

Texas Law Review

See Also

Response

Forensic Science Reform

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Improving Forensic Science Through State Oversight addresses a critical issue—the need to reform the nation’s crime laboratories.¹ Scientific evidence is playing an increasingly important role in criminal prosecutions, and the reliability of evidence introduced at these trials often depends on forensic examinations conducted by crime laboratories.² Yet, as Ryan M. Goldstein points out,³ the recent report (NAS Report) by the National Academy of Sciences (NAS) highlights serious deficiencies in the way forensic evidence is used in criminal cases.⁴ The NAS recommended federal intervention in part because of the fragmented nature of forensic science.⁵ In contrast, Mr. Goldstein proposes an approach that focuses on state, rather than federal, regulation. He notes Justice Brandeis’s famous observation about states acting as laboratories and offers two examples of state

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1. Ryan M. Goldstein, Note, *Improving Forensic Science Through State Oversight*, 90 TEXAS L. REV. 225, 225–26 (2011).

2. NAT’L RESEARCH COUNCIL, NAT’L ACAD. OF SCIS., STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD 39 (2009) [hereinafter NAS REPORT] (reporting that “prosecutors increasingly rely on laboratories to provide results prior to approving charges”).

3. See, e.g., Goldstein, *supra* note 1, at 227–28 (identifying the NAS Report’s recommendations to improve the reliability of forensic evidence).

4. See, e.g., NAS REPORT, *supra* note 2, at 100 (arguing that while nuclear DNA analysis has the capacity to link particular evidence with a defendant with “a high degree of certainty,” such evidence is not “unassailable in the courtroom”).

5. See *id.* at 230–32 (recognizing that an overhaul of the forensic science system must address current fragmentation).

innovation:⁶ the Texas Forensic Science Commission (TFSC) and the North Carolina Innocence Inquiry Commission.

I. The Problem of Foundational Research

Although I agree with most of Mr. Goldstein's insightful analysis, I have a concern. A state-oriented approach addresses only one of the two principal issues facing forensic science—the regulation of crime laboratories. The second issue is the lack of empirical support for many common forensic techniques. In a riveting passage, the NAS Report concluded: “Among existing forensic methods, only nuclear DNA analysis has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between an evidentiary sample and a specific individual or source.”⁷ The NAS Report went on to observe that “some forensic science disciplines are supported by little rigorous systematic research to validate the discipline's basic premises and techniques. There is no evident reason why such research cannot be conducted.”⁸ The NAS Report identified such common forensic techniques as fingerprint examinations,⁹ firearms (ballistics) and toolmark identifications,¹⁰ and also questioned document comparisons,¹¹ hair analysis,¹² and bite mark examinations¹³ as falling into this category. Without foundational research, the risk that a regulated crime lab (i.e., one that is accredited and employs certified examiners) is using unreliable techniques remains.

The states simply lack the resources and the capability to conduct foundational research. As I have written elsewhere:

First, the early crime labs, as is still true today, were operational, not research, laboratories. Second, basic research can be both time-

6. Goldstein, *supra* note 1, at 234 (citing *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932)) (Brandeis, J., dissenting) (“It is one of the happy incidents of the federal system that a single courageous State may, if its citizens choose, serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country.”).

7. NAS REPORT, *supra* note 2, at 100.

8. *Id.* at 22. At another point, the Report states:

The simple reality is that the interpretation of forensic evidence is not always based on scientific studies to determine its validity. This is a serious problem. Although research has been done in some disciplines, there is a notable dearth of peer-reviewed, published studies establishing the scientific bases and validity of many forensic methods.

Id. at 8; *see also id.* at 53 (“The bottom line is simple: In a number of forensic science disciplines, forensic science professionals have yet to establish either the validity of their approach or the accuracy of their conclusions, and the courts have been utterly ineffective in addressing this problem.”).

9. *Id.* at 144.

10. *Id.* at 154.

11. *Id.* at 166.

12. *Id.* at 161.

