
INCREASING COMPLEXITY AND PARTISANSHIP IN BUSINESS DAMAGES EXPERT TESTIMONY: THE NEED FOR A MODIFIED TRIAL REGIME IN QUANTIFICATION OF DAMAGES

John W. Hill, PhD, JD*

Paul Hogan**

Yassir Karam, JD, MBA, CPA, ABV, ASA***

Arlen Langvardt, JD****

I. INTRODUCTION

In the post-*Daubert v. Merrell Dow Pharmaceuticals* era in which federal trial courts have been assigned the gatekeeping responsibility concerning the admissibility of scientific expert testimony,¹ the confluence of two trends is affecting expert testimony in cases involving business damages² in ways that are presenting new challenges for the courts and enhancing the risks for damages experts.³ One trend, the increasingly

* Arthur M. Weimer Chair in Business and Professor of Accounting; Kelley School of Business, Indiana University, Bloomington, Indiana, and Senior Advisor, Valuation Forensic Services, Clifton Gunderson, LLP.

** Third-Year Student, Indiana University School of Law, Bloomington, Indiana.

*** Partner and National Director, Valuation Consulting Group, Clifton Gunderson, LLP; Indianapolis, Indiana.

**** Professor and Chair of Business Law, Kelley School of Business, Indiana University, Bloomington, Indiana.

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1. See *Daubert v. Merrell Dow Pharmaceuticals*, 509 U.S. 579 (1993).

2. In this paper, we define the word "damages" in a general sense to mean a potential monetary award stemming from litigation in cases involving businesses. In this context, damages can arise from tort, breach of contract, divorce, infringement, and tax actions. The word "valuation," as used herein, is generally intended to mean the actual process of estimating damages.

3. See, e.g., PricewaterhouseCoopers, *2000-2006 Financial Expert Witness Daubert Challenge Study 5* (2007) ("In the Ninth Circuit, 68 percent of financial expert witness testimony challenged under *Daubert* between 2000 and 2006 were excluded in whole or in part.")

sophisticated content of expert testimony, stems, in part, from the changing nature of business in the U.S., which is becoming intellectual-capital intensive.⁴ This intellectual-capital intensity is increasing both the amount of litigation associated with this capital⁵ and the complexities associated with estimating damages in civil litigation involving commerce.⁶

4. See Lutz Kaufmann & Yvonne Schneider, *Intangibles: A Synthesis of Current Research*, 5 J. INTELL. CAP. 366, 373-74 (2004). The authors note that there is no consensus on one set of terms and definitions for intellectual capital, which includes such categories as intangible assets, intangible capital, intellectual assets, and intellectual property. The term "intellectual capital" is used herein to refer to a wide variety of assets that have no physical existence. These include assets traditionally defined as intellectual property (including copyrights, patents, and licenses) and also such "assets," used here in an economic as opposed to an accounting context, as customer accounts. The term "intellectual capital" has been defined as the difference between the market value and financial capital of that enterprise at a given date. See Indra Abeysekera, *Intellectual Accounting Scorecard—Measuring and Reporting Intellectual Capital*, 3 J. AM. ACAD. BUS. 422 (2003). We, however, follow Contractor in defining intellectual capital to include intellectual property that is registered (such as patents, copyrights, and brands), intellectual property that is unregistered but codified (such as drawings, software, blueprints, written trade secrets, databases, and formulae), and uncoded organizational capital (such as customer accounts, collective knowledge, skills, and knowledge). See Farok J. Contractor, *Valuing Corporate Knowledge and Intangible Assets: Some General Principles*, 7 KNOWLEDGE & PROCESS MGMT. 242, 245 (2000). Further, Abeysekera notes that "[a]lthough there is ambiguity as to whether intellectual capital represents all intangibles, the more popular definitions indicate that they refer to intangibles not recognized in the financial statements." Abeysekera, *supra*, at 422. It is also important to make a clear distinction between intellectual capital and human beings. "[P]eople are not assets, but the services which people are expected to provide for an organisation comprise the asset." Michael Litschka et al., *Measuring and Analyzing Intellectual Assets: An Integrative Approach*, 5 J. INTELL. CAP. 160, 164 (2005) (citing ERIC FLAMHOLTZ, *HUMAN RESOURCE ACCOUNTING* 32 (Kluwer Academic Publishers 2001)).

5. See, e.g., John E. Jankowski, *Measurement and Growth of R&D Within the Service Economy*, 26 J. TECH. TRANSFER 323, 327, 330, 335 (2001), for data on the growth of research and development (R&D) in U.S. industry and evidence that the trend toward greater concentrations of R&D in service businesses has a higher development component. See also Gregory Tasse, *R&D Investment Trends: U.S. Needs More High Tech*, 46 RES. TECH. MGMT. 9, 11 (2003). A 2002 survey conducted by Kroll, Inc. led to the following conclusion: "Intellectual property is at the heart of modern business, everything from technology to pharmaceuticals to music," said Michael Cherkasky, president and CEO of Kroll. "With more than half our survey respondents estimating the value of their company's intellectual property in excess of \$5 million, and nearly half reporting at least one incident of unauthorized use in the past year, IP infringement is clearly a multi-million dollar global problem." Press Release, Kroll Inc., *Kroll Survey Highlights Corporate Vulnerabilities to Growing Billion-Dollar Problem of Intellectual Property Abuse* (Apr. 16, 2002), available at <http://www.kroll.com/news/releases/index.aspx?id=151>.

6. "The greatly increased importance of intellectual property rights in worldwide business has, not surprisingly, been accompanied by a steady increase in the number and complexity of disputes concerning the use and value of such rights." Robert Goldscheider, *Measuring the Damages: ADR and Intellectual Property Disputes*, 50 DISP. RESOL. J. 55 (1995). See Manuel Garcia-Ayuso, *Factors Explaining the Inefficient Valuation of Intangibles*, 16 ACCT. AUDITING & ACCOUNTABILITY J. 57, 59 (2003), for an assertion that

A second important trend—growing partisanship in damages expert testimony⁷—is creating greater difficulty on the part of judges in determining what expert testimony meets the threshold of admissibility and is resulting in more frequent rejection of testimony by the courts.⁸ Evidence of this partisanship can be found in recent court decisions, with *Daubert* hearings on expert qualifications becoming the norm and increasing allegations of bias being aimed at business valuation professionals.⁹ Partisanship goes to the heart of the reliability of expert testimony, and is alleged to be contributing to what one commentator has described as an explosion of successful *Daubert* challenges over the past five years, with a success rate of 30-60%.¹⁰ Combined with the U.S. Supreme Court's trilogy of cases bearing upon the admissibility of scientific evidence in federal and some state courts¹¹—in contrast with the adherence of other states to the older *Frye* standard or to neither *Daubert* nor *Frye*¹²—these trends portend growing difficulty for the courts in assessing the reliability of expert testimony and growing uncertainty for testifying experts about courts' reactions to their reports and testimony.¹³

the failure of accounting-based financial reports to capture the underlying values of intellectual capital has contributed to a growing body of securities-related litigation. See Nir Kossovsky, *Fair Value of Intellectual Property: An Options-Based Valuation of Nearly 8,000 Intellectual Property Assets*, 3 J. INTELL. CAP. 62 (2006), for the comment that existing financial reporting is not responsive enough to capture the value of volatile intellectual assets; and Kaufman & Schneider, *supra* note 4, for the fluctuating differences between market and book [accounting] values as indicative of the rising importance of intellectual capital.

7. See, e.g., PricewaterhouseCoopers, *supra* note 3; Robert James Cimasi, *BV on Trial in Bankruptcy—Exclusive Insights from the In Re Med Diversified*, 47 BUS. VALUATION UPDATE 3 (Aug. 16, 2006); Gary L. Freed, *When Will It Stop?—The Sequel*, 6 NAT'L LITIG. CONSULTANTS REV. 7 (2007).

8. PricewaterhouseCoopers, *supra* note 3.

9. *Id.*

10. *Id.* (citing a study, "Daubert Challenges to Financial Expert Witnesses in Federal and State Courts, 2000-2005," by Price Waterhouse Coopers, a leading public accounting firm).

11. See generally Margaret A. Berger, *The Supreme Court's Trilogy on the Admissibility of Expert Testimony*, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 9 (2d ed. 2000).

12. J.A. Keierleber & T.L. Bohan, *Ten Years after Daubert: The Status of the States*, 50 J. FORENSIC SCI. 1, 1 (2005). The *Frye* standard referred to in the text came from *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923). It contemplated that expert evidence of a scientific nature would be admissible only if the methodology or technique employed by the expert reflected general acceptance in the relevant scientific community. *Id.* at 1014. For a discussion of *Frye*, its current applicability in some states, and its former applicability in the federal courts, see *infra* text accompanying notes 26-39.

13. Although court decisions in patent cases have an obvious focus on intangible assets and intellectual capital, we do not specifically address damages issues associated with patent cases because patent law is a specialized area of law that has been deemed sufficiently complicated to have its own appellate venue with specialized judicial expertise.

Past remedies for partisanship have proven largely unsuccessful,¹⁴ and given partisanship's intersection with the increasing complexity of business damages cases, a fresh approach is needed to curb its adverse effects.

Pre-*Daubert*, experts were introducing novel analyses that even other experts had difficulty understanding, thereby presenting serious issues for the courts.¹⁵ In *Daubert*,¹⁶ the first piece in what has been termed "the Supreme Court's trilogy on the admissibility of expert testimony,"¹⁷ the court provided basic criteria with respect to the admissibility of expert scientific testimony. The *Daubert* criteria, however, represent only general guidelines and fall well short of providing definitive guidance with respect to the appropriateness or inappropriateness of the use of particular scientific methodologies.¹⁸ In the second piece of the trilogy, *General Electric Co. v. Joiner*,¹⁹ the Court rejected the notion that lower courts should apply a standard more stringent than *Daubert* in excluding expert testimony.²⁰ A major import of *Joiner* for purposes of this study is that in the future courts are unlikely to establish a more complex, well-defined, universally applicable set of rules for admissibility of expert scientific testimony in cases involving computation of damages related to intellectual capital.

In the third piece of the trilogy, *Kumho Tire Co. v. Carmichael*,²¹ the Court rejected the notion that there is a dichotomy in expert testimony between experts who rely upon science versus those who rely upon personal experience.²² Further, the Court said that the pertinence of certain factors set forth in *Daubert* depends upon the nature of the case, expertise involved, and topic of the testimony.²³ In combination, *Daubert*, *Joiner*, and *Kumho* therefore create the potential for both considerable flexibility and concomitant ambiguity with respect to decisions by the courts regarding the appropriate use and admissibility of expert scientific evidence.²⁴

Nonetheless, we occasionally draw what we believe to be useful analogies to the manner in which patent cases are handled in the U.S. system.

14. See *infra* text accompanying notes 483-514.

15. Michelson Stephan, *The Expert and Law*, NAT'L FORENSIC CENTER, Apr. 29, 1983, at 5.

16. See *Daubert*, 509 U.S. 579.

17. Berger, *supra* note 11, at 9.

18. *Id.* at 38.

19. 522 U.S. 136 (1997).

20. See Berger, *supra* note 11, at 13.

21. 526 U.S. 137 (1999).

22. See Berger, *supra* note 11, at 17-18.

23. See *id.* at 19.

24. See *id.* at 21. Moreover, "[n]othing the Supreme Court said in *Kumho* is explicitly inconsistent with what it said in *Daubert*. As Justice Breyer's opinion stated, *Daubert* described the Rule 702 inquiry as 'a flexible one,' and made clear that factors it mentions do

This study proceeds as follows in exploring the intersection of these trends in the post-*Daubert* era and in proposing a new trial regime for dealing with complex business damages cases. Part II reviews the requirements for the admissibility and management of expert testimony established by the *Daubert*, *Joiner*, and *Kumho* courts. It then examines several recent court decisions related to the admission of expert testimony at the federal and state levels and the inconsistencies presented in some of these decisions. Part III deals with damage experts' backgrounds and the enhanced risks for these experts that accompany the provision of expert damages testimony in the post-*Daubert* era, including a discussion of increasingly expansive discovery and its adverse implications for attorney-expert communication. Part IV explores the art and the science of valuation and provides examples of the types of technical issues with which courts have had to deal—issues that have on occasion, like admissibility issues, been dealt with inconsistently. This discussion provides a sense of the illusion of objectivity in business damages estimation and the complexities that have challenged both courts and damages experts who must anticipate various courts' positions on technical issues. Part V relates the business environment dynamics giving rise to increased complexity in business damages cases and explores how these dynamics, in turn, are affecting the complexity of expert testimony and necessitating the use of increasingly sophisticated methodologies to provide the most accurate estimates of damages. In addressing this business complexity trend, we briefly discuss some of these methodologies to foster an understanding of the types of problems courts are increasingly likely to face in assessing the reliability of expert testimony in the future. We also provide illustrative examples from recent cases that involved these methodologies.

Part VI discusses the problem of growing partisanship on the part of some damages experts, together with an analysis of remedies that have been proposed in the past and reasons for their ineffectiveness. Part VII presents a novel approach for dealing with the sour fruits of expert partisanship through the bifurcation of the trial regime, augmented by the selective, tightly controlled use of independent experts to temper opposing parties' expert testimony. Part VIII summarizes our arguments and conclusions regarding their future impact on the quality of jurisprudence.

not constitute 'a definitive checklist or test.' Nevertheless, *Kumho* may indicate that the Court has somewhat backed away from laying down guidelines for particular categories of expert testimony The Court seems less absorbed in epistemological issues, in formulating general rules for assessing reliability It appears less interested in a taxonomy of expertise and more concerned with directing judges to concentrate on the particular circumstances of the particular case at issue." *Id.*

II. THE ADMISSIBILITY OF EXPERT TESTIMONY

Courts must inevitably decide whether to exclude expert testimony, which is almost always flawed in some respects, or to admit it and rely upon opposing counsel to draw out the testimony's weaknesses.²⁵ The requirements for expert testimony to be admissible have evolved at the federal level from the *Frye* standard to new standards established by *Daubert* and its progeny.²⁶ Some states have embraced the *Daubert* standard while others have clung to *Frye*.²⁷ Still others have attempted to meld the two in various ways, at times giving rise to hybrid case law.²⁸ Further complicating this cluttered landscape of conflicting rules for admissibility of expert testimony are conflicting decisions by courts regarding such admissibility matters as whether all potentially relevant variables have been considered by the expert and whether applications of financial methodologies are admissible in various contexts.²⁹

A. *The Daubert-Joiner-Kumho Trio*

Prior to three landscape-changing Supreme Court decisions during the 1990s,³⁰ most federal courts subscribed to a several-decades-old test for determining admissibility of expert testimony on scientific matters.³¹ Under that test, enunciated in *Frye v. United States*,³² an expert witness would be permitted to furnish opinion testimony employing a particular scientific methodology or technique only if the methodology or technique had earned "general acceptance" in the appropriate scientific community.³³ The *Frye* approach remained dominant among federal courts even after the mid-1970s adoption of the Federal Rules of Evidence (FRE), though some courts and commentators had begun to question the general acceptance test's soundness and viability.³⁴

In a 1993 decision, *Daubert v. Merrell Dow Pharmaceuticals, Inc.*,³⁵

25. Robert M. Lloyd, *Proving Lost Profits After Daubert: Five Questions Every Court Should Ask Before Admitting Expert Testimony*, 41 U. RICH. L. REV. 379, 421 (2007).

26. Berger, *supra* note 11, at 10.

27. Keierleber & Bohan, *supra* note 12, at abstract.

28. *Id.*

29. See *infra* text accompanying notes 113-42.

30. The three cases are *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993); *General Electric Co. v. Joiner*, 522 U.S. 136 (1997); and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999). The cases will be discussed at *infra* text accompanying notes 35-100.

31. *Daubert*, 509 U.S. at 585.

32. 293 F. 1013 (D.C. Cir. 1923).

33. *Id.* at 1014.

34. *Daubert*, 509 U.S. at 585, 586-87 & nn.4-5.

35. 509 U.S. 579 (1993). *Daubert* was the first of the three Supreme Court decisions

the Supreme Court resolved the viability issue by holding that Rule 702 of the Federal Rules of Evidence superseded the general acceptance test.³⁶ *Frye*'s "austere" test struck the Court as incompatible with Rule 702,³⁷ which read this way at the time of *Daubert*: "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise."³⁸ Having cast *Frye* aside, the *Daubert* majority turned its attention to what Rule 702 contemplates regarding expert evidence of a scientific nature.³⁹

The Court stressed that even though the FRE did not call for application of the general acceptance test, the FRE still placed limits on the admissibility of expert testimony.⁴⁰ Reading Rule 702 alongside other provisions of the FRE, the Court concluded that the trial judge "must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable."⁴¹ The "reliab[ility]" requirement stemmed from Rule 702's reference to "scientific . . . knowledge,"⁴² which the Court read as contemplating expert testimony that was grounded in the scientific method and reflective of scientific validity rather than mere speculation.⁴³

alluded to earlier. *See supra* text accompanying note 30.

36. 509 U.S. at 587, 588-89 & n.6; *see* FED. R. EVID. 702.

37. 509 U.S. at 589.

38. FED. R. EVID. 702; *Daubert*, 509 U.S. at 588. In 2000, an amendment to Rule 702 changed the concluding period to a comma and added the following language: "if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case." FED. R. EVID. 702.

39. *See* 509 U.S. at 589-97.

40. *Id.* at 589. The plaintiffs sought to offer expert opinions that a mother's ingestion of Bendectin during pregnancy could cause birth defects in her children. The district court excluded such testimony because it did not appear to have been based on a generally accepted principle or technique. *Id.* at 583-84. The Ninth Circuit affirmed. *Id.* at 584. Because the lower courts had applied the discredited general acceptance test, the Supreme Court vacated the Ninth Circuit's decision and remanded the case for further consideration under the guidelines set forth in *Daubert*. *Id.* at 587, 597-98.

41. *Id.* at 589. The court noted that its interpretation of Rule 702 was informed by Rule 402's provision that relevant evidence is generally admissible and by Rule 401's "liberal" standard of relevance. *Id.* at 587; *see* FED. R. EVID. 401, 402. In addition, the Court noted the "'liberal thrust'" of the Federal rules of Evidence and their "general approach of relaxing the traditional barriers to 'opinion' testimony." 509 U.S. at 588 (*quoting* *Beech Aircraft Corp. v. Rainey*, 488 U.S. 153, 169 (1988)).

42. FED. R. EVID. 702; *see Daubert*, 509 U.S. at 589-90.

43. 509 U.S. at 590. Because *Daubert* involved scientific testimony, the Court limited its discussion to that context and offered no view on whether the same relevance and reliability requirements would govern admissibility determinations regarding opinion testimony that would rely on "technical or other specialized knowledge." *Id.* at 590 n.8 (*quoting* FED. R. EVID. 702). In a later decision, *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999), the Court would address the question reserved in *Daubert*. For discussion of

An expert's opinion, therefore, would not be admissible unless it had "a reliable basis in the knowledge and experience of [the expert's] discipline."⁴⁴ As foundation for the further requirement that the expert testimony be relevant, the *Daubert* majority pointed to Rule 702's statement that such testimony must be capable of "assist[ing] the trier of fact to understand the evidence or to determine a fact in issue."⁴⁵ Such assistance could only be provided by relevant expert testimony—testimony that holds "a valid scientific connection to [a] pertinent inquiry" at issue in the case.⁴⁶

With *Daubert* having identified a trial judge's "gatekeeping" responsibility⁴⁷ to allow expert testimony of a scientific nature only if it would be relevant and reliable,⁴⁸ Justice Blackmun's majority opinion proceeded to furnish guidance for courts attempting to discharge this responsibility. The Court offered a nonexclusive list of factors bearing simultaneously upon the relevance and reliability requirements.⁴⁹ First among the listed factors was whether the theory or technique the expert seeks to employ "can be (and has been) tested."⁵⁰ The Court also noted the importance of considering whether the expert's proposed theory or technique had been "subjected to peer review and publication."⁵¹ In addition, the error rate associated with the expert's proposed theory or technique qualified for the nonexclusive list of factors to consider, as did

Kumho, see *infra* text accompanying notes 79-100.

44. *Daubert*, 509 U.S. at 592.

45. FED. R. EVID. 702; *Daubert*, 509 U.S. at 590-91.

46. 509 U.S. at 592; see *id.* at 591-92.

47. *Id.* at 597; see *id.* at 600 (Rehnquist, C.J., concurring in part and dissenting in part).

48. *Id.* at 590-92. FED. R. EVID. 104(a) calls for courts to make preliminary determinations on matters such as evidentiary admissibility and the qualification of a person to serve as a witness. FED. R. EVID. 104(a). Noting this provision, the Court stated that "the trial judge must determine at the outset" whether an expert's proposed testimony would be admissible. *Daubert*, 509 U.S. at 592. In doing so, the judge would need to make "a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue." *Id.* at 592-93.

49. See *Daubert*, 509 U.S. at 593-97. Giving the "general observations" label to its list of factors, *id.* at 593, the Court noted that various considerations would be relevant to the discharge of the trial judge's gatekeeping responsibility and that "we do not presume to set out a definitive checklist or test." *Id.*

50. *Id.* According to the Court, scientific methodology depends upon the generation of hypotheses that can be tested for apparent truth or falsity. *Id.*

51. *Id.* Although peer review and publication are traditional aspects of "submission to the scrutiny of the scientific community," *id.*, the Court recognized that some scientific knowledge may not have led to publication because it was too new or of interest to too small an audience. *Id.* Therefore, the Court concluded that "[t]he fact of publication (or lack thereof) in a peer reviewed journal . . . will be a relevant, though not dispositive, consideration in assessing the scientific validity of a particular technique or methodology on which an opinion is premised." *Id.* at 594.

any professional standards applicable to the operation of the theory or technique.⁵² Finally, the *Daubert* majority noted that even though the general acceptance test no longer controlled the inquiry into admissibility of expert testimony,⁵³ “[w]idespread acceptance” of a theory or technique is a factor that may help point toward admissibility.⁵⁴ The Court concluded its discussion of the gatekeeping responsibility by emphasizing the “flexible” nature of the trial judge’s inquiry into admissibility⁵⁵ and by stressing that the inquiry must be focused “solely on principles and methodology [to be employed by the expert], not on the conclusions that they generate.”⁵⁶

*General Electronic Co. v. Joiner*⁵⁷ was the second of the Supreme Court’s expert testimony decisions during the 1990s. The district court had disallowed the proffered scientific testimony of the plaintiff’s experts concerning a critical causation issue and had gone on to grant summary judgment to the defendants.⁵⁸ However, the Eleventh Circuit reversed after concluding that “a particularly stringent standard of review” should apply to lower courts’ exclusion of expert testimony, especially when the exclusion was outcome-determinative.⁵⁹ The Supreme Court granted certiorari on the standard-of-review issue.⁶⁰

52. *Id.*

53. *Id.* at 586-87, 588, 594. Answering expressions of concern by the respondent and by certain *amici curiae* that elimination of the general acceptance test’s controlling effect would result in the admission of expert testimony based on “absurd and irrational pseudoscientific assertions,” *id.* at 595, the Court noted that effective cross-examination, the presentation of opposing evidence, and appropriate jury instructions on the burden of proof would be appropriate ways to attack “shaky but admissible evidence.” *Id.* at 596. Moreover, the directed verdict or summary judgment options could be further checks in the event that opinion testimony admitted under the new standard amounted only to a mere scintilla of evidence in support of a party’s position. *Id.* The Court also noted a concern of the petitioners and other *amici* that the screening role envisioned for the trial judge could lead to “a stifling and repressive scientific orthodoxy.” *Id.* In response, the Court did not deny that opinion testimony based on “insights and innovations” that could prove “authentic” over time might sometimes be excluded because they seem at the time to be so starkly different from conventional wisdom. *Id.* at 597. However, the Court pointed out the flexible nature of the gatekeeping inquiry and expressed confidence in trial judges’ ability to discern whether proffered opinion testimony would be scientifically valid and pertinent to the case at hand. *See id.* at 594-95, 596-97.

54. *Id.* at 594.

55. *Id.*

56. *Id.* at 595.

57. 522 U.S. 136 (1997).

58. *Id.* at 140. The plaintiff sought to offer expert testimony that exposure to PCB’s had caused or contributed to the development of his lung cancer. *Id.* at 139-40. The district court rejected this proposed testimony because, in the court’s view, it was based on animal studies and epidemiological studies that did not furnish sufficient support for such testimony. *Id.* at 140, 143-44, 145-46.

59. *Id.* at 140, 141.

60. *Id.* at 138-39, 141.

Writing for the Court in *Joiner*, Chief Justice Rehnquist began by noting the familiar rule that the abuse-of-discretion standard controls the review of district courts' rulings on evidentiary matters.⁶¹ He recited *Daubert's* holding that trial courts must play a gatekeeper role in screening expert testimony for relevance and reliability⁶² and observed that nothing in *Daubert* addressed the standard to be employed in the review of district courts' gatekeeping rulings.⁶³ The Court saw no reason to depart from the usual abuse-of-discretion standard when reviewing rulings on admissibility of expert testimony, regardless of whether the testimony was being allowed or disallowed and regardless of whether the disallowance of the testimony would prove outcome-determinative.⁶⁴ Accordingly, the Court concluded that the Eleventh Circuit erred in calling for a more stringent review.⁶⁵ The *Joiner* majority did not stop there, however. It thoroughly reviewed the record and concluded that the testimony the plaintiff's scientific experts would have offered on the critical issue of causation was based on studies that did not sufficiently support their opinions.⁶⁶ Hence, there was no abuse of discretion on the part of the district court in its decision to exclude the testimony of the plaintiff's scientific experts.⁶⁷

Near the end of the majority opinion in *Joiner*, Chief Justice Rehnquist addressed the plaintiff's argument that the district court's exclusion of the experts' testimony had been premised more on the court's disagreement with the experts' conclusions than on a concern about the methodology the experts would have employed.⁶⁸ This argument rested on *Daubert's* statement that the trial court's gatekeeping inquiry was to be focused "solely on principles and methodology [utilized by the experts], not on the conclusions that they generate."⁶⁹ The Chief Justice responded

61. *Id.* at 141-42.

