

FORENSIC SCIENCE IN LEGAL EDUCATION

Brandon L. Garrett,* Glinda S. Cooper, and Quinn
Beckham*****

*Duke University School of Law
210 Science Drive
Durham, NC 27708-0373
(919) 613-7090
bgarrett@law.duke.edu*

February 15, 2021

Please cite as forthcoming, Journal of Law and Education

© Brandon L. Garrett, 2020

* L. Neil Williams Professor of Law and Director of the Wilson Center for Science and Justice, Duke University School of Law.

* Director of Science and Research, Innocence Project.

* B.A. candidate, Trinity School of Arts & Sciences, Duke University.

We thank all of the faculty who took the time to respond to our survey questions. We also thank Linda Ingerman, a volunteer with the Innocence Project, who worked on the initial compilation of law school offerings. This work was funded (or partially funded) by the Center for Statistics and Applications in Forensic Evidence (CSAFE) through Cooperative Agreement 70NANB20H019 between NIST and Iowa State University, which includes activities carried out at Duke University.

FORENSIC SCIENCE IN LEGAL EDUCATION

ABSTRACT

In criminal cases, forensic science reports and expert testimony play an increasingly important role in adjudication. More states now follow a federal reliability standard, following *Daubert v. Merrell Dow Pharmaceuticals* and Rule 702, which call upon judges to assess the reliability and validity of such scientific evidence. Little is known about what education law schools provide regarding forensic and scientific evidence, or what types of specialized training they receive on scientific methods or evidence. Whether law schools have added forensic science courses to their curricula in recent years was not known. In order to better understand the answers to those questions, in late 2019 and Spring 2020, we conducted searches to identify course offerings in forensic sciences at U.S. law schools and then surveyed their instructors, asking for syllabi and information concerning how the courses are offered, how regularly, and with what coverage. We identified just forty-two courses at law schools, and received responses with more detailed information from twenty-two instructors. In this Article, we describe our findings, and situate them in the offerings of law schools regarding evidence, science, and quantitative methods. We suggest that at law schools, forensic science will necessarily be a specialty subject that can and should be further taught in continuing education programs, but also that quantitative methods courses in law school may help provide the foundation for such continuing education.

FORENSIC SCIENCE IN LEGAL EDUCATION

TABLE OF CONTENTS

INTRODUCTION	1
I. FORENSICS IN LEGAL EDUCATION	3
A. LITERATURE ON FORENSICS IN LEGAL EDUCATION	3
B. LAW SCHOOL CURRICULA	5
II. Survey RESULTS	6
III. IMPLICATIONS FOR FORENSICS AND LEGAL EDUCATION	8
CONCLUSION	11

FORENSIC SCIENCE IN LEGAL EDUCATION

INTRODUCTION

Forensic reports and expert testimony play an increasingly important role in criminal adjudication. All states and the federal government require judges to screen forensic evidence, as with any expert evidence, before admitting it at a trial. Many states now follow standards based on the U.S. Supreme Court's ruling in *Daubert v. Merrell Dow Pharmaceuticals* and its progeny, which calls upon judges to assess the reliability and validity of scientific evidence.¹ The responsibilities of defense lawyers to effectively present forensic evidence have increasingly been a subject for constitutional litigation and Supreme Court post-conviction rulings.² However, leading reports, such as the influential 2009 National Academy of Sciences Report, have noted that lawyers and judges have not taken an active or effective role in accomplishing their gatekeeping responsibilities to review the reliability of forensic evidence in criminal cases.³

One challenge for efforts to improve judicial use of forensic evidence is the lack of scientific background and education among lawyers generally, and judges in particular. After all, "scientific evidence tests the abilities

¹ 509 U.S. 579 (1993).

² See Paul C. Giannelli & Sarah Antonucci, *Forensic Experts and Ineffective Assistance of Counsel*, 48 No. 6 CRIM L. BULLETIN 8 (2012). See also Brandon L. Garrett, *Validating the Right to Counsel*, 70 WASH. & LEE L. REV. 927, 955 (2013) (noting the need for research on whether "defense lawyers properly understand expert evidence, or forensic science evidence-and does the presence of that evidence tend to alter defense strategies-and if so, how?"). See, e.g., *Wiggins v. Smith*, 539 U.S. 510, 523 (2003) ("[W]e focus on whether the investigation supporting counsel's decision not to introduce mitigating evidence of Wiggins' background was itself reasonable."); *Hinton v. Alabama*, 571 U.S. 263 (2014).