13. *Id.* at 174.

consuming and expensive, and the underfunding of crime laboratories has been chronic. Third, even if research was perceived to be desirable, these laboratories were ill-equipped to conduct it. Police officers, whose skills were developed through on-the-job training, staffed these labs. As would be expected, they were imbued with a police, not scientific, culture.¹⁴

For the most part, these conditions still exist. Moreover, the needed research should be conducted under the supervision of an independent scientific organization such as the National Academy of Sciences or the National Science Foundation.¹⁵ The only thing worse than no research is bad research.¹⁶

II. Regulation of Crime Laboratories

As for the regulation of crime laboratories, Mr. Goldstein argues for state initiative rather than federal intervention.¹⁷ The proposed federal legislation, however, would not preempt state innovation; it would fund accreditation, not require it.¹⁸ This funding, however, may never materialize, and the states (as Mr. Goldstein notes)¹⁹ are independently obligated to regulate their crime labs. *Improving Forensic Science Through State Oversight* makes a convincing case for the primacy of state, rather than federal, action.

Moreover, the two state innovations that Goldstein cites—the TFSC and North Carolina Innocence Inquiry Commission—are noteworthy examples. Both states suffered major crime laboratory scandals. The nature of these scandals and how each state reacted to them is instructive.

14. Paul C. Giannelli, *Forensic Science: Why No Research?*, 38 *FORDHAM URB. L.J.* 503, 508 (2010) (footnotes omitted). This, of course, does not mean that research at the federal level has been effective. See generally Paul C. Giannelli, *Daubert and Forensic Science: The Pitfalls of Law Enforcement Control of Scientific Research*, 2011 *U. ILL. L. REV.* 53, 65–88 (examining how the federal government has manipulated forensic science research in three fields—DNA profiling, fingerprinting, and bullet lead analysis).

15. The NAS Report recommended an independent federal agency, the National Institute of Forensic Science, to oversee forensic science, including a research agenda. *NAS REPORT*, *supra* note 2, at 19. This proposal apparently has little congressional support.

16. Goldstein acknowledges this problem when he states, “Additionally, many of the federal reforms are directed at validity concerns, such as inducing basic research. In this regard, the federal legislation may address areas that state oversight cannot effectively target, such as coordinating nationwide research.” Goldstein, *supra* note 1, at 257 (footnote omitted).

17. *Id.* at 257–58.

18. See Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 201(a) (as referred to S. Comm. on the Judiciary, Jan. 25, 2011) (requiring accreditation only for laboratories that receive federal funding).

19. See Goldstein, *supra* note 1, at 234–35 (recognizing that states bear responsibility for their laboratories and that they can determine their own standards and disciplinary rules).

A. *The Texas Experience*

After the Houston crime lab scandal, the state legislature responded by creating the TFSC.²⁰ By examining the Cameron Todd Willingham and Earnest Ray Willis cases, the TFSC was on track to fulfill its mission to investigate allegations of professional negligence.²¹ Willingham's trial for the arson murders of his three small children depended on expert testimony regarding the cause and origin of the fire.²² Without this testimony, there was no case. In short, no fire, no crime. The other critical evidence at Willingham's trial—jailhouse snitch testimony—was suspect at best.²³

Numerous nationally-recognized arson experts have reviewed the expert testimony presented at Willingham's trial and found it seriously flawed. The first examination of the record by an independent expert was submitted to the Governor and the Board of Pardons and Parole days before Willingham's execution.²⁴ It concluded, "On first reading, a contemporary fire origin and cause analyst might well wonder how anyone could make so many critical errors in interpreting the evidence."²⁵ Nevertheless, a stay was denied, and Willingham was put to death.²⁶ Subsequent evaluations concurred: the expert trial evidence was junk science. For example, five independent experts prepared a forty-three page report, finding that "each and every one of the indicators relied upon have since been scientifically proven to be invalid."²⁷

20. Rick Casey, Commentary, *Forensic Revolt Again Is in Order*, HOUS. CHRON. (Sept. 13, 2010), <http://www.chron.com/news/casey/article/Rick-Casey-Forensic-revolt-is-again-in-order-1605765.php>.

21. Tex. Code Crim. Proc. Ann. art. 38.01(4)(a)(3) (West Supp. 2010) (identifying that, among other duties, the Commission should "investigate, in a timely manner, any allegation of professional negligence or misconduct that would substantially affect the integrity of the results of a forensic analysis conducted by an accredited laboratory, facility, or entity").

22. See Casey, *supra* note 20 (summarizing the history of the controversy regarding the expert evidence used to convict Cameron Todd Willingham).

