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Note

Two More Problems and Too Little Money: Can Congress Truly Reform Forensic Science?

*Eric Maloney**

Forensic science plays a pivotal role in today's criminal justice system.¹ While television crime dramas have popularized images of high-tech modern laboratories and diligent scientists that always help catch the right bad guy, there is a lot going on behind the scenes in real-world forensic labs that may actually be hindering our pursuit of proper justice for those who commit crimes.² A stark illustration of this has emerged in two separate scandals, separated by several states and thousands of miles, involving misconduct and poor management procedure in crime labs in Minnesota and Massachusetts.³ Consequences have been dire; the release of convicted criminals, possible indefinite delays in the prosecution of suspects, and increased pressure on already strained state budgets are just small parts of the fallout.⁴ These episodes are just the latest instances of what has become a recurring issue in forensic science: ensuring that testing results used to convict criminals are accurate.⁵

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1. See COMM. ON IDENTIFYING THE NEEDS OF THE FORENSIC SCIENCE CMTY. ET AL., NAT'L RESEARCH COUNCIL, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD xix-xx (2009) [hereinafter A PATH FORWARD].

2. See *infra* Part I.B.1-2.

3. See *infra* Part I.B.1-2.

4. See *infra* Part I.B.3.

5. See *infra* notes 6-8 (identifying a series of proposals to ensure accuracy and reliability of forensic testing results).

Federal legislation has been slow to react to this problem. A 2009 report by the National Academy of Sciences (NAS), *Strengthening Forensic Science in the United States: A Path Forward*, (the NAS Report) took an in-depth look at the present state of forensic science,⁶ and has inspired a raft of commentary from judges and scholars in its attempt to illustrate the shortcomings in forensic disciplines.⁷ The most recent congressional attempt at improving forensic science standards comes in the form of a bill proposed by Senator Patrick Leahy called the Criminal Justice and Forensic Science Reform Act (the Act).⁸ Senator Leahy took the recommendations of the NAS Report and has attempted to apply them in order to impose significant reformation of federal regulation in this area.⁹

The goal of this Note is to analyze how the Act would have improved forensic science nationwide, and whether a top-down approach from Congress can appropriately deal with essentially localized situations such as those in Minnesota and Massachusetts. Part I examines the current state of federal regulation on this issue, the NAS Report, the new legislation, and the reasons why misconduct has occurred and continues to occur in forensic laboratories. Part II then takes a critical look at the Act and examines where it may succeed in leading to true reform and where it does not, then lays out other regulatory reforms that may be better suited to ensuring that we can have confidence in the findings of our forensic laboratories. In the end, this Note concludes that the Act does make several important improvements over our current regulatory system, but there is still a long way to go before our forensic science system truly meets traditional scientific standards and ensures confidence in the results obtained by forensic professionals.

6. A PATH FORWARD, *supra* note 1.

7. See 4 DAVID L. FAIGMAN ET AL., MODERN SCIENTIFIC EVIDENCE: THE LAW AND SCIENCE OF EXPERT TESTIMONY 17 (2012) (“Judicial reaction to the Report . . . ranges from measured hostility to enthusiastic embrace.”). See generally *id.* § 30:10.

8. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. (2011).

9. See *infra* Part I.A.4.

I. A HISTORY OF FRAGMENTED REGULATION AND PROBLEMS IN FORENSIC SCIENCE

A. THE CURRENT STATE OF FORENSIC LABORATORIES IN THE UNITED STATES

At the moment, forensic testing facilities and employees are largely unregulated by the federal government.¹⁰ While Congress set stringent standards over twenty years ago for clinical laboratory environments running medical tests,¹¹ forensic facilities have only recently been subject to federal oversight, and such regulation has been largely circumscribed to their performance of DNA analysis in light of numerous DNA exonerations.¹² However, DNA testing is but a small fraction of the volume of forensic testing performed in such laboratories nationwide in processing evidence for use in criminal proceedings.¹³ These disciplines include, but are not limited to, general toxicology, firearm and tool marks, questioned documents, trace evidence, biological and serological screening, impression evidence, and controlled substance analysis.¹⁴ In fact, testing of suspected controlled substances has been a focus of forensic laboratories since the 1970s¹⁵ and remains the most frequent type of testing performed in labs.¹⁶

10. Brandon L. Garrett & Peter J. Neufeld, *Invalid Forensic Science Testimony and Wrongful Convictions*, 95 VA. L. REV. 1, 94–95 (2009) (“[C]rime laboratories and forensic analysts remain remarkably free from oversight and still lack basic scientific standards to govern their conclusions.”).

11. Clinical Laboratory Improvement Amendments of 1988, 42 U.S.C. § 263a (2006); see also Randolph N. Jonakait, *Forensic Science: The Need for Regulation*, 4 HARV. J.L. & TECH. 109, 178 (1991) (criticizing lack of regulation for forensic laboratories and proposing the Clinical Laboratory Improvement Amendments of 1988 as a model for reform).

12. Garrett & Neufeld, *supra* note 10, at 93–94; see, e.g., 42 U.S.C. § 14131 (2006) (establishing an advisory board on DNA quality assurance methods under the purview of the FBI); § 14132 (b)(2), (c) (requiring labs to be externally accredited and undergo bi-annual audits or risk losing access to national DNA databases); § 14135 (b), (d) (requiring labs to meet § 14132 standards in order to be eligible for grants).

13. Garrett & Neufeld, *supra* note 10, at 95.

14. Some types of forensic testing also take place outside of the laboratory, such as lifting latent fingerprints, digital evidence, and other types of crime scene investigation. NAT’L INST. OF JUSTICE, STATUS AND NEEDS OF FORENSIC SCIENCE SERVICE PROVIDERS: A REPORT TO CONGRESS 2 (2006), available at <https://www.ncjrs.gov/pdffiles1/nij/213420.pdf>.

15. Joseph L. Peterson & Anna S. Leggett, *The Evolution of Forensic Science: Progress Amid the Pitfalls*, 36 STETSON L. REV. 621, 624 (2007).

16. Eighty-two percent of publicly funded forensic labs processed controlled substance evidence; only fifty-nine percent performed forensic

The expansive use of forensic testing methods outside of DNA analysis is especially troubling in light of significant concerns that have been raised with non-DNA forensic methodologies.¹⁷ The goal of any of forensic analysis is to “individualize” a sample and match it to a person or a source for purposes of showing guilt or innocence.¹⁸ However, only DNA has been shown to be able to do this with scientific certainty based on repeated, consistent research results; other disciplines have varying levels of available research and set protocols to ensure the validity of testing results.¹⁹ The result is a patchwork of different disciplines with different levels of discriminating power, administered by practitioners who may lack the necessary training to properly interpret results or may ignore results altogether.²⁰

1. The NAS Report

In order to analyze the current state of these various forensic disciplines and propose improvements to the forensic science profession, the National Academy of Sciences conducted a thorough study of forensic science in *Strengthening Forensic Science in the United States: A Path Forward*, specifically focusing on the needs and operations of forensic science outside the realm of DNA analysis.²¹ The NAS Report called into question many of the current practices of forensic laboratories, and suggested avenues to improve the quality of forensic investigation throughout the country.²² Among its many recommendations was the implementation of mandatory accreditation for all forensic facilities and forensic practitioners.²³ The NAS Report stressed that accreditation cannot prevent mistakes from happening, but would prevent forensic practitioners from “taking shortcuts” and

biology (including DNA) testing. MATTHEW R. DUROSE ET AL., BUREAU OF JUSTICE STATISTICS, CENSUS OF PUBLICLY FUNDED FORENSIC CRIME LABORATORIES 2009, at 2 tbl.1 (2012), available at <http://www.bjs.gov/content/pub/pdf/epffcl09.pdf>.

