CHALLENGES FACING JUDGES REGARDING EXPERT EVIDENCE IN CRIMINAL CASES

Paul W. Grimm*

INTRODUCTION

Ever since the U.S. Supreme Court decided Daubert v. Merrell Dow Pharmaceuticals, Inc., 1 the role of trial judges in determining the admissibility of expert testimony has become familiar. Trial judges are to be the "gatekeepers" standing between the parties, who naturally offer the most impressive experts they can find or afford and are willing to advance their theory of the case, and the jury, who must come to grips with scientific, technical, or other specialized information that usually is completely unfamiliar to them. The judge's gatekeeper role is imposed by Federal Rule of Evidence 104(a), which provides, in essence, that the trial judge must decide preliminary issues about the admissibility of evidence, the qualification of witnesses, and the existence of any privileges.² When applying this Rule with respect to experts, we are further informed by Federal Rule of Evidence 702. As amended in 2000 to implement *Daubert*, Rule 702 instructs that when scientific, technical, or specialized knowledge would assist the finder of fact in understanding the evidence or making a factual determination, a witness qualified by virtue of knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise, provided (1) the testimony is sufficiently based on facts or data, (2) any opinions expressed are the result of reliable principles or methodology, and (3) the witness reliably has applied the principles or methodology to the facts of the case.³ Regarding the reliability factors, *Daubert* and its progeny⁴ identify a number of subfactors that a court may need to consider: whether the methodology has been tested, its error rate, whether it has been subject to peer review, whether it is generally accepted as reliable among practitioners

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^{1. 509} U.S. 579 (1993).

^{2.} FED. R. EVID. 104(a).

^{3.} Id. r. 702.

^{4.} See, e.g., Kumho Tire Co. v. Carmichael, 526 U.S. 137, 156–57 (1999); Gen. Elec. Co. v. Joiner, 522 U.S. 136, 139 (1997).

of the relevant field of science or technology, and whether (if they exist) standard testing protocols have been followed.⁵

This seems straightforward; that is until one considers exactly what is involved. First, the acceptable subjects for expert testimony encompass science, technology, and any other type of specialized knowledge beyond the understanding of the typical jury.⁶ That covers a lot of territory. And, if the admissibility of expert testimony is conditioned on the notion that the jury needs help understanding evidence beyond its familiarity, why should it be assumed that the trial judge has any greater understanding than the jury? After all, most judges are generalists, and, if similar to me, do not regard themselves as specialists in science or technology, let alone the limitless types of "specialized" knowledge that may be relevant to a case (e.g., economics, accounting, business, finance, engineering, construction—the list is endless).

Second, to do our jobs as required by Rule 702, we must find that the expert had sufficient facts or data on which to base her opinions, employed reliable principles or methodology, and then reliably applied the principles or methodology to the particular facts of the case. However, trial judges are privy to very few of the underlying facts of a case (whether civil or criminal) before the trial. Indictments and civil pleadings are pretty sparse when it comes to factual particularity—that is what discovery is supposed to provide. But discovery requests and responses are not filed with the court, so by the time the case is ready for trial, all we know about the case is what we can glean from the filings that have been made before trial. These tend to focus on specific legal issues rather than a panoramic view of the whole case. So how are we—the least informed about the underlying facts when compared to the knowledge of the parties, counsel, and experts—to determine whether an expert considered sufficient facts or data?

And even if we were omniscient about the facts, what qualifies us to determine whether the principles or methodology employed by an expert, whose field we do not know, is reliable and reliably applied to the facts?

^{5.} FED. R. EVID. 702 advisory committee's notes to 2000 amendment. The Advisory Committee notes also recognize additional factors that a court may want to consider, such as (1) whether the expert proposes to testify about facts derived from research independent of the litigation, as opposed to expressing opinions developed expressly for the litigation; (2) whether the expert "unjustifiably extrapolated from an accepted premise to an unfounded conclusion"; (3) whether the expert "accounted for obvious alternative explanations"; (4) whether the expert is being as careful in reaching his opinions as he would be when doing his regular professional work outside of the litigation context; and (5) "[w]hether the field of expertise claimed by the expert is known to reach reliable results for the type of opinion the expert" intends to offer at trial. *Id.*

^{6.} See id. r. 702(a).

^{7.} See id. r. 702(b)-(d).

^{8.} See FED. R. CIV. P. 26(a)(2)(A)–(B) (noting that parties disclose expert discovery requests and responses to one another instead of filing them with the court); FED. R. CRIM. P. 16(a)(1)(G) (noting that, at the defendant's request, the government must provide the defendant, not the court, a summary of expert testimony it intends to use at trial); Id. r. 16(b)(1)(C) (noting that, at the government's request, the defendant must provide the government, not the court, a summary of expert testimony it intends to use at trial).