23. For obvious reasons, jailhouse snitches are notoriously unreliable. As Judge Trott, a former prosecutor, has observed, "[t]he most dangerous informer of all is the jailhouse snitch who claims another prisoner has confessed to him." Stephen S. Trott, *Words of Warning for Prosecutors Using Criminals as Witnesses*, 47 HASTINGS L.J. 1381, 1394 (1996). The snitch in the Willingham case later recanted and then recanted his recantation. David Grann, *Trial by Fire: Did Texas Execute an Innocent Man?*, NEW YORKER (Sept. 7, 2009), http://www.newyorker.com/reporting/2009/09/07/090907fa_fact_grann?currentPage=all.

24. See Mark Benjamin, *The Controversial Willingham Case: What Rick Perry Knew and When*, TIME.COM (Sept. 27, 2011), <http://news.yahoo.com/controversial-willingham-case-rick-perry-knew-061000290.html> (recounting that Willingham's attorney hurried the competing expert report to the Governor's office four days before the scheduled execution).

25. Report of Dr. Gerald Hurst at 2, *Ex parte* Cameron Todd Willingham (366th Dist. Ct., Navarro County, Tex. Feb. 13, 2004) (No. 24,4670 (B)), available at http://www.innocenceproject.org/docs/Willingham_Hurst_Report.pdf.

26. Benjamin, *supra* note 24.

27. Douglas J. Carpenter et al., *Report on the Peer Review of the Expert Testimony in the Cases of State of Texas v. Cameron Todd Willingham and State of Texas v. Earnest Ray Willis*,

Unfortunately for Willingham and Willis, the type of testimony given at their trials—based on old arson investigation myths—was not uncommon at that time.²⁸ Indeed, within weeks of Willingham’s conviction, the National Fire Protection Association (NFPA) published its *Guide for Fire and Explosion Investigations* (NFPA 921).²⁹ Based on scientific research, NFPA 921 would become the bible in arson investigations.³⁰ There is little doubt that the Willingham and Willis investigations would have been very different if NFPA 921 had been used as a guide.

The TFSC was not authorized to determine guilt or innocence. Instead, the Innocence Project argued that the State Fire Marshal’s Office should have reinvestigated the Willingham case and other old arson cases, in which its experts testified, after NFPA 921 had been published in 1992—a full twelve years before Willingham’s execution.³¹ The TFSC retained its own independent consultant, Dr. Craig Beyler, another nationally recognized expert, to review the arson evidence. Beyler’s fifty-one-page report dissected the expert testimony, concluding:

The investigations of the Willis and Willingham fires did not comport with either the modern standard of care expressed by NFPA 921, or the standard of care expressed by fire investigation texts and papers in the period 1980–1992. The investigators had poor understandings of fire science and failed to acknowledge or apply the contemporaneous understanding of the limitations of fire indicators. Their methodologies did not comport with the scientific method or the process of elimination. A finding of arson could not be sustained based upon the standard of care expressed by NFPA 921, or the standard of care expressed by fire investigation texts and papers in the period 1980–1992.³²

INNOCENCE PROJECT 3 (2006), available at <http://www.innocenceproject.org/docs/ArsonReviewReport.pdf>.

28. John J. Lentini, a leading arson expert, identified numerous arson myths in his text. See, e.g., JOHN J. LENTINI, SCIENTIFIC PROTOCOLS FOR FIRE INVESTIGATION 433–34 (2006) (identifying the myth that gasoline burns hotter than wood). Testimony at Willingham’s trial supported the myth that gasoline burns hotter than wood. Grann, *supra* note 23.

29. NAT’L FIRE PROT. ASS’N, NFPA 921: GUIDE FOR FIRE AND EXPLOSION INVESTIGATIONS (1992 ed.). The NFPA promotes fire prevention and safety. *About NFPA*, NAT’L FIRE PROTECTION ASS’N (2011), <http://www.nfpa.org/categoryList.asp?categoryID=143&URL=About%20NFPA>. The most recent edition of NFPA 921 was published in 2011. NAT’L FIRE PROT. ASS’N, NFPA 921: GUIDE FOR FIRE AND EXPLOSION INVESTIGATIONS (2011 ed.).