62. *Id.* at 142; see *Daubert*, 509 U.S. at 590-92, 597.

63. *Joiner*, 522 U.S. at 142.

64. *Id.* at 142-43. The Court noted that when a party's summary judgment motion is granted—as it was in favor of the defendants in the trial court—disputed factual issues are to be resolved in favor of the nonmoving party. *Id.* at 143. The Court emphasized, however, that "the question of admissibility of expert testimony is not such an issue of fact, and is reviewable under the abuse of discretion standard." *Id.*

65. *Id.* In applying a stringent standard of review to the trial judge's exclusion of the expert testimony, the Eleventh Circuit "failed to give the trial court the deference that is the hallmark of abuse of discretion review." *Id.*

66. *Id.* at 143-46. Justice Stevens, who had joined with the other eight members of the Court in the portion of the decision holding that abuse of discretion was the appropriate standard of review, *id.* at 137, would have remanded the case to the court of appeals for a review of the record under the abuse-of discretion standard. *Id.* at 150-51 (Stevens, J., concurring in part and dissenting in part).

67. *Id.* at 143, 146-47.

68. *Id.* at 146.

69. *Daubert*, 509 U.S. at 595; see *General Electric Co. v. Joiner*, 522 U.S. at 146 (1997).

by observing that

conclusions and methodology are not entirely distinct from one another. Trained experts commonly extrapolate from existing data. But nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.⁷⁰

Through this language and the holding that the abuse-of-discretion standard controls the review of trial courts' gate-keeping decisions,⁷¹ *Joiner* extended district judges greater latitude than *Daubert* might seem to have given them concerning preliminary rulings on expert testimony's relevance and reliability.⁷²

Justice Breyer's *Joiner* concurrence offered useful insights on procedural techniques for trial judges to employ as they fulfill the gatekeeping responsibility identified in *Daubert* and further elaborated on in *Joiner*.⁷³ Noting the "inherent difficulty of making determinations about complicated scientific, or otherwise technical, evidence,"⁷⁴ Justice Breyer commented on the use of pretrial conferences to narrow the disputed issues and pretrial hearings in which the court could examine the experts each side wished to offer.⁷⁵ He also suggested the potential usefulness of appointing special masters and "specially trained law clerks."⁷⁶ Finally, Justice Breyer noted that courts might want to opt for appointing experts under Rule 706 of the Federal Rules of Evidence or under the courts' inherent authority.⁷⁷ All of these methods, Justice Breyer observed, should

70. *Joiner*, 522 U.S. at 146. Unpersuaded by this statement, Justice Stevens would have preserved a "categorical . . . distinction" between methodology and conclusions. *Id.* at 155 (Stevens, J. concurring in part and dissenting in part). He asserted that "*Daubert* quite clearly forbids trial judges to assess the validity or strength of an expert's scientific conclusions, which is a matter for the jury." *Id.* at 154.

71. *Id.* at 142-43.

72. *See id.* at 146-47; *id.* at 154-55 (Stevens, J. concurring in part and dissenting in part).

73. *Id.* at 147-50 (Breyer, J., concurring).

74. *Id.* at 149.

75. *Id.*; *see* FED. R. CIV. P. 16 (setting authority to conduct pretrial conferences); *see also* FED. R. CIV. P. 42(b) (providing that court may order "a separate trial of one or more separate issues"); FED. R. EVID. 104 (stating that "[p]reliminary questions concerning the qualification of a person to be a witness . . . or the admissibility of evidence shall be determined by the court).

76. *Joiner*, 522 U.S. at 149 (Breyer, J., concurring). FED. R. CIV. P. 53 furnishes federal courts the authority to appoint special masters.

77. *Joiner*, 522 U.S. at 149-50 (Breyer, J., concurring). Rule 706 provides that a court may appoint an expert on its own motion or on a party's motion, and that the expert may be chosen by the court or pursuant to an agreement between the parties. *See* FED. R. EVID. 706(a).

help keep courts' *Daubert*-based responsibilities from becoming excessively difficult to discharge.⁷⁸

Justice Breyer authored the majority opinion in *Kumho Tire Co. v. Carmichael*,⁷⁹ the third of the Supreme Court's expert testimony decisions during the 1990s.⁸⁰ The case presented two primary questions: first, whether the gatekeeping responsibility identified in *Daubert* applies not only to expert evidence of a scientific nature but also to expert testimony regarding technical or other specialized matters, and second, if the gatekeeping responsibility so applies, whether the factors identified in *Daubert* constitute an exclusive list that trial judges must use in seeking to determine the relevance and reliability of the proposed expert testimony.⁸¹ The Court unanimously answered "yes" to the first question⁸² and "no" to the second.⁸³

Justice Breyer began the analysis in *Kumho* by noting that Rule 702 of the Federal Rules of Evidence furnished the basis for the *Daubert* holding that the trial judge has a gatekeeping obligation to determine the relevance and reliability of expert evidence on scientific matters.⁸⁴ Rule 702 refers to an expert's "scientific, technical, or other specialized knowledge."⁸⁵ Justice Breyer observed that the *Daubert* majority opinion had spoken in terms of expert evidence of a scientific nature only because the expert testimony at issue in the case was of that nature.⁸⁶ The same reasoning calling for trial judges to screen scientific expert testimony suggested a need for a similar gatekeeping responsibility regarding other types of expert testimony.⁸⁷ Hence, the Court held that trial judges must also determine whether proposed expert testimony of a non-scientific nature would meet the necessary requirements of relevance and reliability.⁸⁸

Next, the *Kumho* Court turned to the factors listed in *Daubert* as

78. *Joiner*, 522 U.S. at 150 (Breyer, J., concurring).

79. 526 U.S. 137 (1999).

80. *Id.* at 141.

81. *Id.*

82. *Id.* at 141, 147-49.

83. *Id.* at 141-42, 149-53. In a later portion of the opinion subscribed to by eight Justices, the Court reviewed the record and concluded that the district court had properly disallowed the testimony of the plaintiff's technical expert. *Id.* at 153-58, 159 (Stevens, J., concurring in part and dissenting in part). The proffered opinion testimony pertained to causation of a tire failure. *Id.* at 142-46.

84. *Id.* at 147.; see FED. R. EVID. 702 (permitting expert witnesses to testify); *Daubert*, 509 U.S. at 589.

85. FED. R. EVID. 702.

86. *Kumho Tire Co. v. Carmichael*, 526 U.S. 147-48 (1999); see *Daubert*, 509 U.S. at 590 n.8 (stating the discussion was limited to the scientific context because it was the nature of the expertise at issue).

87. *Kumho*, 526 U.S. at 147-49.

88. *Id.* at 149.

relevant to the trial judge's screening role. Those factors were whether the expert's theory or technique had been tested, whether it had been the subject of peer review and publication, whether it was susceptible to a high rate of error, whether standards governed the operation of the theory or technique, and whether the theory or technique was widely accepted.⁸⁹ Stressing that *Daubert* called the reliability inquiry "flexible,"⁹⁰ Justice Breyer noted in *Kumho* that some or all of the *Daubert* factors may be helpful when the trial judge assesses expert testimony of a non-scientific nature.⁹¹ However, not every *Daubert* factor will be relevant in every case and other factors or considerations not specifically listed in *Daubert* may prove to be useful to the judge exercising the gatekeeping duty.⁹² The *Daubert* list "was meant to be helpful, not definitive."⁹³

To bolster the conclusion that the list of factors in *Daubert* was neither mandatory nor exclusive, the *Kumho* Court pointed to the *Joiner* holding that the abuse-of-discretion standard controls the review of trial judges' gatekeeping decisions regarding expert testimony.⁹⁴ In *Kumho*, Justice Breyer noted that *Joiner*'s adoption of the abuse-of-discretion standard extended latitude to trial judges when they determine "whether or not [an] expert's relevant testimony is reliable."⁹⁵ He reasoned that trial judges "must have the same kind of latitude in deciding *how* to test an expert's reliability."⁹⁶ The "how" latitude would include not only the freedom to employ some or all of the *Daubert* factors—perhaps in combination with other considerations⁹⁷—but also the discretion to "decide whether or when special briefing or other proceedings are needed to investigate reliability."⁹⁸

Kumho concluded with the Court's examination of the record and a ruling that the district court had correctly disallowed the testimony of the plaintiff's expert, who would have offered the opinion that the tire failure at issue in the case resulted from a design or manufacturing defect.⁹⁹ The expert's proposed methodology was insufficiently reliable because it added

89. *Id.* at 149-50; *Daubert*, 509 U.S. at 592-94.

90. *Daubert*, 509 U.S. at 594.

91. *Kumho*, 526 U.S. at 150-51.

92. *Id.*

93. *Id.* at 151.

94. *Id.* at 152 (citing *Joiner*, 522 U.S. at 138-39).

95. *Kumho*, 526 U.S. at 152; *see Joiner*, 522 U.S. at 138-39 (holding that the abuse-of-discretion review is the appropriate standard to review a trial court's decision to admit expert testimony).

96. *Kumho*, 526 U.S. at 152.

97. *Id.* at 150-51, 152-53.

98. *Id.* at 152.

99. *Id.* at 153-58. *See id.* at 142-46 (describing the testimony given by the expert in deposition). Justice Stevens did not join this portion of the Court's opinion. *See id.* at 159 (Stevens, J., concurring in part and dissenting in part) (dissenting from the portion of the Court's opinion disallowing the expert testimony).

unsupported components to what might otherwise have seemed a more conventional methodology and because it relied on assumptions that ignored, or were inconsistent with, facts in the record.¹⁰⁰

Following the *Daubert-Joiner-Kumho* trio of cases, Rule 702 of the Federal Rules of Evidence was amended in an attempt to codify key components of those decisions.¹⁰¹ After the 2000 amendment, Rule 702 took its current form, stating:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.¹⁰²

B. Admissibility of Expert Testimony in Federal Courts, Post-Daubert

As one source notes, “*Daubert* gives every appearance of having affected the judicial approach to handling expert evidence in federal civil cases.”¹⁰³ Despite arguments that the courts have too frequently admitted misleading expert testimony,¹⁰⁴ there is little doubt that district courts are taking their gatekeeper role seriously in the post-*Daubert* era. Although judges rarely raise questions of admissibility not disputed by the parties,¹⁰⁵ a 2002 Federal Judicial Center study of post-*Daubert* cases indicated that 41% of experts were excluded on motions *in limine* during 1998, up from 25% in 1991.¹⁰⁶

The Federal Rules of Evidence require a complete statement of all of the opinion,¹⁰⁷ and a substantial number of judges indicate the requirement to submit expert reports improves the quality of jurisprudence by limiting the need for other testimony and discouraging testimony outside of the

100. *Id.* at 154-57.

101. FED. R. EVID. 702 advisory committee’s note.

102. FED. R. EVID. 702.

103. Carol Krafka et al., *Judge and Attorney Experiences, Practices, and Concerns Regarding Expert Testimony in Federal Civil Trials*, 8 PSYCHOL. PUB. POL’Y & L. 309, 329 (2002).

104. Lloyd, *supra* note 25, at 380.

105. Krafka et al., *supra* note 103, at 321.

106. *Id.* at 322.

107. See Bill Zimmerman, Knobbe Martens Olson & Bear LLP, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, Complying with Standards for Expert Work Product (March 20, 2006) (conference materials and notes on file with authors); FED. R. CIV. P. 26(a)(2)(B).

potential witness' area of expertise.¹⁰⁸ The admissibility of damages expert reports based upon accepted valuation standards and methodology¹⁰⁹ is rarely denied absent some disconnect involving assumptions, analysis, or fit with the facts of the case,¹¹⁰ and courts have increasingly accepted the applications of the financial theory in damages estimation in litigation such as shareholder lawsuits.¹¹¹ In attempting to exclude opposing opinions, astute attorneys will cite all known instances involving the type of situation represented by the case at hand in order to "give the judge the backbone" for exclusion.¹¹²

In keeping with *Daubert's* mandate to maintain experts within their proper scope lest they mislead juries,¹¹³ various courts have struggled with key admissibility issues that sometimes lead to inconsistent outcomes. These issues include: a) the experience qualifications necessary for an expert to meet the *Daubert* criteria, b) whether the reliability of expert testimony is a question of fact or must be decided by a judge, and c) whether the particular valuation methods used by an expert are relevant as long as the methods reasonably reflect the value of the capital in question.¹¹⁴

Courts have at times wrestled with the issue of exactly what background and experience is necessary for a damages professional to be considered an expert in the context of a particular case, but seemingly favor some latitude in this regard.¹¹⁵ In *Spray-Rite Service Corp. v. Monsanto*

108. Krafka et al., *supra* note 103, at 323 (maintaining that reports encourage parties to stipulate to facts and issues more often).

109. For a discussion recognizing that the labels "methods" and "methodology" can be confusing, mean different things to different people, and lack standards for their practical application to context in the realm of valuation, see D.H. Kaye, *The Dynamics of Daubert: Methodology, Conclusions, and Fit In Statistical and Econometric Studies*, 87 VA. L. REV. 1933, 1978 (2001). With respect to estimating damages, we define "methods" as general approaches, such as the income method (which, for example, attempts to determine what the income of a business would have been but for a breach of contract), which can be distinguished from a discounted cash flow "methodology" (one technique by which the income method can be implemented).

110. Thomas J. Wiegand, Winston & Strawn LLP, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, Challenges to Expert Testimony (March 21, 2006) (conference materials and notes on file with authors).

111. Jon Koslow, *Estimating Aggregate Damages in Class-Action Litigation Under Rule 10B-5 for Purposes of Settlement*, 59 FORDHAM L. REV. 811, 811 (1991).

112. Wiegand, *supra* note 110.

113. See *DePaepe v. Gen. Motors Corp.*, 141 F.3d 715, 720 (7th Cir. 1998) (vacating and remanding a case in which an expert was deemed qualified by the trial court but unqualified by the appellate court).

114. See generally John J. Stockdale, Jr.'s excellent series of business valuation case summaries entitled *Business Valuation Cases in Brief*, published monthly in BUSINESS VALUATION REVIEW.

115. A similar issue to that of industry experience is whether prior testimony on a given

Co., the court affirmed the use of a business damages expert who admitted that he was not an expert in all the fields of study upon which he relied in preparing his testimony.¹¹⁶ In *Supply & Building Co. v. Estee Lauder International, Inc.*, a case involving sole distributorship rights in Kuwait, the court approved a CPA as an expert despite his lack of experience in law, sociology, cultural anthropology, demographics, international affairs, and knowledge of the region.¹¹⁷ While excluding the testimony of a technical expert on other grounds, the appellate court in *DaPaepe v. General Motors Corp.* noted that “[t]he question is not whether the expert has hands-on experience but whether his testimony meets scientific standards.”¹¹⁸ In *Dekker v. Topcon American Corp.*, the court rejected arguments that a damages expert was unqualified due to the lack of a CPA designation, an accounting degree, and industry experience, because the expert held a valuation certification and had been admitted as an expert by lower courts.¹¹⁹ The court in *Physicians Dialysis Ventures, Inc. v. Griffith* deemed a business valuation expert competent to testify even though the case was her first involvement with dialysis centers.¹²⁰ In *James Medical Equipment, Inc. v. Allen*, the court allowed the testimony of an expert who had never previously testified.¹²¹

Conversely, in *In Re Med Diversified, Inc.*, the court noted that an accountant’s 20 years of experience in his profession and as a bankruptcy trustee were insufficient to qualify him as a damages expert in light of his

issue is required for one to qualify as an expert. In *Pabst Brewing Co. v. Comm’r*, the court, in excluding his testimony for a variety of reasons, noted that a valuation expert had not previously provided testimony with respect to valuing a company in the brewery business. 72 T.C.M. (CCH) 1236 (1996). Application of such a stringent experience criterion would beg the obvious question of how an expert obtains the required testimony experience the first time. One can only assume that any court insisting upon a prior-testimony-on-case-point requirement must presume that some other court with laxer admissibility criteria ruled in error. This, in turn, begs the logical follow-on question of why a prior court’s mistake would qualify an expert in the first place.

116. 684 F.2d 1226, 1241 (7th Cir. 1982).

117. 95 Civ. 8136 (RCC), 2001 U.S. Dist. LEXIS 20737, at *17-18 (S.D.N.Y. December 13, 2001).

118. 141 F.3d 715, 719 (7th Cir. 1998). The court also stated that “a judge does not automatically abuse his discretion in concluding that an expert can offer useful information without having dealt previously with the product at issue in the case,” *id.* (citing *Cummins v. Lyle Industries*, 93 F.3d 362, 369 (7th Cir. 1996)), and that “practical experience is not essential to expert testimony and sometimes gets in the way of scientific detachment” (citing *Minasian v. Standard Chartered Bank, PLC*, 109 F.3d 1212, 1216 (7th Cir. 1997)).

119. *Dekker v. Topcon Am. Corp.*, No. G027150, 2002 WL 1046005, at *4-5 (Cal.App.4 Dist. May 24, 2002).

120. No. 06-2468(MLC), 2007 U.S. Dist. LEXIS 78879, at *19-27 (D.N.J. October 23, 2007).

121. *James Med. Equip., Inc. v. Allen*, Nos. 2005-CA-000128-MR, 2005-CA-000272-MR, 2006 WL 2788435, at *8-9 (Ky. App. Sep. 29, 2006).

lack of formal education and credentials in business valuation.¹²² Similarly, in *In re Imperial Credit Industries, Inc. Securities Litigation*, the court held that a report by an accountant who was not well-versed in stock price reaction studies was inadmissible.¹²³ In *Rosvold v. LSM Systems Engineering, Inc.*, the court rejected an expert as lacking in business valuation credentials despite a graduate degree from a prestigious school and prior experience in acquiring businesses, in part because he did not belong to any organizations issuing business valuation credentials.¹²⁴ An expert was excluded in *M.S. Distributing Co. v. Web Records, Inc.* because the court determined that experience in rock-and-roll music was insufficient to qualify him as an expert in other types of music.¹²⁵

Another admissibility issue addressed by courts is whether the reliability of expert testimony is a question of law or fact. Numerous cases exist where courts have excluded testimony for reasons of unreliability. For example, the appellate court in *Children's Broadcasting Corp. v. The Walt Disney Co.* reversed the district court's exclusion of a damages expert's testimony and stated that "[t]he jury was entitled to sort through the evidence presented at trial and to arrive at what it considered to be the damages"¹²⁶ In *Gross v. Commissioner*, the tax court found that the question was not of appropriate methodology but rather whether it had been appropriately applied: "The choice of the appropriate valuation methodology for a particular stock is, in itself, a question of fact."¹²⁷

In *Popham v. Popham*, the court held that the choice of valuation method went to the weight of the testimony, not its admissibility.¹²⁸ Similarly, in *Downeast Ventures, Ltd. v. Washington County*, deciding a Rule 702 issue, the court found that the reliability of a damages expert's income projections again went to weight, not admissibility.¹²⁹ Conversely,

122. *Chartwell Litig. Trust v. Addus Healthcare, Inc. (In re Med Diversified, Inc.)*, 334 B.R. 89, 96-98 (Bankr. E.D.N.Y. 2006).

123. *In re Imperial Credit Indus. Sec. Litig.*, 252 F. Supp. 2d 1005, 1013 (C.D. Cal. 2003).

124. *Rosvold v. LSM Systems Engineering, Inc.*, 2007 WL 3275107, at *3 (E.D. Mich., Nov. 6, 2007).

125. *M.S. Distrib. Co. v. Web Records, Inc.*, 2003 U.S. Dist. LEXIS 8078, at *31 (N.D. Ill. May 12, 2003).

126. *Children's Broad. Corp. v. Walt Disney Co.*, 245 F.3d 1008, 1017 (8th Cir. 2001).

127. *Gross v. Comm'r*, 272 F.3d 333, 343 (6th Cir. 2000) (quoting *Estate of Newhouse*, 94 T.C. at 245). Other cases cited on point were *O'Malley v. Ames*, 97 F.2d 256, 258 (8th Cir. 1952) and *Riss v. Comm'r*, 56 T.C. 388, 430 (1971), *aff'd sub nom.* *Comm'r v. Transp. Mfrs. & Equip. Co.*, 478 F.2d 1160 (8th Cir. 1973).

128. *Popham v. Popham*, 607 S.E.2d 575, 576 (Ga. 2005).

129. *Downeast Ventures, Ltd. v. Washington County*, No. 05-87-B-W, 2007 U.S. Dist. LEXIS 14733, at *4-*7 (D. Me. March 1, 2007); *see also* *Clement v. Clement*, No. W2003-02388-COA-R3-CV, 2004 WL 3396472, at *12 (Tenn. Ct. App. Sept. 23, 2004) (holding that the fact that an expert gave a "limited" opinion of value was a matter of weight, not admissibility).

in *DOT v. Rogers*, the appellate court declared the admission of business damages reversible error as a matter of law because of state law restrictions on business damages in eminent domain cases.¹³⁰ In *Mathew Headley Holdings, LLC v. McCleary, Inc.*, the court excluded an economic expert's testimony for lack of adequate foundation.¹³¹ The appellate court in *Jarrell v. Miller* ruled expert testimony inadmissible because of errors, with one judge dissenting and arguing that the errors went to weight, not admissibility.¹³²

A third related issue with which the courts have seemingly struggled is the issue of how seriously flawed damages expert testimony can be and still be admitted.¹³³ Although courts do not require that damages be proven with absolute precision,¹³⁴ testimony not supported by evidence in the record should be excluded.¹³⁵ Testimony that constitutes mere personal belief is said "to invade the province of the fact finder,"¹³⁶ and courts do not allow damages experts to substitute principles and methods in order to fill an evidentiary vacuum.¹³⁷ In *Lippe, et al. v. Bairnco Corporation, et al.*, the appellate court decided that the district court did not abuse its discretion in excluding expert damages testimony concerning which it found no less than eighteen serious flaws.¹³⁸ The court in *Audobon Veterinary Hospital, Inc. v. U.S. Fidelity & Guarantee Co.* refused to strike an expert's report it found seriously flawed and not in compliance with

130. *DOT v. Rogers*, 705 So. 2d 584 (Fla. Dist. Ct. App. 1997).

131. *Matthew Headley Holdings, LLC v. McCleary, Inc.*, No. 02-0654-CV-W-FJG, 2007 U.S. Dist. LEXIS 78017 (W.D. Mo. Oct. 19, 2007).

132. *Jarrell v. Miller*, 882 So. 2d 639 (La. Ct. App. 2004).

133. A related issue is whether the particular valuation methods used by an expert are relevant as long as the methods reasonably reflect the value of the capital in question. As with several other questions arising in valuation testimony, courts are not always entirely consistent in answering this question. *Compare Hamby v. Hamby*, 547 S.E.2d 110 (N.C. Ct. App. 2001) (court criticized valuation expert for failure to apply certain methods) *with McCarthy v. McCarthy*, C3-00-1650, 2001 Minn. App. LEXIS 679 (June 19, 2001) (reasoning that valuation methods are not relevant so long as method reasonably reflects value of assets in question).

134. *See, e.g., Colorado ex rel. Woodard v. Goodell Bros., Inc.*, No. 84-A-803, 1987 U.S. Dist. LEXIS 14549 (D. Colo. Feb. 17, 1987); *Law v. NCAA*, 185 F.R.D. 324 (D. Kan. 1998); *Busy Bee, Inc. v. Wachovia Bank, N.A.*, No. 97 CV 5078, 2006 LEXIS 238 (Pa. D. & C. Feb. 28, 2006).

135. *Tyger Constr. Co. v. Pensacola Constr. Co.*, 29 F.3d 137 (4th Cir. 1994).

136. *Chemipal LTD v. Slim-Fast Nutritional Foods Int'l, Inc.*, 350 F. Supp. 2d 582 (D. Del. 2004) (citing *McGowan v. Cooper Indus., Inc.*, 863 F.2d 1266, 1273 (6th Cir. 1987)) (excluding court testimony of valuation expert for failure to meet *Daubert* requirement that expert's conclusions be based upon reliable scientific knowledge).

137. *See, e.g., Downeast Ventures LTD v. Washington County*, No. 05-87-B-W, 2007 U.S. Dist. LEXIS 14733, 10 (D. Me. Mar. 1, 2007). There, the judge stated, "I am not simply concerned that that the evidence is weak. I am concerned that there is not sufficient data upon which to base a projection." *Id.*

138. *Lippe v. Bairnco Corp.*, 99 Fed. Appx. 274 (2d Cir. 2004).

FRCP 26(a)(2) due in part to the absence of an opinion, but imposed sanctions in requiring the production of the appropriate report content in order for the report to be admissible.¹³⁹ In *Chartwell Litigation Trust v. Addus Healthcare, Inc.*, the court expressed concern over a number of perceived flaws in the damages expert's report, including: the lack of reasonable convergence among the various methods used by a damages expert to value damages, the literature cited in the report, the exclusion of nonrecurring events from some but not all of the analysis, the absence of support for weighting one valuation method more heavily than others, and the need for more support for assumptions.¹⁴⁰

In certain types of cases, courts have come to expect particular methodologies, as is the case with securities litigation wherein statistical events studies are the norm, and have excluded evidence in the absence of these methodologies.¹⁴¹ These court-imposed standards of reliability notwithstanding, some courts have demonstrated a willingness to accept damages testimony that might normally be considered substandard when circumstances beyond the control of the expert prevented the use of optimal methodology.¹⁴²

Despite the courts' having wrestled with the foregoing matters of admissibility, among others, considerable confusion remains about implementing the Supreme Court's trilogy and about further questions said to outnumber those answered.¹⁴³ In order to place this confusion in its proper context, it is helpful to know something about the growing market for damages experts as well as their backgrounds and concerns. The following part discusses the demand for damages experts, their qualifications, and the risks they face.