When it comes to the admissibility of expert evidence, trial judges can feel like they are in a battle of wits, unarmed.

The skeptical reader will scoff and say:

Stop feeling sorry for yourself; the information you need to determine the admissibility of expert evidence is provided to you in the form of discovery disclosures required by Federal Rule of Civil Procedure 26(a)(2) and Federal Rule of Criminal Procedure 16(a)(1)(G) and (b)(1)(C), and in motions in limine filed before trial challenging the admissibility (or seeking advance rulings of admissibility) of expert testimony!

That is true, but only to a certain extent. First, the parties must have properly made their expert disclosures,⁹ which they frequently do not. Second, the issue of expert admissibility must be raised sufficiently far in advance of trial for the judge to digest the information, hold a hearing, if needed, and make a considered ruling. That does not always happen, and it is not unusual to be confronted with an objection to expert testimony on the eve of trial or during it.

Finally, with regard to criminal cases, the focus of this Article, judges face significant challenges in ruling on the admissibility of expert testimony that do not occur in most civil cases. This Article starts by describing these challenges and then offers some suggestions about what can be done to address them.

I. CHALLENGES TO MAKING GOOD EXPERT-ADMISSIBILITY RULINGS IN CRIMINAL CASES

A. The Right to a Speedy Trial

The Sixth Amendment states that, "[i]n all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial." This right is implemented by the Speedy Trial Act of 1974.11 It provides, relevantly:

In any case in which a plea of not guilty is entered, the trial of a defendant charged in an information or indictment with the commission of an offense shall commence within seventy days from the filing date (and making public) of the information or indictment, or from the date the defendant has appeared before a judicial officer . . . , whichever date last occurs. 12

However, there are many statutory exceptions to this seventy-day requirement¹³ and as a result most criminal cases do not, in fact, get tried within seventy days. But, the right to a speedy trial animates the entire pretrial process in a criminal case in ways that do not occur in civil cases. The clock is always ticking, and the judge is expected to expedite the

^{9.} FED. R. CIV. P. 26(a)(2); FED. R. CRIM. P. 16(a)(1)(G), (b)(1)(C).

^{10.} U.S. CONST. amend. VI.

^{11. 18} U.S.C. §§ 3161-3174 (2012).

^{12.} Id. § 3161(c)(1).

^{13.} Exceptions include, for example, delays resulting from competency examinations, interlocutory appeals, filing (and resolution) of pretrial motions, transfer of the defendant from one district to another, and consideration by the court of a proposed guilty plea. *Id.* § 3161(h).

proceedings. This means that everything that must be done in preparation for trial, including making expert witness disclosures, must take place at an accelerated pace. And when the many pretrial proceedings of a criminal case are accomplished within a compressed time frame, this puts pressure on both counsel and the court to get it all done correctly within the available time. When we are in a hurry, we are not always as careful, complete, or deliberate as we are when time is not an issue, and this can (and often does) affect when expert disclosures are made and how detailed they are. Every trial judge is familiar with expert disclosures that are pro forma, incomplete, and conclusory, and those that are do not provide the detail needed for the judge to conduct a Rule 702 analysis properly.

B. The Breadth of Expert Testimony Introduced in Criminal Cases

Everyone who has watched any of the myriad crime shows on television is familiar with the type of forensic evidence that can be offered into evidence and that experts can testify to in criminal cases: fingerprint analysis; ballistics and toolmark evidence; DNA testing; footprint and tire-track evidence; hair and fiber analysis; bite-mark evidence; and handwriting evidence, to name a few. But, recently I have come across or heard about even more subject matters that experts have testified to in criminal cases: mental health (i.e., competency and sanity issues); other medical conditions; coded language used by drug dealers; characteristics of gang activity; terrorist activities; characteristics of sex trafficking; reliability (or unreliability) of eyewitness identification; linguistic analytics; Bitcoin and other digital currencies; computer forensics; characteristics and operation of firearms and explosives; counterfeit currency; controlled substance analysis; the difference between personal use and distribution quantities of drugs; vulnerability of sex-trafficking victims; field sobriety testing in drunkdriving cases; and operation of cell towers and other methods of locating individuals through tracking devices.

Think about all these types of potential experts in criminal cases. While doctors and psychologists may have standard methodology that they apply in reaching their decisions, what about gang experts, sex-trafficking experts, or coded-language experts? It is unlikely that their methodology has been subject to peer review or that there are handy error rates to consider. So how is the judge to assess the reliability of their methodology? Further, many experts who testify in criminal cases are from law enforcement agencies—government crime labs or criminal investigation agencies. How does the judge evaluate potential bias that may affect the reliability of law enforcement experts? The prevalence of "specialized" as opposed to "scientific" expert witness testimony in criminal cases presents unique challenges to a judge in determining admissibility.