30. See *United States v. Hebshie*, 754 F. Supp. 2d 89, 109 n.39 (D. Mass. 2010) (noting that NFPA 921 “is widely accepted as the standard guide in the field of fire investigation”).

31. Letter from Barry C. Scheck & Stephen Saloom, Innocence Project, to Tex. Forensic Sci. Comm’n 6 & n.22 (Aug. 20, 2010), available at http://www.innocenceproject.org/docs/Willis_Willingham_letter_082010.pdf.

32. Craig L. Beyler, *Analysis of the Fire Investigation Methods and Procedures Used in the Criminal Arson Cases Against Ernest Ray Willis and Cameron Todd Willingham*, HUGHES ASSOCIATES, INC. 51 (Aug. 17, 2009), available at <http://alt.coxnewsweb.com/shared->

At this point, the TFSC investigation ran into trouble. Once Beyler's report became public, a political firestorm erupted, and the Governor, who was in the midst of a reelection battle, replaced commission members two days before a scheduled hearing to consider Dr. Beyler's report.³³ The newly appointed chair, John Bradley, a prosecutor, cancelled the meeting.³⁴ The timing of the Governor's action raised the specter of a cover-up.³⁵

The Attorney General's opinion was simply one of numerous efforts to sidetrack the investigation.³⁶ However, while awaiting the Attorney General's response, the TFSC approved a limited report—one that did not directly judge whether Willingham and Willis were innocent (Willis had already been exonerated).³⁷ The report's recommendations and statements support the view that the Willingham arson investigation was deeply flawed. Its first recommendation was “that fire investigators adhere to the standards

blogs/austin/investigative/upload/2009/08/execution_based_on_bad_investi/D_Beyler%20FINAL%20REPORT%20082509.pdf.

33. See Christy Hoppe, *Perry Defends Removing 3: He Says He's Following Protocol, but Critics Believe He's Derailing Arson Inquiry*, DALLAS MORNING NEWS, Oct. 2, 2009, available at 10/2/09 DALLASMN 3A (WL) (chronicling the timing of Governor Perry's replacement of commissioners); Mary Alice Robbins, *Fired Up: Changes Sought for Texas Forensic Science Commission at Center of Heated Controversy*, 25 TEX. LAW., Nov. 9, 2009, at 22 (“[Former Commissioner] Levy says he believes ‘things went south’ for the commission after [former Chairman] Bassett released Beyler's report to the public in August ‘as he was required by law to do.’”). The meeting was scheduled for October 2, 2009. *Tribpedia: Cameron Todd Willingham*, TEX. TRIB., <http://www.texastribune.org/texas-dept-criminal-justice/cameron-todd-willingham/about>.

34. Hoppe, *supra* note 33 (noting that Bradley was “known as one of the toughest law-and-order prosecutors in the state”).

35. See Jennifer Emily, *Texas Forensic Science Commission Refuses to End Inquiry into Willingham Arson Case*, DALLAS MORNING NEWS, Sept. 18, 2010, available at <http://www.dallasnews.com/news/crime/headlines/20100918-Texas-Forensic-Science-Commission-refuses-to-5315.ece> (“Perry's replacements were seen by some as a political maneuver intended to change the outcome of the commission's decision.”); Christy Hoppe, *Perry Ousts Officials Before Arson Hearing: He's Assailed as New Chair Delays Session on Flawed Case that Led to Execution*, DALLAS MORNING NEWS, Oct. 1, 2009, available at LexisNexis All News (quoting a critic who compared Perry's removal of commissioners to President Nixon's attempts to cover up the Watergate scandal); Dave Mann, *Fire and Innocence*, TEX. OBSERVER, Dec. 2, 2009, available at <http://www.texasobserver.org/cover-story/fire-and-innocence> (recounting that during a tough reelection campaign, Governor Perry removed three members of the TFSC in late September 2010, three days before a hearing on their findings, and that their replacements cancelled the hearing without rescheduling).