III. DAMAGES EXPERTS

Experts usually fall into two general categories—industry/technical and damages—and it has become increasingly important for attorneys to

139. *Audobon Veterinary Hosp., Inc. v. U.S. Fid. & Guarantee Co.*, No. 06-5875, 2007 WL 1853369 (E.D. La. 2007).

140. *Chartwell Litig. Trust v. Addus Healthcare, Inc. (In re Med Diversified, Inc.)*, 334 B.R. 89 (Bankr. E.D.N.Y. 2005).

141. *See, e.g., In re Executive Telecard Ltd. Sec. Litig.*, 979 F. Supp. 1021 (S.D.N.Y. 1997). Also, in securities fraud cases, damages experts are generally expected to be able to distinguish between fraud-related stock price changes and change unrelated to the fraud. *See, e.g., In re Oracle Sec. Litig.*, 829 F. Supp. 1176 (N.D. Cal. 1993).

142. *See, e.g., RMED Int'l, Inc. v. Sloan's Supermarkets, Inc.*, No. 94 Civ. 5587, 2000 U.S. Dist LEXIS 3742 (S.D.N.Y. Mar. 24, 2000) (allowing a valuation expert's testimony to be admitted despite her failure to use the accepted events methodology due to a lack of a control period, when she instead chose an acceptable but less compelling alternative methodology).

143. *Krafka et al., supra* note 103, at 3.

pair damages experts with technical experts in a way that presents case themes effectively.¹⁴⁴ The choice of a damages expert is a nontrivial matter because expert testimony presents an excellent opportunity to bring home case themes and can make or break a case.¹⁴⁵ Further, an expert's summary can be a useful conduit for introducing otherwise inadmissible evidence.¹⁴⁶ Survey research conducted by the Federal Judicial Center indicates that 21.4% of all experts providing expert testimony in federal circuit civil trials in 1998 were accountants, economists, and other financial experts.¹⁴⁷ Further, experts can function as either testifying experts or consulting experts, the purpose of the latter being to advise attorneys on case development rather than to provide independent damages estimates.¹⁴⁸ Although the use of consulting experts in addition to testifying experts may enhance the quality of a client's case, it obviously also raises the client's cost of litigation. Although there is little evidence on how often attorneys use consulting experts, approximately one-third of attorneys responding to a survey regarding federal circuit cases in 1998 reported using consulting experts.¹⁴⁹

A. *A Growing Market for Damages Testimony*

In what has been termed a boom of financial expert testimony,¹⁵⁰ the demand for expert testimony is growing rapidly.¹⁵¹ A 2002 Federal

144. Steven G. Jones, Marten Law Group, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, Is an "Independent" Expert Necessary? (Mar. 20, 2006) (conference materials and notes on file with authors); *see also* Krafka et al., *supra* note 103, at 12 (stating that a financial expert can be the difference between winning and losing a case).

145. Jones, *supra* note 144.

146. Honorable Marvin E. Aspen, C.J., U.S. Dist. Ct. No. Dist. Ill., *Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, Special Address: A View from the Bench on Do's and Don'ts from Expert Witnesses* (March 21, 2006) (conference materials and notes on file with authors).

147. Krafka et al., *supra* note 103, at 12.

148. *See, e.g.*, Peter B. Frank, et al., *The Role of the Financial Expert in Litigation Services*, in LITIGATION SERVICES HANDBOOK (Roman L. Weil et al. eds. 4th ed. 2007), at 1.18; Bill Schuurman & Nicole Stafford, *The Art of Using Experts*, MANAGING INTELL. PROP., May 2002, at 17. Consulting experts who do not testify receive special protection from discovery under FED. R. CIV. PRO. 26(b)(4)(B), which is designed to prohibit a party from using its opponents' own experts to prepare its own case.

149. Krafka et al., *supra* note 103, at 3, 18.

150. *See* Michael J. Mandel, *Going for the Gold: Economists as Expert Witnesses*, 13 J. ECON. PERSPECTIVES 2, 113 (Spring 1999) (noting that the past several years have seen explosive growth in litigation support consulting and estimating a 60% growth over a three-year period in revenues for three large litigation support firms).

151. One survey showed that for federal civil trials involving experts, the number of experts testifying rose from 1.85 to 2.47 during the period 1991-1998. Krafka et al., *supra* note 103, at 11.

Judicial Center study indicated that of 299 trials in 1998, 45% were tort actions involving experts, and 98% of plaintiffs were likely to use experts.¹⁵² This burgeoning demand is due to a large extent to court decisions suggesting that expert testimony is highly desirable in cases involving business damages. For example, the absence of expert testimony has resulted in courts refusing to accept damage estimates, as is apparent in divorce cases. In *Kelly v. Kelly*, neither party presented damages expert testimony. The appellate court determined that both parties' opinion testimony was insufficient to support the lower court's valuation regarding a business and remanded the case for appointment of a damages expert.¹⁵³ In *Camp v. Camp*, the court refused to consider tax consequences emanating from a court-ordered buyout of a business because the husband had presented no expert testimony calculating such tax ramifications.¹⁵⁴ The appellate court in *Markowitz v. Markowitz* affirmed the lower court's rejection of the husband's no-evidence argument and acceptance of a valuation supported by expert business damages testimony.¹⁵⁵ In *Schwartz v. Schwartz*, the court affirmed the assignment of no value to a business and noted that neither party had proffered expert testimony.¹⁵⁶ In *Zeptner v. Zeptner*, the appellate court reversed the lower court award against the husband and ruled that the wife had not presented evidence of an increase in value in a business she alleged existed.¹⁵⁷ A similar result was obtained in *Franks v. Franks* for similar reasons.¹⁵⁸

The court-driven need for experts is not restricted to divorce cases, however. For example, the court in *Century 21 Real Estate Corp. v. Meraj International Inv. Corp.*, affirmed a lower court award that it found vastly in excess of the company's historical profits because of a failure of one of the parties to provide rebuttal expert testimony.¹⁵⁹ The court in *Unger v. Amedisys, Inc.* suggested the use of expert testimony in a stock price reaction situation.¹⁶⁰ In *Faris v. Stone*, an attorney was found negligent for not advising his client of her right to have a business valued by a competent

152. Zimmerman, *supra* note 107.

153. *Kelly v. Kelly*, No. 19263, 2003 WL 264342 (Ohio Ct. App. Feb. 7, 2003).

154. *Camp v. Camp*, No. A-02-832, 2003 Neb. App. LEXIS 320 (Neb. Ct. App. Dec. 16, 2003).

155. *Markowitz v. Markowitz*, No. 14-00-01505-CV, 2003 Tex. App. LEXIS 3318 (Tex. App. Apr. 17, 2003).

156. *Schwartz v. Schwartz*, No. 231266, 2003 Mich. App. LEXIS 749 (Mich. Ct. App. Mar. 20, 2003).

157. *Zeptner v. Zeptner*, No. 2-01-254-CV, 2003 Tex. App. LEXIS 2388 (Tex. Ct. App. Mar. 20, 2003).

158. *Franks v. Franks*, 571 S.E.2d 276 (N.C. Ct. App. 2002)

159. *Century 21 Real Estate Corp. v. Meraj Int'l Inv. Corp.*, 315 F.3d 1271 (10th Cir. 2003).

160. *Unger v. Amedisys, Inc.*, 401 F.3d 316 (5th Cir. 2005)

business appraiser.¹⁶¹ In *Tinnell v. Commissioner*, the U.S. Tax Court held a taxpayer liable for accuracy-related penalties following his failure to use expert testimony,¹⁶² and the court in *Snavely v. Smith* noted that the plaintiff did not present valuation expert testimony.¹⁶³

The demand for expert testimony has grown historically even in the face of complaints about abuses, and no one has seriously suggested its elimination.¹⁶⁴ At the same time, this demand is helping to drive what one commentator has termed “an explosion of new entrants to the field.”¹⁶⁵ The damages expert market is splitting into commodity and differentiated segments, in part because of the economics of the provision of expert testimony and in part because the costs of a less than cutting-edge expert can be high in terms of case outcomes.¹⁶⁶ It is not unusual for a damages expert to cost \$50,000 to \$100,000 for producing a valuation report and providing several days of testimony in deposition and trial.¹⁶⁷ Moreover, expert fees are rarely, if ever, handled on a contingency basis because of prohibitions by the American Bar Association and many state bar associations, as well as the obvious implications for bias.¹⁶⁸ In return for their fees, however, experts face professional risks that are increasing in the

161. *Faris v. Stone*, 103 S.W.3d 1 (Ky. 2003).

162. *Tinnell v. CIR*, T.C.M. 2001-106.

163. *Snavely v. Smith*, No. A097912, 2003 Cal. App. Unpub. LEXIS 12085 (Cal. Ct. App. Dec. 23, 2003).

164. Jennifer L. Mnookin, *Idealizing Science and Demonymizing Experts: An Intellectual History of Expert Evidence*, 52 VILL. L. REV. 763, 784 (2007).

165. 2007: *A Year of Simplifying, Standardizing—and More Fair Value Statements*, BUS. VALUATION UPDATE (Bus. Valuation Resources, LLC, Portland, OR), Jan. 2008, at 6 (quoting business valuation expert Nancy Fannon).

166. Interview with Ronald Seigneur, Partner and Valuation Specialist with Seigneur Gustafson Knight, LLP, in Denver, Colo. (March 13, 2008) (notes on file with authors). Mr. Seigneur, who holds CPA, ABV, and CVA certifications, has over 25 years experience as an expert witness and has published more than 75 articles on related topics. He is past chairman of the American Institute of Certified Public Accountants Credential Committee and a past member of its Consulting Services Executive Committee. Mr. Seigneur currently serves as a member of its Business Valuation Education Task Force. He is a fellow of the College of Law Practice Management and an adjunct professor at the University Denver College of Law. With respect to the potential cost of questionable expert testimony, see *Brown v. Ruallam Enterprises, Inc.*, CA01-1423, 2002 Ark. App. LEXIS 477 (Ark. Ct. App. Sept. 4, 2002), in which the Arkansas Court of Appeals affirmed a trial court’s rejection of both parties’ experts for failure to calculate net profits.

167. Vern Krishna, *The Risk Of ‘Hired Gun’ Experts: The Existing System Must Be Improved*, NAT’L POST’S FIN. POST & FP INVESTING (CAN.), Feb. 1, 2006, at FP9.

168. Peter B. Frank, et al., *The Role of the Financial Expert in Litigation Services*, in LITIGATION SERVICES HANDBOOK 1.23 (Roman L. Weil ed., 2007) (noting that contingency fees should be avoided by testifying experts even in jurisdictions that permit such fees because of the appearance of bias). Also, a former damages expert recently pleaded guilty to perjury for testifying that his fees were not based on case outcomes. Amanda Bronstad, *Former Milberg Weiss Expert Witness Agrees to Plead Guilty to Perjury*, LAW.COM, Feb. 29, 2008, <http://www.law.com/jsp/article.jsp?id=1204287427247>.

post-*Daubert* era, as related later in this part.

B. Who are the Business Damages Experts?

As a foundation for better understanding the risks borne by damages experts, it is helpful to understand who the experts are and the qualifications they typically bring to litigation. One source notes that the ideal expert is someone who has never previously testified (to rule out conflicting past testimony) and has no relationship with the retaining attorneys (to avoid the appearance of bias), but who nonetheless possesses substantial experience in litigation analysis, testimony, and response to cross-examination—an obvious *non sequitur*.¹⁶⁹ Increasingly, experts are professional “‘hired guns’ who have a reasonably high level of expertise in a substantive area or a particular type of business.”¹⁷⁰ Testifying experts must be deemed qualified by the courts, a matter of increasing concern in the post-*Daubert* era.¹⁷¹ After *Daubert*, as challenges to experts have increased,¹⁷² taking a risk on an inexperienced expert—or relying on an improperly prepared report by an inexperienced expert—seems imprudent to many attorneys because of the danger of not surviving a *Daubert* hearing.¹⁷³ Perhaps the most important considerations for selecting a damages expert from an attorney’s perspective are as follows: Will the expert’s testimony assist the judge and jury? Is the expert qualified to provide the required type of damages testimony in light of the facts of the case? Will the expert appear objective and credible? Is the testimony relevant and reliable? Does the expert have good communication skills, since it is often the case that the best story teller wins?¹⁷⁴

169. See Frank, *supra* note 148, at 1.4.

170. Bart A. Lazar, *Watch Words Around Potential Witnesses*, AM. MKTG. NEWS, Jul. 15, 2005, at 6.

171. See, e.g., PricewaterhouseCoopers, *supra* note 3 (showing evidence of growth in the number of *Daubert* hearings); see also *In re the Marriage of Buruga*, No. G034472, 2005 WL 2224967 (Cal. Ct. App. Sept. 6, 2005) (noting that valuation experts are expected to testify and that their reports may be excluded if they do not testify); *Phase 2 Developers Corp. v. Citicorp Real Estate*, No. B160111, 2004 Cal. App. Unpub. LEXIS 117 (Cal. Ct. App. Jan. 8, 2004) (stating that valuation expert testimony must involve meaningful responses as to the basis for the expert’s valuation).

172. PricewaterhouseCoopers, *supra* note 3.

173. It should be noted that *Daubert* challenges are not without their risk to attorneys who bring them because *Daubert* motions give cross-examination strategies away in a manner similar to the way in which many attorneys show their hand in depositions. In this regard, the conventional wisdom of “save it for the cross” is often observed in the breach. Harry Susman, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, Preparing a Cross Examination (March 21, 2006) (conference materials and notes on file with authors).

174. Craig T. Elson, LECG, LLC, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, The Role of the Expert: What

Some attorneys maintain that an ability to teach jurors without appearing condescending is more important than credentials.¹⁷⁵ Juries are said to relate better to credible experts who are good teachers and simplify complex topics,¹⁷⁶ and judges are said to be weary of boring and biased experts.¹⁷⁷ Consequently, some judges and attorneys prefer academics as experts, feeling that academics appear to have greater credibility and an ability to relate complex subject matter clearly.¹⁷⁸ In addition, damages experts who have performed independent research that corresponds to their opinions in cases are perceived as more believable than experts the juries perceive as hired guns.¹⁷⁹ There is far from universal agreement, however, on using academics as damages experts. One concern is whether professors have the time and staff support to dedicate to cases to properly prepare reports and testimony.¹⁸⁰ Also, using inexperienced academic damages experts can be risky because of unknown attitudes toward a variety of matters.¹⁸¹ Professors have sometimes been known to argue with themselves,¹⁸² an unfortunate tendency given that wavering on an opinion

Does an Expert Bring to the Table (March 20, 2006) (conference materials and notes on file with authors); *see also* Susman, *supra* note 173 (proposing that 90% of testifying is how an expert says something as opposed to what is said); Leslie A. Gordon, *Technology, Translated*, A.B.A. J., Mar. 2006, at 24 (stating that twenty years ago lawyers would settle for an expert who knew the subject matter, but today they need an expert who can connect with the jury); James G. Atkins, *Effective Courtroom Testimony*, NAT'L. LITIG. CONSULTANTS' REV., Oct. 2006, at 11 (discussing the mechanics of effective communication in courtroom testimony by valuation experts).

175. Bill Ibelle, *Commentary: Credentials Not As Important As Expert's Ability To Teach*, LAW. WKLY. U.S.A., May 9, 2005.

176. Jones, *supra* note 144.

177. Daniel J. Furniss, Townsend and Townsend and Crew LLP, Dave E. Everson, Jr., Stinson Morrison Hecker LLP, and Harry P. Susman, Susman Godfrey LLP, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, Before and at Trial (March 21, 2006) (conference materials and notes on file with authors).

178. Margaret M. Duncan, McDermott Will & Emery LLP, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, What Kind, and How Much, Expertise is Required? (March 20, 2006) (conference materials and notes on file with authors).

179. Jones, *supra* note 144; *see* Theodore T. Herhold, Townsend and Townsend and Crew LLP, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, Effective Development & Presentation of Expert Testimony (March 21, 2006) (conference materials and notes on file with authors) (stating that professors are also sometimes preferred as technical experts by plaintiffs' attorneys, because they are not subject to countersuit inasmuch as they have no affiliation with companies whose products that compete with the defendant's products).

180. Duncan, *supra* note 178.

181. Jones, *supra* note 144.

182. Mandel, *supra* note 150 (noting the natural tension between the academic mindset that "one should always be open to the possibility that someone else has a better argument" and a legal environment that encourages experts to stick with positions even if they might

is usually a fatal flaw to expert testimony.¹⁸³ Professors without practical business experience may appear too theoretical to juries,¹⁸⁴ and some legal commentators believe that juries are less impressed than attorneys with professors.¹⁸⁵ Consequently, although the notion of the academic damages expert appeals to some attorneys and judges because of a perception that such experts are less biased,¹⁸⁶ selection of such an expert is not without its added risks. Some commentators believe that a balance of academic background and real-world experience is desirable.¹⁸⁷ Certain valuation firms offer the best of both worlds—providing highly qualified academics who have testimony experience supported by substantial firm resources to include purely professional experts, capable staff, and tight quality-control policy and procedures.¹⁸⁸

Well-qualified professional damages experts typically have a variety of credentials that include some or all of the following: 1) advanced degrees in business or economics; 2) professional licenses and certifications such as bar membership and certified public accountancy (CPA); 3) valuation designations such as ABV, ASA, and CVA;¹⁸⁹ 4) relevant real-world experience; 5) a knowledge of econometrics and statistics; 6) a knowledge of sampling techniques; 6) specialized course work in business valuation; 7) experience in financial analysis, financial forecasting, and applications of business valuation methods; and 8) relevant publications in leading academic and practice journals.¹⁹⁰ Sometimes, given the need for specialized expertise to support defensible valuations, more than one expert may be needed. This occurs often when a specialized, technical set of procedures such as statistical analysis is needed as support for the more usual valuation methodology.¹⁹¹ In such situations, attorneys may be faced with a tradeoff between a relatively inexperienced expert with excellent technical skills versus an experienced expert with excellent general valuation skills, and occasionally may choose the more

otherwise change them given fresh evidence).

183. Jones, *supra* note 144.

184. *Id.*

185. Elson, *supra* note 174.

186. Aspen, *supra* note 146.

187. Elson, *supra* note 174.

188. Examples include Clifton Gunderson, LLP and The Analysis Group.

189. See JAMES R. HITCHNER, FINANCIAL VALUATION: APPLICATION AND MODELS 551-63 (2d ed. 2006) (discussing valuation designations and organizations granting these designations).

190. *Id.* at 359-60, 559-61; Robert E. Hall & Victoria A. Lazear, *Reference Guide on Estimation of Economic Losses in Damages Awards*, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 277, 282-283 (2d ed. 2000).

191. Mohan Rao, LECG, LLC, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, What Experts Should Fear Most (March 20, 2006) (conference materials and notes on file with authors).

experienced expert to the detriment of their case because opposing counsel will attempt to exploit any weakness in the experienced expert's technical knowledge.¹⁹²

C. *Attorney/Expert Communication and Expansive Discovery*

Effective communication between attorneys and experts is essential in litigation, as evidenced in this statement: "For good economics and other reasons, the analyst needs to communicate proactively, clearly, and often with the attorney on many aspects of the engagement."¹⁹³ From an ethical perspective, attorneys may do the following in communicating with experts:

- Ask the expert to reconsider an opinion in light of additional information;
- Suggest ways in which the expert's opinion may be strengthened or supported;
- Ask direct questions to ensure that the expert's opinion is well-founded;
- Assist the expert in preparing for deposition or trial by advising on likely questions; and
- Advise the expert when testimony is confusing.¹⁹⁴

On the other hand, attorneys should avoid pressuring experts and not attempt to pressure the expert to extend an opinion, exaggerate credentials, or provide opinions outside of the expert's expertise.¹⁹⁵

Despite the need for experts to know where attorneys are proceeding with various lines of questioning,¹⁹⁶ independent experts may not invoke

192. *Id.*; see also Seigneur, *supra* note 166 (proposing that it is best to use a separate technical expert's report as an input to the experienced valuation expert's report, and then to firewall the two experts so that the potential for opposing counsel to elicit conflicting testimony from the two experts decreases greatly).

193. HITCHNER, *supra* note 189, at 1027.

194. Dean B. Brown, Beermann Swerdlove LLP, and Stephen G. Pawlow, Managing Director Litigation Support/Corporate Finance, RSM McGladrey, Inc., Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, Ethical Issues for Lawyers and Experts (March 21, 2006) (conference materials and notes on file with authors).

195. *Id.*

196. Jones, *supra* note 144. At times opposing experts attend each other's depositions. Although a joint decision may allow this to occur, the decision should take place with proper notice. See, e.g., *Ledden v. Kuzma*, 858 N.E.2d 186 (Ind. App. 2006). Another issue that can arise is whether to have staggered or simultaneous expert report submission. Some argue that staggered reports produce smaller differences in damages estimates, whereas others argue that simultaneous submission is more equitable. See, e.g., *Lane v. Cancer Treatment Ctr. of Am., Inc.*, No. 12207-NC, 2001 Del. Ch. LEXIS 67 (Del. Ch. Apr. 27, 2001).

attorney/client privilege,¹⁹⁷ and anything an attorney says to an expert is potentially discoverable.¹⁹⁸ Savvy experts should assume that all communication with attorneys is discoverable.¹⁹⁹ Consequently, for reasons of both the appearance of bias and potential discovery, it is risky, but nonetheless useful, for damages experts to be party to strategizing about trial themes.²⁰⁰

Although experts' legal obligation to preserve evidence has long been established,²⁰¹ some recent cases suggest that discovery of damages experts is becoming more and more expansive and that evidence spoliation²⁰² is being more carefully scrutinized by courts,²⁰³ with sanctions sometimes being imposed.²⁰⁴ Under the doctrine of *omnia praesumuntur contra spoliatorem*, deliberate or negligent destruction usually results in the inference that the destroyed materials would be contrary to the interests of the despoiler.²⁰⁵ An adverse inference is the least drastic and most

197. Jones, *supra* note 144.

198. *Id.*

199. Brown & Pawlow, *supra* note 194.

200. Jones, *supra* note 144. It is also incumbent upon experts to safeguard client confidences and to refrain from using confidential information for purposes of self-enrichment. Further, most jurisdictions prohibit attorneys from contacting opposing experts outside the formal discovery process. See Brown & Pawlow, *supra* note 194 (giving an example in which an attorney engaged in misconduct by contacting an opposing party's witness *ex parte*) (citing Erickson v. Newmar Corp., 87 F.3d 298 (9th Cir. 1996)); Campbell Indus. v. M/V Gemini, 619 F.2d 24 (9th Cir. 1980) (recognizing that *ex parte* contact with opposing party's expert is not permitted under federal rules); Heyde v. Xtraman, Inc. 404 S.E.2d 607 (Ga. Ct. App. 1991) (noting that attorneys cannot circumvent discovery procedures by engaging in *ex parte* communications with opposing party's expert); GEOFFREY C. HAZARD & W. WILLIAM HODES, THE LAW OF LAWYERING §3.4 (2d ed. Supp. 1994). But see Brown v. Hamid, 856 S.W.2d 51 (Mo. 1993) (holding that the trial court did not err in failing to sanction improper *ex parte* contact because there was no prejudice to the complaining party).

201. Robert W. Hayes, Cozen O'Connor, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, Implementing Appropriate Document Control and Retention Policies (March 20, 2006) (conference materials and notes on file with authors).

202. *Id.* at 1 ("Spoliation is the destruction, loss, or material alteration of potentially relevant evidence by the act or omission of a party who was under some duty to preserve that evidence.")

203. See, e.g., West v. Goodyear Tire & Rubber Co., 167 F.3d 776, 778-80 (2d. Cir. 1999) (analyzing the lower court's dismissal of a complaint as a sanction for spoliation of evidence); Univ. of Pittsburgh v. Townsend, No. 3:04-CV-291, 2007 WL 1002317 (E.D. Pa. Mar. 30, 2007) (striking expert testimony even though spoliation was not done maliciously and was done before reports were contested); Trigon Ins. Co. v. U.S., 204 F.R.D. 277, 284 (E.D. Va. 2001) (discussing punishments for spoliators of evidence).

204. Hayes, *supra* note 201, at 1-2 (noting that sanctions have varied widely across jurisdictions) (citing Kippenham v. Chaulk Services, Inc., 697 N.E.2d 527, 530 (Mass. 1998) and Donohue v. American Isuzu Motors, Inc., 155 F.R.D. 515, 519 (M.D. Pa. 1994)).

205. Dodson v. Ford Motor Co., No. PC 96-1331, 2006 R.I. Super. LEXIS 113 (noting that a demonstration of bad faith is not necessary for an adverse inference due to spoliation)

common sanction.²⁰⁶ Others include exclusion of evidence, monetary sanctions, and contempt sanctions.²⁰⁷ Courts typically impose more drastic sanctions where spoliation is more culpable and where it has a greater impact on the adverse party's ability to prove its case.²⁰⁸ For example, *Morgan Stanley & Co., Inc. v. Coleman (Parent) Holdings, Inc.* created significant concern in legal and financial circles, not only because of the \$1.45 billion damages award but also because the jury was permitted to draw adverse inferences from the defendant's destruction of a large volume of evidence.²⁰⁹

In the late 1980s, some courts began to expand the reach of spoliation to include evidence "considered" instead of just evidence "relied upon."²¹⁰ Further, courts have interpreted Rule 26(a)(2) of the Federal Rules of Civil Procedure to include drafts of expert reports,²¹¹ raising the question of what exactly constitutes a draft. For example, will a court consider a partial draft to be a draft? Must an expert produce a copy of every partial draft to include all changes? There is some belief that copying over something typed into a partial draft during editing could be considered spoliation.²¹² Questions such as these suggest the need for courts to take a commonsense approach in requiring disclosure of documents. Some experts would prefer that only documents actually transmitted outside their own offices be discoverable.²¹³

Fortunately, not all courts have required experts to produce everything that might represent internal work product.²¹⁴ For example, in *Physicians Dialysis Ventures, Inc. v. Griffith*, an expert faced with accusations of spoliation admitted to destroying notes she had taken throughout an engagement, in accordance with her firm's policy. The court determined

(citing *Mead v. Papa Razzi Rest.*, 840 A.2d 1103, 1109 (R.I. 2004)); *Malinowski v. UPS*, 792 A.2d 50, 54 (R.I. 2002) (citations omitted); *Rhode Island Hosp. Trust Nat'l Bank v. E. Gen. Contractors, Inc.*, 674 A.2d 1227, 1234 (R.I. 1996)); see *Farrell v. Connetti Trailer Sales, Inc.*, 727 A.2d 183, 186 (R.I. 1999).