C. The Pressure on the Defendant to Plead and Plead Quickly

There is tremendous pressure on a criminal defendant in federal court to plead guilty, and do so quickly. This comes from the influence exerted on sentencing by the Sentencing Guidelines of the U.S. Sentencing Commission.¹⁴ Even though, in the absence of a statutory requirement to impose a particular type of sentence in a criminal case (so-called "mandatory minimum" cases), the Sentencing Guidelines are just that—guidelines, not mandatory rules—the judge is required to properly calculate the guidelines in each case and consider them in imposing a particular sentence.¹⁵ And while the judge can depart up or down within the recommended guidelines sentence, or vary up or down to impose a sentence outside the guidelines range, it is reversible error not to begin the sentencing by correctly calculating the applicable guidelines range.¹⁶

For those unfamiliar with the esoterica of the Sentencing Guidelines, the ultimate guidelines range is a function of two factors: (1) the numerical offense level applicable to the crime(s) that the defendant pled to or was convicted of and (2) the numerical calculation applicable to the defendant's criminal history. ¹⁷ Offense levels range from one to forty-three, and criminal history levels range from I to VI. ¹⁸ The higher the combined offense and criminal history scores, the greater the recommended range of the sentence. ¹⁹ And a two- or three-level reduction in offense level can make a huge difference in the recommended sentence, particularly at the high end of the Guidelines scale. ²⁰

Section 3E1.1 of the Guidelines allows defendants who plead guilty, thereby accepting responsibility, to receive a two-point reduction in offense level.²¹ If the unadjusted offense level is sixteen or greater and the defendant pleads guilty (thereby earning the two-point reduction), she can earn an additional one-point reduction in offense level if the government makes a motion at the time of sentencing, stating that "the defendant has assisted authorities in the investigation or prosecution of his own misconduct by timely notifying authorities of his intention to [plead guilty]."²² This would

^{14.} See generally U.S. Sentencing Guidelines Manual (U.S. Sentencing Comm'n 2016).

^{15.} Id. § 1A2.

^{16.} United States v. McManus, 734 F.3d 315, 318 (4th Cir. 2013) ("Although the sentencing guidelines are only advisory, improper calculation of a guideline range constitutes significant procedural error, making the sentence procedurally unreasonable and subject to being vacated." (quoting United States v. Hargrove, 701 F.3d 156, 161 (4th Cir. 2012)).

^{17.} See U.S. Sentencing Guidelines Manual, ch. 5, pt. A.

^{18.} See id.

^{19.} See id.

^{20.} For example, if a defendant has a guidelines score of offense level thirty-three and a criminal history score of III, her recommended sentence is 168 to 210 months. *Id.* Drop the offense level by two points to thirty-one, and the range is 135 to 168 months. *Id.* Drop the offense level by three points to thirty, and the range is 121 to 151 months. *Id.* These differences are significant, especially for the defendant who will be serving the sentence.

^{21.} Id. § 3E1.1(a).

^{22.} Id. § 3E1.1(b).

relieve the government from having to prepare for trial. So, there is intense pressure on a defendant charged with a federal offense to plead guilty before the government invests a lot of time responding to pretrial motions and preparing for trial, given the stakes at sentencing if the defendant goes to trial and is convicted, thus becoming ineligible for any section 3E1.1 reduction.

This pressure plays out in the decision that a defense attorney has to make in providing effective representation to the defendant: Does he demand that the government make full disclosure of all the information relating to its expert witnesses, then challenge any experts that seem vulnerable by filing a motion to exclude the expert's testimony (thereby jeopardizing the section 3E1.1(b) reduction)? Or does he forgo doing so to preserve the additional reduction in offense level and plead guilty promptly (thereby giving up any chance of excluding expert testimony that may be critical to the government's ability to prove a charge)? This is a tough position for a defense attorney and defendant to be in, and guessing wrong can have serious consequences.

Since the vast majority of criminal cases in federal court are disposed of by plea rather than trial (well above 90 percent, by most accounts),²³ the frequency with which the government's experts are challenged (thereby subjecting the sufficiency of their methodology and opinions to scrutiny by the court) is low. When experts grow accustomed to not being challenged, their perception of the need to fully document and justify their methodology and opinions can diminish. Similarly, when prosecutors are not often obliged to make timely, complete expert disclosures (and verify before doing so that their experts have met the requirements of Rule 702), they too can become less vigilant in monitoring their potential experts, the sufficiency of the facts on which those experts base their opinions, and the reliability of those experts' principles and methodology.