36. See Tex. Att'y Gen. Op. No. GA-0866, at 6 (2011) (arguing that the TFSC cannot investigate incidents before September 1, 2005—long after the Willingham incident). The TFSC would eventually accept the Attorney General's reading of the statute. See Tex. Forensic Sci. Comm'n, *Addendum to the April 15, 2011 Report of the Texas Forensic Science Commission, Willingham/Willis Investigation*, INNOCENCE PROJECT 3–4 (Sept. 9, 2011), available at http://www.innocenceproject.org/docs/willingham/WillinghamWillis_Addendum_Draft_090811.pdf (declining to adopt the Innocence Project's interpretation broad reading of the statute governing the TFSC's jurisdiction); see also Goldstein, *supra* note 1, at 245 (referring to the AG opinion as a “narrow interpretation” of the jurisdictional statute).

37. See Tex. Forensic Sci. Comm'n, *supra* note 36, at 4 (noting that the TFSC made merely “important observations and recommendations” in its earlier report).

of NFPA 921.”³⁸ In addition, the report reviewed a number of arson “indicators” that were used in the Willingham and Willis investigations. Reviewing Deputy Fire Marshal Vasquez’s testimony in Willingham’s case, the report undermined his opinions concerning V-patterns as an indicator of origin, pour patterns, low/deep burning, multiple separate points of origin, spalling, burn intensity, and crazed glass.³⁹ The report also observed that “testimony, such as Vasquez’s response to a question regarding Willingham’s state of mind, is an example of the type of testimony that experts should avoid as falling outside of their field of expertise.”⁴⁰ The report even encouraged lawyers to “aggressively pursue admissibility hearings in arson cases.”⁴¹ In short, the report undercut the bases of the arson testimony at Willingham’s trial.

In addition, the State Fire Marshal’s Office was criticized. That office had submitted a response to a TFSC inquiry that included the following statement: “In reviewing documents and standards in place then *and now*, we stand by the original investigator’s report and conclusions.”⁴² Reacting to this passage, the report commented: “This appears to be an untenable position in light of advances in fire science. The fires in these cases occurred two decades ago; there are few circumstances in which an investigation could not be improved with the benefit of twenty years of controlled scientific experiment and practical experience.”⁴³

Significantly, the report concluded that forensic disciplines have: “(1) a duty to correct; (2) [a] duty to inform; (3) [a] duty to be transparent; and (4) [a duty to] implement[] . . . corrective action” when new scientific knowledge develops.⁴⁴ None of these duties were honored in the Willingham case. Despite the immense political pressure, the TFSC did a good job.

B. North Carolina Experience

The North Carolina Innocence Inquiry Commission’s investigation into the Gregory Taylor case is Goldstein’s second example. The case against Taylor was circumstantial, and he always proclaimed his innocence.⁴⁵

38. Tex. Forensic Sci. Comm’n, *Report of the Texas Forensic Science Commission: Willingham/Willis Investigation*, NEW ENG. INNOCENCE PROJECT 39 (Apr. 15, 2011), available at <http://www.newenglandinnocence.org/wp-content/uploads/2011/07/TFSC-Final-Report-Willingham-and-Willis.pdf>.

39. *Id.* at 22–29.

40. *Id.* at 36.

41. *Id.* at 48.

42. Letter from Paul Maldonado, State Fire Marshal, to Leigh Tomlin, Comm’n Coordinator, Tex. Forensic Sci. Comm’n (Aug. 20, 2010) (emphasis added).

43. Tex. Forensic Sci. Comm’n, *supra* note 38, at 16.

44. *Id.* at 41.

45. *See Taylor Declared Innocent After Years in Prison*, ABC11 EYEWITNESS NEWS (Feb. 17, 2010), <http://abclocal.go.com/wtvd/story?section=news/local&id=7282220> (chronicling Taylor’s

Indeed, he refused to make a deal to inculcate an acquaintance who was with him on the night of the crime.⁴⁶ In the course of the innocence commission's investigation, the bench notes of the serologist, Duane Deaver, who examined evidence for Taylor's original trial, surfaced.⁴⁷ He had prepared a lab report that was used at trial to connect the victim to Taylor's car.⁴⁸ The lab report noted that there were "chemical indications for the presence of blood."⁴⁹ However, this report revealed only the results of a preliminary test for blood.⁵⁰ In contrast, the bench notes showed that a subsequent confirmatory test was negative, but these results were not disclosed to the prosecution or the defense at trial.⁵¹

Surprisingly, during the inquiry, the serologist claimed that lab procedure did not require the reporting of negative confirmatory tests.⁵² And this was corroborated by the lab director: "SBI Director Robin Pendergraft defended Deaver's work in Taylor's case, saying he violated no SBI policies. She explained that SBI forensic analyst report positive test results indicating a substance is blood, even if more specific tests call that result into question."⁵³

