209</sup> Again, this large scale effort by a body that is not an adjunct of the innocence movement raises the Estimate's plausibility.

Police reports are the source of facts for most prosecutions. There has been almost no systematic research of the general detective function in thirty years, while police researchers have explored such important topics as crime prevention and racial profiling. More recent research about investigation has studied innovative technologies or

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<sup>206</sup>See, e.g., Mary Sue Backus & Paul Marcus, *The Right to Counsel in Criminal Cases, A National Crisis*, 57 *Hastings L.J.* 1031 (2006); Monica Davey, *Budget Woes Hit Defense Lawyers for the Indigent*, *N.Y. Times*, Sept. 9, 2010, available at <http://www.nytimes.com/2010/09/10/us/10defenders.html> (last visited Dec. 20, 2011).

<sup>207</sup>Scheck at al., *supra* note 98.

<sup>208</sup>Committee on Identifying, *supra* note 2, at 4.

<sup>209</sup>Garrett & Neufeld, *supra* note 129.

methods like crime mapping and hot spot investigation.<sup>210</sup> Despite a plethora of vignettes of deficiencies in police investigation in the innocence movement literature, few studies have focused on the issue systematically.<sup>211</sup>

Stanley Fisher conducted a localized study almost two decades ago supporting the assertion that police have no legal obligation to gather exculpatory evidence, and often do not.<sup>212</sup> Although the ethics of police investigation require police to evenhandedly collect exonerating evidence as well as inculpatory, this is not a legal requirement. Police generally have a partisan perspective that allies them with the prosecution and that can generate tunnel-vision. The occasional academic bouquet thrown to police investigators, even if based on narratives, support the common-sense view that most police detectives do good work most of the time.<sup>213</sup> But a sober assessment of errors that generate wrongful convictions—considering the pressures on detectives, the partisan nature of police work, the effect of police culture, the substantial discretion of police detectives, and the entrepreneurial goals of drug crime enforcement—make it likely that honest police errors as well as occasional corrupt cops, contribute to the Estimate.<sup>214</sup>

Studies by innocence advocates have pointed to the use of jailhouse informants, and other kinds of lying and perjury as causes of wrongful

<sup>210</sup>Eck et al., *supra* note 90; Peter K. Manning, *The Technology of Policing: Crime Mapping, Information Technology, and the Rationality of Crime Control* (2008).

<sup>211</sup>Dianne L. Martin, *The Police Role in Wrongful Convictions: An International and Comparative Study in Wrongly Convicted: Perspectives on Failed Justice* 77 (in Sandra D. Westervelt & John A. Humphrey eds. 2001); Robert K. Olson, *Miscarriage of Justice: A Cop's View*, 86 *Judicature* 74 (2002).

<sup>212</sup>Stanley Z. Fisher, "Just the Facts, Ma'am": Lying and the Omission of Exculpatory Evidence in Police Reports, 28 *New Eng. L. Rev.* 1 (1993).

<sup>213</sup>Robert Jackall, *Street Stories: The World of Police Detectives* (2005). For an interesting narrative, see Paul Mones, *Stalking Justice* (1995) (one of first DNA exoneration cases solved by detective's intuition), discussed in Zalman, *supra* note 44. See also Jonathan Simon, *Recovering the Craft of Policing: Wrongful Convictions, the War on Crime, and the Problem of Security*, in *When Law Fails: Making Sense of Miscarriages of Justice* 115 (Charles J. Ogletree & Austin Sarat eds., 2009) (discusses case of posthumously exonerated Frank Lee Smith, in which very good and very bad detectives were at work). Regarding the Smith case, see *Frontline: Requiem for Frank Lee Smith*, Ofra Bikel, Aired Apr. 12, 2002, WGBH Educational Foundation, available at <http://www.pbs.org/wgbh/pages/frontline/shows/smith/> (last visited Sept. 2, 2010).

<sup>214</sup>Fraudulent police work leading to what Gross et al., *supra* note 16, called "mass exonerations" were not included in their list of exonerations.

convictions.<sup>215</sup> In a systematic review of the use of informants across a broad range of government investigations and prosecutions, Professor Alexandra Natapoff has shown that “snitching” has become a pervasive problem that when uncovered, is often discovered fortuitously.<sup>216</sup> With jailhouse informant *rings* now developing, turning lone exercises of dissimulation into enterprises, it becomes impossible to think that the problem is any smaller today than when described in *Actual Innocence* in 2000 as a factor in 19% of the DNA exonerations,<sup>217</sup> especially when it is unlikely that proposed procedural reforms like corroboration requirements “are inherently limited because they do not address the underlying phenomena that drive the use of unreliable informants.”<sup>218</sup>

In each area discussed, the critical literature, fairly read, does not portray a system so out of control as to be wildly unreliable. Nor does it show a perfect process or even a wonderfully reliable criminal justice system. A variety of studies by different kinds of authors examining different parts of the criminal justice process, of which a small proportion have been discussed herein, corroborate one another in showing that the personnel and processes for detecting, apprehending, and prosecuting felons are far below the standards of reliability that should be demanded by a modern technological society and below levels of fairness expected in a country that takes due process and the rule of law seriously.