When defense counsel infrequently demand full disclosure of information related to the government's experts (and even less frequently challenge admissibility), they undermine their ability to recognize deficient expert opinions and their skill to challenge them effectively. If prosecutors do not make timely, complete expert disclosures and defense attorneys do not demand disclosure or challenge the admissibility of government experts, the underlying premise of *Daubert*—that effective examination of the government expert by the defense attorney will help the trial judge properly exercise her gatekeeping responsibility by exposing shortcomings in the witnesses' opinions²⁴—may be compromised. This compromise would result from insufficiently detailed information to assess reliability and

^{23.} See Emily Yoffe, Innocence Is Irrelevant, ATLANTIC (Sept. 2017), https://www.theatlantic.com/magazine/archive/2017/09/innocence-is-irrelevant/534171/ [https://perma.cc/F3V2-REQN] ("Some 97 percent of federal felony convictions are the result of plea bargains.").

^{24.} In *Daubert*, the Court noted that "[v]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 596 (1993) (quoting Rock v. Arkansas, 483 U.S. 44, 61 (1987)). Inexperienced counsel lacking access to qualified defense experts are not well suited to "vigorously" cross-examine government experts.

insufficient skill by counsel to develop the facts and arguments to clarify the issues that the judge must decide.

D. Difficulties Faced by Defense Counsel in Obtaining Defense Experts to Challenge Government Experts

In the vast majority of federal criminal cases, defendants are represented by either federal public defenders or private counsel appointed pursuant to the Criminal Justice Act (CJA).²⁵ While public defenders may have resources to locate and hire experts in criminal cases without the approval or assistance of the court, few CJA attorneys have the financial ability to hire defense experts without requesting advance approval from the presiding trial judge (without which CJA funds are not available to pay the expert).²⁶ That means that in many criminal cases, the defense attorney must file a motion with the court to request authorization to hire an expert witness and justify the need to do so—something the government is never obligated to do.

Further, as already noted, many of the experts called by the government in a criminal case are involved in the investigation of criminal cases or work for government crime labs.²⁷ That means that prosecutors frequently work with their experts throughout the investigation of the case, becoming familiar with what they have done long before charges are filed. In contrast, defense counsel, once their clients have been indicted and the speedy-trial clock has begun, have much less time to decide whether to seek a defense expert. And they cannot even begin to make that decision until after they request and receive expert disclosures from the government. Unlike Federal Rule of Civil Procedure 26(a)(2),²⁸ Federal Rule of Criminal Procedure 16(a)(1)(G) does not require mandatory disclosure of the government's experts and their opinions; the defense must request it.29 And if the defense does request it, Rule 16 does not impose a deadline by which the government must make its disclosure.³⁰ So, unless the trial judge sets a date for expert disclosures, the defense must make its request and wait for the prosecution to make its disclosure. Not all prosecutors do so promptly upon request and, not infrequently, defense counsel receive government expert disclosures too close to the trial date. This poses real problems for the defendant who may be left with insufficient time to locate and get court approval for a defense expert.

^{25. 18} U.S.C. § 3006A (2012); Criminal Justice Act: At 50 Years, a Landmark in the Right to Counsel, U.S. COURTS (Aug. 20, 2014), http://www.uscourts.gov/news/2014/08/20/criminal-justice-act-50-years-landmark-right-counsel [https://perma.cc/8WJF-BKF3] ("Today, nearly 90 percent of federal criminal defendants are aided by lawyers, investigators and experts paid for under the Criminal Justice Act.").

^{26. 18} U.S.C. § 3006A(e)(1).

^{27.} See supra Part I.B.

^{28.} FED. Ř. CIV. P. 26(a)(2)(D)(i) (requiring that in civil cases any party that intends to introduce expert testimony make proper disclosure of the opinions (and supporting basis) their experts will make "at least 90 days before the date set for trial or for the case to be ready for trial" unless otherwise ordered by the court).

^{29.} See FED. R. CRIM. P. 16(a)(1)(G).

^{30.} See id.

Compounding this difficulty, when defense attorneys do decide to retain a defense expert, they may have difficulty finding one because many of the experts needed in criminal cases come from law enforcement. Unless the defense attorney can find a retired or former government investigator, she will likely be unable to locate one from the ranks of currently employed law enforcement investigators. As noted in the Federal Judicial Center's Reference Manual on Scientific Evidence, "[a]dversarial testing [of expert testimony in criminal cases presupposes advance notice of the content of the expert's testimony and access to comparable expertise to evaluate that testimony."31 Just how effectively can the defendant in a criminal case challenge the government's expert testimony without access to a comparable defense expert to review the work done by the government's expert and critique any factual insufficiencies or methodological shortcomings? And without informed and skilled challenge by the defense, how is the trial judge to perform his gatekeeping duty and make the findings required by Rule 702 and *Daubert* when deciding objections to government experts?