As a result of this disclosure, the State Attorney General commissioned an investigation into the lab's practices, which was conducted by two former FBI officials.⁵⁴ They concluded:

This report raises serious issues about laboratory reporting practices from 1987–2003 and the potential that information that was material and even favorable to the defense of criminal charges filed was withheld or misrepresented. The factors that contributed to these issues range from poorly crafted policy; lack of objectivity[;] the absence of clear report writing guidance; inattention to reporting methods that left too much discretion to the individual Analyst[;] lack

efforts to appeal his conviction and the investigators' identification of him as a suspect based upon his driving along the path where the victim's body was found).

46. *Judges Free N.C. Murder Convict After 16 Years*, MSNBC.COM (Feb. 17, 2010), http://www.msnbc.msn.com/id/35447789/ns/us_news-crime_and_courts/t/judges-free-nc-murder-convict-after-years/#.TqIQlhxp3J.

47. Mike Klinkosum, *State v. Taylor and the North Carolina State Bureau of Investigation Lab Scandal*, CHAMPION (May 2011), <http://www.nacdl.org/champion.aspx?id=20606>.

48. *Id.*

49. *Id.* (emphasis omitted).

50. *See id.* (observing that the released test results did not reveal that the confirmatory tests were negative).

51. *Id.*

52. *Id.*

53. Mandy Locke & Anne Blythe, *SBI to Review Old Lab Cases*, NEWS & OBSERVER (Raleigh, N.C.) (Feb. 28, 2010), <http://www.newsobserver.com/2010/02/28/362437/sbi-to-review-old-lab-cases.html>.

54. Chris Swecker & Michael Wolf, *An Independent Review of the SBI Forensic Laboratory*, N.C. CT. SYS. OFF. INDIGENT DEF. SERVICES 2 & n.2 (2010), available at http://www.ncids.com/forensic/sbi/Swecker_Report.pdf.

of transparency; and ineffective management and oversight of the Forensic Biology Section from 1987 through 2003.⁵⁵

In particular, the investigation identified four different types of improper reporting. These included reports that (1) mentioned that tests for the presence of blood were not conclusive but failed to report a confirmatory negative test; (2) failed to mention one or more negative or inconclusive confirmatory tests; (3) stated that no further tests were conducted when, in fact, one or more confirmatory tests were conducted with negative or inconclusive results; and (4) overstated laboratory test results or where lab notes contradicted the reported result.⁵⁶

This failure of the North Carolina criminal justice system is breathtaking. The experts, the laboratory, the prosecutors, and the defense attorneys in these cases did not do their jobs.⁵⁷ In addition, the American Society of Crime Laboratory Directors Laboratory Accreditation Board (ASCLD/LAB), the principal accreditation agency in this country, also came under fire. Although the North Carolina crime lab had been accredited since 1988, a series of articles by *The News & Observer* in 2010, entitled “Agents Secrets,” raised serious questions about ASCLD/LAB’s accreditation procedures.⁵⁸ A subsequent editorial highlighted the following issues:

- Inspectors from ASCLD-LAB can be employed by crime labs that are themselves reviewed by the agency, creating a tendency among examiners to go along to get along.
- In reviewing analysts’ work, ASCLD-LAB allows laboratory supervisors to pick cases to be examined at their labs. That saves time—but how likely would it be that a case involving, say, the SBI lab’s failure to report a test for human blood that didn’t pan out would be volunteered for outside review?

55. *Id.* at 4.

56. *Id.* at 3.

57. If there is a lab report, the attorney needs to know what tests were performed and what the limitations of the test results are. A vigilant defense counsel would have quickly discovered that the lab report was based on a preliminary test. Similarly, the prosecutor should have known the difference between a preliminary and confirmatory test. If he did not know, he was incompetent. The most basic of all professional ethical precepts is competence. Model Rule of Professional Conduct 1.1 provides: “A lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation.” MODEL RULES OF PROF’L CONDUCT R. 1.1 (2007). If he did know and failed to correct the misimpression, his conduct raises a different ethical issue.