17. A PATH FORWARD, *supra* note 1, at 7–8.

18. *Id.* at 7.

19. *Id.* at 7–8.

20. Simon A. Cole, *Forensic Science and Wrongful Convictions: From Exposer to Contributor to Corrector*, 46 NEW ENG. L. REV. 711, 735 (2012).

21. A PATH FORWARD, *supra* note 1, at 1.

22. *Id.* at 3–4.

23. *Id.* at 215.

compromising the quality of their work by ensuring that laboratories are run with set quality standards²⁴ and rely on acceptable practices.²⁵ In addition to accrediting labs, it also recommended the certification of individual scientists to ensure their competency.²⁶ The NAS Report named several such certification programs that already exist for various forensic science disciplines,²⁷ including drug analyst certification through an exam administered by the American Board of Criminalistics.²⁸

In addition to accreditation and implementing strong standards, the NAS Report explained the importance of “proficiency testing” as another safeguard to ensure quality results.²⁹ Proficiency testing can take several forms, but has two main variants: a “declared” test in which the examiner is aware he or she is analyzing a test sample, or a “blind” test in which he or she is unaware the sample is for testing and not a real case.³⁰ Commentators have found that forensic professionals “loathe proficiency testing,”³¹ but it can be useful to measure performance of laboratories and identify potential problems with the performance of individuals or the use of testing instruments.³² Laboratories accredited by the American Society of Crime Lab Directors (ASCLD), a body of forensic professionals that promulgates forensic science standards, are required to complete at least one proficiency test annually for each of its provided forensic disciplines.³³

In attempting to propose how these new procedures and standards would be implemented, the NAS Report specifically

24. *Id.* at 201 (“Adherence to standards reduces bias, improves consistency, and enhances the validity and reliability of results.”).

25. *Id.* at 195.

26. *Id.* at 209.

27. See *id.* at 209–10, for a complete list.

28. *Certification Program Overview*, AM. BOARD CRIMINALISTICS, http://www.criminalistics.com/cert_ovw.cfm (last visited Mar. 13, 2013).

29. A PATH FORWARD, *supra* note 1, at 206.

30. *Id.* at 207.

31. Craig M. Cooley, *Nurturing Forensic Science*, 17 TEX. WESLEYAN L. REV. 441, 478 (2011).

32. A PATH FORWARD, *supra* note 1, at 215 (recommending that forensic labs establish quality control procedures to ensure work accuracy and identify fraud and mistakes).

33. AM. SOC’Y OF CRIME LAB. DIRS. LAB. ACCREDITATION BD., PROFICIENCY TESTING AND REVIEW PROGRAM 4 (2011) [hereinafter PROFICIENCY TESTING AND REVIEW PROGRAM], available at <http://www.asclclab.org/documents/AL-PD-1020.pdf>.

called for a “strong, independent, strategic, coherent, and well-funded federal program to support and oversee the forensic science disciplines in this country.”³⁴ The agency, named in the NAS Report as the National Institute of Forensic Science,³⁵ would then mandate accreditation of laboratories and individual professionals³⁶ and provide funding for research to validate and measure scientific accuracy in forensic practices.³⁷ Such a body would need to be independent from existing criminal justice regulators, such as the Department of Justice (DOJ), in order for it to be as objective and free from history and biases as possible.³⁸ Additionally, the NAS Report recommended improving the education of forensic scientists through development of improved graduate programs and use of scholarships to attract ideal candidates.³⁹

2. Current Federal Regulation

Federal regulation of general forensic disciplines beyond DNA-specific legislation currently consists of requirements attached to grant provisions, such as those contained in the Paul Coverdell National Forensic Sciences Improvement Act in 2000.⁴⁰ The aim of this bill was to reduce significant backlogs in processing forensic evidence through block grants to states to fund new equipment, training, and personnel for laboratories.⁴¹ These grants were to be given only if labs were accredited by the ASCLD or would use the funds to seek this certification.⁴² In 2004, the Justice for All Act further required that labs receiving funding also be governed by an entity capable of

34. A PATH FORWARD, *supra* note 1, at 20.

35. *Id.* at 19.

36. *Id.* at 25–26. See also Paul C. Giannelli, *Wrongful Convictions and Forensic Science: The Need to Regulate Crime Labs*, 86 N.C. L. REV. 163, 227–34 (2007) (emphasizing the importance of a forensics commission in setting standards and funding laboratories).

37. A PATH FORWARD, *supra* note 1, at 24–25.

38. *Id.* at 80.

39. *Id.* at 27–28.

40. Paul Coverdell National Forensic Sciences Improvement Act of 2000, Pub. L. No. 106-561, 114 Stat. 2787 (codified as amended in scattered sections of 42 U.S.C. (2006)).

41. *DNA Crime Labs: The Paul Coverdell National Forensic Sciences Improvement Act: Hearing Before the S. Comm. on the Judiciary*, 107th Cong. 3 (2001) (statement of Sen. Orrin G. Hatch, Chairman, S. Comm. on the Judiciary).

42. *Id.*

investigating allegations of misconduct or serious negligence in order to be eligible for grants.⁴³

These attempts at regulating state and local forensic laboratories are essential because the “lion’s share” of criminal prosecutions⁴⁴ and evidence processing⁴⁵ occurs in state criminal justice systems. However, the efficacy of this federal scheme to affect change for this fragmented variety of forensic science providers has been questioned.⁴⁶ As a general matter, predicating the operations of state and local entities on federal funding, while upheld in *South Dakota v. Dole*,⁴⁷ raises significant issues of federalism and calls into question whether Congress’s spending power is a constitutionally proper mechanism to influence state behavior.⁴⁸ Ryan Goldstein, in a student note written for the *University of Texas Law Review*, found that the Coverdell Program federal grants constituted a very small percentage of state and local laboratory operating budgets based on 2005 figures;⁴⁹ this disparity between federal funding and local spending has since increased, according to more recent reports from the Bureau of Justice Statistics.⁵⁰

43. Justice for All Act of 2004, 42 U.S.C. § 3797k(4) (2006).

44. Ryan M. Goldstein, Note, *Improving Forensic Science Through State Oversight*, 90 TEX. L. REV. 225, 233 (2011); see also A PATH FORWARD, *supra* note 1, at 5–6 (emphasizing the workload of state and local law enforcement and the disparity in resources available in state and federal systems); STEVEN W. PERRY & DUREN BANKS, BUREAU OF JUSTICE STATISTICS, PROSECUTORS IN STATE COURTS 2007—STATISTICAL TABLES, at 2–3 (2007), available at <http://www.bjs.gov/content/pub/pdf/psc07st.pdf> (providing that state prosecutors’ offices closed 2.9 million felony cases in 2007).

45. State and local labs received ninety-three percent of total requests for forensic services in 2009. DUROSE ET AL., *supra* note 16, at 5 tbl.7.

46. Cf. Goldstein, *supra* note 44, at 233 (focusing on state oversight of forensic facilities and claiming that other commentators have failed to do so).

47. *South Dakota v. Dole*, 483 U.S. 203 (1987).