E. Insufficiently Detailed Disclosure of Expert Opinions Under the Criminal Procedure Rules

As noted above,³² Federal Rule of Criminal Procedure 16(a)(1)(G) imposes an obligation on the government to disclose expert testimony it intends to introduce at trial.³³ The Rule states:

At the defendant's request, the government must give to the defendant a written summary of any testimony that the government intends to use under Rules 702, 703, or 705 of the Federal Rules of Evidence during its case-inchief at trial. . . . The summary provided under this subparagraph must describe the witness's opinions, the bases and reasons for those opinions, and the witness's qualifications.³⁴

At first glance, this seems pretty reasonable. But contrast the disclosure requirement in Rule 16(a)(1)(G) with its counterpart in the Rules of Civil Procedure, Rule 26(a)(2)(A) and (B):

[A] party must disclose to the other parties the identify of any witness it may use at trial to present evidence under Federal Rule of Evidence 702, 703, or 705.

... Unless otherwise stipulated or ordered by the court, this disclosure must be accompanied by a written report—prepared and signed by the witness—if the witness is one retained or specially employed to provide expert

^{31.} Paul C. Giannelli, Edward J. Imwinkelried & Joseph L. Peterson, *Reference Guide on Forensic Identification Expertise*, in FED. JUDICIAL CTR., REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 55, 124 (3d ed. 2011); see also FED. R. CRIM. P. 16 advisory committee's notes to 1993 amendment ("[Rule 16's expert disclosure provision] is intended to minimize surprise that often results from unexpected expert testimony, reduce the need for continuances and to provide the opponent with a fair opportunity to test the merit of the expert's testimony through focused cross-examination.").

^{32.} See supra notes 29–30 and accompanying text.

^{33.} A reciprocal obligation is imposed on the defense. FED. R. CRIM. P. 16(b)(1)(C).

^{34.} *Id.* r. 16(a)(1)(G).

testimony in the case or one whose duties as the party's employee regularly involve giving expert testimony. The report must contain:

- (i) a complete statement of all opinions the witness will express and the basis and reasons for them;
 - (ii) the facts or data considered by the witness in forming them;
 - (iii) any exhibits that will be used to summarize or support them;
- (iv) the witness's qualifications, including a list of all publications authored in the previous 10 years;
- (v) a list of all other cases in which, during the previous 4 years, the witness testified as an expert at trial or by deposition; and
- (vi) a statement of the compensation to be paid for the study and testimony in the case. 35

Which disclosure would you rather have if you had to prepare to challenge the testimony of an adversary's expert? The answer is obvious. disclosure requirement in the civil rules is significantly more robust. It requires that the expert sign a written report.³⁶ This prevents an expert from distancing herself from vagueness, incompleteness, or inaccuracy in the report by attributing its contents to an attorney who drafted it (as usually is the case for most discovery disclosures and responses in civil and criminal cases), rather than the expert. It must contain a *complete* statement of all opinions that will be given at trial and the basis and reasons for them.³⁷ This allows the cross-examining attorney to prevent the expert from engaging in the abusive practice of "testifying beyond the report," adding at trial opinions or supporting facts not found in the written report. It also prevents the expert from only offering conclusions without providing the supporting reasons and bases underlying them. The report also must contain the facts or data considered by the expert (not just the facts that the expert intends to rely upon), as well as any exhibits that will be used to summarize or support the expert's trial testimony.³⁸ This prevents an expert from cherry-picking favorable facts to support his opinions without disclosing unfavorable ones, which, when known, can show that the opinion is not well founded.

To even a casual observer, the expert disclosures required by the Rules of Civil Procedure are far more robust, detailed, and helpful to the recipient than those required by the Rules of Criminal Procedure. Further, in civil cases, the parties can also depose an opposing expert,³⁹ which affords the opportunity to further flesh out the expert's opinions, methodology, and supporting factual basis. If lawyers in civil cases then challenge the admissibility of an expert's opinion, they have substantially more information to support their challenge than criminal lawyers do because depositions of experts in criminal cases are only available in exceptional

^{35.} FED. R. CIV. P. 26(a)(2)(A)-(B).

^{36.} Id. r. 26(a)(2)(B).

^{37.} Id.

^{38.} Id.

^{39.} Id. r. 26(b)(4)(A).

circumstances and to preserve testimony for trial.⁴⁰ In contrast to the comprehensive disclosures in civil cases, in criminal cases, most of the expert disclosures I have seen⁴¹ were cursory as well as conclusory, and not particularly useful for cross-examining the expert or challenging her testimony. They certainly were insufficient to be of much help to me in making a ruling on admissibility of the expert's opinions.