³ See Comm. on Identifying the Needs of the Forensic Sci. Cmty. & Nat'l Res. Council, *Strengthening Forensic Science in the United States: A Path Forward* 87 (2009) [hereinafter NAS Report]; Peter J. Neufeld, *The (Near) Irrelevance of Daubert to Criminal Justice: And Some Suggestions for Reform*, 95 AM. J. PUB. HEALTH S107, S110 (2005). More broadly, groups have long recommended judicial education on science and technology issues. See, e.g.

Patricia E. Lin, *Opening the Gates to Scientific Evidence in Toxic Exposure Cases: Medical Monitoring and Daubert*, 17 REV. LITIG. 551, 587 (1998).

FORENSIC SCIENCE IN LEGAL EDUCATION

of judges, lawyers, and jurors, all of whom may lack the scientific expertise to comprehend the evidence and evaluate it in an informed manner.”⁴ The NAS Report noted “judges and lawyers who generally lack the scientific expertise necessary to comprehend and evaluate forensic evidence in an informed manner” is an obstacle to reform.⁵ In its tenth recommendation, the Report noted the need for support for “law school administrators and judicial education organizations in establishing continuing legal education programs [in forensic science] for law students, practitioners, and judges.”⁶ In response, the American Bar Association adopted six resolutions, including one calling for training lawyers in forensic science.⁷

Very little is known about the state of forensic science education in law schools and whether meaningful improvements or changes have resulted since the release of the 2009 NAS forensic science report. While that Report called on funding for research to improve forensic science methods and standards, it did not call for such funding for legal education efforts. The Center for Statistics and Applications in Forensic Evidence (CSAFE), of which one author is a member, does provide support for certain legal education offerings. Whether more law schools have added forensic science courses to their curricula in recent years was not known. This survey seeks to answer those questions. In late 2019 and Spring 2020, we conducted searches to identify course offerings in forensic sciences at U.S. law schools and then surveyed their instructors, asking for syllabi and information concerning how the courses are offered, how regularly, and with what coverage. Below we describe the problem and prior literature, our results, and their implications for legal education efforts, including asking whether law schools are the right place to focus such efforts, as compared with continuing legal education.

⁴ See NAS Report, *supra*, at 86.

⁵ *Id.*

⁶ *Id.* at S-20.

⁷ Myrna S. Raeder & Matthew F. Redle, *Introduction to Forensic Science Symposium*, Crim. Just., Spring 2012, at 4.

FORENSIC SCIENCE IN LEGAL EDUCATION

I. FORENSICS IN LEGAL EDUCATION

A. Literature on Forensics in Legal Education

As described, the 2009 National Academy of Sciences Report, identified legal education as an important need in the path forward for improving the use of forensic evidence in criminal cases in the United States. Chapter Eight of the Report, dedicated to “Education and Training in Forensic Science,” described a need “to educate the users of forensic science analyses, especially those in the legal community,” and the Report then recommended improved legal education efforts.⁸

While that report brought the problem to light quite prominently, and in the context of larger recommendations regarding reorienting forensic evidence towards a sound scientific foundation, law professors and lawyers have for some time similarly commented on the lack of legal education in forensics.⁹ As David Faigman has

⁸ See NAS Report, *supra*, at 207.

⁹ See, e.g. David L. Faigman, *Judges as “Amateur Scientists,”* 86 B.U. L. REV. 1207, 1211 (2006) (“Lawyers, of which judges are merely a subset, generally lack good training in the methods of science. Most lawyers do not speak the language of science. Lawyers and scientists come from different worlds of education and experience. Indeed, the sorting of professionals into highly compartmentalized categories begins as early as elementary school and is largely complete by college.”); Peter J. Neufeld & Neville Colman, *When Science Takes the Witness Stand*, SCI. AM., 46, 49 (May 1990) (detailing lawyers’ inadequate scientific backgrounds); Andre A. Moenssens et al., *Scientific Evidence in Criminal Cases* 7 (3d ed. 1986) (“[L]awyers as a group evidence an appalling degree of scientific illiteracy, which ill equips them to educate and guide the bench in its decisions on admissibility of evidence proffered through expert witnesses.”); Jessica D. Gabel, *Forensiphilia: Is Public Fascination with Forensic Science a Love Affair or Fatal Attraction?*, 36 NEW ENG. J. ON CRIM. & CIV. CONFINEMENT 233, 250 (2010) (“[L]awyers offering and opposing such evidence must be equipped to address the realities and the shortcomings of the evidence. Unfortunately, most are either ill-prepared to do so or unaware of the burden placed on them.”); see also Keith A. Findley, *Innocents at Risk: Adversary Imbalance, Forensic Science, and the Search for Truth*, 38 SETON HALL L. REV. 893, 896-97 (2008) (describing lawyers and law inability “to understand and evaluate” science); Joelle Anne Moreno & Brian Holmgren, *The Supreme Court Screws Up the Science: There Is No Abusive Head Trauma/Shaken Baby Syndrome “Scientific” Controversy*, 2013 UTAH L. REV. 1357, 1357 (2013) (“[J]udges, law professors, and lawyers are not (as a general rule) scientists.”); Erica Beecher-Monas, *Blinded by*