58. Mandy Locke & Joseph Neff, *Legislators: SBI Needs a New Accrediting Agency*, NEWS & OBSERVER (Raleigh, N.C.) (Sept. 17, 2010), <http://www.newsobserver.com/2010/09/17/685970/legislators-sbi-needs-new-accrediting.html>.

- The agency seeks to have every lab accredited and works to help the labs achieve it. That's not an attitude calculated to keep lab personnel on their toes.⁵⁹

ASCLD/LAB's response was less than reassuring. In particular, its official statement pointed out that the wording in the North Carolina lab reports "was consistent with the wording commonly used by forensic laboratories in the United States during that era."⁶⁰ This is not much of a justification; it means the entire field was issuing misleading reports, not just one laboratory. ASCLD/LAB's statement also noted that "[i]t was well known to forensic serologists that the Takayama test, which was widely used as a confirmatory test for blood, often and for a variety of reasons, produced false negative results" and, "[w]hile a positive Takayama test result confirmed the presence of blood, a negative Takayama test *did not* prove the absence of blood."⁶¹ But the laboratory report was not sent to other forensic scientists. It was sent to the lawyers who tried the cases. The above information could have easily been included in Gregory Taylor's 1993 lab report. The lab's responsibility was to accurately report test results, including any limitations or qualifications. If that information was complicated, it was the responsibility of the criminal justice system to sort it out. In sum, the purpose of a crime laboratory is to serve the criminal justice system, and omitting critical information undercuts that purpose.

As a result of the North Carolina scandal, the state legislature enacted several reforms. First, it amended its accreditation statute, no longer designating ASCLD/LAB as the accrediting agency.⁶² Second, the laboratory's "client" is now specified as the "public and the criminal justice system," not the "prosecuting officers of the State."⁶³ Third, the willful omission or misrepresentation of information subject to disclosure is now a

59. Editorial, *Overlooked*, NEWS & OBSERVER (Raleigh, N.C.) (Aug. 29, 2010), <http://www.newsobserver.com/2010/08/29/650925/overlooked.html>; *see also* Joseph Neff & Mandy Locke, *Forensic Groups' Ties Raise Concerns*, CHARLOTTE OBSERVER (Sept. 26, 2010), <http://www.charlotteobserver.com/2010/09/26/171718849/forensic-groups-ties-raise-concerns.html> ("Two leaders of the accreditation agency are retired [N.C. crime lab] agents who had key management roles at the lab at the time problems persisted.").

60. ASCLD/LAB, *ASCLD/LAB's Position on Reporting of Blood Screening Tests in the 1980's and 1990's*, at 1-2 (Feb. 18, 2011), http://www.asclcd-lab.org/statements/Position_Statement_Blood_Testing.pdf.

61. *Id.* at 2.

62. It now provides: "A forensic analysis, to be admissible under this section, shall be performed by a laboratory that is accredited by an accrediting body that requires conformance to forensic specific requirements and which is a signatory to the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement For Testing for the submission, identification, analysis, and storage of forensic analyses." Forensic Sciences Act of 2011, sec. 7, N.C. Gen. Stat. § 8-58.20(b), N.C. Sess. Laws 2011-19.

63. Sec. 10, § 114-16.

crime.⁶⁴ Finally, a Forensic Science Advisory Board was created.⁶⁵ These are substantial and salutary reforms.

III. Conclusion

Improving Forensic Science Through State Oversight makes an important contribution to reform efforts. The states are indeed responsible for their crimes laboratories, and it is a responsibility that they have often neglected. As a consequence, innocent persons like Gregory Taylor have been convicted of crimes that they did not commit.⁶⁶ This, of course, means that the guilty party remained at large, most likely committing other offenses. In the Willingham case, it means that a person was executed on bogus science.

64. Sec. 9, § 15A-903.

65. Sec. 2, § 114-16.1.

66. See Brandon L. Garrett & Peter J. Neufeld, *Invalid Forensic Science Testimony and Wrongful Convictions*, 95 VA. L. REV. 1, 1 (2009) (discussing analysis of wrongful convictions of 156 exonerees); Paul C. Giannelli, *Wrongful Convictions and Forensic Science: The Need to Regulate Crime Labs*, 86 N.C. L. REV. 163, 163 (2007) (calculating that more than 200 convicts have been exonerated based on DNA testing).