Recently, the Department of Justice (DOJ) provided supplemental guidance ("DOJ Supplemental Guidance") to prosecutors regarding the disclosure of forensic evidence and experts.⁴² Commendably, the memorandum accompanying the DOJ Supplemental Guidance emphasizes that "prosecutors must ensure that they satisfy their discovery obligations regarding forensic evidence and experts, so that defendants have a fair opportunity to understand the evidence that could be used against them."43 It clarifies that there are three distinct disclosure obligations that the criminal rules impose on prosecutors related to forensic evidence: 16(a)(1)(F) (the duty to turn over the results or reports of any scientific test or experiment), (2) Rule 16(a)(1)(G) (the duty to provide a written summary of expert testimony the government intends to use at trial), and (3) Rule 16(a)(1)(E) (more broadly requiring production of documents and items material to preparing the defense).44 Helpfully, the DOJ Supplemental Guidance stresses that these disclosure obligations (augmented by others that may be required by the Jencks Act, 45 or the Brady v. Maryland 46 and Giglio v. United States⁴⁷ decisions) "are the minimum requirements, and the Department's discovery policies call for disclosure beyond these thresholds."48

In addition, the DOJ Supplemental Guidance recommends that DOJ prosecutors obtain the forensic examiner's laboratory report and turn it over to the defense if requested.⁴⁹ The DOJ also recommends that the written summary required by Rule 16(a)(1)(G) should "summarize the analyses performed by the forensic expert and describe any conclusions reached" and should "be sufficient to explain the basis and reasons for the expert's expected testimony."⁵⁰ Further, prosecutors are encouraged to provide the defense with "a copy of, or access to, the laboratory of forensic expert's 'case'

^{40.} FED. R. CRIM. P. 15.

^{41.} Remember that the trial judge does not see the disclosure unless there is a challenge because the disclosure only is served on the defense attorney, not docketed on the court record. *Id.* r. 16.

^{42.} See generally U.S. DEP'T OF JUSTICE, SUPPLEMENTAL GUIDANCE FOR PROSECUTORS REGARDING CRIMINAL DISCOVERY INVOLVING FORENSIC EVIDENCE AND EXPERTS (2017).

^{43.} Memorandum from Sally Q. Yates, Dep't of Justice Deputy Attorney Gen., to Dep't Prosecutors & Dep't Forensic Sci. Pers. (Jan. 5, 2017), https://www.justice.gov/archives/ncfs/page/file/930411/download [https://perma.cc/S8JZ-8N5D].

^{44.} U.S. DEP'T OF JUSTICE, supra note 42, at 1.

^{45. 18} U.S.C. § 3500 (2012).

^{46. 373} U.S. 83 (1963).

^{47. 405} U.S. 150 (1972),

^{48.} U.S. DEP'T OF JUSTICE, supra note 42, at 1.

^{49.} Id. at 2.

^{50.} Id.

file," which "normally will describe the facts or data considered by the forensic expert, include the underlying documentation of the examination or analysis performed, and contain the material necessary for another examiner to understand the expert's report."⁵¹

The DOJ Supplemental Guidance, if it continues as DOJ policy, and to the extent that prosecutors adhere to it, will go a long way to bolster the anemic disclosure requirements currently found in Rule 16(a)(1)(G). But the effectiveness of the DOJ Supplemental Guidance is muted by its narrow application to forensic evidence and expert reports, as opposed to the many other types of expert testimony referenced above⁵² that are common to criminal prosecutions.

II. SUGGESTIONS FOR TRIAL JUDGES

So, what should a trial judge do to overcome the challenges discussed above when called on to make rulings regarding the admissibility of expert testimony in criminal cases? The starting point is to have firmly in mind the two things that a judge must have in order to make proper rulings: (1) the underlying facts related to the challenged evidence and (2) sufficient time to digest the facts and make a principled ruling. Fortunately, judges have the inherent authority to ensure that they get what they need to do the job. This Part discusses that inherent authority, how judges should exercise that authority, and what rule changes should be made to help judges better exercise that authority.

A. Address Disclosure of Expert Opinions Early in the Case

Federal Rule of Criminal Procedure 17.1 states: "On its own, or on a party's motion, the court may hold one or more pretrial conferences to promote a fair and expeditious trial. When a conference ends, the court must prepare and file a memorandum of any matters agreed to during the conference."53 This Rule allows a judge to schedule a preliminary pretrial conference early—right after the defendant has been arraigned. At that time, the court can discuss the case in general, get details from the attorneys about the status of discovery, set deadlines for getting discovery done, and inquire about likely expert testimony. While the government might take the position that the preliminary pretrial conference is too early to make firm decisions about trial experts, a judge must be prepared to take this with a grain of salt. After all, the prosecutor has supervised the investigation and charging of the defendant, including presenting witnesses to the grand jury. It takes an inexperienced (or disingenuous) prosecutor to claim that he has no idea during the early stage of a case about what kind of expert testimony may be offered. The goal is not to lock the parties in too early but to raise the issue so that the court can set a reasonable schedule for when expert disclosures will be made, motions in limine challenging experts filed, and a hearing (if

^{51.} Id. at 3.