48. There has been significant scholarly debate about Congress’s spending power and the wisdom of the *Dole* decision. Compare Lynn A. Baker & Mitchell N. Berman, *Getting off the Dole: Why the Court Should Abandon Its Spending Doctrine and How a Too-Clever Congress Could Provoke It to Do So*, 78 IND. L.J. 459, 470 (2003) (arguing that *Dole* is “intellectually suspect” and will “continue to yield . . . troublesome results”), with Erwin Chemerinsky, *Protecting the Spending Power*, 4 CHAP. L. REV. 89, 92 (2000) (“[A] broad definition of the spending power is desirable.”).

49. See Goldstein, *supra* note 44, at 233 n.71.

50. The Bureau of Justice Statistics estimates the 2009 operating budget of state and local labs at \$1.213 billion. DUROSE ET AL., *supra* note 16, at 10 tbl.14. Only \$10.8 million has been awarded to state and local labs in 2012 under the Coverdell program. *Coverdell Forensic Science Improvement Grants Program: Applications and Awards, 2002–2011*, NAT’L INST. JUST.,

Furthermore, the requirement that labs be subject to external auditing has reportedly not been enforced by the DOJ.⁵¹

3. State Standards

Regulation and funding of forensic laboratories largely remains the prerogative of local legislators and executives.⁵² Publicly funded labs are run by states, counties, and municipalities,⁵³ and their regulation is dependent on the government body responsible.⁵⁴ As a consequence, standards for lab operation vary from state to state. A few states have voluntarily chosen to pursue accreditation for all of their forensic facilities, using state-created standards.⁵⁵ Other jurisdictions requiring accreditation have mandated use of an outside professional forensic science agency like the American Society of Crime Laboratory Directors.⁵⁶ For the most part, state legislation either fails to address accreditation at all or, as is the case in Minnesota and Massachusetts, “encourage[s]”

<http://www.nij.gov/topics/forensics/lab-operations/capacity/nfsia/nfsia-applications-funding.htm> (last updated Nov. 16, 2012).

51. Garrett & Neufeld, *supra* note 10, at 94. *See also* OFFICE OF THE INSPECTOR GEN., U.S. DEP’T OF JUSTICE, REVIEW OF THE OFFICE OF JUSTICE PROGRAMS’ PAUL COVERDELL FORENSIC SCIENCE IMPROVEMENT GRANTS PROGRAM 8 (2008) [hereinafter INSPECTOR GENERAL REVIEW OF GRANTS PROGRAM].

52. *See* Goldstein, *supra* note 44, at 233 (“The decisions of state legislatures and state executives—and not those of the United States Congress—determine a state’s forensic science policies, the structure of its laboratories, and changes to its regulatory scheme.”).

53. The 2009 DOJ census of publicly funded labs analyzed laboratories based on their designation as state, county, or municipal entities. *See* DUROSE ET AL., *supra* note 16.

54. *See* Goldstein, *supra* note 44, at 233.

55. *See, e.g.*, MD. CODE ANN., HEALTH–GEN. § 17-2A-02 (LexisNexis 2012) (Secretary of Health sets standards and requirements for forensic laboratories); N.Y. EXEC. LAW § 995 (McKinney 2012) (Commission on Forensic Science sets standards); TEX. CODE CRIM. PROC. ANN. art. 38.35 (West 2012) (Department of Public Safety sets standards).

56. The ASCLD has certified 326 state and local crime laboratories, including at least one in every state. *ASCLD/LAB Accredited Laboratories*, AM. SOC’Y CRIME LABORATORY DIRECTORS, <http://asclclab.org/labstatus/accreditedlabs.html> (last visited Oct. 27, 2012); *see also* D.C. CODE § 5-1501.06 (2012) (requiring all public crime laboratories to be accredited by a nationally recognized organization); Forensic Laboratory Accreditation Act, OKLA. STAT. tit. 74, §§ 150.36–37 (2012) (requiring all public crime laboratories to be accredited by a nationally recognized organization).

facilities to pursue it.⁵⁷ Many labs do choose to seek accreditation on their own; ninety-two percent of state forensic crime labs had attained accreditation from an organization like the Laboratory Assessment Board division of the ASCLD (ASCLD/LAB) as of 2009.⁵⁸ However, the same was true of only sixty-two percent of municipal and seventy-five percent of county laboratories.⁵⁹

Several states, including Massachusetts and Minnesota, have also created forensic advisory boards to handle complaints of misconduct and oversee operation of laboratories⁶⁰ which are likely to meet the requirements of the Justice for All Act. However, these boards have been criticized as ineffective and underfunded,⁶¹ and Minnesota's board has specifically reported that it "lacks the financial resources necessary to carry out its principal missions" of investigating allegations of misconduct and fraud.⁶² The Minnesota Forensic Laboratory Advisory Board's procedure for obtaining allegations of misconduct simply consists of a web page providing an address to which a complaint may be written.⁶³ The Board then screens complaints based on a set of criteria and may appoint an investigative team if a complaint warrants such action.⁶⁴ The Massachusetts Forensic Sciences Advisory Board, in contrast, has no investigative powers bestowed on it by statute, with its duties

57. See MINN. STAT. § 299C.156 (2012); MASS. GEN. LAWS ch. 6, § 184A (2012) (delegating to the state forensic advisory board responsibility to study accreditation status of crime labs in the state); see also A PATH FORWARD, *supra* note 1, at 194 ("[W]ith the exception of [a few states], the accreditation of laboratories . . . remains voluntary.").

58. DUROSE ET AL., *supra* note 16, at 1 fig.1.

59. *Id.*

60. *E.g.*, MINN. STAT. § 299C.156 (2012); MASS. GEN. LAWS ch. 6, § 184A (2012); N.Y. EXEC. LAW § 995 (McKinney 2012).

61. See INSPECTOR GENERAL REVIEW OF GRANTS PROGRAM, *supra* note 51, at 8; see also *States' Efforts to Probe Crime Labs Stall at Start*, AUGUSTA CHRON., Mar. 24, 2007, at A13.

62. STATE OF MINN. FORENSIC LAB. ADVISORY BD., LEGISLATIVE REPORT 1 (2012), available at <https://dps.mn.gov/entity/flab/Documents/Legislative%20Report%201-15-12.pdf>.

63. *Reporting Professional Negligence or Misconduct*, MINN. FORENSIC LABORATORY ADVISORY BOARD, <https://dps.mn.gov/entity/flab/Pages/reporting-professional-negligence-or-misconduct.aspx> (last visited Feb. 1, 2013).

64. MINN. FORENSIC LAB. ADVISORY BD., POLICIES AND PROCEDURES, at §§ 3.0–4.0 (2012), available at <https://dps.mn.gov/entity/flab/Documents/FLAB%20Policies%20and%20Procedures%202012.pdf>.

being primarily oversight of operations, funding, and accreditation of the state's forensic laboratories.⁶⁵

4. The Criminal Justice and Forensic Science Reform Act

One attempt to implement the NAS Report through federal legislation came from Senator Patrick Leahy, who introduced a Criminal Justice and Forensic Science Reform Act in 2011 aimed at implementing widespread reform in the forensic sciences.⁶⁶ Based in part on the findings of the NAS Report,⁶⁷ the Act would have established an independent federal Forensic Science Board to create standards and promote good practices, as well as an Office of Forensic Science within the DOJ to administer the Board's recommendations.⁶⁸ The Board would then have acted to create procedures for accreditation of forensic science laboratories, as well as certification for each individual working in those laboratories.⁶⁹ Any lab lacking certification under these standards, for either the facility or any of its personnel, would be barred from receiving any direct or indirect federal funding.⁷⁰

The Act also would have required the Board to develop a "comprehensive strategy for fostering and improving peer-reviewed scientific research relating to the forensic science disciplines," to both validate and improve the reliability of existing forensic techniques and develop new methods of forensic investigation.⁷¹ There were also provisions related to improving the education of current criminal justice practitioners⁷² and of undergraduate and graduate students

65. MASS. GEN. LAWS ch. 6, § 184A (2012) ("[T]he undersecretary for forensic sciences shall advise the board on the administration and delivery of forensic services in the commonwealth.").

66. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong.

67. *Improving Forensic Science in the Criminal Justice System: Hearing on S. 132 Before the S. Comm. on the Judiciary*, 112th Cong. 1 (2012) (statement of Sen. Patrick Leahy, Chairman, S. Comm. on the Judiciary) (describing the NAS Report as a "starting point for a searching review of the state of forensic science in the country").

68. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 101-02.

69. *Id.* §§ 202, 303.

70. *Id.* §§ 201, 302.

71. *Id.* §§ 401-02.

72. *Id.* § 601.

wishing to enter the forensic science disciplines.⁷³ The Act would have appropriated funding for various grants to laboratories and research entities, as well as for operations of the two agencies created and their sub-committees.⁷⁴ The bill did not pass in the 112th Congress⁷⁵ and has yet to be re-introduced by Senator Leahy in the 113th Congress.⁷⁶

B. WHEN FORENSIC SCIENCE FAILS THE CRIMINAL JUSTICE SYSTEM

The effectiveness of current regulation of forensic laboratories has been called into question by a number of academics and criminal law practitioners.⁷⁷ Recent scandals involving forensic laboratories highlight this concern. This Note will focus on two specific examples: the operation of a crime laboratory in St. Paul, Minnesota, and the conduct of a drug analyst in Jamaica Plain, Massachusetts.

1. The St. Paul Problem

Problems with forensic science results commonly stem from improper laboratory policies and procedures⁷⁸ and are exemplified by the procedures now being exposed at the St. Paul, Minnesota, crime laboratory regarding evidence handling

73. *Id.* § 602.

74. *See, e.g., id.* § 402(c) (appropriating \$90,000,000 per year for research grants); § 104 (appropriating \$40,000,000 per year for operation of the Board and the Office).

75. The bill was referred to the Senate Committee on the Judiciary and was never considered by the full Congress. *Bill Summary & Status, S.132, 112th Congress*, THOMAS, <http://thomas.loc.gov/cgi-bin/bdquery/z?d112:SN00132:@@X> (last visited Feb. 2, 2013).

76. A check of bills introduced in the 113th Congress by Senator Leahy provide that he has not re-introduced a bill addressing forensic science reform. *Bill Summary & Status 112th Congress (2011–2012) S.132 All Congressional Actions*, THOMAS, <http://thomas.loc.gov/cgi-bin/bdquery/z?d112:SN00132:@@X> (last visited Feb. 2, 2013).

77. *See, e.g., A PATH FORWARD, supra* note 1, at 6; Cooley, *supra* note 33, at 441 (“Tremendous scrutiny has been directed at the forensic science community recently. . . . [T]he majority of the blame can be placed on two situations: (1) the numerous crime laboratory problems and scandals, and (2) the DNA exonerations involving unvalidated forensic technology, forensic evidence improperly used beyond its scientific parameters, or exaggerated testimony from a forensic analyst.”); Garrett & Neufeld, *supra* note 10, at 93–95.

78. *Cf. Cooley, supra* note 31, at 442 (“[S]ignificant evidence has surfaced over the last decade indicating that public crime laboratories . . . are inadequately funded, staffed, and regulated.”).

and testing protocol.⁷⁹ Employees at the lab have testified that they did not follow any written procedures in conducting testing of possible illegal substances.⁸⁰ Employees claimed that some of the lab equipment was poorly ventilated, causing it to possibly spew illegal substances into the air and contaminate subsequent tests.⁸¹ Tests may also have been unreliable due to the failure of technicians to properly change their gloves in between tests, as well as multiple uses of the same tool when interacting with different samples.⁸² Evidence from criminal cases was improperly stored in a hallway, and guests to the laboratory may have had access to unattended evidence samples left on work stations.⁸³ All of these issues came to light during testimony in connection with four drug cases in Dakota County, Minnesota.⁸⁴ This evidence has all emerged in a hearing under a Dakota County judge, who has already had multiple hearings on the admissibility of drug evidence produced by the laboratory and will not issue a ruling until sometime after May 3, 2013.⁸⁵ Two outside consultants hired to evaluate the lab have confirmed these issues, citing poor procedures, faulty scientific procedure, and dirty equipment as some of the main culprits.⁸⁶

Deficiencies in the laboratory's procedures were known to St. Paul police and the city government; a 2006 report by a police official recommended ASCLD accreditation⁸⁷ and over \$1

79. See Chao Xiong, *Case Tied to Faulty Lab Dropped*, STAR TRIB., Oct. 9, 2012, at B1.

80. Madeleine Baran, *Hearing on St. Paul Police Crime Lab Problems Wraps Up*, MINN. PUB. RADIO NEWS (Oct. 23, 2012), <http://minnesota.publicradio.org/display/web/2012/10/23/law/st-paul-crime-lab/>.

81. Chao Xiong, *Crime Lab Reviews Cost \$140K*, STAR TRIB., Sept. 7, 2012, at B1.

82. *Id.*

83. *Id.*

84. Chao Xiong, *Defense Attorneys Decry Retested Evidence*, STAR TRIB., Dec. 6, 2012, at B3.

85. Madeleine Baran, *Judge Postpones Crucial Decision in St. Paul Crime Lab Case*, MINN. PUB. RADIO NEWS (Feb. 22, 2013), <http://minnesota.publicradio.org/display/web/2013/02/22/news/judge-postpones-crucial-decision-in-st-paul-crime-lab-case>.

86. Apparently one of the employees even attempted to cite Wikipedia as a "technical reference." Madeline Baran, *Troubled St. Paul Crime Lab Problems Even Worse than First Thought, Probe Reveals*, MINN. PUB. RADIO (Feb. 14, 2013), <http://minnesota.publicradio.org/display/web/2013/02/14/news/saint-paul-crime-lab-major-errors-found>.

87. David Hanners, *St. Paul Crime Lab Woes First Recognized in 2006*,

million for new equipment and employee costs.⁸⁸ St. Paul failed to follow through on either accreditation or the bulk of the funding recommendations of the report.⁸⁹ The report further provided that the paucity of monies available to the lab has overburdened the staff and limited the laboratory's ability to "sustain [its] current rates of evidence examination and testing."⁹⁰

2. The Jamaica Plain Problem

Another type of recurring problem is with so-called "bad apple" forensic professionals, who provide false or inaccurate test results and subsequent trial testimony.⁹¹ This problem has arisen recently with a Boston-area forensic analyst named Annie Dookhan who is alleged to have falsified testing results on numerous occasions.⁹² Dookhan has been accused of sprinkling known drugs onto unrelated samples in order to obtain positive results.⁹³ Dookhan has also admitted to "dry-labbing" or the identifying a sample without actually performing any tests on that substance.⁹⁴ She is alleged to have failed to properly handle evidence and run control samples before testing evidence.⁹⁵ The Jamaica Plain laboratory has been shut down since the summer of 2012, and Dookhan has resigned as a result of her admissions to police and subsequent inquiry into the lab's operations.⁹⁶ She currently faces twenty

PIONEER PRESS, Sept. 1, 2012, at 1A (quoting from the report which said that ASCLD accreditation would take the lab to "the highest standards . . . as well as gaining added credibility for the lab").