### C. *The Estimate and Its Consequences*

The ultimate question is whether the prospect of, at a *minimum*, 2,000 innocent defendants going to prison every year (with capital murder defendants a disproportionately higher part of this total as their wrongful conviction rates are demonstrably higher than 0.5%), and another 3,000 receiving lesser felony sentences, should move the innocence reform agenda. That question will be decided in the political and policy arenas. Whatever activists or policy makers do, scholars

<sup>215</sup>Center on Wrongful Convictions, *The Snitch System*, Northwestern University School of Law (2005), available at <http://www.law.northwestern.edu/wrongfulconvictions/issues/causesandremedies/snitches/SnitchSystemBooklet.pdf> (last visited Aug. 23, 2010).

<sup>216</sup>Alexandra Natapoff, *Snitching: Criminal Informants and the Erosion of American Justice* (2009). Aside from leading to wrongful convictions, the use of informants, however necessary to law enforcement, generates a host of side problems including condoning and supporting informants’ criminality, manufacturing crime, distorting sentencing fairness, maintaining racial disparities, undermining the intent and certainty of the criminal law, diminishing the power of state officers, and creating opportunities for corruption. Natapoff, *supra* note 216, at 29–36.

<sup>217</sup>Scheck at al., *supra* note 98, at 361& 163–203 (for a general discussion).

<sup>218</sup>Natapoff, *supra* note 216, at 81.

have an obligation to think clearly about the issue. This obligation led me to rethink the bases of my belief that the Estimate of a general wrongful felony conviction rate of 0.5% to 1.0% is correct, which reconsideration has been explained at length herein.

As the Estimate is an estimate it could be wrong in either direction. It is likely that the number-of-wrongful-convictions-is-vanishingly-small hypothesis is the ideologically tinged wishful thinking or defensive reaction of some judges and prosecutors. Against such a conclusion, I hold to the Estimate *beyond a reasonable doubt* (in the law's terminology) or *almost certainly* (using words of estimative probability).<sup>219</sup> It may be that the actual general rate of wrongful convictions across the nation is higher, a possibility that is limited by the fact and the conjecture that wrongful death sentences are higher, at about 3%.<sup>220</sup> It is also cabined by the opinion surveys of justice system actors.<sup>221</sup> Against the Estimate being wrong in that direction, I hold to it with less firmness. In legal terms I believe that *clear and convincing* evidence and reasoning supports the Estimate against a higher error rate. Applying terms of estimative probability, the Estimate is *probably* correct against a higher error rate.

Acceptance of the Estimate creates a moral obligation to correct the factors that most likely generate wrongful convictions. If the Estimate is wrong as against higher estimates of 2 or 3% or higher, moral and professional reasons to enact innocence reforms become stronger. The more difficult issue is whether an error rate of 0.5 or 1% justifies reform efforts. I believe that most Americans would say that one out of 100, or even one out of 200 unnecessary infections contracted by hospital patients because of preventable systemic problems is too high in an advanced technological society. I believe that most Americans would say that one out of 100, or even one out of 200 innocent defendants convicted of *felonies* because of a range of *preventable* systemic errors by the very governmental system designed to provide *justice* is too high in a society guided by the rule of law. Arguments to the contrary are based either on ignorance of criminal justice realities or on faulty cost-benefit analyses. The intuition of those who support justice system reforms designed to prevent wrongful convictions, that wrongful convictions are large in number, is supported by a sober look at the realities of the criminal justice. The imperative to act and to keep as few as 2,000 innocent inmates a

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<sup>219</sup>Kent, *supra* note 38.

<sup>220</sup>See Part II B, *supra*.

<sup>221</sup>See Part II A, *supra*.

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year out of prison is supported by our ideals of justice and our commitment to professionalism in the justice system.<sup>222</sup>

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<sup>222</sup>This conclusion does not directly address the conclusion of some that cost-benefit analysis can show that addressing the perceived problem of wrongful convictions leads to fewer accurate convictions, which in turn expand human misery. I do not think so, but I hope to address the question more fully in another article.