FORENSIC SCIENCE IN LEGAL EDUCATION

commented: “The average law student's attitude toward mathematics is the same as Huckleberry Finn’s,” who said:

I had been to school most all the time, and could spell, and read, and write just a little, and could say the multiplication table up to six times seven is thirty-five, and I don't reckon I could ever get any further than that if I was to live forever. I don't take no stock in mathematics, anyway.”¹⁰

Or as Andrew Taslitz commented, “few law schools provide any serious training in the forensic sciences, and the casebooks are filled with instances of lawyers failing to spot the simplest and most obvious exculpatory evidence in forensic reports.”¹¹

That concern regarding training of lawyers in forensics was not based on any systematic data. A study of the role that unreliable and invalid forensics played in the cases of DNA exonerations found that lawyers often did not even ask questions regarding the errors in forensic expert testimony.¹² Nor did the defense typically retain an expert.¹³ Commenting on the role that poor lawyering played in these exoneration cases, Jim Dwyer, Barry Scheck and Peter Neufeld, wrote: “A fear of science won't cut it in an age when many pleas of guilty are predicated on the reports of scientific experts. Every public defender's office should have at least one lawyer who is not afraid of a

Science: How Judges Avoid the Science in Scientific Evidence, 71 TEMP. L. REV. 55, 85 (1998) (“Statistical errors routinely are committed even by defense attorneys, suggesting that lawyers as well as judges could benefit from increased training in probability theory.”).

¹⁰ See Faigman, *supra* quoting (Mark Twain, *Adventures of Huckleberry Finn* 21 (Random House 1996) (1885).)

¹¹ See Andrew E. Taslitz, *Convicting the Guilty, Acquitting the Innocent: The ABA Takes a Stand*, Crim. Just., 18, 30 (Winter 2005).

¹² See Brandon L. Garrett, *Convicting the Innocent: Where Criminal Prosecutions Go Wrong* (2011).

¹³ See Brandon L. Garrett & Peter J. Neufeld, *Invalid Forensic Science Testimony and Wrongful Convictions*, 95 VA. L. REV. 1 (finding, in study evaluating 232 post-conviction DNA exonerations, that 156 of the exonerees had testimony by forensic analysts called by the prosecution at their trials; in sixty percent of those cases, the prosecution's expert provided invalid testimony; and in 19 cases the defense retained an expert).

FORENSIC SCIENCE IN LEGAL EDUCATION

test tube.”¹⁴ Work has also documented prosecutorial lapses of ethics and outright misconduct concerning the presentation of or concealment of forensic evidence.¹⁵ Studies of judicial attitudes and treatment of forensic evidence have documented uneven judicial understanding of scientific principles, such as the concept of error rates and peer review.¹⁶

B. Law School Curricula

Traditionally, courses in evidence law have at least covered *Daubert* and the topic of expert or scientific evidence. Scholars have recommended that forensic science courses be offered at law schools: “all law schools have to educate law students as a part of the core, mandatory curriculum on basics of forensic evidence.” However, as Robert Sanger has observed, traditional evidence textbooks “take much of the space” on that topic by “publishing long excerpts” from leading cases like *Daubert*.¹⁷ Traditional evidence courses do not substantially cover scientific evidence or forensic evidence, except briefly, as an introduction.¹⁸ Sanger reviewed law school curricula and concluded that:

Forensics is not taught at all or is available only as an elective in most law schools. Certainly, some law schools have made efforts to include forensics in the curriculum in an unstructured fashion. One law school offers an LL.M Program in Forensics.¹⁹

¹⁴ See Jim Dwyer et al., *Actual Innocence: When Justice Goes Wrong and How to Make it Right* 162 (2003).