206. Hayes, *supra* note 201, at 3.

207. *Id.*

208. *Id.*

209. *Reversal of Fortune: \$1.45 Billion Verdict Vacated for Lack of Fraud-Free Valuation*, BUS. VALUATION UPDATE (Bus. Valuation Resources, LLC, Portland, OR), Jun. 28, 2007, at 14 (citing *Morgan Stanley & Co., Inc. v. Coleman (Parent) Holdings, Inc.*, 955 So.2d 1124 (Fla. App. 2007)).

210. Hayes, *supra* note 201, at 7 (citing *Trigon Ins. Co. v. United States*, 204 F.R.D. 277, 284 (E.D. Va. 2001), and *Intermedics, Inc. v. Ventritex, Inc.*, 139 F.R.D. 384, 393-94 (N.D. Cal. 1991)).

211. *Id.*

212. *Id.* at 17.

213. See *Seigneur*, *supra* note 166 (noting one leading expert's suggestion that a commonsense approach would be to make only documents that are transmitted "outside the house" discoverable).

214. Hayes, *supra* note 201, at 17.

that spoliation had not taken place because the expert had no reason to believe that she would be obligated to produce her notes. She had never received a formal document request or any notice that opposing counsel wanted the notes until after she submitted her report. The court stated that experts need not produce every scrap of paper created in the course of an engagement, but rather what the expert was provided.²¹⁵ Nonetheless, because of a lack of uniformity in decisions, this movement toward tighter application of the requirements creates an imperative for parties to know the document retention policies of the court early in case development and engenders concern that a court might require the production of partial drafts of reports and mere thoughts expressed on scraps of papers.²¹⁶

Although this trend may hold some nebulous benefit from an evidentiary perspective, it also has the potential to impede attorney/expert communications and reduce the quality of the evidence presented at trial.²¹⁷ Attorneys and experts are now admonished to avoid any unnecessary paperwork or electronic communication, and attorneys are well-advised not to show a consulting expert's work to a testifying expert.²¹⁸ Consequently, less and less is being written down by damages experts in the development of their reports, and, given the complexity of cases and the limitations on human cognition,²¹⁹ this makes accurate report-writing more difficult.²²⁰ Carried too far, this trend seems likely to result in a burdensome impediment to attorney/expert communications in ways that will not serve case preparation well,²²¹ and could even lead to increased risk of malpractice liability for experts.²²² One leading damages expert, noting that the biggest change in the damages expert area is the proliferation of documents in electronic format, foresees growing document authenticity issues with which the moral and ethical standards have yet to catch up. This expert also foresees a conflict involving discovery of opposing

215. *Physicians Dialysis Ventures, Inc. v. Griffith*, No. 06-2468, 2007 U.S. Dist. LEXIS 78879 (D.N.J. Oct. 24, 2007).

216. *Seigneur*, *supra* note 166.

217. *Id.*

218. *Aspen*, *supra* note 146.

219. *See, e.g.*, George A. Miller, *The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information*, 63 *PSYCHOL. REV.* 81, 81 (1956) (describing limitations on human cognitive behavior).

220. *Seigneur*, *supra* note 166.

221. *Id.* The interviewee noted that experts now are being admonished by attorneys not to take notes in meetings for fear of discovery. This raises the question of how experts can remember what is said and creates obvious negative implications for the quality of their reports.

222. *See, e.g.*, *Kranz v. Tiger*, 914 A.2d 854 (N.J. Super. Ct. App. Div. 2007) (holding that it was for the jury to determine whether expert witness breached contract to testify in underlying action or whether expert witness negligently or intentionally permitted his scheduling manager to lead client to believe he was unavailable to testify).

counsel's thought process, theoretically protected from discovery, through acquisition of an expert's notes taken in meetings with counsel—notes that are not protected from discovery.²²³ Going forward, it is to be hoped that courts will at least adopt the approach of one federal judge who deems common editing of drafts to not be subject to discovery and requires only drafts in which major reformulations have been made to be subject to discovery.²²⁴

D. Damages Experts Increasingly at Risk

In addition to the discomfort many potential damages experts already feel about stepping into the adversarial process,²²⁵ there is little doubt that experts are undergoing greater scrutiny by the courts and that their burden of risk is growing.²²⁶ One damages expert has stated:

From every angle, our profession, our capabilities, and the data on which we rely are being examined more closely by the courts, IRS, SEC, FASB, and the public and private equity markets Our profession is a high-stakes undertaking on virtually any field one chooses to play.²²⁷

A recent study by the international public accounting and consulting firm of PricewaterhouseCoopers indicates that “[t]he number of experts challenged under *Daubert* increased by more than one third between 2005 and 2006—the second consecutive annual increase of more than 30

223. Interview with Thomas E. Hilton, Co-Director of Valuation and Litigation Services, Anders Minkler & Diehl LLP, St. Louis, Mo., (March 21, 2008) (notes on file with authors). Mr. Hilton, who holds CPA, ABV, ASA and CVA certifications, has over 31 years of professional experience in expert testimony and financial matters. He has taught various courses for the American Institute of Certified Public Accountants and is a member of that organization's Business Valuation/Forensic Legal Services Executive Committee. He is the immediate past chair of the AICPA's Business Valuation Committee and also of the National Association of Certified Valuation Analysts Executive Advisory Board. In 2004, he was inducted into the AICPA Business Valuation Hall of Fame.

224. Aspen, *supra* note 146; see Stephen Bennett, *Taking a Second Bite of the Cherry*, 90 MANAGING INTELL. PROP. 42 (1999) (describing how, in 1999, the U.K. adopted new civil procedure rules for standard disclosure in an effort to replace large tracts of existing procedural rules).

225. See Gary L. Freed, *Training Experts to Testify*, NAT'L LITIG. CONSULTANTS REV., Mar. 2007, at 6, 6-7 (“It is not unreasonable for a potential or new testifier to be so concerned about learning to testify that [he] question[s] whether [he has] made the right decision to practice in this area.”). The author goes on to cite situations in which he has been yelled and lunged at by opposing counsel during a deposition. He also describes being forced to sit under an air-conditioning vent and not being allowed to move even after complaining and subsequently becoming ill.

226. 2007: *A Year of Simplifying, Standardizing—and More Fair Value Statements*, BUS. VALUATION UPDATE (Bus. Valuation Resources, LLC), Jan. 2008, at 8.

227. *Id.* (quoting business valuation expert Nancy Fannon).

percent.”²²⁸ Motions *in limine* are common,²²⁹ occurring in 79% of federal court cases in 1998, a figure up from 32% in 1991.²³⁰ There are strong indications that the frequency of *Daubert* hearings is increasing²³¹ and that experts are being held to higher standards by judges.²³² Furthermore, the rate of success of *Daubert* motions varies greatly across both federal and state jurisdictions and across the various federal circuits, making venue another important issue for those damages experts who routinely operate in multiple jurisdictions.²³³

One of the greatest fears for most professionals who make their living as testifying experts is that they will fail to survive a *Daubert* hearing, thereby rendering their reputations as experts forever tainted.²³⁴ Given that lack of reliability of damages experts’ testimony is the leading cause for exclusion of this testimony under the *Daubert* criteria,²³⁵ this fear can at times present experts with the conundrum of having to choose between using more accepted valuation methodologies that are safer with respect to admissibility versus using more leading-edge methodologies that the expert believes will result in more accurate valuations.²³⁶ Given that each case is

228. PricewaterhouseCoopers, *supra* note 3, at 7.

229. Duncan, *supra* note 178.

230. Krafka et al., *supra* note 103, at 14.

231. PricewaterhouseCoopers, *supra* note 3, at 7-12. The number of *Daubert* challenges has been rising every year since 2001, with the year 2006 posting a record number of 348 expert testimonies excluded. This was approximately three times the number in 2000. *Id.* Although most of the *Daubert* challenges occur in the federal courts, as one might expect given that *Daubert* and its progeny represent federal standards, *Daubert* challenges do occur, albeit with less frequency, in the 17 state jurisdictions that have embraced *Daubert*. *Id.* The most *Daubert* challenges occur in Louisiana, Texas, Mississippi, Delaware, and Massachusetts. *Id.*

232. Rao, *supra* note 191. Interestingly, plaintiffs’ experts are challenged more frequently under the *Daubert* criteria than defendants’ experts in federal courts, but both have similar overall exclusion rates. The exclusion rate varies from year to year with respect to the party. PricewaterhouseCoopers, *supra* note 3, at 22. Also, economists, accountants, and statisticians are the most frequently challenged, but they are also the most likely to survive a challenge. *Id.* at 25. Breach of contract or fiduciary duty lawsuits result in the most frequent challenges, but with low success rates. Conversely, fraud cases have the highest exclusion rate. *Id.* at 28.

233. PricewaterhouseCoopers, *supra* note 3, at 17.

234. Rao, *supra* note 191. In a recent survey, federal judges reported holding *Daubert* hearings in nearly half of all cases involving expert evidence. Krafka et al., *supra* note 103, at 19.

235. PricewaterhouseCoopers, *supra* note 3, at 31.

236. *Id.* at 34-36. The list of novel and untested methodologies that various courts excluded during the 2000-2006 period included the following methodologies: the “proportional trading model” (Kaufman v. Motorola, Inc., No. 95 C 1069, 2000 U.S. Dist. LEXIS 14627 (N.D. Ill. Sept. 21, 2000)); enhancement of a reasonable royalty rate through the application of a multiplier (Tech. Licensing Corp. v. Gennum Corp., No. 3:01-cv-4204-RS, 2004 U.S. Dist. LEXIS 10604 (N.D. Cal. March 26, 2004)); “consumption theory” (*In re Perry County Foods, Inc.*, 313 B.R. 875 (Bankr. N.D. Ala. 2004)); “straight-line ramp-up

unique, opposing counsel may raise a *Daubert* challenge to the use of scientifically acceptable methodologies on the basis that they have never been applied before in the context of a particular case. This can afford a means of probing damages analysis prior to trial even if the *Daubert* challenge is unsuccessful.²³⁷

For an example of just such a conundrum, consider the current debate over whether experts can quantify the company-specific risk for publicly traded companies that are used as comparables in order to value privately held companies.²³⁸ It has long been held within the business valuation community that this risk cannot be objectively quantified, but two damages experts recently proposed a rigorous methodology for doing this. The Butler-Pinkerton methodology can result in a substantively higher discount rate in valuing a stream of cash flows generated by a business being valued, thereby materially lowering the value of the company.²³⁹ Consider the possible dilemma of an expert choosing whether to use the Butler-Pinkerton methodology, which would result in a valuation more favorable to the expert's defendant client. The safer path would be to use an accepted methodology which could result in greater damages for the client but have a greater chance of not surviving *Daubert* challenge.²⁴⁰ Is that the best choice for the client, however? The answer may well rest with the client's risk preferences. Furthermore, suppose the expert chooses the safer path. Does this expose the expert to possible risk stemming from a malpractice claim later? Conversely, if the expert chooses the riskier path with a more favorable valuation for the client but fails to survive a *Daubert* hearing, does this likewise have implications for malpractice liability?²⁴¹

method" (Haupt v. Heaps, 131 P.3d 252 (Utah Ct. App. 2005)); and a novel methodology for determining cash flows in computing terminal value (*In re Nellson Nutraceutical, Inc.*, 356 B.R. 364 (Bankr. D. Del. 2006)).

237. Robert Hall & Victoria A. Lazear, *Reference Guide on Estimation of Economic Losses in Damages Awards*, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 277, 283 (2d ed. 2000).

238. See *Company Specific Risk Calculator Goes Live*, BVWire, <http://www.bvresources.com/BVWire/November2007Issue62-2.htm> (last visited Nov. 14, 2007) (providing a brief explanation of the controversy regarding an expert's ability to quantify company-specific risk).

239. Carole Gailor, *The Ethical Conundrum of Attribution: Plagiarism in Valuation Reports*, BUS. VALUATION UPDATE (Bus. Valuation Resources, LLC), Feb. 2007.

240. Courts typically frown upon novel approaches, as in *In re Nellson Nutraceutical*, 356 B.R. 364 (Bankr. D. Del. 2006) (disqualifying a valuation expert's report under *Daubert* criteria for using a "maverick" discounted cash flow analysis). See Rao, *supra* note 191 ("This [situation] creates a bit of a dilemma for the damages expert in that new and novel approaches to analyzing the existence and extent of damages are often not 'established' in prior case law.").

241. See *Mattco Forge, Inc. v. Arthur Young & Co.*, 60 Cal. Rptr. 2d 780 (Cal. Ct. App. 1997) (holding that financial experts are not immune to malpractice liability with respect to their clients as a result of their testimony). However, this question would likely have been

Courts will often ask whether a particular expert, though generally qualified, is qualified to perform a particular analysis.²⁴² Here, again, as with much of expert qualification, the vista becomes a bit hazy because in some situations courts have allowed experts to testify on the basis of general valuation credentials, whereas in other cases they have deemed such background insufficient.²⁴³ The nebulous criterion of being qualified in a particular analysis presents a judgment problem for both attorneys and experts in trying to guess how a court may view some particular facet of the qualifications required to render an expert opinion.²⁴⁴ So intent are some opposing counsel on discrediting expert witnesses that they, on occasion, waste the courts' time in what might seem to be a search for an expert with qualifications that do not exist.²⁴⁵ For example, in *Pfizer, Inc.*

moot in years gone by because experts have rarely been sued as a result of their testimony. PETER B. FRANK ET AL., *The Role of the Financial Expert in Litigation Services*, in ROMAN L. WEIL ET AL., *LITIGATION SERVICES HANDBOOK* 1.28 (4th ed. 2007). There is evidence beginning to develop, however, that this may not be the case in the future and that experts will be well served to consider the implications of their decisions regarding methodologies with respect to their own liability. For example, in *Nanovation Techs., Inc. v. BearingPoint Inc.*, 364 B.R. 308 (Bankr. N.D. Ill. 2007), an international consulting firm that included a valuation practice was sued by its client for negligence and breach of contract concerning common stock valuations that it provided for tax purposes but the client used for other purposes. Although the lawsuit did not arise as a result of BearingPoint's involvement as an expert in litigation, it shows that some clients are willing to sue their valuation experts when events turn sour. In *Kranz v. Tiger*, 914 A.2d 854 (N.J. Super. Ct. App. Div. 2007), the court ruled that negligent communication between a client's medical expert and his attorneys, which resulted in the client's acceptance of a settlement solely because the attorneys wrongly informed the client that the expert was unavailable to testify, may provide grounds for a professional malpractice action against the expert. Also, in *Hoffman v. Gaglio*, No. B181356, 2005 Cal. App. Unpub. LEXIS 9655 (Cal. Ct. App. Oct. 25, 2005), the court held that a real estate appraiser could be held liable for malpractice under a negligent misrepresentation theory even though the third party was not in the class of persons intended to benefit from reliance on the expert's report. Further, at least one court-appointed expert has been sued for malpractice, albeit without success. See *Riemers v. O'Halloran*, 678 N.W.2d 547 (N.D. 2004). Cases such as these suggest the possibility of a growing risk of malpractice liability for valuation experts. One leading business damages expert has noted that malpractice insurers are becoming more concerned about experts' liability for malpractice and that malpractice liability is growing, especially for casual experts such as professors unaffiliated with forensic services groups. Seigneur, *supra* note 166. This could be one reason for the aforementioned trend toward full-time professional experts. Lazar, *supra* note 170.

242. Lloyd, *supra* note 25, at 386-87; see, e.g., *Pabst Brewing Co. v. Comm'r*, 72 T.C.M. (CCH) 1236 (T.C. 1996); *In re Imperial Credit Indus., Inc. Sec. Litig.*, 252 F. Supp. 2d 1005 (C.D. Cal. 2003).

243. Lloyd, *supra* note 25, at 386-87.

244. Seigneur, *supra* note 166 (stating that the interviewee noted that this issue is driving experts to specialize more and specialists to become subspecialists).

245. Hilton, *supra* note 223 (providing an account from a qualified expert about how he recently spent an entire day in *voir dire* during which opposing counsel unsuccessfully attempted to establish that he was not an expert on some minute aspect of his report).

v. Advanced Monobloc Corp., the court deemed a financial expert with exemplary qualifications unfit to make a twenty-year sales forecast because he had never developed a twenty-year sales forecast.²⁴⁶ Development of sales forecasts is a topic routinely taught in business schools such as the prestigious school where the expert was a professor.²⁴⁷ The fact that a court concerned itself with the length of a sales forecast might be viewed as either naiveté or extreme pickiness, inasmuch as basic valuation techniques often assume implicitly a constant growth sales forecast when valuing damages by capitalizing a cash flow stream.²⁴⁸

Some would argue that the issue of experts' qualifications often boils down to a question of the magnitude of damages at stake and that cases involving damages of large magnitude should call for a national search for the very best expert for a given situation, whereas a similar search would impose an unfair burden on the parties in cases where the magnitude of the damages is small.²⁴⁹ This argument, however, has the logical flaw of assuming that a given magnitude of damages has the same importance to large and small parties; in reality, \$1 million in damages may be more meaningful to a small party than \$10 million to a large one.

Once past the common motion *in limine* challenge, damages experts are likely to be challenged in deposition and in court on three basic points: their assumptions, their analyses, and whether their results make sense within the context of the case.²⁵⁰ An expert opinion "is no better than the

246. *Pfizer Inc. v. Advanced Monobloc Corp.*, C.A. No. 97C-04-037-WTQ, 1999 Del. Super. LEXIS 330 (Sept. 2, 1999), at 15.

247. *See, e.g.*, Clyde P. Stickney, Paul R. Brown & James M. Wahlen, FINANCIAL REPORTING, FINANCIAL STATEMENT ANALYSIS, AND VALUATION: A STRATEGIC PERSPECTIVE 730-36 (6th ed. 2007) (including sales forecasting as part of the curriculum).

248. *See, e.g.*, HITCHNER, *supra* note 189, at 116.

249. *See* Lloyd, *supra* note 25, at 391 (inferring that the choice of an expert who is not preeminent in the field should lead courts to suspect that such an expert was chosen as a result of willingness to provide more favorable testimony). This position implicitly involves various assumptions: a) a preeminent expert exists; b) the expert's identity can be learned with reasonable effort; c) the expert is available; d) the expert is willing to take the case; and e) the expert is affordable to the prospective client. Perhaps more importantly, from the perspectives of both the quality of jurisprudence and the client's best interests, it is important to have an expert who can work well with client's counsel. This may not always be a characteristic of the preeminent expert, however. Seigneur, *supra* note 166.

250. Jeffrey H. Kinrich, Analysis Group, Law Seminars International: A Comprehensive Two Day Conference on Effective Development & Presentation of Expert Testimony, Ensuring Quality Control in Expert Reports (Mar. 20, 2006) (materials and notes on file with authors). Valuation experts are usually required to provide support for their assumptions, and courts sometimes take a dim view of an expert's assumptions if they are based upon someone else's assumptions. *See* Lloyd, *supra* note 25, at 405. *See, for example*, *Blue Dane Simmental Corp. v. American Simmental Ass'n*, 178 F.3d 1035, 1040-41 (8th Cir. 1999), where a valuation expert's uncontroversial accounting methodology was excluded for a failure to consider all relevant variables that could affect his conclusion.

soundness of the reasons supporting it.”²⁵¹ In this regard, it is important that damages experts know the facts of the case, partly to avoid an inability to defend assumptions used in valuation models.²⁵² Such assumptions can be quite problematic for experts,²⁵³ and courts have sometimes been

251. *Perreira v. Sec’y of Dep’t Health & Human Servs.*, 33 F.3d. 1375, 1375 n.6 (Fed. Cir. 1994).

252. *See Susman, supra* note 173. It is common for assumptions to be provided by the client or client’s counsel, and testimony has been frequently excluded for a failure on the part of experts to adequately vet such assumptions. *See, e.g., Browning v. Smea*, No. B172371 (Cal. Ct. App. 2005); *Neb. Plastics, Inc. v. Holland Colors Americas, Inc.*, 408 F.3d 410 (8th Cir. 2005) (holding that testimony of an expert could be excluded because it failed to take into account important facts at issue); *see also Nancy J. Fannon, Expert Testimony in the Courtroom: Is Vigorous Cross-Examination Enough*, FINANCIAL VALUATION & LITIGATION EXPERT, 13, 14 (2007). Also, valuation experts are often forced into making assumptions because some key documents are never requested in discovery or never produced by opposing counsel. Further, there is a risk that some assumptions will be shown to be false because of documents that were never requested. Experts will sometimes also engage in additional analyses at additional costs to the client because of missing documents in an effort to shore up their valuation conclusions. Asserting an assumption that is inconsistent with, or not corroborated by, facts is a frequent reason for criticism, or even exclusion, by the courts. *See Rao, supra* note 191. Directly related to this issue is the matter of reliance upon management forecasts. Although reliance upon data verified by third-parties such as independent auditors is certainly preferable, such data is frequently not available, either because it does not exist—perhaps due to the small size of the client—or because it involves prospective information that cannot be verified. For a discussion of such data concerns and related cases, *see Lloyd, supra* note 25, at 396. More generally, courts have rejected forecasts they found to be speculative. *See, e.g., Weissberg v. Peinado*, No. A097102, A097232, 2003 Cal. App. Unpub. LEXIS 3541, at *3 (Cal. App. Apr. 10, 2003) (holding that damages supported by speculative expert testimony were unforeseeable and thus not recoverable); *Haff v. Augeson*, No. C1-02-1652, 2003 Minn. App. LEXIS 460 (Minn. Ct. App. Apr. 22, 2003).

253. Roy Weinstein, President, Micronomics, LLC, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, The Science of Economics Challenges to Expert Testimony (March 21, 2006) (conference materials and notes on file with authors). At this conference, Mr. Weinstein stated:

Although the correct application of economic theory yields one correct answer from any given set of facts, economists often disagree outside the courtroom as to what that answer is. The reason for such disagreements is that modern economic systems are extraordinarily complex, such that the problems economists are asked to address often encompass thousands, if not millions, of moving parts. This leaves the economist with the daunting task of predicting each of those movements and determining the outcome associated with all of them. Given this kind of complexity, it is not surprising that economists often disagree.

Id. Another commentator notes, “[e]xperts may be asked to make assumptions or rely on the client’s representation in lieu of developing the appropriate underlying analyses. The resulting opinion is subject to criticism, especially if there are countervailing facts.” *Rao, supra* note 191. A failure on the part of a valuation expert to adequately explain the analytic assumptions in a valuation can also be cause for exclusion of expert testimony. *See, e.g., Lippe v. Bairnco Corp.*, 99 Fed. Appx. 274 (2nd Cir. 2004) (affirming trial judge’s exclusion of expert testimony on the ground that the testimony was based on assumptions

inconsistent with respect to what is allowed in the way of such inputs,²⁵⁴ a matter that may depend upon the predilections of individual judges.²⁵⁵ For example, in *Robert Billet Promotions, Inc. v. IMI Cornelius, Inc.*, the court stated that the damages expert's model must not only be appropriate and acceptable but must also conform to the facts and be properly applied to the facts.²⁵⁶ In *Lithuanian Commerce Corp. v. Sara Lee Hosiery*, the expert's assumptions regarding future duration of the business, market share, and consumption patterns were deemed not credible.²⁵⁷ In *Children's Broadcasting Corp. v. Walt Disney Co.*, the court stated that the expert had relied upon inaccurate and unreliable financial projections and had offered projections that went far beyond realistic optimism.²⁵⁸ Conversely, in *In re Emerging Communications, Inc. Shareholders Litigation*, the court allowed the most contemporaneous management projections to be utilized as inputs to the damage calculation.²⁵⁹ Similarly, in *In re Commercial Financial*

that failed to consider a host of factors vital to the case). Assumptions that form the inputs to valuation models are the most likely aspect of a damages expert's report and testimony that opposing counsel will attack. This stems from such assumptions being the part of the testimony that opposing counsel is most likely to understand and also because "garbage in, garbage out" is a principal strategy for negating expert testimony. See Fannon, *supra* note 252, at 12-14; see also Lloyd, *supra* note 25, at 409-11 (suggesting that expert testimony relying on numerous assumptions should be suspect). Damages estimates based upon a hierarchy of assumptions are typically viewed with more skepticism by the courts, and ignorance of the existence of data that might have made a difference in the valuation is generally not an acceptable excuse for the expert not having used such data. This presents yet another risk for damages experts because clients may withhold, from the expert, knowledge of the existence of information and data unfavorable to the client's case in the hopes that it will not be discovered. See *Ill. Brick Co. v. Illinois*, 431 U.S. 720, 732 (1977) (indicating that the drastic simplifications often made in economists' hypothetical models generally must be abandoned in the real world (citing *Hanover Shoe, Inc. v. United Shoe Mach. Corp.*, 392 U.S. 481, 493 (1968))).

254. One leading valuation text notes the following:

Business plans (or [a] litigant's financial projections) sometimes are used as a foundation for damage calculations because business plans and projections created prior to the wrongful actions are independent of the litigation motives of the parties. However, since some courts have ruled that unproven business plans and financial projections are not adequate to provide the base assumptions for damages calculations, the expert should consider evaluating the business plan or projection.