^{52.} See supra Part I.B.

^{53.} FED. R. CRIM. P. 17.1.

needed) scheduled sufficiently far in advance of trial so that the judge has adequate time to make a thoughtful ruling.

B. Make Your Expectations About Expert Disclosures Clearly Known at the Outset

Judges should feel free to let counsel for the government and defendant know at the start of the case that they will insist on compliance with both the letter and spirit of what Rule 16 requires for expert disclosures. While the shortcomings of Rule 16 itself have been discussed above,⁵⁴ the judge can get valuable assistance from the advisory committee notes that supplement the Rule. For example, the advisory committee's notes to the 1993 amendment to Rule 16 are especially helpful. The following excerpts are a sampling of the useful guidance the notes afford.

The comment first provides that Rule 16, as amended, "is intended to minimize surprise that often results from unexpected expert testimony, reduce the need for continuances, and to provide the opponent with a fair opportunity to test the merit of the expert's testimony through focused cross-examination."55 When combined with the language of Rule 17.1, this supports the judge's ability to build into the pretrial schedule reasonable deadlines (reached after consulting with counsel) for making expert disclosures, filing motions in limine, and scheduling an evidentiary hearing if needed. It further underscores the ability of a judge to advise the lawyers for both the government and the defendant that it will insist that the expert disclosures be detailed, meaningful, complete, and not boilerplate or conclusory. Otherwise, they will be useless to minimize the risk of surprise and continuance requests. And boilerplate expert disclosures do not provide a fair opportunity to test the expert's opinions or effectively cross-examine.

The comment then notes that

With increased use of both scientific and nonscientific expert testimony, one of counsel's most basic discovery needs is to learn that an expert is expected to testify. This is particularly important if the expert is expected to testify on matters which touch on new or controversial techniques or opinions. The amendment is intended to meet this need by first, requiring notice of the expert's qualifications which in turn will permit the requesting party to determine whether in fact the witness is an expert within the definition of Federal Rule of Evidence 702.⁵⁶

This advisory note language is important because so many experts in criminal trials testify to nonscientific matters (e.g., fingerprint analysis, bite-mark analysis, toolmark evidence, and ballistic evidence).⁵⁷ The Rule 16 disclosures need to be detailed enough so that these kinds of nonscientific opinion testimony (for which there may not be peer-reviewed literature, known testing procedures, established error rates, or standard testing

^{54.} See supra Part I.E.

^{55.} FED. R. CRIM. P. 16 advisory committee's notes to 1993 amendment.

^{56.} Id. (citations omitted).

^{57.} See supra Part I.B.

protocols) can be explored by counsel and brought to the attention of the court when ruling on any challenge to the evidence.

The comment continues to note that the

requesting party is entitled to a summary of the expected testimony. This provision is intended to permit more complete pretrial preparation by the requesting party. For example, this should inform the requesting party whether the expert will be providing only background information on a particular issue or whether the witness will actually offer an opinion.⁵⁸

It is clear that in order for the Rule 16 disclosure to fulfill this purpose, it must be detailed, not boilerplate, and set forth each discrete opinion the expert is expected to give, as well as the factual basis supporting it. The judge should make it clear to counsel that this level of detail is required. This can be enforced by ordering that expert disclosures also be filed with the court by a specific date and then holding a status conference (in person or by telephone) once they have been provided to discuss whether the disclosures are sufficiently detailed. If not, the court can order that they be supplemented.

Finally, the comment provides that Rule 16 requires that the requesting party be provided with

a summary of the bases of the expert's opinion. . . . That should cover not only written and oral reports, tests, reports, and investigations, but any information that might be recognized as a legitimate basis for an opinion under Federal Rule of Evidence 703, including opinions of other experts.⁵⁹

Once again, this advisory note language underscores the obligation to include detailed information, not conclusory boilerplate, in expert disclosures. Judges who make sure the attorneys know this early in the case are more likely to see substantive disclosures, which will fulfill the purpose of the disclosure rule and make it easier for the judge to make admissibility rulings.