88. *Id.* ("Lynch identified \$606,750 worth of 'critical' equipment, staffing and training needs. He listed another \$579,850 in tools, positions and education costs . . .").

89. *Id.*

90. Staff were apparently so burdened with testing responsibilities that they were unable to attend training sessions offered at no cost from the government and private vendors. *Id.*

91. *See, e.g.,* Giannelli, *supra* note 36, at 172–208 (detailing numerous examples).

92. John R. Ellement et al., *State Chemist Accused of Mixing Drug Samples*, BOS. GLOBE, Sept. 13, 2012, at B1.

93. *Id.*

94. Brian Ballou & Andrea Estes, *'I Messed Up Bad. It's My Fault,' Chemist Says*, BOS. GLOBE, Sept. 27, 2012, at A1.

95. *See* Report from Detective Lieutenant Robert M. Irwin to Lieutenant Colonel Francis J. Matthews, Mass. State Police (Sept. 12, 2012) (Interview of Annie Dookhan), *available at* http://www.boston.com/news/local/breaking_news/Dookhan.Discovery%209.26.12.pdf.

96. Denise Lavoie, *Ex-State Chemist Pleads Not Guilty*, BOS. GLOBE, Jan.

charges in various Massachusetts district courts stemming from her misconduct and has so far pled not guilty to the assorted offenses, which mainly consist of obstruction of justice.⁹⁷ While Dookhan's exact reasons for the misconduct are unknown, at least one author has posited that a backlog at the Jamaica Plain lab may have caused her to cut corners in an attempt to deal with her workload.⁹⁸

3. Consequences

All of these problems have had very real results on the administration of justice in our criminal courts. There have been more than 300 exonerations of convicted felons since the advent of DNA testing,⁹⁹ with a large percentage of those initial convictions based on faulty forensic science.¹⁰⁰ In the Dookhan case, almost 34,000 criminal cases could be affected, including 1,100 people currently in jail or prison.¹⁰¹ At least one prosecution has been dropped as a result of the St. Paul scandal, with more than one hundred other testing results being re-examined by the Minnesota Bureau of Criminal Apprehension's laboratory.¹⁰² The fiscal fallout of these cases is yet to be determined, and has been estimated to be more than \$30 million in Massachusetts¹⁰³ and has already cost the City of St. Paul more than \$140,000 in Minnesota.¹⁰⁴ St. Paul has also been forced to set aside nearly \$1 million in a contingency fund to take care of resulting future costs in the form of

31, 2013, available at <http://www.bostonglobe.com/metro/2013/01/31/chemist-annie-dookhan-pleads-not-guilty-obstruction/8LSIUcGVCpXkSHYred9omI/story.html>.

97. *Id.*

98. The laboratory had already applied for federal funding to deal with a backlog of 8,000 cases. Eugenie Samuel Reich, *Boston Scandal Exposes Backlog*, 490 NATURE 153, 153 (2012).

99. According to The Innocence Project, there have been 303 post-conviction exonerations due to DNA analysis. *Know the Cases*, INNOCENCE PROJECT, <http://www.innocenceproject.org/know/> (last visited Mar. 8, 2013).

100. See Garrett & Neufeld, *supra* note 10, at 1–2 (explaining that their study concluded that sixty percent of cases they examined contained forensic analyst testimony with misstated or wholly missing empirical data).

101. See Reich, *supra* note 98, at 153.

102. Xiong, *supra* note 79, at B1.

103. John R. Ellement, *Prosecutors Say \$30m Not Enough for Drug Lab Scandal Fallout*, BOS. GLOBE, Nov. 3, 2012, at B2.

104. Xiong, *supra* note 84, at B3.

consultant fees and re-testing in other labs.¹⁰⁵ In light of the widespread effect of these forensic mishaps, it is important to examine what impact, if any, the Criminal Justice and Forensic Science Reform Act could have on the operation of forensic labs.

II. FEDERAL LEGISLATION: A BAND-AID OR A CURE?

A. THE DEVIL'S IN THE DETAILS: CRITIQUING THE CRIMINAL JUSTICE AND SCIENCE REFORM ACT

Hanging over federal legislative efforts to reform forensic science, like the Criminal Justice and Forensic Science Reform Act, is a question: can these measures live up to their billing and truly reform forensic science? In the case of the Act, the answer is a qualified no. For every step the bill took toward improving the operations of forensic disciplines and better regulating the profession, the language of the bill was either too vague or wholly failed to address significant issues which are essential to promoting these goals. In order to ensure that forensic science continues its progress toward becoming so-called “real” science and can prevent future mishaps from occurring, legislators will need to build upon the ideas in the Act, work to ensure greater funding for those in the forensic field, and perhaps put greater emphasis on affecting change at the state and local government levels.

1. Accreditation and Certification

The Act is most significant in the steps it takes toward implementing some of the reforms mentioned in the NAS Report. The creation of a Forensic Science Board (the Board) to determine best standards and practices for laboratories¹⁰⁶ is a cornerstone of the NAS Report and essential to federal administration of forensic standards. Previous federal regulation merely required labs to obtain some sort of outside accreditation;¹⁰⁷ this provision takes the responsibility for lab

105. The police have already budgeted one-third of this money to be spent on consultants and a contract with the state crime lab, as the St. Paul lab is currently performing only fingerprint analysis. Mara H. Gottfried, *St. Paul Crime Lab: Police Detail Plans for \$1M More from City*, PIONEER PRESS (Jan. 31, 2013), http://www.twincities.com/crime/ci_22492197/st-paul-crime-lab-police-detail-plans-1m?

106. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 102(d)(1) (“The Board shall . . . make recommendations to the Director relating to . . . accreditation and certification standards . . .”).

107. See *supra* notes 40–43 and accompanying text.

standards out of the hands of third parties and puts it into more direct control by the government. This is not to say that those outside standards are meritless. In fact, the Act proposes that a newly created Board use standards like the ASCLD/LAB in promulgating their laboratory regulations¹⁰⁸ and would allow accreditation through third parties.¹⁰⁹

Specifically, the ASCLD/LAB's accreditation program requires that laboratories have in place:

- [P]rocedures to protect evidence loss, cross-transfer, contamination, and/or deleterious change;
- validated and documented technical procedures;
- the use of appropriate controls and standards;
- calibration procedures;
- complete documentation of all evidence examination;
- a documented training program that includes competency testing;
- technical review of a portion of each examiner's work product;
- testimony monitoring of all who testify; and
- a comprehensive proficiency testing program.¹¹⁰

The Board could choose to implement these requirements wholesale or modify them as they see fit, so long as these standards include education, proficiency testing, and auditing requirements for laboratories.¹¹¹ The Act would then allow the Board to enforce them through the machinery of government—in this case, the also newly created Office of Forensic Science within the DOJ.¹¹²

The provision of the Act requiring certification of individual forensic scientists¹¹³ is something lacking in current federal regulation¹¹⁴ and is another significant step toward

108. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 202(a)(3)(A)(i) (the Board must consider “relevant national accreditation standards” in setting its recommendations).

109. *Id.* § 203 (a)(2)(A).

110. A PATH FORWARD, *supra* note 1, at 198 (citing R. Stacey, President, ASCLD/LAB, Presentation to the Committee (Jan. 25, 2007)).

111. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 202(a)(3)(B).

112. *Id.* § 101(e)(2)(A).

113. *Id.* § 302 (“[A] forensic science laboratory or covered entity may not receive, directly or indirectly, any Federal funds, unless all relevant personnel of the forensic science laboratory or covered entity are certified under this title.”).

114. See Goldstein, *supra* note 44, at 252 n.217 (“The forensic science

ensuring competency of forensic practitioners. These certifications can be obtained through outside organizations,¹¹⁵ which typically require applicants to undergo training and pass an examination on the discipline in which they wish to be certified.¹¹⁶ Specifically, for drug analysts, the American Board of Criminalistics requires successful completion of an exam and a proficiency test, as well as two years of experience.¹¹⁷ A four-year degree in a natural science is optional and allows the applicant to apply for a higher level of certification.¹¹⁸ There is also a lower “affiliate” level of certification for those who do not yet have two years of specialized experience.¹¹⁹ While some of the certification programs have been critiqued as lacking stringent requirements,¹²⁰ certification of individuals is an important addition to the overall regulatory scheme to ensure that lab employees are trained and able to follow scientific procedures. Accreditation of labs only covers the operating procedures and facilities of laboratories; it does not address the education and skill of those working within them.

A preliminary issue with the system the Act puts in place is the two-tiered nature of this accrediting scheme: the Board recommends standards, and the Office of Forensic Science (the Office) within the DOJ enforces them.¹²¹ For an Act that is purportedly based on the NAS Report, this provision goes directly against one of its recommendations—*independence of regulatory bodies from traditional law enforcement*.¹²² The Board is nominally autonomous through the mandated scientific make-up of its board members¹²³ and has relative

community generally supports certification but does not require it.”).

115. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 304(b)(1) (providing that the Director may choose one or more outside organizations through which to certify individuals in particular forensic disciplines).

116. *See, e.g., Certification Program Overview, supra* note 28.

117. *Id.*

118. *Id.*

119. *Id.*

120. *See, e.g., A PATH FORWARD, supra* note 1, at 209 (citing numerous news articles on the potential ease of obtaining some types of scientific expert credentials).

121. *See supra* notes 111–12 and accompanying text.

122. *See A PATH FORWARD, supra* note 1, at 183–84 (detailing the “significant concerns related to the independence of the laboratory and its budget”).

123. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 102(b)(3) (“The Board shall include . . . not fewer than 10

freedom to recommend regulations as it sees fit.¹²⁴ However, the Board's counterpart, the Office, is placed directly within the main law-enforcement arm of the U.S. government. The Office has ultimate responsibility for establishing, implementing, and enforcing the accreditation and certification standards under the Act; the Board acts merely to make recommendations to them.¹²⁵ With this responsibility comes the worry that the Office will be less than diligent in its enforcement to prevent hampering law enforcement at the lower levels.¹²⁶ This risk of biased enforcement is a significant one, and is in direct contravention of one of the recommendations of the NAS Report.¹²⁷ Similarly, the Act also fails to follow the NAS Report by omitting a requirement that forensic laboratories themselves be independent from law enforcement entities.¹²⁸

Another concern with the Act's accrediting scheme is that it uses the same enforcement mechanism as the Coverdell Grants program—namely, the funding or withholding of funds¹²⁹—which raises significant doubts that these new accreditation standards will be as “mandatory” as the Act claims they will be and as envisioned by the NAS Report.¹³⁰ Under the Act, the Director of the Office of Forensic Science is charged with verifying that laboratories and forensic professionals employed therein meet the standards the Board promulgates before providing federal funds to these labs.¹³¹ This use of “spending power” regulation is nearly identical to the Coverdell program, which similarly premises funding on conformity with the program's accreditation and oversight requirements.¹³² Congress has frequently used its control of the

members who have comprehensive scientific backgrounds . . .”).

124. *Id.* § 202(a)(3)(B) (detailing what accreditation standards must include); § 303(a)(2) (same for certification standards).

125. *Id.* § 201(b).

126. A PATH FORWARD, *supra* note 1, at 80–81 (arguing that a national body tasked with implementing the recommendations of the report must not be part of a law enforcement agency).

127. *Id.*

128. *Cf.* Goldstein, *supra* note 44, at 250 (claiming that the NAS Report's recommendation of independent forensic facilities is “infeasible and unlikely to receive political support”).

129. *See supra* Part I.A.2.

130. *See supra* text accompanying notes 106–12; *supra* text accompanying notes 23–25.

131. *See supra* Part I.A.4.

132. 42 U.S.C.A. § 3797k (West 2012).

fiscal purse to direct activity of states and local bodies after the Supreme Court upheld the constitutionality of such conduct in *South Dakota v. Dole*.¹³³ The Court in *Dole* held that the congressional use of the spending power in this manner is permissible so long as it meets a five-part test determining whether Congress is intending to coerce states with federal funds.¹³⁴ This holding has been broadly interpreted,¹³⁵ and it is unlikely the courts would find issue with the funding scheme in the Act.

Assuming the Act's constitutionality, the more important question is whether this use of funding as an enforcement mechanism will be effective in achieving the Act's stated goal of "strengthen[ing] and promot[ing] confidence in the criminal justice system."¹³⁶ Kyle Goldstein examined the similar funding provisions in the Coverdell grant program, and postulated that they failed to lead to meaningful reform at the state and local level, largely because Coverdell funding constituted too small a percentage of forensic laboratory operating budgets.¹³⁷

Goldstein's concerns can be applied wholesale to the Act. This bill only authorizes \$10 million in new grant money to assist laboratories in attaining accreditation.¹³⁸ Even when added to the grants already available under the Coverdell program, federal funding constitutes an ever-shrinking piece of

133. *South Dakota v. Dole*, 483 U.S. 203 (1987). See, e.g., David E. Engdahl, *The Contract Thesis of the Federal Spending Power*, 52 S.D. L. Rev. 496, 535 (2007) ("Congress today probably directs more human behavior by conditions accompanying federal funding than by any exercise of its legislative powers.").

134. The five prongs are: (1) exercise of the spending power must be for the "general welfare" and courts defer substantially to Congressional judgment in this regard; (2) Congress must make the condition required to receive funding unambiguous; (3) conditions on funding must be related to the federal interest in national projects or programs; (4) conditions must also be in accordance with other constitutional provisions; and (5) the conditions specified must not be so coercive as to turn pressure into compulsion. See Baker & Berman, *supra* note 48, at 463–69 (detailing the *Dole* test and its subsequent application by various courts).

135. See, e.g., *id.* at 468 ("[L]ower courts have consistently failed to find impermissible coercion.").

136. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 3.

137. See Goldstein, *supra* note 44, at 256–57 (claiming that "states spend significantly more on forensic science operations than the federal government offers").

138. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 305(b)(1).

the funding pie for forensic facilities as their operating budgets continue to increase.¹³⁹ According to a report issued by the DOJ's Bureau of Justice Statistics, Coverdell grants constituted less than two percent of total laboratory operating budgets in 2009.¹⁴⁰ Criminal justice regulation has long been the purview of the states,¹⁴¹ and it is doubtful that states will have incentive to implement real change if the only sanction they face for non-compliance is the loss of a sliver of their overall lab funding.