¹⁵ See Paul C. Giannelli & Kevin C. McMunigal, *Prosecutors, Ethics, and Expert Witnesses*, 76 FORDHAM L. REV. 1493, 1495-1506 (2007).

¹⁶ See Sophia I. Gatowski et al., *Asking the Gatekeepers: A National Survey of Judges on Judging Expert Evidence in a Post-Daubert World*, 25 LAW & HUM. BEHAV. 433, 435 (2001). See also Jennifer L. Groscup et al., *The Effects of Daubert on the Admissibility of Expert Testimony in State and Federal Criminal Cases*, 8 PSYCHOL. PUB. POL’Y & L. 339, 342-43 (2002); Leah H. Vickers, *Daubert, Critique and Interpretation: What Empirical Studies Tell Us About the Application of Daubert*, 40 U.S.F. L. REV. 109, 137 (2005).

¹⁷ See Robert M. Sanger, *Forensics: Educating the Lawyers*, 43 J. LEGAL PROF. 221, 245 (2019).

¹⁸ *Id.* at 234.

¹⁹ *Id.* at 233.

FORENSIC SCIENCE IN LEGAL EDUCATION

Our study seeks to examine whether that conclusion is correct; as described in the next Part, we do confirm that observation.

II. RESULTS OF THE SURVEY

We identified a total of 42 forensic science courses at law schools, not including continuing legal education programs geared towards practicing lawyers, and including courses listed on curricular websites for law schools, but which may not be currently offered or offered every year. We did so by searching online listing of courses for the 192 schools on the 2019 U.S. News & World Report law school ranking list, searching for forensic and science in course titles (except for five schools for which there was no online course catalogue). The schools ranged widely in geographic region and ranking. That initial search for forensic science courses already supports what commentators had observed: that forensic science course offerings at law schools are not common. There are 203 ABA-approved law schools in the United States.²⁰

Of those courses, several law school websites indicated that the course was not currently being offered.²¹ Several were not offered to J.D. students; one, at West Virginia School of Law, was part of an LLM degree in forensic science, the only such degree offered at a law school in the U.S.²² Another was part of a trial institute CLE, and a third was a course for practicing prosecutors. Some courses were interdisciplinary and included a mixture of students in science and law, such as a course on expert witnesses at Hofstra University School of Law, which included law and forensic sciences faculty and

²⁰ See American Bar Association at https://www.americanbar.org/groups/legal_education/resources/aba_approved_law_schools/ (last visited, Jan. 24, 2021).

²¹ Indeed, the forensic science course offered in the past at University of Virginia School of Law, by one of the authors, is no longer being offered there, and is now being offered at Duke University School of Law, where the author now teaches.

²² See West Virginia University, *Forensic Justice Degree*, at http://catalog.wvu.edu/graduate/law/academic_policies_and_procedures/academic_programs/forensic_justice/ (“Because WVU has long been a leader in the field of forensic sciences and is also home to the highly regarded Department of Forensic and Investigative Sciences, WVU Law is a natural location for the country’s first LL.M. in Forensic Justice.”).

FORENSIC SCIENCE IN LEGAL EDUCATION

students. Others called on graduate students in the sciences to serve as expert witnesses in mock-trial demonstrations for the law students. One course, offered each year as part of CSAFE, includes mostly current law students, but also practicing lawyers, in a mock trial CLE in which a mock-fingerprint expert is placed on the stand for a day of testimony.²³

We sent surveys to faculty who teach each of these courses by email in December 2019, with follow-up emails sent in January 2020 and in March 2020. We received responses from twenty faculty and syllabi and questionnaire responses regarding twenty-two courses. The responses further described how uneven and exceptional it is for a law school to offer a forensic science course. They were uniformly upper-level seminars, and many were not offered each year. The survey responses also suggested a lack of demand that would support larger or annual offerings. Some reported caps on class size and waitlists. Others reported typical class sizes of under twenty students. None were large lecture courses. Most of the courses were semester long seminar-format courses, but a few were summer or short courses.