C. Know Where to Look for Helpful Information to Give You the Background Needed to Rule on the Admissibility of Expert Testimony

If the Rule 16 expert disclosures and the briefing by counsel on a motion to exclude (or admit) expert testimony in a criminal trial do not provide the judge with enough information to fulfill her gatekeeping role under *Daubert* and Rule 702, where can the judge turn to find publicly available information to feel better prepared to rule? Fortunately, there are many reference materials that are available. This section highlights three.

One of the best is the *Reference Manual on Scientific Evidence* prepared by the Federal Judicial Center and the National Research Council.⁶⁰ It contains an excellent discussion of the legal standards for admissibility of expert testimony, a discussion of how science works, as well as reference guides on forensic identification, DNA identification evidence, statistics,

^{58.} FED. R. CRIM. P. 16 advisory committee's notes to 1993 amendment.

^{59.} *Id*

^{60.} See generally Reference Manual on Scientific Evidence, supra note 31.

multiple regression, survey research, estimation of economic damages, epidemiology, toxicology, medical testimony, neuroscience, mental health evidence, and engineering.⁶¹ Each reference guide is written to be understandable to lay readers, comprehensive enough to give the reader a real feel for the issues associated with the discipline discussed, and yet is not so long that it cannot be read in a reasonably short period of time. Each contains references to other helpful materials that may be consulted for more information.

Because forensic evidence is prevalent in criminal cases, two reports on this subject may be very helpful. The most recent is the September 2016 report to the President from the President's Council of Advisors on Science and Technology (PCAST) titled *Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods.*⁶² The PCAST report contains thorough discussions regarding the following forensic feature-comparison methodologies: DNA analysis (single-source samples, simple-mixture source samples, and complex-mixture source samples), bitemark analysis, latent fingerprint analysis, firearms analysis, footwear analysis, and hair analysis.⁶³

The third useful reference is the National Research Council's February 2009 report titled *Strengthening Forensic Science in the United States: A Path Forward*.⁶⁴ In addition to a useful discussion about what forensic science is and the legal standards for admitting forensic evidence in court cases, it contains helpfully detailed discussions about the following forensic science disciplines: biological evidence, analysis of controlled substances, friction-ridge analysis, shoe-print and tire-track analysis, toolmark and firearms identification, hair-evidence analysis, fiber-evidence analysis's questioned document examination, paint and coatings analysis, explosives-and fire-debris evidence, forensic odontology, bloodstain-pattern analysis, and digital and multimedia analysis.⁶⁵

These three references are especially helpful to judges faced with ruling on admissibility of expert evidence in criminal trials. They provide sufficient background information to allow a judge to understand the critical evidentiary issues with various types of recurring expert evidence in criminal cases. When combined with research on court decisions discussing the admissibility of expert evidence in criminal cases, a judge can feel well prepared to make a ruling, even if the Rule 16 disclosures and filings of the parties are insufficient in themselves to enable the judge to rule.

^{61.} See generally id.

^{62.} See generally President's Council of Advisors on Sci. & Tech., Exec. Office of the President, Forensic Science in Criminal Courts: Ensuring Scientific Validity of Feature-Comparison Methods (2016), https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/PCAST/pcast_forensic_science_report_final.pdf [https://perma.cc/H4TS-LMJX].

^{63.} See generally id.

^{64.} See generally NAT'L RESEARCH COUNCIL, STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES: A PATH FORWARD (2009), https://www.ncjrs.gov/pdffiles1/nj/grants/228091.pdf [https://perma.cc/YSU8-4NQR].

^{65.} See generally id.

D. Recommended Amendment to Federal Rule of Criminal Procedure 16

A final suggestion to make life easier for trial judges and counsel alike is a recommendation that the Criminal Rules Advisory Committee consider amending Rule 16 to enhance the Rule 16(a)(1)(G) and (b)(1)(C) expert disclosures. Specifically, the Committee should consider whether they should be made to more closely resemble the disclosures required in civil cases by Federal Rule of Civil Procedure 26(a)(2). At a minimum, Rule 16 disclosures should include (1) a complete statement of each opinion the expert will testify to, as well as the basis and reasons supporting them; (2) a summary of the facts or data considered (not just relied on) by the witness in forming her opinions; and (3) a description of the witness's qualifications. In addition, while less important, it would also bolster Rule 16 if the disclosures included a list of cases in the past four years where the witness had testified (allowing counsel to read the prior testimony) and a copy of any exhibits that will be used by the expert in support of her testimony.

CONCLUSION

Determining the admissibility of expert testimony can be a challenge to trial judges under the best of circumstances. But in criminal cases, there are additional challenges the judge faces in doing so. Understanding what these challenges are and how best to meet them can make life much easier for the judge. In addition, fortifying Federal Rule of Criminal Procedure 16's expert disclosure requirements to make them more similar to the helpful ones found in Federal Rule of Civil Procedure 26(a)(2) would also greatly improve things.