2. What This Means for Reform and Preventing Future Scandals

The Act's failure to effectively mandate accreditation and certification is disheartening because both are crucial to preventing the recurrence of forensic misconduct. Neither the St. Paul nor the Jamaica Plain drug analysis laboratories were accredited by their respective state governments or an outside body like the ASCLD/LAB.¹⁴² In fact, the city of St. Paul expressly decided not to seek accreditation or provide additional funding to the laboratory when a report recommended such measures.¹⁴³ The consequent lack of standard operating procedures at the St. Paul crime lab was cited as contributing to the problems with the drug analysis.¹⁴⁴ This is something that could have been corrected with the oversight of a regulatory body. If this laboratory had been mandated to seek accreditation, it would also mean that proficiency testing would have been required.¹⁴⁵ These tests

139. See DUROSE ET AL., *supra* note 16, at 10 tbl.14 (displaying annual operating budgets for publicly funded state and local forensic crime laboratories as \$738 million in 2002 and \$1.213 billion in 2009).

140. Compare *id.* (citing the total annual operating budget of publicly funded state and local forensic laboratories as \$1.213 billion in 2009), with *Coverdell Forensic Science Improvement Grants Program: Applications and Awards, 2002–2011*, *supra* note 50 (less than \$23.4 million awarded to labs in 2009).

141. Cf., e.g., U.S. v. Lopez, 514 U.S. 549, 637–43 (1995) (holding that criminal statutes which fail to substantially affect interstate commerce do not fall within Congress's regulatory power under the Commerce Clause).

142. These laboratories do not appear on the ASCLD website as accredited labs. See *ASCLD/LAB Accredited Laboratories*, *supra* note 56.

143. See *supra* notes 87–90 and accompanying text.

144. See, e.g., Baran, *supra* note 80.

145. PROFICIENCY TESTING AND REVIEW PROGRAM, *supra* note 33, at 4–6 (establishing a review program that requires accredited laboratories to participate in proficiency testing).

could have validated the accuracy of the testing machinery and caught issues with contamination before they had a widespread effect on the quality of drug analysis, costing the state millions of dollars, and affecting many convicted and charged criminal defendants.

The role of accreditation and certification in preventing situations of “bad apple” forensic scientists is more tenuous. A requirement that a scientist like Dookhan seek certification of her drug analysis skills through a body like the American Board of Criminalistics would have ensured that she was, at the least, subject to some education and an examination testing her knowledge of proper procedures.¹⁴⁶ The problem is that scientists, like Dookhan, who skip proficiency testing, purposely contaminate samples, and produce test results without actually running analysis may do so even if competently trained and subject to lab regulations; a “bad apple” can just choose to ignore these rules and conduct testing as he or she sees fit. At the very least, though, having procedures and competency requirements makes it less likely that this blatant misconduct will occur due to greater oversight and education of scientists.

The funding mechanisms of the Act would not only be ineffective in prompting state regulatory changes, but would fail to address how a general lack of funding for forensic laboratories has a negative impact on the work product and employee conduct at these facilities.¹⁴⁷ As exemplified in St. Paul and Jamaica Plain, budgetary concerns may lead crime laboratories to forego accreditation and forensic scientists to cheat on their testing to deal with a backlog of cases and lack of other qualified personnel to adequately handle the work load. The Act’s appropriation of \$10 million to aid facilities in seeking accreditation is helpful, but it, as noted above, is a drop in the bucket compared to total operating budgets of forensic laboratories.¹⁴⁸ Furthermore, it is only a quarter of the \$40 million the Act appropriates for staff and operations of the various government agencies it would create.¹⁴⁹ Without

146. *See supra* text accompanying notes 26–28.

147. *Cf. A PATH FORWARD, supra* note 1, at 77 (concluding that the lack of resources for forensic laboratories leads to backlog, weaker evidence for trial, and lack of a knowledge base to underpin analysis and interpretation of evidentiary results).

148. *See supra* notes 135–37 and accompanying text.

149. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. § 104 (2011).

additional funding for these laboratories, how can they be expected to improve quality and cope with an ever-increasing caseload?¹⁵⁰ The primary cause of both the St. Paul and the Jamaica Plain scandals was a lack of funding. At the former, a lack of funding led to a municipal decision not to seek accreditation;¹⁵¹ in the latter, a scientist trying to cope with a burgeoning backlog of cases fraudulently produced results.¹⁵² Ultimately, budgeting money upfront to improve facilities and deal with caseload concerns may have prevented Minnesota and Massachusetts from now having to spend millions of dollars on resolving these incidents.

Notably, neither of these examples concerns the processing of DNA evidence. DNA testing's scientific integrity and reliability have led it to being considered the "gold standard" in forensics.¹⁵³ Laboratories performing such testing are, by and large, both well-funded and well-regulated, to the detriment of other types of forensic testing.¹⁵⁴ Federal attempts at regulating forensic facilities performing DNA analysis have been able to appropriate more significant amounts of grant money to ensure compliance with standards and eliminate backlogs for DNA analysis.¹⁵⁵ The Act fails to do the same for other forensic disciplines like drug analysis. These disciplines are arguably even more in need of funding due to their widespread use in criminal prosecutions and need for further research, yet this piece of legislation fails to even place these disciplines on the same funding level as DNA analysis.

The Act also fails to address other oversight methods, like state boards charged with investigating allegations of misconduct in labs. While accreditation standards may

150. The Bureau of Justice Statistics crime lab census showed over 1.5 million backlogged forensic service requests in 2009, an increase of over 200,000 since 2008. See DUROSE ET AL., *supra* note 16, at 13 app. tbl.1.

151. See Baran, *supra* note 80 (noting the new budget for the St. Paul lab will be \$1.5 million compared to the previous \$800,000 annual budget for the lab).

152. See Reich, *supra* note 98, at 153–54 (reporting that a new bill before the U.S. Congress does not include backlogs).

153. Peterson & Leggett, *supra* note 15, at 654; *id.* at 646 ("By 2000, DNA evidence was uniformly accepted in courts all across the country.").

154. See *id.* at 622 ("We pour resources into DNA typing but fail to devote the necessary funds to the collection and analysis of other types of evidence in crime laboratories.").

155. See, e.g., 42 U.S.C. § 14136e (2006) (authorizing \$5 million annually in grants to laboratories).

somewhat encompass this requirement by virtue of their regulation of lab procedures and proficiency testing, the purpose behind these oversight boards was to ensure a process was in place for external, independent investigations of lab misconduct.¹⁵⁶ Thus, these boards remain governed by the Coverdell program. It has been established that these requirements are not being enforced by the DOJ,¹⁵⁷ and serious problems remain with the boards that do exist. Both Minnesota and Massachusetts have oversight boards in place,¹⁵⁸ and yet still experienced the aforementioned problems in their forensic laboratories. The problems in Minnesota emerged publically not from an investigation by its oversight board, but from the work of two public defenders representing defendants affected by the St. Paul crime lab's conduct.¹⁵⁹ The Jamaica Plain incident has been handled as an internal investigation by the state's Department of Public Health and the state police force, and it is unknown whether the Massachusetts oversight board has gotten involved.¹⁶⁰ Judging by the statutory language that created the board,¹⁶¹ the Massachusetts board would not have been able to process and investigate a complaint about Dookhan on its own.¹⁶² Obviously the boards are meant to be reactive, not proactive, but they need to be better-funded and given sufficient power to investigate misconduct in order to deter fraudulent activity like that of Annie Dookhan and poor lab management like that of the St. Paul forensic lab.