HITCHNER, *supra* note 189, at 1030-31.

255. Lloyd, *supra* note 25, at 408.

256. *Robert Billet Promotions, Inc. v. IMI Cornelius, Inc.*, No. CIV. A. 95-1376, 1998 WL 721081 (E.D. Pa. Oct. 14, 1998).

257. *Lithuanian Commerce Corp. v. Sara Lee Hosiery*, No. CIV. A. 96-1949, 179 F.R.D. 450, 455 (D.N.J. 1998).

258. *Children's Broad. Corp. v. Walt Disney Co.*, 3-96 CIV 907, 1999 U.S. Dist. LEXIS 17507, at *21 (D. Minn. Jan. 15, 1999).

259. *In re Emerging Commc'ns, Inc. S'holders Litig.*, No. 16415, 2004 Del. Ch. LEXIS 70, at *68 (Aug. 30, 2004).

Services, Inc., the Delaware Chancery Court held that criticisms of the assumptions made by a financial expert went to weight and not admissibility. In *In re Elder-Beerman Stores Corp.*, the court concluded that a damages expert had sufficiently controlled for externalities such as competition, weather, and industry financial condition in a statistical analysis, but that the expert's failure to consider factors causing a rising sales trend made the testimony questionable at best.²⁶⁰

Although some commentators suggest that damages experts should avoid engagements when relevant economic phenomena cannot be explained,²⁶¹ one difficulty with this is that experts may not know what data are and are not available until after an engagement is accepted and discovery is well underway. At that juncture, it may be difficult to escape the engagement without damaging the client's case. Considered in light of the contention that it is best to engage damages experts early in the case, the possible predicament presented by discovering gaps in data well into discovery becomes apparent.²⁶²

Inasmuch as courts as gatekeepers under *Daubert* must exclude testimony that does not fit the facts of the case,²⁶³ one of the biggest issues encountered with expert testimony is a lack of fit between the testimony to be given and the basis for that testimony—a problem more often caused by the attorney than by the expert.²⁶⁴ Since experts are often the last witnesses in trials, it is crucial to align their testimony with the case themes inasmuch as this testimony may be the last opportunity to sell triers of fact on a particular position.²⁶⁵ Another recurring problem in damages expert testimony is that of experts attempting to testify beyond the scope of their reports when under direct examination. Federal Rules of Civil Procedure 26(a)(2) and 37(c) limit experts to opinions contained in their reports,²⁶⁶ and courts increasingly enforce these rules.²⁶⁷ With regard to both of these

260. *In re Elder Beerman Stores Corp.*, 206 B.R. 142, 165-66 (Bankr. S.D. Ohio 1997). The failure to subject valuation results to sensitivity analysis in order to determine how sensitive models are to their assumptions has also been criticized. *See, e.g.*, *Kay v. First Cont'l Trading, Inc.*, 976 F. Supp. 772, 775-77 (N.D. Ill. 1997) (rejecting an expert opinion where the assumptions relied upon were not tested with sensitivity analysis).

261. Weinstein, *supra* note 110, at 14-10.

262. *See* Jones, *supra* note 144, at 2; Rao, *supra* note 191 (noting that it is desirable to bring experts into the case early on because they usually have the best idea of the data needed to perform a valuation). The worst time to hire experts is after discovery is closed, for obvious reasons. *See Analyst Convinces Court to Reject Stock Value as "Fair"*, BUSINESS VALUATION REVIEW, Mar. 2006, available at <http://www.bvlibrary.com> (discussing the hazards of taking a client's documentation at face value).

263. Aspen, *supra* note 146.

264. Zimmerman, *supra* note 107.

265. Jones, *supra* note 144.

266. FED. R. CIV. P. 26(a)(2); FED. R. CIV. P. 37(c).

267. Duncan, *supra* note 178. If cross-examination opens the door, however, experts

problems, the damages expert is largely at the mercy of the attorneys with whom they work because attorneys are the weavers of the story of a case. The expert testimony represents a thread, commonly an important one, that must be carefully woven into the story to effect a favorable outcome²⁶⁸ and survive possible appeals.²⁶⁹

To summarize, the foregoing suggests that the nature of damages expert testimony increasingly requires a level of sophistication and quality control that is often best supplied by professionals who specialize in this testimony. Such experts are increasingly at risk of exclusion and attendant damage to their reputations as a result of a growing trend of *Daubert* hearings and a tendency by federal courts to exclude more and more testimony. Many of the issues around which the admissibility of testimony revolves are subjective, and courts have not always been consistent in resolving this subjectivity. Making matters worse, damages experts are often at the mercy of the attorneys with whom they work in terms of ensuring a fit of their testimony with the facts of a case. To better understand these concerns, it is helpful to have a feel for the art versus the science of damages estimation.

IV. ART VERSUS SCIENCE IN BUSINESS DAMAGES ESTIMATION

Business damages estimation may be most accurately described as an art that relies on methods borrowed from science—methods that sometimes create an illusion of objectivity when, in fact, much of the expert's valuation decision stems from subjective judgment based upon what evidence the expert can develop using science.²⁷⁰ Disagreement over the

may go beyond their reports on cross-examination or redirect, and the requirement to remain within the boundaries of the report may also be relaxed by stipulation by all sides. See Jones, *supra* note 144.

268. HITCHNER, *supra* note 189, at 1045 (“Business damages are part of a lawsuit and are subject to statutes, case law, local judicial practice, and legal interpretations. The expert should look to the attorney to give direction in these areas.”).

269. Assuming valuation testimony survives at the trial court level, experts still face the possibility of an appeal based upon abuse of discretion. Wiegand, *supra* note 110. Although admissibility of expert testimony is often reviewed at the appellate level, the standard of review places a premium on good decisions at the district court level; furthermore, federal appellate courts have shown a reluctance to call district courts to task, affirming 99% of district court decisions. Zimmerman, *supra* note 107. Valuation experts are nonetheless at risk of having their reputations tarnished in appeals, however, and there are instances of appellate courts finding damages to be excessive and unsupported by evidence. See James Malackowski, *Business and Management Practices*, BUS. BRIEFING (LexisNexis Acad., Bethesda, MD), May 13, 2004.

270. Given the complexity of valuation, it is helpful for courts and attorneys to have some understanding of basic, traditional approaches and methods used by valuation experts in order to understand issues related to the art and science of valuation. We refer readers to excellent primers on valuation basics. See, e.g., HITCHNER, *supra* note 189, at 1-18; Garcia-

best valuation methods has a long history that continues today.²⁷¹ It has been said that judges and the legal system as a whole have a tendency to idealize science and that this is a contributing factor to courts' frequent dissatisfaction with expert testimony.²⁷² The application of science in expert testimony often depends upon the context of the case,²⁷³ and sorting out what is art from what is science is often complicated by numerous technical issues that have arisen to challenge the courts. Examples are whether corporate goodwill can be separated from personal goodwill in professional practices, what discounts to allow for a lack of marketability of companies' stock and minority ownership of stock, and how to apply the so-called "new business rule" when calculating damages. Precedent informs these and similar issues, but inconsistent decisions across jurisdictions complicate the expert's task and increase the risk that the expert's testimony will be found flawed.²⁷⁴ In this part, we discuss these technical issues after first considering the art and science of damages estimation.

A. *Damages Estimation: Art, Science, or Both?*

The mere basics of business damages estimation are sufficiently complex that special efforts have been made to provide simplified educational tools for those in the legal profession.²⁷⁵ One appellate court has summarized the business damages estimation process as "a fiction—the purpose of which is to determine the price that the stock would change hands from a willing buyer and a willing seller" and as "a fact specific task exercise."²⁷⁶ This suggests that damages estimation is the art of applying

Ayuso, *supra* note 6. For more in-depth discussions of specific valuation, see HITCHNER, *supra* note 189, and SHANNON P. PRATT, ROBERT F. REILLY & ROBERT P. SCHWEIHS, VALUING A BUSINESS: THE ANALYSIS AND APPRAISAL OF CLOSELY HELD COMPANIES (4th ed. 2000).

271. See generally Michael O. Finkelstein, *The Judicial Reception of Multiple Regression Studies in Race and Sex Discrimination Cases*, 80 COLUM. L. REV. 737 (1980).

272. See Mnookin, *supra* note 164, at 766 (discussing judges' general fascination with science).

273. See *Muise v. GPU, Inc.*, 851 A.2d 799, 827-30 (N.J. Super. Ct. App. Div. 2004) (affirming trial judge's decision to admit expert testimony to prove damages in a class action).

274. See James A. DiGabriele, *An Empirical Walk Down Valuation Way: Are the Valuation Methods of Closely Held Companies Chosen by the Courts a Function of the Type of Case and Level of Court?*, 13 J. LEGAL ECON. 39 (2006) (analyzing comparatively whether the valuation methods of closely held companies are a function of the level of case and the type of court).

275. See, e.g., Garcia-Ayuso, *supra* note 6 (discussing the inefficient valuation of intangible determinants in business financial forecasting).

276. *Gross v. Comm'r*, 272 F.3d 333, 356 (6th Cir. 2001).

science to context,²⁷⁷ a position with considerable intuitive appeal.

Other courts have not always taken such a discretionary perspective, however, with valuation matters, seemingly preferring greater certainty in determinations of that nature. For example, in *JCM Const. Co. v. Orleans Parish School Bd.*, the court preferred an expert who used generally accepted accounting principles (GAAP) to one who had not despite the arguments about GAAP's inadequacies with respect to capturing value.²⁷⁸ Judges may gravitate toward methodologies with which they are more familiar.²⁷⁹

This search by the courts for certainty in an uncertain frame is consistent with judges wrestling with the question of when accepted financial models can be appropriately applied, a matter sometimes referred to as model risk.²⁸⁰ Most often, judges are not experts in financial theory or valuation methodologies. This had led to frequent compromises in order to make decisions in a reasonably efficient manner that sometimes results in "splitting the baby" between high and low damages estimates.²⁸¹ Recently, however, some courts have recognized that this practice "has no

277. A frequent cause of valuation testimony being excluded is the expert's misuse of accepted methodologies. PricewaterhouseCoopers, *supra* note 3, at 34.

278. *JCM Const. Co. v. Orleans Parish School Bd.*, 860 So. 2d 610, 631 (La. Ct. App. 2003). In valuation, the use of GAAP based upon the accrual method of accounting may not always render the most accurate valuation, and valuation analysts are not responsible for attesting to or certifying that information contained in financial statements is correct. HITCHNER, *supra* note 189, at 99. GAAP are designed for financial reporting purposes and not necessarily for valuation purposes; consequently, they are often adjusted in a process called normalization. *Id.* at 100. Testimony has been excluded for a failure to normalize. *See, e.g.*, *In re Marriage of Robinson*, No. CX-00-1063, 2001 Minn. App. LEXIS 233 (Minn. Ct. App. Mar. 6, 2001). Also, mere conformity to GAAP does not assure reliability. *See* Marc A. Siegel, *Accounting Shenanigans on the Cash Flow Statement*, THE CPA JOURNAL, Mar. 2006, at 38. For an example of how cash flows reported in accounting statements can be manipulated, see *id.*

279. DiGabriele, *supra* note 274, at 40 (illustrating that Delaware judges prefer staying within a familiar framework to make the valuation process less arbitrary).

280. The term "model risk" as it relates to valuation expert testimony occurs when a valid model is used inappropriately, when the data inputs to the model are incorrect, or when the model is under or over-specified (meaning that there are important variables missing or too many variables in the model to be properly supported by the data). It should also be noted that there are no perfect models when it comes to valuation. Some are better or worse than others in a given situation. *See, e.g.*, Susan M. Mangiero, *Model Risk and Valuation*, Valuation Strategies, Mar.-Apr. 2003. Another example of model risk issues can be found in the contrast between *Estate of Heck v. Comm'r*, 83 T.C.M. (CCH) 1181 (T.C. 2002), in which the tax court affirmed the use of the capital asset pricing model (CAPM) to compute a cost of capital in the valuation of a closely held company, and *Estate of Hoffman v. Comm'r*, 81 T.C.M. (CCH) 1588 (T.C. 2001), in which the tax court specifically rejected the use of the same model to value a closely held company.

281. DiGabriele, *supra* note 274, at 41 (citing Stephen J. Leacock, *The Anatomy of Valuing Stock in Closely Held Corporations: Pursuing The Phantom of Objectivity Into the New Millennium*, 2001 COLUM. BUS. L. REV. 161, 168 (2001)).

conceptual, theoretical, or intellectually convincing basis and tends to be grounded, quite simply, in expediency,” thereby tending to “transform the quest for substantive principles into essentially a form of mediation conducted by attorneys, seeking to resolve the differences between parties on a pragmatic and opportunistic basis.”²⁸²

Development of data through surveys and sampling, perhaps the most commonly used expert testimony in trademark and unfair competition cases,²⁸³ is one point at which art and science intersect to challenge courts. For example, in *Rowe Entm't v. William Morris Agency*, the court, noting that necessity sometimes dictates the use of a less-than-optimal sample, nonetheless held that a damages estimate was unreliable because the expert's sample was improperly developed due to reliance on anecdotal sampling techniques.²⁸⁴ In *Muise v. GPU, Inc.*, the court wrestled with the issue of whether customer surveys are a reliable means of obtaining data on the cost of interruptions of utility services.²⁸⁵

Those experts who find it useful to utilize samples collected through surveys are well-advised to follow some basic rules of survey research. These include choosing the appropriate population from which the sample is to be drawn, choosing a sample that is representative of the population, following proper interview or mailing procedures, asking questions clearly, accurately reporting what data were gathered, analyzing the data in accordance with accepted procedures, and ensuring the overall appearance of objectivity.²⁸⁶ Thoughtful examination of these criteria reveals numerous opportunities for subjective judgment in deciding such matters as the appropriate trade area to be sampled in a breach-of-non-competitor case, or whether to ask redundant questions that may help demonstrate reliability but reduce the response rate due to lengthening the survey.²⁸⁷

In the realm of damages, experts must deal with a host of other

282. DiGabriele, *supra* note 274, at 41; see Richard M. Wise, *Objectivity and Credibility as a Valuation Expert*, BUS. VALUATION REV., Jun. 2005, at 83 (“Rather than, as was more common in the past, a judge attempting to find a point somewhere between the two extreme positions of the opposing experts, the tendency now is to totally reject the evidence of one expert in favor of the other.”).

283. H. Jonathan Redway, *The Use of Survey Evidence in Trademark and Unfair Competition Cases: Insights and Practice Tips*, COMPUTER & INTERNET L., Oct. 2005, at 11.

284. *Rowe Entm't, Inc. v. William Morris Agency, Inc.*, No. 98 Civ. 8272 (RPP), 2003 U.S. Dist. LEXIS 15976 (S.D.N.Y. Sept. 15, 2003). Some commentators argue that it is better not to use survey data if the data are flawed. Redway, *supra* note 283, at 11.

285. *Muise v. GPU, Inc.*, 851 A.2d 799 (N.J. Super. Ct. App. Div. 2004).

286. Redway, *supra* note 283.

287. For a discussion of survey methods, see JULIAN L. SIMON, BASIC RESEARCH METHODS IN SOCIAL SCIENCES: THE ART OF EMPIRICAL INVESTIGATION 193-99 (2d ed. 1978); see also JAMES L. PRICE & CHARLES W. MUELLER, HANDBOOK OF ORGANIZATIONAL MEASUREMENT 6 (1986) (containing a brief explanation of reliability in measures).

potentially complicated and frequently subjective issues that are fundamental to valuation. These might include the standard of value by which to measure damages,²⁸⁸ various levels of value frameworks that can result in radically different values,²⁸⁹ what discounts to use in reducing the value of a privately-held business,²⁹⁰ what discount rate to use in determining the value of a stream of cash flows,²⁹¹ and whether the effects of events subsequent to the date for which a value is being determined should be incorporated into their analyses, thereby creating a sort of hindsight bias.²⁹² These complexities serve to illustrate the difficulties

288. HITCHNER, *supra* note 189, at 939-40. Consider, for example, whether the standard of value is that of fair value or fair market value. The two differ in that fair value, as defined under Generally Accepted Accounting Principles, considers synergies and attributes of specific buyers, whereas fair market value, as defined by the Internal Revenue Service, contemplates hypothetical buyers and sellers. Moreover, the definition of fair value, in a legal context of business damages, differs across state jurisdictions. DiGabriele, *supra* note 274.

289. Robert F. Reilly, *Valuation Adjustment in Business and Securities Valuations*, VAL. STRATEGIES, Jul.-Aug. 2005, at 4, 5.

290. HITCHNER, *supra* note 189, at 60-67. Consider, for example, the following excerpt from an internal memorandum from a leading valuation forensic services group at a national public accounting and consulting firm. The excerpt is indicative of the subjectivity inherent in business valuation with respect to matters that would seem to be primarily quantitative in nature to the superficially informed:

I did talk with [three leading business valuation experts outside the firm] about the use of the Asset Approach in situations where you are valuing a minority interest and the Income Approach resulted in a lower value than the Asset Approach and what the appropriate DLOM [discount for lack of marketability] would be. As you might expect I received 4 different answers. . . . I didn't tell them I had spoken to the others so as not to color their responses.

E-mail from Ed Morris, to Timothy Muehler (Jan. 7, 2008, 22:53:00 CST) (on file with authors). Among the experts polled by Ed Morris, the potential range of discounts for lack of marketability was 10% to 40% of the value. This is obviously a broad range with potentially significant differences in the magnitude of values. This illustrates the difficulty courts face in appraising the quality of business valuation when leading experts disagree.

291. An example of such technical issues is the debate over the meaning of "discount rate," the rate used to discount future expected cash flows of a business to their present value. This rate has several different meanings and has caused confusion among experts and the courts. This issue is summarized in the following statement:

There is little guidance in the finance literature or case law to direct the expert in selecting the appropriate discount rate for future lost-profit damages. In a few business damages cases, a risk-free rate has been applied as a matter of law. However, most courts favor the discount rate as a question of fact instead of a matter of law.

HITCHNER, *supra* note 189, at 1038.

292. *Id.* at 1043-44. An *ex ante* date, the most common date of measurement, measures damages as of the date of injury. An *ex post* date measures damages through the date of the trial or the closest practical date. This represents another issue regarding which the courts are not always consistent. Compare *Holden v. Holden*, 544 S.E.2d 884, 888 (Va. Ct. App. 2001) (using the most recent evidence of value as opposed to divorce date after determining

associated with separating art from science, a distinction that is important for the courts “[i]f scientific evidence must clear a hurdle that does not block the path of other expert testimony.”²⁹³

B. *Contrasting Positions across Jurisdictions*

To better understand the difficulties courts face in the demarcation between the art and science of valuation, it is useful to consider some recent cases that illustrate the courts’ struggles. For example, valuation of goodwill in professional practices has received disparate court treatment.²⁹⁴ Three different approaches have been developed in determining whether goodwill is an asset that can be considered marital property. Some jurisdictions make no distinction between business and personal goodwill, some find neither to be a marital asset, and the majority view differentiates between the two.²⁹⁵ In *Rolfe v. Rolfe*,²⁹⁶ *In re Schneider*,²⁹⁷ and *Moretti v. Moretti*,²⁹⁸ the courts determined that personal goodwill should be excluded from the value of the practice. Conversely, in *Singley v. Singley*,²⁹⁹ the courts determined that goodwill should be included in the value of the practice. In *In re Watterworth*³⁰⁰ and *In re Ceilley*,³⁰¹ two states’ appellate courts refused to rule that goodwill should always be included when valuing a professional practice.

Courts have also differed as to the appropriate date at which to value damages. For example, in *Tatum v. Tatum*, the appellate court reversed the

that value of stock had declined) *with* *Lawton v. Nyman*, 327 F.3d 30 (1st. Cir. 2003) (reversing the damages based upon sale of business sixteen months after event of interest), *Skokos v. Skokos*, 40 S.W.3d 768, 771-72 (Ark. 2001) (declining to consider post-valuation date of business even though economic environment of business had changed subsequent to divorce) *and* *In re Marriage of Harrod*, No. H025876, 2005 Cal. App. Unpub. LEXIS 9420, *34 (Cal. Ct. App. Oct. 18, 2005) (rejecting the use of post-valuation-date financial data). Also refer to *Kilpatrick v. Wiley, Rein & Fielding*, 37 P.3d 1130, 1145 (Utah 2001) (finding that a trial court is in the best position to determine the date as of which damages should be measured).

293. Kaye, *supra* note 109, at 1964.

294. Goodwill is defined as the excess in value of a business beyond the aggregate of the individual values of separately identifiable assets, less liabilities. HITCHNER, *supra* note 189, at 943.

295. *Stathakis v. Stathakis*, 1 CA-CV 05-0094, Ariz. App., at 21 (Ariz. Ct. App. March 3, 2006).

296. *Rolfe v. Rolfe*, No. C2-00-19, 2000 Minn. App. LEXIS 868, *8 (Minn. Ct. App. Aug. 15, 2000).

297. *In re Schneider*, 824 N.E.2d 177, 190 (Ill. 2005).

298. *Moretti v. Moretti*, 766 A.2d 925, 928 (R.I. 2001).

299. *Singley v. Singley*, No. 1999-CA-00754-COA, 2000 Miss. App. LEXIS 456, *23-*24 (Miss. Ct. App. Sept. 26, 2000).

300. *In re Watterworth*, 821 A.2d 1107, 1114-15 (N.H. 2003).

301. *In re Ceilley*, No. 02-0434, *11 (Iowa Ct. App. Feb. 28, 2003).

lower court's valuation of the marital estate at the time of an equitable distribution hearing and stated that the valuation date should be the date that most accurately reflects the fair market value of the assets.³⁰² In contrast, the court in *Bidwell v. Bidwell* noted that even though the sale of a business might be a more accurate measure of its fair market value, the appropriate time to measure the value is at the time of a divorce.³⁰³ In *Craig-Garner v. Garner*, the court elected to value a closely held business as of the date of the marriage.³⁰⁴ In *East Park Ltd. Partnership v. Larkin*, the court stated that post-valuation date evidence that was not known at the valuation date was irrelevant to the valuation.³⁰⁵

The so-called "new business rule" holds that parties cannot rely on evidence of lost profits where there is no established record of performance for the subject company.³⁰⁶ Here, again, the courts have not always been consistent.³⁰⁷ In *Hyperoam, Inc. v. Valley Wireless Internet*, the appellate court held that the damages found in the lower court were too speculative inasmuch as the business was new.³⁰⁸ The court in *Doft & Co. v. Travelocity.com, Inc.* ruled similarly.³⁰⁹ In *EBWS, LLC v. Britly Corp.*, the court affirmed the denial of damages for lost profits and reversed an award of consequential damages in a new business rule situation.³¹⁰ However, in *M.S. Distributing Co. & Congress Financial Corp. v. WEB Records*, the court upheld the rule while noting that the Seventh Circuit had questioned its wisdom.³¹¹ The court in *Kilpatrick v. Wiley, Rein & Fielding, LLP*, cited prior case law indicating that the lack of an actual record of past earnings should not be an automatic bar to recovery of lost profits.³¹² In *Abboud v. Robertson*, the appellate court affirmed a lost profits award on the basis that the new business was a continuation of an existing

302. *Tatum v. Tatum*, No. 0438-00-3, No. 0443-00-3, 2000 Va. App. LEXIS 789, at *12 (Va. Ct. App. Dec. 5, 2000).

303. *Bidwell & Bidwell*, 18 P.3d 465, 465 (Ore. Ct. App. 2001). Similar contrasts can be found in other cases. *See, e.g.*, cases discussed at *supra* note 292.

304. *Craig-Garner v. Garner*, 77 S.W.3d 34 (Mo. Ct. App. 2002).

305. *East Park Ltd. P'ship. v. Larkin*, 893 A.2d 1219, 1233 (Md. Ct. Spec. App. 2006), at *26-27.

306. *M.S. Distrib. Co. v. Web Records, Inc.*, No. 00 C 1436, 2003 U.S. Dist. LEXIS 8078 (N.D. Ill. May 13, 2003).

307. George A. Saitta, Jr., *Voluntary Payments Related to Business Decision May Not Be Recoverable Consequential Damages* (U.S. DATA FORENSICS, LLC, BETHESDA, MD).

308. *Hyperoam, Inc. v. Valley Wireless Internet*, No. 13-04-180-CV, 2005 Tex. App. LEXIS 6616, at *24 (Tex. App. Aug. 18, 2005).

309. *Doft & Co. v. Travelocity.com Inc.*, C.A. No. 19734, 2004 Del. Ch. LEXIS 75, at *23 (Del. Ch. May 21, 2004).

310. *EBWS, LLC v. Britly Corp.*, 928 A.2d 497, 517-18, 527 (Vt. 2007).

311. *M.S. Distrib. Co. v. Web Records, Inc.*, No. 00 C 1436, 2003 U.S. Dist. LEXIS 8078, at *27-*28 (N.D. Ill. May 13, 2003) (citing *Mindgames, Inc v. W. Publ'g Co., Inc.*, 218 F.3d 652, 657 (7th Cir. 2001)).