Several courses were no longer being taught by the time of our survey; of the twenty-two who responded to the survey, four courses were no longer being taught. The survey responses also suggest that most courses are taught by teaching and research faculty at law school. Several courses were taught by adjunct faculty, though, with a course at the University of Richmond is taught by Judge Stephanie Meritt, and courses at both NYU and Columbia Law Schools are taught by Judge Jed. S. Rakoff.

The syllabi were also studied to examine the basic coverage of these courses. Almost all covered legal standards for admissibility of expert evidence, such as *Daubert* and Rule 702. Only two courses discussed any coverage of statistics, suggesting that regarding statistics or quantitative methods, these courses would not provide future lawyers with a deep background. Most of the courses did discuss coverage of the 2009 National Academy of Sciences Report, which itself discusses research gaps in many commonly used forensic disciplines. Few of courses

²³ See Duke Law School, 502 Forensics Litigation, at <https://web.law.duke.edu/academics/course/502/>.

FORENSIC SCIENCE IN LEGAL EDUCATION

used textbooks, but rather relied on coursepacks and materials assembled by faculty.

III. IMPLICATIONS FOR FORENSICS AND LEGAL EDUCATION

The NAS Report detailed how: “Better connections must be established and promoted between experts in the forensic science disciplines and law schools, legal scholars, and practitioners.” The goal was ambitious: “The fruits of any advances in the forensic science disciplines should be transferred directly to legal scholars and practitioners (including civil litigators, prosecutors, and criminal defense counsel), federal, state, and local legislators, members of the judiciary, and law enforcement officials, so that appropriate adjustments can be made in criminal and civil laws and procedures, model jury instructions, law enforcement practices, litigation strategies, and judicial decisionmaking.” Further, “Law schools should enhance this connection by offering courses in the forensic science disciplines, by offering credit for forensic science courses taken in other colleges, and by developing joint degree programs.”²⁴ The Report gave specific reasons for focusing on law schools, as opposed to continuing legal education, explaining, “Unfortunately, it might be too late to effectively train most lawyers and judges once they enter their professional fields. Training programs are beneficial in the short term, because they offer responsible jurists a way to learn what they need to know. For the long term, however, the best way to get lawyers and judges up to speed is for law schools to offer better courses in forensic science in their curricula.”²⁵

That said, Christine Funk and Evan Berman have responded, “It is inefficient to educate lawyers in forensic science as part of the law school curriculum, as suggested by the NAS Report. Many will go their entire career without dealing with a forensic science case, where others deal with forensic science as a matter of course.”²⁶ They proposed requiring some additional certification or level of

²⁴ See NAS Report, *supra*, at 236.

²⁵ *Id.* at 236.

²⁶ See Christine Funk & Evan Berman, *Rising to the Challenge of the NAS Report Strengthening Forensic Science in the United States: A Path Forward: A Call for Demonstrated Competence Amongst Legal Practitioners*, 37 WM. MITCHELL L. REV. 683, 696 (2011).

FORENSIC SCIENCE IN LEGAL EDUCATION

competence, along the lines of what states require for qualified capital defense counsel.²⁷

This survey suggests that in the twelve years that have passed since the National Academy of Sciences report was published, we have not seen anything like a surge in offerings regarding forensic science. Moreover, the law school courses that are offered often do not focus on statistics or scientific methods; they are typically introductory or discussion seminar courses.²⁸

If the broader concern is that lawyers have a foundational understanding of the methods and principles underlying a variety of scientific disciplines, it may be more relevant and generally applicable for law schools to offer courses in quantitative methods, scientific methods, and statistics (some law schools do so).²⁹ Indeed, given the limited quantitative components of nearly all of these forensic science courses, perhaps such quantitative methods courses would provide a stronger foundation for future lawyers. To be sure, many of those courses may focus on finance and accounting, and not the types of issues relevant to assessing evidence or expert evidence.

Following law school, forensics continuing education can be targeted to lawyers in criminal practice who would benefit from it. There have been more continuing legal education programs geared towards practicing lawyers and to judges and recommendations to enhance those continuing legal education offerings.³⁰ There have been new training programs geared towards judges developed specifically in response to such recommendations, including those hosted by the American Association for the

²⁷ *Id.*

²⁸ Michael J. Saks and David L. Faigman, *Failed Forensics: How Forensic Science Lost Its Way and How It Might Yet Find It*, 4 ANNU. REV. LAW SOC. SCI. 149, 161 (2008). (“Although law school could be described as a glorified liberal arts education it generally does not include courses in research methods and statistics. Even where such courses are available, they are taken by a small percentage of students.”)