B. IS REAL REFORM POSSIBLE?

If the Criminal Justice and Forensic Science Reform Act cannot properly reform forensic science, is there any federal legislation that could? This section examines a few ways to improve upon this proposed legislation, and suggests possible effective alternatives to federal regulation. Criminal justice

156. 42 U.S.C.A. § 3797k (West 2012).

157. See INSPECTOR GENERAL REVIEW OF GRANTS PROGRAM, *supra* note 51, at 8.

158. MINN. STAT. § 299C.156 (2012); MASS. GEN. LAWS ch. 6, § 184A (2012).

159. Xiong, *supra* note 84, at B3.

160. See Ellement et al., *supra* note 92 (noting that the Department of Health conducted an internal investigation and the state police closed the lab after the investigation revealed the extent of the misconduct); Lavoie, *supra* note 96.

161. MASS. GEN. LAWS ch. 6, § 184A (2012).

162. See *id.* ("The Board shall coordinate its responsibilities with the medico-legal investigation commission.").

funding is an essential component to reforming the forensic science system, but is also a double-edged sword for federal legislation. An influx of funding to forensic laboratories for hiring, education, and improvement of facilities could go a long way toward ensuring forensic science is properly conducted.¹⁶³ With the current financial situation of many states, the federal government could be a good source for these funds. On the other hand, as the proposed funding increases, the barriers to passing the legislation multiply. The first barrier is that regulation of local criminal justice systems has traditionally been a prerogative of the states, and increased funding may be considered undue intrusion into state matters by Congress.¹⁶⁴ A more general worry is that legislation with a significant funding component for forensic laboratories will not pass. For example, Senator Leahy was unable to move his Act out of the Senate Judiciary Committee for general consideration by the Senate,¹⁶⁵ and that bill contained about \$150 million in appropriations.¹⁶⁶ Congress previously passed legislation with larger grants for facilities performing DNA analysis, but it remains to be seen whether these latest scandals and the recommendations of the NAS Report can motivate a more general and generous funding scheme for non-DNA forensic science testing.¹⁶⁷ Focusing funding on DNA testing means that other forensic disciplines may get left behind—and the St. Paul and Jamaica Plain scandals illustrate that, with the amount of evidence processed via drug analysis, mistakes and misconduct can be costly to our criminal justice system.

A key component of any effective federal legislation on this issue must include mandatory accreditation and certification standards enforced through a federal mechanism. By only carrying the threat of monetary sanctions if laboratories are

163. See Cooley, *supra* note 31, at 446–47 (explaining the perennial underfunding of forensic science and that inadequate funding was a major factor in another crime lab debacle in Houston, Texas).

164. Cf. Goldstein, *supra* note 44, at 233–34 (arguing that states are better positioned to make reforms than the federal government since there can be benefits to state experimentation).

165. See *supra* notes 75–76 and accompanying text.

166. This number is based on my calculations of the fiscal components of the bill, as no congressional budget office estimate was released. Criminal Justice and Forensic Science Reform Act of 2011, S. 132, 112th Cong. §§ 104, 305, 402; see also *supra* note 74 and accompanying text (describing the appropriations the Act would have created).

167. See *supra* notes 153–55 and accompanying text.

not in compliance, current and proposed federal regulations lack sufficient means to motivate states into compliance.¹⁶⁸ Congress should take a cue from its previous regulation of clinical service laboratories and apply similar measures to forensic science providers. This is not a new idea—it was proposed as far back as 1991¹⁶⁹—long before the most recent lab scandals. The 1988 Clinical Laboratory Improvement Amendments (CLIA)¹⁷⁰ ensured quality clinical laboratory testing in labs receiving Medicare or Medicaid payments, primarily by requiring laboratory accreditation through either the government or a certified outside agency.¹⁷¹ The difference between CLIA and regulations of forensic laboratories are the available sanctions: labs found in non-compliance with CLIA may be subject to a much wider range of sanctions by the government, including suspension of accreditation, a civil suit, imprisonment, or fines, for those found guilty of intentionally violating CLIA.¹⁷²

If strong sanctions such as these were coupled with the accreditation and certification requirements already present in the Act, it would likely increase the compliance of forensic labs. At the time of CLIA's passage, similar legislation for forensic labs was unworkable due to a lack of standard operating procedures and certification for forensic professionals.¹⁷³ With the creation of ASCLD/LAB accreditation and other types of standards, this is no longer the case. Guidelines exist for laboratory procedure and proper education of forensic scientists in the Act, and sanctions would then ensure that these guidelines are followed, minimizing both poor quality lab work and potential misconduct by bad actors. Nonetheless, these strict sanctions may ultimately be politically unpopular because actors in the criminal justice system are unwilling to

168. See discussion *supra* Part II.A.

169. See Jonakait, *supra* note 11, at 178–90 (suggesting CLIA could serve as a framework for forensic science lab regulation).

170. Clinical Laboratory Improvement Amendments of 1988, 42 U.S.C. § 263a (2006).

171. See A PATH FORWARD, *supra* note 1, at 196 (quoting the Center for Medicare and Medicaid Services' summary of provisions of the amendments).

172. *Id.* (listing the available sanctions and noting that the “list of all laboratories that have been sanctioned during the preceding year” is published).

173. Jonakait, *supra* note 11, at 180–81.

have labs completely shut down or have fines taken from public coffers for violations of these regulations.¹⁷⁴

If Congress is unable or unwilling to increase federal funding and improve enforcement of federal regulations, the current system of a largely state-by-state approach to managing forensic science facilities and personnel will continue. There are positives to this approach. States are better positioned to know the workings of their specific criminal justice systems, and can create regulations tailored to the situation of forensic laboratories in their jurisdictions.¹⁷⁵ However, such a patchwork system encourages inconsistency among the states, and further fragments a forensic science field that is in need of universal standards.¹⁷⁶ The state-by-state system currently in place created the conditions allowing these scandals to occur, and the federal government is better-positioned to provide the regulation and funding necessary to correct these errors and improve forensic science throughout the nation.

CONCLUSION

Since the publication of the NAS Report, there has been much discussion about how to address the problems and recommendations produced in the report. The problems with forensic laboratory procedures in Minnesota and with fraudulent analysts like Annie Dookhan in Massachusetts indicate that current federal and state regulations do not do enough to ensure that our forensic facilities are producing high-quality testing results that the criminal justice system can depend on in making decisions of guilt or innocence for thousands of people. The Criminal Justice and Forensic Science Reform Act is one attempt at improving federal regulation of forensic science based on the NAS Report and the recommendations of stakeholders in the field.

174. *See id.* at 182 (noting that forensic labs are more often directly funded with public money than clinical labs).

175. Goldstein, *supra* note 44, at 234 (“[F]ederal reform requires uniformity and ignores the benefits of state experimentation. It ignores geographic differences in values and the differences in the ways that states administer their systems of criminal justice and criminal investigation.” (footnote omitted)).

176. A PATH FORWARD, *supra* note 1, at 77 (“[T]he large amount of information provided to the committee . . . all points to a system that lacks coordination and that is underresourced . . .”).

Unfortunately, the Act suffers from many of the same issues as past attempts at improving forensic science, at least regarding accreditation and certification standards for laboratories. Funding remains an issue at both the federal and state levels. In order to truly improve the conduct of forensic practitioners and the state of forensic facilities, laboratories need to be incentivized to implement standard procedures and hire educated, competent employees. Additionally, the oversight boards charged with investigating complaints of misconduct must have the tools and funding to do their job and police these laboratories. Without these measures, the scandals in St. Paul and Jamaica Plain will not be the last time that forensic mishaps make the headlines.