312. *Kilpatrick v. Wiley*, 37 P.3d 1130, 1146 (Utah 2001).

business.³¹³ The appellate court in *Sargon Enterprises, Inc. v. University of Southern California* reversed a lower court application of the new business rule and held that the rule did not apply to a business with an operating history of two years.³¹⁴

A leading topic of debate within valuation circles recently has been that of valuation adjustments to stock value for a lack of marketability due to the stock not being publicly traded and an absence of control because of minority ownership.³¹⁵ In response to the question of whether courts are changing their positions on lack of marketability discounts, one commentator stated: “The tax court holds to a tight standard of fair market value, while other courts, particularly in divorce matters, tend to use a more flexible standard.” The commentator noted that family court judges are not as well-trained as tax court judges to understand the concept of discounts.³¹⁶ In conjunction with this same issue, another commentator noted that discounts tend to be higher in tax court than in family court cases.³¹⁷ In *Petersen v. Petersen*, the court upheld the valuation of a closely held business, including discounts for minority interest and lack of marketability.³¹⁸ The appellate court in *Fausch v. Fausch* upheld the application of a discount for lack of marketability in a divorce situation even though no sale of the business was contemplated, but noted that this issue has to be approached on a case-by-case basis.³¹⁹

On the other hand, in *Blicht v. Peoples Bank*³²⁰ and *In re Vander Zee*, the courts refused to apply any discounts to the values of a holding company and a professional practice.³²¹ Likewise, the court in *Gottsacker v. Gottsacker* affirmed the use of a lack of marketability discount in valuing a family limited partnership.³²² Courts have sometimes excluded discounts because of what they perceive to be flawed reasoning, and, on some occasions, applied their own discounts. In *Estate of Adams v.*

313. *Abboud v. Robertson*, No. 78028, 2001 Ohio App. LEXIS 3392, at *11-*12, *15 (Ohio Ct. App. Aug. 2, 2001).

314. *Sargon Enters., Inc. v. Univ. of S. California*, Super. Ct. No. BC 263071, 2005 Cal. App. Unpub. LEXIS 1667, at *30, *49 (Cal. Ct. App. Feb. 25, 2005).

315. Reilly, *supra* note 289, at 6.

316. *AICPA BV ‘Hardball’ Panel Calls for the End of ‘It Depends’*, 14 BUS. VALUATION UPDATE, Jan. 2008, at 9, *supra* note 227, at 9 (quoting valuation expert Bob Duffy of Grant Thornton).

317. *Id.* at 9 (quoting valuation expert Gray Trugman of Trugman Valuation).

318. *Petersen v. Petersen*, No. 249176, 2004 Mich. App. LEXIS 3121 (Mich. Ct. App. Nov. 16, 2004).

319. *Fausch v. Fausch*, 697 N.W.2d 748, 752 (S.D. 2005).

320. *Blicht v. Peoples Bank*, 540 S.E.2d 667, 670 (Ga. Ct. App. 2000).

321. *In re Zee*, No. 1-04/99-1116, 2001 Iowa App. LEXIS 286, at *13 (Iowa Ct. App. April 27, 2001).

322. *Gottsacker v. Gottsacker*, No. C1-02-615, 2002 Minn. App. LEXIS 1290, at *14-15 (Minn. Ct. App. Nov. 26, 2002).

Commissioner, the court rejected the estimated discounts of both experts and instead applied its own.³²³ In *Estate of Leichter v. Commissioner*, the court found what it deemed to be various flaws in three experts' reports, based upon what it believed to be duplicitous discounts.³²⁴ Similarly, in *Estate of Cook v. Commissioner*, the court rejected both experts' analyses of lack of marketability discounts and applied its own.³²⁵

Another example of a technical issue that has confounded courts and plagued experts is whether S corporations are to be valued as C corporations or whether S corporation status makes such corporations more valuable.³²⁶ For instance, in *Gross v. Commissioner*, the appellate court noted that the essence of the argument before it was a battle of experts over how to value the stock of a closely held S corporation and that appellate courts have afforded tax courts broad discretion in deciding which position on whether the stock is tax affected will render the most appropriate valuation.³²⁷

Sometimes these issues can become entangled, as is the case with S corporation valuation and the application of discounts. In *Casey v. Brennan*, in which dissenting shareholders objected to conversion of an S corporation to a C corporation, the appellate court affirmed the lower court's rejection of valuations that included lack of marketability and minority discounts, but reversed as to control premiums.³²⁸ In *Pueblo Bancorporation v. Lindoe, Inc.*, the court concluded that conversion of a C corporation to an S corporation did not constitute a situation where discounts should be applied.³²⁹

The foregoing was intended to provide a sense of the substantial degree of subjectivity inherent in valuation issues and the difficulty courts experience in wrestling with valuation.³³⁰ The reluctant conclusion is that few judges and attorneys understand the theoretical underpinnings of valuation.³³¹ One commentator has noted that "[a]t times, the expert's

323. *Estate of Adams v. Comm'r*, 83 T.C.M. (CCH) 1421, 19 (2002).

324. *Estate of Leichter v. Comm'r*, 85 T.C.M. (CCH) 991 (2003).

325. *Estate of Green v. Comm'r*, 86 T.C.M. (CCH) 758 (2003).

326. See Merle Erickson & Shiing-wu Wang, *Response to the "Erickson-Wang" Myth*, 9 SHANNON PRATT'S BUS. VALUATION UPDATE, Feb. 2003, at 1, 1-5.

327. *Gross v. Comm'r*, 272 F.3d 333, 338-39 (6th Cir. 2000).

328. *Casey v. Brennan*, 780 A.2d 553, 559, 570-71 (N.J. Super. Ct. App. Div. 2001).

329. *Pueblo Bancorporation v. Lindoe, Inc.*, 37 P.3d 492, 494, 499 (Colo. App. 2001).

330. For several issues that have recently posed concerns for valuation experts with regard to court decisions related to subjectivity in valuation matters, see BVR's BVWire Central, <http://www.bvresources.com>. This subjectivity is highlighted by the likelihood that pending litigation against a company may itself affect the company's value. William C. Quackenbush, *How Does Litigation Affect Value?*, E-LETTER (Bus. Valuation Comm. of the Am. Soc'y of Appraisers, Herndon, VA), May 23, 2007.

331. Joseph N. Hosteny, *The Misuse of Patent Law Experts: An Embarrassment to Our Profession*, PAT. STRATEGY & MGMT., Oct. 2006, at 1, 3. The author also notes that judges

calculations appear as a black box—it's hard to tell what's in there, but it sure sounds impressive.”³³² The following part discusses how the growing complexity of business cases is contributing to this subjectivity.

V. TRENDS IN THE BUSINESS ENVIRONMENT AFFECTING CASES INVOLVING DAMAGES

For some time the U.S. economy has been shifting from a manufacturing orientation to a knowledge-based orientation³³³ characterized by a focus on financial services³³⁴ and research and development of new technologies.³³⁵ The 1980s witnessed the deregulation of financial institutions and the development of new financial products in areas such as risk management and asset securitization.³³⁶ The 1990s observed the rapid growth in the widespread implementation of new information systems technologies.³³⁷ The beginning of the 21st century has been marked by the mapping of the human genome and the subsequent interest in molecular medicine and proteomics research. These developments hold great promise for the development of pharmaceuticals and diagnostics to combat various diseases.³³⁸ In the life sciences alone there is an explosion in the number of start-up companies engaged in the development of new healthcare technologies.³³⁹ Companies are increasingly being looked upon as knowledge-based systems as opposed to

in bench trials typically permit more latitude in educational testimony regarding valuation concepts by experts than in jury trials, “in the belief that jurors will have little, if any, knowledge and/or understanding of the technical issues before them.” *Id.* at 5. Financial concepts are difficult for attorneys and jurors to understand and are often presented toward the end of trials, when jurors are weary and feel that they have heard enough. Albert Vondra, *Financial Experts' Experience Vital*, CRAIN'S CLEV. BUS., Aug. 7, 2006, at 17.

332. Fannon, *supra* note 252, at 14.

333. Kaufmann & Schneider, *supra* note 4 at 380; *see also* Dick Crawford & Nicholas T. Miller, *Commercial Lending Revenue Growth In The Knowledge Economy: The Importance Of Intellectual Property*, COM. LENDING REV., Nov. 2002, at 1, 4; and John Reynolds, *Economics 101: How Franchising Makes Music for the US Economy*, FRANCHISING WORLD, May 2004, at 37 (stating that many changes in the U.S. economy are due to the growth of franchising).

334. The service sector constitutes nearly three fourths of the U.S. economy. *Id.* at 37.

335. *See* Jankowski, *supra* note 5, at 335.

336. *See generally* Bowen H. McCoy, *The New Financial Markets and Securitized Commercial Real Estate Financing*, REAL EST. ISSUES, Spring-Summer 1988, at 6-7; Cristina Lourosa-Ricardo, *Winning Lines: Which Professions Scored Big in the '90s*, WALL ST. J., April 11, 2002, at B10.

337. *See, e.g.*, Steve Lohr, *A Technology Recovery in Post-Exuberant Times*, N.Y. TIMES, Oct. 26, 2004 at C1; Cristina Lourosa-Ricardo, *supra* note 336, at B10.

338. *See* Rudy M. Baum, *Proteomics Builds on Genomics Success*, 80 SCI. & TECH. 38 (March 18, 2002).

339. Jonathan D. Root, *Patient Capital: How Life Sciences Investments Touch Us All*, VENTURE CAP. J., Dec. 2004, at 44.

aggregations of bricks and mortar.³⁴⁰ The shift to a service-based and research-and-development-intensive economy greatly increases the frequency with which courts encounter cases involving intellectual capital.³⁴¹ At the same time, there is mounting concern about the legitimacy of certain expert testimony as more and more complex damages valuations³⁴² evolve predicated upon increasingly sophisticated methodologies.³⁴³

A. *Valuation Issues Resulting from the Rise to Prominence of Intellectual Capital*

There is no doubt that intellectual capital is critical to business valuation³⁴⁴; likewise, there is ample evidence that extant measures of intellectual capital are plagued with deficiencies.³⁴⁵ Although there is clearly a growing awareness of the importance of intellectual capital, its study is in its infancy in many ways, and much of the research to date has been focused upon understanding how intellectual capital affects operational performance as opposed to financial performance.³⁴⁶

Nonetheless, the lack of information regarding the value of intellectual capital can lead to misallocation of resources.³⁴⁷ Over the past several years there have been numerous mergers and acquisitions³⁴⁸ in which a significant portion of the purchase price was paid for intellectual capital.

340. Per Nikolaj Bukh & Ulf Johanson, *Research and Knowledge Interaction: Guidelines for Intellectual Capital Reporting*, 4 J. INTELL. CAP. 576, 582 (2003).

341. Goldscheider *supra* note 6, at 55; see also *Intangibles Are the Tangible Assets Now*, GLOBAL NEWS WIRE—ASIA AFRICA INTELL. WIRE, Dec. 28, 2005, at 1 (stating that intellectual capital has become the most important resource for companies); *A Market for Ideas*, ECONOMIST, Oct. 20, 2005, at 3 (stating that as much as three fourths of the value of publicly traded U.S. companies results from intellectual capital); *Kroll Survey Highlights Corporate Vulnerabilities to Growing Billion-Dollar Problem of Intellectual Property Abuse*, BUS. WIRE, Apr. 16, 2002, available at <http://www.kroll.com/news/releases/index.aspx?id=151> (noting that intellectual capital “is at the heart of modern business”); *Securitizing the Future*, MANAGING INTELL. PROP., Sep. 2006, 22, 22 (stating that companies are increasingly expecting their intellectual capital to create value).

342. For a schematic diagram depicting the complexity associated with valuation of technology, see F. PETER BOER, *THE VALUATION OF TECHNOLOGY* xi (1999).

343. Schuurman & Stafford, *supra* note 148.

344. For example, econometric studies consistently indicate a positive and statistically significant association between research and development intensity and corporate market value. Bernard Marr et al., *Why Do Firms Measure Their Intellectual Capital?*, 4 J. INTELL. CAP. 441, 448 (2003).

345. See Gopika Kannan & Wilfred G. Aulbur, *Intellectual Capital: Measurement Effectiveness*, 5 J. INTELL. CAP. 389, 392 (2004) (providing a list of disadvantages).

346. Bernard Marr, *Intellectual Capital at the Crossroads: Managing, Measuring and Reporting IC*, 5 J. INTELL. CAP. 224, 224 (2005).

347. Kaufman & Schneider, *supra* note 4, at 366.

348. Mandel, *supra* note 150, at 115.

An improved and more transparent valuation process is needed to understand exactly what acquirers are receiving in return for the purchase price.³⁴⁹ “Without correct assessment, measurement and valuation of IC [intellectual capital], the acquirers may overvalue it, thus causing value destruction for the acquiring firm’s shareholders and other stakeholders.”³⁵⁰ Given that it is estimated that acquisitions, on average, do not work out well for acquirers³⁵¹ and that failing to adequately understand intellectual capital leads to incorrect valuations, inaccurate risk assessments, and potential increases in a company’s cost of capital,³⁵² there are obvious implications for litigation involving acquisition transactions. Similarly, growth in derivative securities and other new types of financial instruments is fueling more and more litigation.³⁵³

Post-*Daubert* courts appear to favor more systematic quantitative analysis in damages testimony,³⁵⁴ but measurement of intellectual capital is difficult.³⁵⁵ Despite the recognition by bodies such as the International Accounting Standards Board and Financial Accounting Standards Board that financial statements must do a better job of capturing intellectual asset values,³⁵⁶ there is no universally acceptable model to measure intangibles. “Measuring non-financial data is still [more] an art than a science and in intellectual capital the choice of indicators can affect the results substantially.”³⁵⁷ The majority of research regarding measuring intellectual capital is still in the theory-building stage,³⁵⁸ and existing accounting measures have been criticized for failing to give adequate consideration to intellectual capital.³⁵⁹ Although the development of universally accepted quantitative models of intellectual capital may, at times, seem analogous to pursuit of the Holy Grail, there are nonetheless those who purport to show that such quantification is possible.³⁶⁰

349. Marr, *supra* note 344, at 452-53.

350. *Id.* at 447 (citing P.H. Sullivan, Jr. & P.H.S. Sullivan, Sr., *Valuing Intangible Companies—An Intellectual Capital Approach*, 1 J. INTELL. CAP. 328, 328-40 (2000)).

351. JOSEPH H. MARREN, *MERGERS & ACQUISITIONS: A VALUATION HANDBOOK* (1993), at 31.

352. Marr, *supra* note 344, at 447.

353. Mandel, *supra* note 150, at 117.

354. *Id.* at 116

355. HITCHNER, *supra* note 189, at 938; see Benjamin P. Foster et al., *Valuing Intangible Assets*, CPA J., Oct. 2003, at 50, 50.

356. Abeysekera, *supra* note 4, at 426.

357. *Id.* at 422 (quoting ROOS & ROOS, *INTELLECTUAL CAPITAL: NAVIGATING THE NEW BUSINESS LANDSCAPE* 6 (1997)).

358. See, e.g., Garcia-Ayuso, *supra* note 6, at 57; Marr, *supra* note 344 (discussing one study attempting to determine a way to measure intellectual capital).

359. Marr, *supra* note 344, at 447; see Russ Banham, *Valuing IP Post-Sarbanes-Oxley*, J. ACCT., Nov. 2005, at 173, 173, available at <http://www.aicpa.org/pubs/jofa/nov2005/banham.htm>.

360. See, e.g., Litschka et al., *supra* note 4, at 161.

Intellectual capital poses certain valuation complexities and problems of a magnitude that typically greatly exceeds those associated with valuing physical assets when it comes to estimating damages resulting from the misappropriation, infringement, or impairment of intellectual capital.³⁶¹ For example, it is relatively easy to determine both the lives and values of physical assets such as production equipment or inventory, compared to what might have been the longevity of a particular type of customer account that was terminated prematurely due to breach of contract³⁶² or the value of a particular peptide that influences molecular behavior. Even valuing the property rights to certain physical assets can take on new complexity when such values are determined to a significant extent by developments in underlying intellectual assets.³⁶³ Intellectual capital on its own is often worthless, and its value must be considered in light of the business that possesses it and the context in which it is being utilized.³⁶⁴ It is also often difficult to perform comparative analyses of intellectual capital³⁶⁵ to arrive at valuations in a manner analogous to traditional

361. For a discussion of the difficulties in valuing intellectual capital, see HITCHNER, *supra* note 189, at 936. “The more complicated the technology, the more complicated the resolution of intellectual property disputes.” Goldscheider, *supra* note 6, at 57. Baseman and Slottje, in providing an example of such complexity in an actual case, assert that although use of econometrics and statistics has been somewhat limited to date in its application to cases involving intellectual capital, “[a]s the enforcement of intellectual property rights grows globally, issues of the quantification of economic damages will grow in importance around the world.” Robert L. Basemann & Daniel J. Slottje, *Copyright Damages and Statistics*, 71 INT’L STAT. REV. 557, 557 (2003). Another source argues for the importance of sound evidentiary support in complex cases such as patent infringement cases. James E. Malackowski & Robert M. Hess, *Federal Circuit Damages Decision Emphasizes the Importance of Sound Economic Models*, BUS. MGMT. PRAC., May 13, 2004.

362. For a discussion of the relative ease of valuing “hard” assets as opposed to intellectual assets, see Crawford & Miller, *supra* note 333, at 4. An example of this issue can be found in a recently settled case in which the damages estimates were the central focus of argument, and the magnitude of the damages mainly turned upon how long accounts would have survived but for the breach. Since longer-surviving accounts arguably possessed different survival characteristics than shorter-lived accounts, a problem arose in determining the appropriate manner in which to estimate lives of accounts that were prematurely truncated. *First Am. Real Estate Info. Servs. v. Consumer Benefit Servs., Inc.*, No. 03CV0633-B(NLS), 2004 U.S. Dist. LEXIS 30317 (S.D. Cal. 2004).

363. For example, the intellectual property rights associated with an automated sample loader used in proteomics research may be dependent, in part, upon further developments in proteomics that make such research more commercially attractive, thereby increasing the value of the reduced sample throughout time and waste reduction afforded by the sample loader. Such is the case with one of the products developed by a proteomics-related company, Inproteo, LLC, with which two of the authors were involved in an advisory capacity.

364. Luiz Antonio Joia, *Measuring Intangible Corporate Assets: Linking Business Strategy with Intellectual Capital*, 1 J. INTELL. CAP. 68 (2000).

365. Chris D. Adams & Gerald M. Godshaw, *Intellectual Property and Transfer Pricing*, 8 INT’L TAX REV. 74, 74 (2002).

valuation methods that rely on comparisons.³⁶⁶

To better understand the differences between valuation of intellectual and physical assets, consider the following. There are several accepted methods for valuing physical assets, including depreciated cost, replacement cost, fair market value, and the net present value of the future cash flows the assets are expected to generate.³⁶⁷ Depreciated cost is inappropriate for valuing intellectual capital because its direct acquisition cost may be insignificant as a result of its being developed through an expenditure of human resources, the cost of which is expensed immediately as opposed to being recorded as assets and depreciated.³⁶⁸ Similarly, replacement cost is often problematic because, for example, it is unclear what cost would have to be expended to replace a flash of insight that leads to a new product.³⁶⁹ Further, the fair market value of some intellectual capital is extremely difficult to determine in situations where the intellectual asset consists of organizational learning such as knowledge of manufacturing processes.³⁷⁰ This often leaves the net present value of discounted future cash flows as the only viable method for valuing intellectual capital.³⁷¹ A difficulty with using this method, however, is that forecasting future cash flows from intellectual capital is fraught with uncertainty.³⁷² Courts have not always looked kindly upon experts' uncertain forecasts and their reliance upon client management's forecasts as supposedly reliable roads to accurate valuation.³⁷³

366. See, e.g., HITCHNER, *supra* note 189, at 79-82. Some have questioned whether it even makes sense to attempt to perform industry-specific analyses in order to value intellectual capital. Kaufman & Schneider, *supra* note 4.

367. R. Mark Halligan & Richard F. Weyand, *The Economic Valuation of Trade Secret Assets*, J. INTERNET L., Feb. 2006, at 19, 19-20. See generally HITCHNER, *supra* note 189, (describing these methods in Chapters 4, 6, and 7).

368. Halligan & Weyand, *supra* note 367, at 19-20.

369. *Id.*; see ROBERT F. REILLY & ROBERT P. SCHWEIHS, VALUING INTANGIBLE ASSETS 95-117 (2004) (discussing cost-based approaches to valuing intellectual capital).

370. Halligan & Weyand, *supra* note 367, at 19-20; see REILLY & SCHWEIHS, *supra* note 369, at 146-158 (discussing the market-based approach to valuing intellectual capital).

371. Halligan & Weyand, *supra* note 367, at 19-20.

372. Courts tend to take a dim view of excessive speculation in valuation experts' reports. See, e.g., *Zenith Elecs. Corp. v. WH-TV Broadcasting Corp.*, 395 F.3d 416 (7th Cir. 2005) (finding an expert's lost profits testimony unreliable because it was based only upon experience and not upon statistical or market analyses); *Telxon Corp. v. Smart Media of Delaware, Inc.*, Nos. 22098, 22099, 2005 WL 2292800 (Ohio Ct. App. 2005) (holding the award for damages speculative, in part as a result of its being based upon a post-valuation-date business plan); *Storage Tech. Corp. v. Cisco Systems, Inc.*, 395 F.3d 921 (8th Cir. 2005) (finding the valuation expert's damage assessment speculative for failure to analyze an acquisition price from the perspective of the factors that drove the acquisition); *Phase 2 Devs. Corp. v. Citicorp Real Estate*, No. B160111, 2004 Cal. App. Unpub. LEXIS 117 (finding valuation expert to have relied upon too many contingencies).

373. See, e.g., *Haff v. Augeson*, No. C1-02-1652, 2003 Minn. App. LEXIS 460 (Minn. Ct. App. 2003) (affirming a lower court's finding of a forecast of the post-breach income of

This growing complexity, and the concomitant difficulty in estimating damages associated with litigation involving intellectual capital, affects the provision of expert testimony in civil actions.³⁷⁴ As enforcement of property rights increases globally,³⁷⁵ the need for quantification of economic damages associated with the rights is also growing,³⁷⁶ thereby exacerbating the courts' difficulties in assessing the admissibility of such testimony. Where *Daubert's* silence—made arguably more deafening by *Joiner* and *Kumho*—begins, the courts are largely left to case law³⁷⁷ and their own judgment in determining whether a particular scientific methodology as applied to the facts and circumstances of a case is appropriate or inappropriate. As the nature of the capital being valued becomes more nebulous and the methodologies used in valuation become more esoteric, the challenge associated with making this determination obviously increases.³⁷⁸ Thus, increased complexity in the nature of the intellectual capital that forms the basis for civil business litigation makes it more difficult for courts to interpret expert testimony and determine whether the experts are in fact using good science.³⁷⁹

Consider, for example, the problem of valuing the capital structure of a privately held life sciences company.³⁸⁰ The greater percentage of

the company too speculative). In *Doft & Co. v. Travelocity.com, Inc.*, No. 19734, 2004 Del. Ch. LEXIS 75 (Del. Ch. 2004), the court held that management's projections were not reliable. On the other hand, in *Union Ill. 1995 Inv. L.P. v. Union Fin. Group, Ltd.*, 847 A.2d 340 (Del. Ch. 2004), the court held that the valuation expert had deviated from management's forecast without adequately explaining the reasoning behind the deviation. See *Cede & Cinerama v. Technicolor, Inc.*, No. 7129, 2003 Del. Ch. LEXIS 146 (Del. Ch. 2003). In *Dunn v. Matrix Exhibits, Inc.*, No. M2003-02725-COA-R3-CV, 2005 Tenn. App. LEXIS 652 (Tenn. Ct. App. 2005), the court found that management's future projections were admissible in a but-for analysis.

374. See *Seigneur*, *supra* note 166.

375. For a discussion of the role of globalization in creating legal complexities related to intellectual capital, see Stacey Higginbotham, *The Right Recipe*, THE CORPORATE DEALMAKER, (Jan. 2006), http://www.thedeal.com/corporatedealmaker/2006/02/the_right_recipe.php.

376. Robert L. Basmann & Daniel J. Slottje, *Copyright Damages and Statistics*, 71 INT'L STAT. REV. 557 (2003).

377. While stressing the likely growth in frequency and importance of statistics in estimating damages in cases involving intellectual capital, Basmann and Slottje also note the limited case law on the topic. *Id.* at 557.

378. Hilton, *supra* note 223; see Paloma Sánchez et al., *Management of Intangibles: An Attempt to Build a Theory*, 1 J. INTELL. CAP. 312 (2000) (discussing measurement issues related to intellectual capital).

379. See generally Malackowski & Hess, *supra* note 361. Basmann & Slottje, *supra* note 376, at 558-563, present an actual case study that demonstrates how a case with substantial damages at stake can turn on the complexities of statistical arguments.

380. It is estimated that 99.5% of all U.S. companies are privately held. These firms require special treatment for valuation purposes. William P. Dukes, *Business Valuation Basics for Attorneys*, 1 J. BUS. VALUATION & ECON. LOSS ANALYSIS 1, Abstract (2006).

intellectual assets to total assets in privately held companies often means high potential returns that, in turn, carry high risk.³⁸¹ These higher returns can be very attractive to private equity groups that have experienced a phenomenal growth in recent years.³⁸² Private equity groups frequently consist of sophisticated investors who, in turn, employ sophisticated legal counsel to assist them in designing capital structures for their investments to help mitigate their investment risk.³⁸³ As a result, capital structures of many privately held companies, even relatively small ones, are complex and can contain various combinations of debt, preferred equity, common equity, and hybrid securities that have characteristics of both debt and equity.³⁸⁴ Common equity can be of various classes and can have various forms of derivative securities attached, such as stock options and warrants.³⁸⁵ To value a company with such a complex structure, it is necessary to value the entire set of claims to the company's cash flows in the descending order in which each class of claimant stands in priority.³⁸⁶ This requires the use of very sophisticated methodological tools to obtain accurate valuations—tools with which few damages experts, much less judges, are likely to be familiar.³⁸⁷

The Need for Increasingly Complex Valuation Methodologies

As the complexity of business has increased with the rise to prominence of intellectual capital, so has the complexity of the

381. Travis Chamberlain et al., *Navigating the Jungle of Valuing Complex Capital Structures in Privately Held Companies: An Integrative Simulation Approach*, 2 J. BUS. VALUATION & ECON. LOSS ANALYSIS 1, 2-3 (2008), available at <http://www.bepress.com/jbvela/vol2/iss2/art5/>.