²⁹ See Mara Merlino, et al. *Science in the Law School Curriculum: A Snapshot of the Legal Education Landscape*. 58 J. LEGAL ED. 190 (2008).

³⁰ See, e.g. N.Y. State Bar Ass’n Task Force on Wrongful Convictions, *Final Report of the New York State Bar Association’s Task Force on Wrongful Convictions* 96-102 (Apr. 4, 2009), available at <http://www.nysba.org/Content/ContentFolders/TaskForceonWrongfulConvictions/FinalWrongfulConvictionsReport.pdf> (recommending continuing legal education regarding forensic science).

FORENSIC SCIENCE IN LEGAL EDUCATION

Advancement of Science (AAAS); ABA Judicial Division Forensic Science Committee; Federal Judicial Center (FJC); The National Courts and Sciences Institute (NCSI); The National Judicial College (NJC).³¹ There have been training materials developed for judges, most prominently the Reference Manual on Scientific Evidence, developed by the Federal Judicial Center and the National Research Council. In Texas, the Texas Forensic Science Commission has co-hosted a forensic science conferences “to provide free continuing education training for lawyers, judges and scientists in a wide range of forensic disciplines.”³²

One recent proposal would have gone farther, with a national vision for forensics education in law. In 2015, the National Commission of Forensic Science, which included a subcommittee on training on science and law,³³ made a recommendation that a national curriculum for judges be developed, including with material on law on expert evidence, probability and statistics, strengths and limits of forensic evidence, quality assurance in laboratories, and contextual bias.³⁴ However, the Department of Justice did not follow up on that recommendation, as the Commission itself expired in April 2017, having many only the recommendation that a legal education curriculum should be developed (but none was developed).³⁵

³¹ See Judge Stephanie Domitrovich & W. Milton Nuzum III, *Teaching Judges to Be Gatekeepers of the Admissibility of Science the Role of the ABA Judicial Division Forensic Science Committee*, ABA SciTECH LAW., Summer 2017, at 12, 14. More broadly, regarding science, technology, and law, see About Us, NAT'L CLEARINGHOUSE FOR SCI., TECH. & L., <http://www.ncstl.org/about/Accomplishments%20Archive> (last visited June 28, 2020).

³² See The Honorable Juan Hinojosa & Lynn Garcia, *Improving Forensic Science Through State Oversight: The Texas Model*, 91 TEX. L. REV. SEE ALSO 19, 33 (2012). See also Marea Beeman, *The Arizona Forensic Science Academy: A Model Training Program for Prosecutors and Criminal Defense Lawyers*, THE JUST. MGMT. INST. 3 (2013), http://www.jmijustice.org/wp-content/uploads/2014/04/Model-Training-Program-article_Jan-25-2013.pdf.

³³ See National Commission on Forensic Science, *Training on Science and Law Subcommittee*, U.S. Dep't of Just., <https://www.justice.gov/ncfs/training-science-and-law>.

³⁴ See Nat'l Comm'n on Forensic Sci., *Forensic Science Curriculum Development*, Nat'l Inst. of Standards & Tech., <https://www.justice.gov/archives/ncfs/file/795351/download>.

³⁵ See Nat'l Comm'n on Forensic Sci., *Reflecting Back, Looking Toward the Future* (April 11, 2017) (presenting final summary of the Commission's work and noting that the education sub-committee was

FORENSIC SCIENCE IN LEGAL EDUCATION

CONCLUSION

U.S. Supreme Court Justice Stephen Breyer has written that: “In this age of science, we must build legal foundations that are sound in science as well as in law. Scientists have offered their help. We in the legal community should accept that offer.”³⁶ The results of this survey suggest that forensic science is still not commonly taught in law schools, although the courses that are taught are regularly offered. The courses offered do not have heavily quantitative components, suggesting that in addition to specialty courses in forensics, more general courses in quantitative methods may provide more background in statistical concepts for future lawyers. More fundamentally, the results suggest that far more should be done to ensure scientific literacy in the legal profession, beginning in law school, but also continuing throughout the professional careers of practicing lawyers.

able to make only general recommendations for legal education), at <https://www.justice.gov/archives/ncfs/page/file/959356/download>.

³⁶ See Stephen Breyer, *Science in the Courtroom*, 16 ISSUES IN SCI. & TECH. 52, 26 (Summer 2000).