382. John W. Hill & Thomas L. Zeller, *The New Value Imperative for Privately Held Companies: The Why, What, and How of Value Management Strategy*, 51 BUS. HORIZONS 541, 542-43 (Nov.-Dec. 2008).

383. Chamberlain, et al., *supra* note 381, at 3.

384. *Id.*

385. *Id.*

386. *Id.* at 22.

387. *Id.* at 9. For additional insight into some of the intricacies of valuing a complex capital structure, see Robert E. Duffy & David C. Dufendach, *Valuing Components of Complex Capital Structures*, AICPA/ASA National Business Valuation Conference (November 14-16, 2005) (conference materials and notes on file with authors). As higher-risk industries increase with growth in intellectual capital and technology, there exists on a more micro level the issue of whether company-specific risk, discussed in the previous part, is subsumed into the risk of the industry in the case of such higher-risk industries. This issue presents complex questions regarding the adequacy of current finance theory to explain the manner in which financial markets impound risk into equity prices, and is illustrative of a micro-level valuation issue (stemming from macro-level, theoretical concerns and the changing nature of business assets) that confounds damages experts. Gailor, *supra* note 239, at 27.

methodologies needed to value this capital.³⁸⁸ Damages valuation, in general, is a complex undertaking often requiring the projection of future financial outcomes and a strong understanding of accounting, financial analysis, statistics, and forecasting of business outcomes.³⁸⁹ This, in turn, requires careful assessment by the bench of not only the reliability of the methods employed by the expert but also the reliability of their application in a particular context.³⁹⁰ This matter is made more difficult because many such methods have their origin in statistics, the application of which can be as much art as science.³⁹¹ Although there is evidence of some systematic trends in courts' preferences for certain valuation methodologies over others, there is a high degree of variability even among cases with similar characteristics.³⁹² This suggests difficulty on the part of judges in assessing valuation methodologies.

Statistical reasoning is crucial to most scientific inquiry,³⁹³ and there are few areas of scientific testimony more daunting for courts than the use of advanced econometric and statistical techniques to develop damage estimates related to intellectual capital.³⁹⁴ This challenge is made even

388. Goldscheider, *supra* note 6, at 62.

389. Steven Kam et al., *The Valuation of Litigation*, 9 VALUATION STRATEGIES 1, 5-8 (2006).

390. See Sofie Adroque & Alan Ratliff, *Kicking The Tires After Kumho: The Bottom Line on Admitting Financial Expert Testimony*, 37 HOUS. L. REV. 431, 448-50 (2000). See Interview with Shannon Pratt (Moderator), Alina Niculita & Timothy R. Lee, Business Valuation Resources Teleconference (Aug. 31, 2006) (notes on file with authors), for an example of a reliability issue that is fairly commonplace in expert valuation: the adjustment of multiples (ratios) used to value a company in question). These multiples are obtained by first selecting publicly traded companies that are believed to be comparable to the company being valued and then calculating key financial variables that can be expressed as ratios of some measure of the value of the public companies. Once the ratios are calculated, a value for the company being valued can be calculated by inserting the values for the company into the ratios. Adjustment of the ratios comes into play because the public companies are rarely, if ever, exactly comparable to the company being valued and therefore must be adjusted to compensate for differences. This valuation issue alone is complex, see, e.g., *In re Nellson Nutraceutical, Inc.*, 356 B.R. 364 (Bankr. D. Del. 2006); *Adjusting Multiples from Guideline Public Companies*, Business Valuation Resources Teleconference (Aug. 31, 2006) (notes on file with authors), and illustrative of the type of expert testimony morass in which courts may become enmeshed, apart from the even more complex issues that attend the use of sophisticated statistical methodologies. For example, in *Eckelkamp v. Beste*, 315 F.3d 863, 868-69 (8th Cir. 2002), the court found the expert's methodology flawed because the companies' use of comparables was unsuitable for this purpose. This position can be contrasted with the conclusion of a number of courts that the preferred way to value a closely held company is by the use of appropriate multiples and the acknowledged difficulty of finding publicly traded comparables. See DiGabriele, *supra* note 274, at 42.

391. Kaye, *supra* note 109, at 1965.

392. DiGabriele, *supra* note 274, at 39.

393. Kaye, *supra* note 109, at 1965.

394. Adroque & Ratliff, *supra* note 390, at 486. "The comfort that most lawyers and judges have with legal principles does not generally extend to numbers." *Id.* Basmann &

more difficult because of the great propensity for each side to present only evidence favorable to its case and to assert flaws in opposing expertise.³⁹⁵ Estimation of damages in such cases increasingly requires data analysis involving advanced econometric and/or statistical methodologies that are sometimes not well understood even by experts with extensive backgrounds in the use of statistics.³⁹⁶ Because of sometimes subtle differences in business settings, the most appropriate methodology for a particular context may not be the one used most frequently in similar cases, so common usage and precedent are not necessarily reliable from a scientific perspective.³⁹⁷ Further, the courts may well hear from experts whose credentials seem impeccable and yet whose knowledge of a particular technique in question may be errant.³⁹⁸ Critical turning points can revolve around issues as seemingly esoteric as the known or potential

Slottje, *supra* note 376, comment that even elementary statistical matters can cause much adversarial debate. For example, courts have long struggled to determine whether the samples used by experts in performing their analyses were representative enough of the population to which experts are attempting to extrapolate. *See, e.g.,* Currier v. United Techs. Corp., 393 F.3d 246, 256 (1st Cir. 2004) (affirming a decision to use a broader sample); *cf.* Citizens Fin. Group, Inc. v. Citizens Nat'l Bank, 383 F.3d 110, 134 (3d Cir. 2004) (affirming exclusion of a broader sample).

395. Richard A. Posner, *An Economic Approach to the Law of Evidence*, 51 STAN. L. REV. 1477, 1488 (1999).

396. Daniel McFadden, et al., *The Misuse of Econometrics in Estimating Damages*, ABA ECONOMETRICS TREATISE (forthcoming).

397. For example, in *First American Real Estate Information Services, Inc. v. Consumer Benefit Services, Inc.*, No. 03CV0633-B(NLS), 2004 U.S. Dist. LEXIS 30317 (S.D. Cal. 2004), one expert argued that the most appropriate methodology was a sequential combination of Cox Regression to estimate past account survival probabilities, followed by feasible generalized least squares to forecast future account survival probabilities using two different model specifications, and then subsequent smoothing by use of Granger Ramanathan Regression. *See id.* Report of Plaintiff's Expert (filed pursuant to Jan. 28, 2004 Stipulation and Order). This was a complicated and possibly unprecedented use of the subject methodologies in litigation that might have presented a substantial challenge to the court in understanding the econometric arguments if the case had gone to trial. *See id.* Report of Plaintiff's Expert and Report of Defendant's Expert (filed pursuant to Jan. 28, 2004 Stipulation and Order).

398. *See, e.g., id.* This case represents one such example, as two experts with exemplary credentials disagreed over the important distinction of the statistical treatment of involuntarily terminated accounts with respect to the application of the most appropriate statistical methodology. Another recent settled case provides additional evidence that the combination of statistical methodology and business context may complicate courts' determination of admissibility of expert testimony. Experts' arguments revolved around whether a regression analysis could be applied reliably with a relatively small sample size and whether the absence of certain variables in the model might affect the damage estimates. *Onex, Inc. v. Inrange Techs. Corp.*, No. 1:03-CV593LJM-WTL (S.D. Ind. filed April 23, 2003) (later settled). Had the case gone to trial, the court would likely have been faced with the problem of deciding whether the business context validated the use of the particular well-established methodology.

error rate when making statistical comparisons using multiple tests.³⁹⁹

The use of multiple regression analysis, a particularly powerful statistical methodology,⁴⁰⁰ has now become reasonably common in business damages cases⁴⁰¹ and has gained considerable acceptance by the courts.⁴⁰² Because of its power and complexity, multiple regression analysis also carries a significant risk of misleading the courts if its assumptions are not met and it is not used properly. Courts have recently had to decide whether damages experts' regression assumptions were reliable prior to rendering a verdict.⁴⁰³ Even if judges achieve a reasonable grasp of the complexities of multiple regression in its most basic form (ordinary least squares)⁴⁰⁴ to determine whether it has been applied reliably, they have yet to scratch the surface of the more complex permutations that include generalized-least-squares, hedonic, weighted-least-squares, tobit, logit, and probit regressions, among others.⁴⁰⁵

The debate about the reliability of regression models often centers on

399. David Tabak, *Multiple Comparisons and the Known or Potential Error Rate*, 19 J. FORENSIC ECON. 231, 231-33 (2006). The author notes that the likelihood of finding the same result in multiple tests at the 5% level is $1-0.95$ to the power of N where N is the number of tests. *Id.* This is true, however, only if the tests are completely independent, a matter that often depends upon the context of the case performed. The point is that it is relatively easy for those with only a cursory acquaintance with statistics to be misled regarding a finding of significant associations when applying statistical methods.

400. Multiple regression analysis is particularly powerful because it facilitates the assessment of the associations among several possible causal variables with a variable of interest such as revenues or profits, by sorting out spurious correlations for non-spurious correlations. See *In re Polypropylene Carpet Antitrust Litig.*, 996 F. Supp. 18, 26 (N.D. Ga. 1997) (citing *Sobel v. Yeshiva Univ.*, 839 F.2d 18, 35 (2d. Cir. 1988) and Daniel L. Rubinfeld, *Econometrics in the Courtroom*, 85 COLUM. L. REV. 1048, 1065-66 (1985)).

401. See, e.g., *In re Linerboard Antitrust Litig.*, 305 F.3d 145 (3rd Cir. 2002); *Conwood Co., L.P. v. U.S. Tobacco Co.*, 290 F.3d 768 (6th Cir. 2002).

402. See, e.g., DANIEL L. RUBINFELD, *Reference Guide on Multiple Regression*, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 179-227 (2d ed. 2000) (devoting an entire section to regression analysis). In fact, courts' acceptance of regression analysis has become so commonplace that in some cases the failure to use regression has been a basis for excluding expert testimony. See, e.g., *Munoz v. Orr*, 200 F.3d 291, 301 (5th Cir. 2000).

403. Stephen Mahle, *Econometric Issues in Business Litigation Testimony*, <http://www.daubertexpert.com/econometric.html>.

404. This is no mean feat inasmuch as business valuation experts themselves often misinterpret some of regression's output metrics and uses. Compare Mark G. Filler, *Revisiting Regression Analysis and the Market Approach*, CPA EXPERT, Summer 2006, at 6 (correcting various alleged deficiencies in a prior article appearing in the same publication) with James A. Digabriele, *A Primer in Valuing Closely Held Companies Using the Market Approach and Regression Analysis: Not All Variables and Industries Are Created Equal*, CPA EXPERT, Spring 2006, at 7 (advising experts on how to use regression in applying the market approach to valuation).

405. JEFFREY M. WOOLRIDGE, *INTRODUCTORY ECONOMICS: A MODERN APPROACH* 272 (2d ed. 2003) (generalized-least-squares regression), 138 (hedonic regression), 415 (weighted-least-squares regression), 565 (tobit), 554 (logit), and 555 (probit).

the variables included or excluded from the models. The difficulties experienced by courts in dealing with this issue have led to inconsistencies in decisions, as summed up by one author:

In almost every case it is argued by those opposing regression findings that the results would have been changed significantly if additional explanatory variables had been used. Usually the argument is made with respect to qualitative factors that either cannot be reflected in quantitative terms, or can be reflected only by dubious or even obviously imperfect quantitative surrogates. The courts are not consistent in their treatment of this type of objection, with the variation in judicial position seemingly best explained in each case by the consistency of the regression results with the judge's view of the case as a whole.⁴⁰⁶

This suggests that judges have considerable uncertainty regarding their assessments of the reliability of regression models, a difficulty that has sometimes resulted in their resorting to the heuristic of deciding on the basis of what they believe to be the preponderance of other evidence.⁴⁰⁷

In this regard, the courts' struggles with complex statistical

406. Finkelstein, *supra* note 271, at 737. Variables have been found inappropriate for inclusion in some regression models while other regression models have been found flawed for the absence of variables. In *Cullen v. Indiana University Board of Trustees*, 338 F.3d 693, 701 (7th Cir. 2003), an expert used regression analysis in support of a faculty member's claim of salary discrimination. The defendant university argued that the analysis was flawed because of correlated, omitted variables. *Id.* The court found the regression analysis admissible while nonetheless awarding summary judgment for the defendant after the finding that the regression analysis was insufficient to establish a *prima facie* case. *Id.* at 701-03. In doing so, the court cited *Bazemore v. Friday*, 478 U.S. 385 (1986), which held that omission of particular variables in regression analysis ordinarily goes to weight, not admissibility. *Id.* at 701, n.4. In a discrimination case such as *Cullen*, a productivity related variable that might otherwise be appropriate for inclusion because it normally demonstrates a statistically significant association with productivity may be excluded on the ground that it may reflect a qualification that has been denied the plaintiff. See Finkelstein, *supra* note 371, at 738. Other courts have rejected regression analyses for reasons of omitted relevant variables or have admitted statistical analysis only because it considered all relevant factors. See, e.g., *Elder-Beerman Stores Corp. v. Thomasville Furniture Indus., Inc.*, 206 B.R. 142 (Bankr. S.D. Ohio 1997).

407. It should be noted that the issue of omitted variables is not unique to regression analysis in litigation and that courts have seemingly achieved a greater degree of consistency in cases involving less methodological complexity. Consider, for example, *Children's Broadcasting Corp. v. Walt Disney Co.*, 245 F.3d 1008 (8th Cir. 2000) (where an appellate court affirmed a finding that the expert failed to consider all the variables that might affect his conclusion despite having used an uncontroversial accounting method); *Sulzer Carbomedics, Inc. v. Oregon Cardio Devices, Inc.*, 257 F.3d 449 (5th Cir. 2001) (where an appellate court rejected arguments that a decline in profits was solely due to local factors); *Fung v. Riemenschneider*, No. C6-02-917, 2003 Minn. App. LEXIS 534 (Minn. Ct. App. May 6, 2003) (where an appellate court reversed because the expert did not fully consider losses stemming from fundamental changes in the practice in determining the loss from a breach using the before and after method of damages valuation).

methodologies have likely only begun. Consider the example of survival analysis, used to analyze time-to-event data.⁴⁰⁸ Survival analysis, which has its origins in medical research, is a sophisticated statistical methodology that is likely to appear with increasing frequency in damages cases, in part due to advocacy for its use in business damages literature⁴⁰⁹ and in part because of the increasing number of cases involving such intangible assets as customer accounts terminated through a breach of contract. The lives of these accounts must be estimated to arrive at a damages estimate.⁴¹⁰ Given the growth of intellectual assets and the advocacy for its use,⁴¹¹ survival analysis will likely be used more frequently in damages cases because it is often the most appropriate statistical methodology for estimating damages when it is necessary to estimate the lives of intellectual assets involving censored data.⁴¹²

408. See, e.g., DAVID W. HOSMER, JR. & STANLEY LEMESHOW, *APPLIED SURVIVAL ANALYSIS: REGRESSION MODELING OF TIME TO EVENT DATA* 1-2 (1999); First Am. Real Estate Info. Servs. v. Consumer Benefit Servs., Inc., No. 03CV0633-B(NLS), 2004 U.S. Dist. LEXIS 30317 (S.D. Cal. April 22, 2004). Survival analysis has its origins in medical research. See Jonathan A Barney, *A Study of Patent Mortality Rates: Using Statistical Survival Analysis to Rate and Value Patent Assets*, 30 AIPLA Q.J. 317 (2002). See DAVID G. KLEINBAUM, *SURVIVAL ANALYSIS: A SELF-LEARNING TEXT* 1-33 (1996), for a basic primer on survival analysis. Survival analysis has been used with some frequency in labor relations cases. See, e.g., *Lewis v. NLRB*, 750 F.2d 1266 (5th Cir. 1985) (affirming a district court's decision to admit an expert's survival analysis comparing employee statuses); *Smith v. Western Elec. Co.*, 770 F.2d 520 (5th Cir. 1985) (discussing survival analysis); *Coates v. Johnson & Johnson*, 765 F.2d 524 (7th Cir. 1985); *Morgan v. United Parcel Servs. of Am., Inc.*, 143 F. Supp. 2d 1143 (E.D. Mo. 2000) (allowing the use of survival analysis). Survival analysis is a statistical technique that is useful when the fundamental metric of interest is the time until some event occurs. For example, suppose defendant breaches a contract in which plaintiff was to provide services to defendant's customers for a fee per account each period. A damages estimate requires calculation of the revenue that would have been obtained but for defendant's breach, and it is necessary to determine how long the customer accounts would have survived had not their lives been artificially truncated. If the lives of accounts opened and closed prior to the breach are fundamentally different, on average, from those still open at the time of the breach, then a problem in estimation using historical lives arises. Data artificially truncated in such a manner are said to be censored. Censored data mean that the lives of the assets are only partially observed thereby presenting estimation difficulties. Least-squares regression and other popular statistical techniques often used in damages estimation are ill-suited to such a situation because they make no allowance for censored data. As a result, damages may be inaccurately estimated. See KLEINBAUM, *supra*, at 5-7, 23-25.

409. See, e.g., ROBERT F. REILLY & ROBERT P. SCHWEIHS, *VALUING INTANGIBLE ASSETS* 218-237 (1998).

410. First Am. Real Estate Info. Servs., 2004 U.S. Dist. LEXIS 30317 provides one such example. Survival analysis has found its way into other types of legal cases as well. See, e.g., Andrew R. Dick, *When Are Cartels Stable Contracts?* 39 J.L. & ECON. 241, 254 (1996).

411. See REILLY & SCHWEIHS, *supra* note 409.

412. See Richard K. Ellsworth, *Attrition Analysis and Customer-Relationship Life Expectancy*, BUS. VALUATION REV., Winter 2005, at 173, 173-76; KLEINBAUM, *supra* note

Although expertise in statistics can spring from a variety of educational and experiential backgrounds,⁴¹³ few experts in statistics outside those routinely engaged in medical research are likely to be very knowledgeable regarding survival analysis.⁴¹⁴ So the question arises as to precisely what qualifications make one an expert in this methodology: is a sound knowledge of statistics in general sufficient, or is actual experience in using survival analysis required?

This specific question is an example of the more general question of what qualifications make a witness an expert when it comes to technical matters. Based upon court decisions, the often unclear answer would seem to be both jurisdictionally dependent and a subset of the more general issue of necessary relevant experience discussed in Part III. For example, *Davis v. Davis*, in which the appellate court affirmed the lower court's rejection of expert testimony partly on the basis that the expert had never performed a valuation of the type of business in question prior to the engagement,⁴¹⁵ can be contrasted with *Dekker v. Topcon American Corp.* There, the appellate court affirmed a lower court's decision to admit expert testimony despite the expert's apparent lack of technical qualifications and industry experience, because the expert possessed business valuation experience.⁴¹⁶

Complex methodologies relatively new to the courts do not stop with advanced regression models and survival analysis. Courts have also struggled valuing stock options⁴¹⁷ based upon option-pricing theory.⁴¹⁸ Traditional "closed-form" valuation models, such as Black-Scholes,⁴¹⁹ have

408, at 5-7.

413. David H. Kaye & David A. Freedman, *Reference Guide on Statistics*, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 86-87 (2d ed. 2000).

414. Seigneur, *supra* note 166. The interviewee, a nationally prominent testifying expert, noted that he would need to obtain assistance from outside his firm on this issue. *Id.*

415. No. B156636, 2003 Cal. App. Unpub. LEXIS 3405 (Cal. Ct. App. April 7, 2003).

416. No. G027150, 2002 Cal. App. Unpub. LEXIS 1449 (Cal. Ct. App. May 24, 2002).

417. See Robert Feder, *Marital Dissolution Courts Continue to Struggle with Stock Options*, DELUXE BVUPDATE, Jun. 2001, available at <http://www.bvlibrary.com> (discussing several divorce cases in which the courts have rendered "widely divergent" opinions on option valuation); see also *Maritato v. Maritato*, 685 N.W.2d 379 (Wis. Ct. App. 2004) (affirming use of intrinsic method for valuing options—a method that values the option based upon what it would bring if it were exercised immediately. Options that are not "in the money" can have market value but have no intrinsic value. The court also upheld a decision to exclude unvested options out of the money as having no value at the time of the divorce action because they would not vest until after the divorce); FRANK K REILLY & KEITH C. BROWN, INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT 812 (8th ed. 2006) (defining intrinsic value).

418. For a discussion of options and option pricing theory as applied to option valuation, see HITCHNER, *supra* note 189, at 1093-1104. For examples of cases in which stock option valuation methodology was at issue, see *In re Marriage of Harrison*, 179 Cal. App. 3d 1216 (1986) and *Wendt v. Wendt*, 757 A.2d 1225 (Conn. App. Ct. 2000).

419. See HITCHNER, *supra* note 189, at 1104-12 (discussing the Black-Scholes model in option valuation).

attained widespread acceptance in both the finance literature and the courts, but these models are sometimes inadequate to accurately value complex stock options that contain what are essentially options within options.⁴²⁰ Accurate valuation of these securities requires the use of more complex models such as binomial lattice models.⁴²¹ For example, in *McCarthy v. McCarthy*, the valuation issue centered on the amount of appreciation that had taken place during the marriage and required a valuation of options containing reload features acquired at the beginning of the marriage and during the marriage. Valuation using the Black-Scholes model resulted in a substantive undervaluation of the entry values and therefore an overvaluation of the marital appreciation.⁴²²

Option pricing theory is also useful in valuing businesses whose complex capital structures contain securities such as convertible debt, preferred stock, and various classes of common stock.⁴²³ Despite their sophistication, binomial models are sometimes incapable of accurately valuing such businesses, and the use of simulations such as Monte Carlo is required.⁴²⁴ This can occur when the value depends upon the probability of

420. Chamberlain & Hill, *supra* note 381, at 4-5 (highlighting the inadequacy that stems from the inability of closed-form models to consider the additional value that attends embedded options and results in the potential undervaluation of the basic options containing such features).

421. See HITCHNER, *supra* note 189, at 1107-12. A binomial model breaks down the time to expiration of stock options into a sequence of steps or intervals. At each interval the price of the security underlying the option can move up or down, with the magnitude of the movement determined by the security's volatility. The result is a binomial tree that captures the possible price movements over the period of the option. The resulting set of values is then averaged and discounted back to present value to determine the value of the options.

422. *McCarty v. McCarty*, Johnson Co., Kan. Dist. Div. 3, Case No. 05CV08547 (decided Nov. 13, 2006); see Philip H. Dybvig & Mark Lowenstein, *Employee Reload Options: Pricing, Hedging, and Optimal Exercise*, 16 REV. OF FIN. STUD. 145, 146 (2003) (“[A] reload option has the feature that if the option is exercised prior to maturity and the exercise price is paid with previously owned shares, the holder is entitled to one new share for each option exercised plus new options which reload or replace some of the original options.”).

423. See *Chatz v. BearingPoint, Inc. (In re Nanotechnologies, Inc.)*, 364 B.R. 308 (Bankr. N.D. Ill. 2007) (involving the novel use of Monte Carlo simulation to value a company).

424. See Ravi Jagannathan & Jane Saly, *Ignoring Reload Features Can Substantially Understate the Value of Executive Stock Options*, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=110072, at 3, (discussing how ignoring reload features substantially undervalues options and the requirement to use other methodologies to appropriately value these options); see also Steve Pomerantz & Bruce G. Dubinsky, *Monte Carlo Simulation Analysis—A Tool for Projecting the Unknown*, CPA EXPERT, Winter 2007, at 1, 1-5 (providing an explanation of Monte Carlo simulation and a discussion of its use in predicting the future path of derivative prices, and noting that Monte Carlo techniques allow even the most complicated derivative transactions to be valued). See generally Chamberlain & Hill, *supra* note 381 (describing the process and value of simulations).

the occurrence of uncertain future events that are endogenous in nature.⁴²⁵ For example, the value of a business damaged by breach of contract may be partly dependent upon the outcomes of future liquidity events such as an initial public offering (IPO).⁴²⁶ It follows that, to the extent that a breach has diminished the likelihood of a successful IPO, the damages may extend far beyond the immediate effects of the breach.⁴²⁷

In summary, given that it is all too possible to confuse lay persons with dubious statistical analyses,⁴²⁸ the combination of the ever-intensifying complexity of business and sophistication of the methodologies necessary to accurately estimate damages is increasing the difficulty of making sound judgments about the reliability of expert testimony.⁴²⁹ It is becoming more and more daunting for business damages professionals, even those in high-end valuation and forensic services firms, to keep abreast of the methodologies necessary to achieve the most accurate valuations.⁴³⁰ The challenges would seem even greater for judges, the gatekeepers for expert testimony, whose primary concerns may lie elsewhere⁴³¹ but who bear responsibility for applying—and in some cases developing—the legal criteria that will be used to separate science from art.⁴³²

VI. INCREASING PARTISANSHIP IN DAMAGES EXPERT TESTIMONY

Expert testimony is increasingly necessary in a technical society in which issues involving intellectual capital are becoming more complex,

425. Chamberlain & Hill, *supra* note 381, at 6.

426. *See id.* at 5 (discussing the effects of future liquidity events on valuation).

427. In the future, the courts may not face cases involving stock options only but also real options, because real options impact the value of companies with material amounts of intellectual capital, and traditional valuation methodologies do not fully capture the value intellectual capital contributes. Sudy Sudarsanam et al., *Real Options and Impact of Intellectual Capital on Corporate Value*, 7 J. INTELL. CAP. 291 (2007). For a discussion of real options with respect to patent damages, see Jerry Hausman & Gregory K. Leonard, *Real Options and Patent Damages: The Legal Treatment of Non-Infringing Alternatives, and Incentives to Innovate*, 20 J. ECON. SURV. 493, (2006).

428. Kaye, *supra* note 109, at 1969.

429. *Id.*; see Victoria A. Platt, *Research Tools that Valuation/Economic Damages Analysts Use in Commercial Litigation Matters*, INSIGHTS (Autumn 2006) (describing how the inexorable march is also fueled, in part, by the increasing availability of data contained in database accessible via the internet that make rigorous analysis possible more frequently). *But see* Donald P. Wisheart, *Dangers of Mixing Transaction Databases*, FIN. VALUATION & LITIG. EXPERT 7, 7 (Aug.-Sept. 2006) (explaining that one hazard of using online databases such as BIZCOMPS and Pratt's Stats for damages experts lies in improperly mixing transaction databases that measure financial phenomena in different ways).

430. Seigneur, *supra* note 166.

431. Kaye, *supra* note 109, at 1937.

432. *Id.* at 1965.

and independent expert testimony is critical to the functioning of the courts.⁴³³ Against a tapestry of federal and state admissibility rules and decisions about the reliability of damages testimony, growing complexity of business litigation, and increasing sophistication of valuation methodologies, a troublesome trend is complicating courts' oversight of expert testimony. This trend involves increasing partisanship by damages experts, a matter that has caused great frustration for the courts.⁴³⁴

A. *Recent Evidence of Damages Expert Partisanship*

It is widely understood that the current process of party-selected experts has serious flaws.⁴³⁵ Litigation itself is an inherently murky process, as evidenced in the following statement: "The fact patterns that lead to litigation, and litigation itself, typically end up like Akira Kurosawa's *Rashomon*, in that each party has his own story and the 'real story' often does not get told at trial."⁴³⁶ Courts have long expressed concern that experts can muddy case waters,⁴³⁷ and that experts with excellent credentials will sometimes base their valuations on unrealistic assumptions.⁴³⁸ Recently, as a result of expert partisanship, the post-*Daubert* percentage of times that expert testimony has been admitted without limitations in federal courts has fallen from 75% to 59%.⁴³⁹ In a 1998 survey, judges ranked expert partisanship as the most frequent problem with expert testimony in civil cases.⁴⁴⁰ Consistent with the fundamental notions that third-party witnesses are more credible⁴⁴¹ and that experts are independent of retaining counsel,⁴⁴² experts are supposed to be

433. Krishna, *supra* note 167.

434. *See, e.g.*, PricewaterhouseCoopers, *supra* note 3; Cimasi, *supra* note 7; Freed, *supra* note 7 (documenting increased partisanship by damages experts).

435. Lloyd, *supra* note 25, at 424; *see* Mnookin, *supra* note 164 (providing a detailed treatise on the history of concerns about expert testimony).

436. Lazar, *supra* note 170, at 6.

437. *See, e.g.*, *Winans v. N.Y. & Erie R.R. Co.*, 62 U.S. 88, 101 (1859) ("Experience has shown that opposite opinions of persons professing to be experts may be obtained to any amount . . . wasting the time and wearying the patience of both court and jury, and perplexing, instead of elucidating, the questions involved in the issue.")

438. Lloyd, *supra* note 25, at 402.

439. Jones, *supra* note 144.

440. Krafka et al., *supra* note 103, at 21.

441. Lazar, *supra* note 170, at 6.

442. Brown, *supra* note 194. Consistent with being independent of clients' goals, experts owe no duty of loyalty to their clients. ABA Formal Op. 97-407 (1997). Attorneys will often be tempted to use accountants who are already familiar with their client's operations. Lloyd, *supra* note 25, at 390. Astute opposing counsel will probe the relationship between attorney and/or client and the valuation expert in order to explore for inducements to advocacy. Frequent engagements involving the same parties can be suggestive of bias. Wiegand, *supra* note 110. Attorneys whose experts are challenged on the basis of past or

unbiased and not partisan advocates for their clients instead of being advocates for the contributions being made by their expertise.⁴⁴³ The burden of proving a damages report reliable falls upon the party presenting the report,⁴⁴⁴ and “deliberate, manifest, pervasive and systematic bias” on the part of the expert is supposed to result in disqualification.⁴⁴⁵ Historically, however, anxious pleas against partisanship have been ineffective,⁴⁴⁶ lack of damages expert objectivity appears to be on the rise,⁴⁴⁷ and courts are becoming more critical with respect to experts’ lack of objectivity.⁴⁴⁸

ongoing client relationships may argue that familiarity with client operations and financial condition is likely to produce more accurate valuations, and sound working relationships developed over time can make for a better fit between the case and valuation expert testimony. Such fit is highly important because an absence of fit can result in courts ignoring valuation testimony. *See, e.g.,* *Rashedi v. McCue*, No. A095215, A096717, 2004 Cal. App. Unpub. LEXIS 4323 (Cal. Ct. App. 2004) (affirming a decision that plaintiff’s expert’s valuation was excessive because of a lack of fit between the evidence and the valuation estimate). Consequently, concerns over attorney/client familiarity are more likely to go to the weight of the expert’s testimony than to result in exclusion. *Wiegand, supra* note 110.

Moreover, experts can concurrently work for and against the same attorney on two independent cases, but experts may not switch sides in a case. *See* *Brown, supra* note 194 (discussing *Koch Refining Co. v. Boudreaux (In re Boudreaux)*, 85 F.3d 1178 (5th Cir. 1996)). The court noted that

[C]ourts have not adopted a 'bright line' rule for determining whether an expert should be disqualified from conflicting engagements which are factually related," preferring instead a two-part test. Part one asks if it was reasonable for the first party retaining the expert to assume that a confidential relationship existed, and if so, part two asks whether the retaining party disclosed any confidential information. Further, the majority opinion holds that expert contingency fees are not permitted in order to avoid experts' payment being dependent upon outcomes; flat fees, retainers, minimum fees, and lock-up fees (fees intended to forego retention by opposing parties) are ethically permitted, however, if reasonable. . . .

443. Alan H. Silberman, Sonnenschein Nath & Rosenthal LLP, Mohan Rao, Director, LECG, LLC, Phillip A. Beutel, Senior Vice President, NERA Economic Consulting, and John J. McDonnell, McDonnell Boehnen Hulbert & Berhoff LLP, Conference on Effective Development & Presentation of Expert Testimony: Capitalizing on Expertise for Success, Moments of Truth: A Discussion of Ways for Expert to Handle Unreasonable Lawyers, and Lawyers to Handle Unreasonable Experts (March 21, 2006) (conference notes and materials on file with authors). A failure on the part of experts to deal with alternative information or data can be grounds for appeal. *Lloyd, supra* note 25, at 413.

444. *See Kay v. First Cont'l Trading, Inc.*, 976 F. Supp. 772 (N.D. Ill. 1997) (placing the burden of establishing reliability on the party providing the report).

445. Financial Valuation and the Litigation Expert, *Daubert on the Docket*, p. 1.

446. *Mnookin, supra* note 164, at 774.

447. *Lane v. Cancer Treatment Ctr. of Am., Inc.*, C.A. No.12207-NC, 2004 Del. Ch. LEXIS 108 (Del. Ch. 2004).

448. *See, e.g., Wise, supra* note 282, at 82-83 (“[Experts] should not be, or be perceived as, a ‘hired gun.’”).

In *Pabst Brewing v. Commissioner*, the court rejected all the experts' conclusions on the basis that expert testimony is not useful when it is mere advocacy for a client's position.⁴⁴⁹ The court in *Lane v. Cancer Treatment Centers* termed the testimony of the opposing experts "unduly pessimistic" and "unreasonably optimistic."⁴⁵⁰ In *Finklestein v. Liberty Digital, Inc.*, calling one expert's analysis "simply incredible" and stating that it contained "so many problems that it is impossible to address them all," the court noted:

Men and [sic] women who purport to be applying sound, academically-validated valuation techniques come to this court and, through the neutral application of their expertise to the facts, come to widely disparate results, even when applying the same methodology. These starkly contrasting presentations have, given the duties required of this court, imposed upon trial judges the responsibility to forge a responsible valuation from what is often ridiculously biased 'expert' input.⁴⁵¹

Whether expert bias is intentional or unintentional, court opinions sometimes suggest frustration with the failure of some experts to provide plausible valuations. For example, the *Henke v. Trilithic, Inc.* court noted that "[t]he parties' experts have presented remarkably divergent valuations. As is often the case in an appraisal action, the Court does not find either party to have fully satisfied its burden The Court must therefore conduct its own independent valuation."⁴⁵² In *Estate of Adams v. Commissioner*, the tax court rejected both experts' valuations and determined some of the quantitative parameters for valuation using its own judgment.⁴⁵³ Similarly, in *Hess v. Commissioner*, the tax court rejected both experts' valuations.⁴⁵⁴ In *Wagner Construction, Inc. v. Commissioner*, the tax court found the testimony of the experts so dissimilar that it deemed the testimony biased.⁴⁵⁵

449. *Pabst Brewing Co. v. Comm'r*, 72 T.C.M. (CCH) 1236 (T.C.M. 1996).

450. *Lane*, *supra* note 447, at 131 n.174.

451. *Finkelstein v. Liberty Digital, Inc.*, C.A. No.19598, 2005 Del. Ch. LEXIS 53, at *41 (Del. Ch. 2005).

452. *Henke v. Trilithic, Inc.*, Civil Action No. 13155, 2005 Del. Ch. LEXIS 170, at *19 (Ch. 2005).

453. *Estate of Adams v. Comm'r*, 83 T.C.M. (CCH) 1421 (T.C.M. 2002).

454. *Hess v. Comm'r*, 86 T.C.M. (CCH) 303 (T.C.M. 2003).

455. *Wagner Constr., Inc. v. Comm'r*. 81 T.C.M. (CCH) 1869 (T.C.M. 2001). This occasional disdain for expert testimony is not always devoid of ironic humor, as suggested by the opinion in *Isaksen v. Vermont Castings, Inc.*, 825 F.2d 1158, 1165 (7th Cir. 1987):

The jury pulled the figure of \$ 100,000 out of a hat in which Isaksen's expert witness had done the usual magic tricks; but as there was no evidence of how much the antitrust violation, as distinct from unrelated market forces, contributed to Isaksen's losses, or of how much of the loss was an antitrust injury as distinct from being deprived of the opportunity to take a free ride on

It is not just the courts that are frustrated at times but also the experts. Recently, a damages expert with excellent credentials published what was, in effect, a rebuttal to a bankruptcy court's exclusion of his testimony after the court followed a rather tortuous path that included first admitting the testimony and then reversing its position. In this rebuttal, quoting from various statements made by the judge in hearing transcripts, the expert asserted that the judge "brought an expressed agenda to this case" that included not only decrying "established business valuation methodology and authoritative data, which the profession generally accepts as reliable,"

competing dealers, the expert's efforts to translate his losses into a present-value figure were irrelevant. . . . So the damage phase of the trial must be retried.

In *Chartwell, supra* note 122, the judge's irony is unmistakable in his disqualification of a health care valuation specialist:

I have a discreet understanding of my limitations, but I also have an understanding of what my experience tells me in having listened for the past 30 years to appraisers...I have yet to find an appraiser of value of non-real estate that ever says anything that's cogent and persuasive. Go ahead. I'm always willing to be persuaded.

In *Gilbert v. MPM Enterprises, Inc.*, 709 A.2d 663, 666-67 (Del. Ch. 1997), *aff'd*, 731 A.2d 790 (Del. 1999), court evidenced more disdain for experts:

One might expect the experts' desire to convince the Court of the reasonableness and validity of their assumptions . . . would produce a somewhat narrow range of values, clearly and concisely supported, despite individual parties' obvious conflicting incentives. Unfortunately, as this case and other cases most decidedly illustrate, one should not put much faith in that expectation, at least when faced with appraisal experts in this Court. . . . In sum, one report is submitted by Dr. Pangloss, and the other by Mr. Scrooge.

Conflicts of interest involving expert witnesses probably arise more often in using technical experts. See, e.g., *Hewlett-Packard Co. v. EMC Corp.*, 330 F. Supp. 2d 1087 (N.D. Cal. 2004); *Cordy v. Sherwin-Williams Co.*, 156 F.R.D. 575, 580 (D.N.J. 1994); *Paul v. Rawlings Sporting Goods Co.*, 123 F.R.D. 271 (S.D. Ohio 1988) (demonstrating that such conflicts can sometimes present difficulties for the courts with business valuation experts as well); *Johnson v. Johnson*, No. 246484, 2004 Mich. App. LEXIS 3153 (Mich. Ct. App. 2004) (holding that the trial court erroneously assumed that an expert, retained jointly by the husband and wife to determine the value of the business and by the husband only to determine the tax consequences of a succession plan, was retained by both parties for both purposes). One judge has noted that being "too cozy" with one side will raise the court's skepticism, as in a case where the valuation expert was the spouse of an attorney on a case. BVR's BVWire Central, <http://www.bvresources.com>. However, despite the increase in court scrutiny of experts' objectivity, some courts do not find bias in places one might expect. For example, in *Crabtree v. Metalworks & Hydra-Assembly, Inc.*, No. 02AP-450, 2003 WL 42442 (Ohio Ct. App. 2003), the appellate court affirmed a lower court's valuation of goodwill based upon the sole expert's testimony when the expert was the plaintiff's son. In *Marlar v. Daniel*, 247 S.W.3d 473 (Ark. 2007), the state supreme court denied a negligence claim against an expert when the claim was based on the expert's relations to a party to the litigation. In *Rodriguez v. Pacificare of Tex., Inc.*, 980 F.2d 1014 (5th Cir. 1993), the appellate court affirmed allowing a party to the litigation to testify as his own expert.

but also placing “the validity and credibility of business valuation on trial.”⁴⁵⁶ Regardless of the relative merits of the positions of the judge and the expert in this case, the obvious tension is both troublesome and indicative of what may be a growing rift between some courts and business damages experts arising from actual and/or perceived expert bias.⁴⁵⁷

Aside from the obvious structural problem that experts are paid by the side for which they testify,⁴⁵⁸ what is driving this partisanship? Perhaps a major driving factor is that the distinction between attorneys and experts is arguably not a compelling one in the first place.⁴⁵⁹ Damages experts can be valuable aides to attorneys in all phases of a case.⁴⁶⁰ In complex cases, the roles of attorneys and experts are similar in that experts are often called upon to act as investigators of the data from which conclusions can be drawn and to advise attorneys on whether there is a legitimate case from a scientific perspective.⁴⁶¹ Moreover, science can be malleable, and maintenance of impartiality under a system wherein the experts become like “star players” with “attorneys acting as coaches”⁴⁶² seems problematic at the onset. Some have placed the blame on the prevalence of “hired gun” experts in this system, but others maintain this argument belies the greater incentives of professional experts to preserve their reputations by not rendering inadmissible opinions.⁴⁶³

Despite expressed opposition to partisanship by some professional experts⁴⁶⁴ and assertions by some attorneys who maintain that experts should be unbiased and owners of their reports as opposed to advocates for their clients case,⁴⁶⁵ is this really what most attorneys seek in an expert? Although attorneys expect experts to state that they are unbiased,⁴⁶⁶ there is a growing expectation that experts will represent their parties’ interests.⁴⁶⁷ The legal process has been described as adversarial rather than scientific in nature, with attorneys calling the shots and the goal not being greater understanding but rather winning.⁴⁶⁸ Although some attorneys claim that

456. Cimasi, *supra* note 7, at 20.

457. Apparently similar instances of partisanship exist in patent cases involving technical experts. *See, e.g.*, Schuurman & Stafford, *supra* note 148.

458. Mnookin, *supra* note 164, at 774

459. Randall G. Block, *Disqualifying Expert Witnesses*, INTELL. PROP. & TECH. L.J., Mar. 2005, at 14.

460. Vondra, *supra* note 331.

461. Block, *supra* note 459, at 14.

462. *Id.*

463. Lloyd, *supra* note 25, 385.

464. *See, e.g.*, Jones, *supra* note 144.

465. Zimmerman, *supra* note 107.

466. *See, e.g.*, STEVEN BABITSKY & JAMES J. MANGRAVITI, JR., HOW TO EXCEL DURING DEPOSITIONS: TECHNIQUES FOR EXPERTS THAT WORK 113 (1999).

467. Fanon, *supra* note 252, at 13.

468. Mandel, *supra* note 150.

biased damages experts can be detrimental to their cases,⁴⁶⁹ one legal commentator has stated, “I would go into a lawsuit with an objective, uncommitted, independent expert . . . almost as willingly as I would occupy a foxhole with a couple of noncombatant soldiers.”⁴⁷⁰ Another commentator has stated that “[n]o one expects an expert chosen and paid by a plaintiff or defendant to present a balanced, unbiased analysis.”⁴⁷¹ Others have stated that there is no reason to hire experts if they are not advocates,⁴⁷² and that research detrimental to their cases is not desired.⁴⁷³ These opinions may reflect honest advocacy by attorneys for clients, but in a legal environment that increasingly utilizes professional damages experts for valid reasons, the message for many experts seems likely to be a clear call for client advocacy—and experts will not be successful over repeat engagements if they testify in a manner that supports opposing parties.⁴⁷⁴

Attorneys expect damages experts to have a good “theory of the case.”⁴⁷⁵ In other words, attorneys expect damages experts to understand and support their story about the case. Sometimes this has led attorneys to ghost write expert reports in detriment to their clients and experts alike.⁴⁷⁶ Attorneys are said to strive for experts who will take ownership of their reports,⁴⁷⁷ and although damages experts are supposed to be advocates for their reports, not advocates for their clients,⁴⁷⁸ this seems far from being a bright-line distinction.⁴⁷⁹ It is perhaps telling of both a close working relationship and damages experts’ willingness to please attorneys that only

469. Jones, *supra* note 144.

470. See Jones, *supra* note 144 (quoting PETER N. HUBER, GALILEO’S REVENGE: JUNK SCIENCE IN THE COURTROOM).

471. Lloyd, *supra* note 25, at 423.

472. Jones, *supra* note 144.

473. Zimmerman, *supra* note 107.

474. Block, *supra* note 459, at 14.

475. Elson, *supra* note 174.

476. Aspen, *supra* note 144; see Brown, *supra* note 194, (citing Solaia Technology LLC v. ArvinMeritor, Inc., 362 F.Supp.2d 797 (N.D. Ill. 2005)) (noting that an expert’s affidavit should not merely regurgitate an attorney’s arguments); Manning v. Crockett, 1996 U.S. Dist. LEXIS 16118, 1999 WL 342715 (N.D. Ill. 1999) (stating that ghost writing expert reports is not permitted under Fed. R. Civ. P. 26); Intermedics, Inc. v. Ventritex, Inc., 139 F.R.D. 611 (N.D. Cal. 1991); Occulto v. Adamar of NJ, Inc., 125 F.R.F. 611 (D.N.J. 1989) (expressing concern over an expert report drafted by an attorney). In one case, a Nobel Laureate economist’s expert report was excluded because counsel redrafted his report. Rao, *supra* note 191.

477. Jones, *supra* note 144.

478. Kinrich, *supra* note 250.

479. Babitsky & Mangraviti, *supra* note 466, at 112 (quoting ROBERT C. HABUSH, ART OF ADVOCACY: CROSS-EXAM OF NON-MEDICAL EXPERTS § 300(2) (1998)) (saying that “an honest independent expert who would never dream of giving false testimony under any circumstances may nevertheless end up inadvertently doing just that. His subconscious partiality for the side which has sought his services may color his evaluation of the facts of the case and his opinion.”).

a small percentage of attorneys cite problems with their own expert reports, whereas a larger number cite problems with opposing expert reports.⁴⁸⁰

So, is the issue simply one of attorneys wanting damages experts to be biased but not be perceived as biased? If so, is it asking too much of experts to successfully perform such a bipolar act given that attorneys have been accused historically by experts and some commentators of going beyond what is justifiable for their clients?⁴⁸¹ Under the current trial regime, experts are, in effect, being asked to play their best for a team but simultaneously disavow any interest in whether the team wins or loses. Consequently, it is often difficult to draw a bright line where independence ends and advocacy begins.⁴⁸² The implications of this conundrum are explored in Part VII.

B. *Legacy Remedies for Damages Expert Partisanship*

The foregoing examination of damages expert partisanship suggests first that it exists, second that it apparently always has existed, and third that it appears to be a growing problem for the courts despite the good wishes and admonitions of nobler members of the expert community.⁴⁸³ The tendency of courts to lean toward admitting expert testimony in the expectation that cross-examination will reveal its flaws has been severely criticized as frequently ineffective in preventing biased testimony from reaching juries.⁴⁸⁴ As related below, historically, various possible remedies to the problems presented by partisanship in expert testimony have been proposed, and all have proven ineffective.

Some commentators have called for tighter ethical and valuation standards⁴⁸⁵ as a solution to closing the distance between the fiction of unbiased damages expert testimony and the reality of partisanship.⁴⁸⁶ Ongoing and proposed changes to business valuation standards,⁴⁸⁷ as well as accounting standards that move financial reporting toward fair value accounting, hold some promise for easing the burden imposed on damages

480. Krafka et al., *supra* note 103, at 17.

481. Mnookin, *supra* note 164, at 782.

482. Krishna, *supra* note 167.

483. See *supra* text accompanying notes 433-82.

484. See, e.g., Fanon, *supra* note 252, at 13.

485. See, e.g., *Getting S Corp. Values Clearly, Correctly*, BUS. VALUATION RESOURCES: BVWIRE (Sept. 26, 2007), <http://www.bvresources.com/BVWire/September2007Issue60-3.htm>.

486. Mandel, *supra* note 150; Jim Hitchner, *AICPA BV Standard Update*, FIN. VALUATION AND LITIG. EXPERT, Dec. 06-Jan. 07, at 1-2.

487. AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, VALUATION OF A BUSINESS, BUSINESS OWNERSHIP INTEREST, SECURITY, OR INTANGIBLE ASSET (2007), available at http://fvs.aicpa.org/NR/rdoonlyres/672E1DD4-2304-47CA-8F34-8C5AA64CB008/0/SSVS_Full_Version.pdf.

experts by the current failure of financial reporting standards to capture the value of intellectual capital.⁴⁸⁸ These changes, though no doubt welcomed by many in the valuation profession, seem unlikely to close the gap completely between the actual value of the firm and the indicated value because much of the intellectual capital will still not be captured by financial reporting.⁴⁸⁹

One leading expert in business valuation, citing a proliferation of standards promulgated by organizations such as the American Institute of Certified Public Accountants, the American Society of Appraisers, the Institute of Business Appraisers, and the National Association of Certified Valuation Analysts, has stated that the problems faced by the courts with respect to business valuation do not stem from a lack of standards and guidance.⁴⁹⁰ Similarly, one commentator has listed no less than nine objectionable practices by damages experts that do not adhere to existing standards,⁴⁹¹ raising the question of the value of additional standards if many experts are not adhering to existing standards. Another commentator paraphrased the court in a case (not cited) in which he was a damages expert: "It appears that objectivity and independence have a greater significance to those who set the accounting standards than to those who have to apply those standards in preparing financial statements."⁴⁹² Finally, examples of standards from the financial reporting environment suggest a tendency for standards to become increasingly rule-based as opposed to principle-based, thereby encouraging a check-the-box mentality and a proliferation of rules that attempt to contemplate every application of the standards.⁴⁹³ This is a logically impossible task, given the previously acknowledged subjectivity of expert testimony. Consequently, the efficacy of tighter standards in reducing expert bias seems questionable at best.

In the U.K., courts are allowed to impose fines upon experts who mislead the courts. Although fining experts might intuitively seem to be a simple way in which to reduce partisanship in expert testimony, this has apparently not alleviated growing concerns of bias in the U.K. inasmuch as the Civil Justice Council recommended in September 2005 that experts in civil trials be prepared to give the same evidence no matter which side is

488. *Largest Ever ASA BV Confab Tracks Progress of Profession*, BUS. VALUATION RESOURCES: BVWIRE (Oct. 31, 2007), <http://www.bvresources.com/BVWire/October2007Issue61-5.htm>; *Fair Value Measurements*, DEFINING ISSUES (KPMG Int'l), Sept. 2006, at 1, 1-2.

489. *See, e.g., New Statement Allows Fair-Value Measurements for Financial Assets and Liabilities*, DEFINING ISSUES (KPMG Int'l), Feb. 2007, at 1, 1-4.

490. PricewaterhouseCoopers, *supra* note 3.

491. Freed, *supra* note 7.

492. Hosteny, *supra* note 331, at 5.

493. Robert K. Herdman, *Testimony: Are Current Financial Accounting Standards Protecting Investors?*, Feb. 14, 2002, <http://www.sec.gov/news/testimony/021402srkh.htm>.

paying them.⁴⁹⁴ Further, assuming a reasonably efficient market for expert services, the expected value of fines would ultimately be incorporated into experts' fees, raising the costs of providing expert testimony and imposing a cost on clients. Although it could be argued that clients are the appropriate parties to bear such costs, the apparent lack of efficacy in courts in the U.K. makes this potential remedy seem questionable at best. Finally, the mechanism of fining experts, if employed with sufficient frequency to represent a real threat, may have a dampening effect on the numbers of experts willing to testify and on the willingness of experts to press for new and better methodologies instead of taking the safest path, thereby raising litigation costs and impeding the progress of science in the courts.

Judge Richard Posner once proposed a national registry of experts in which data could be recorded regarding each expert's past testimony record. Such a registry already exists for experts in the discipline of economics.⁴⁹⁵ Although obtaining information about experts more easily might assist attorneys,⁴⁹⁶ expanding this registry to include all damages experts would seem to be of limited additional value in reducing partisanship. Aside from the obvious resources required to maintain a national registry of all damages experts containing the most current data on each expert, a more compelling reason to question this as a remedy for partisanship is that, despite the existence of databases containing experts now, attorneys rarely engage experts through such databases.⁴⁹⁷ Further, given the number of large professional firms with excellent repositories of expert talent, locating damages experts is not inordinately difficult.⁴⁹⁸ Finally, some question whether various accreditation organizations would ever coalesce to agree upon one set of expert standards that would be needed to determine whether experts within an all-inclusive national registry were in compliance with professional standards.⁴⁹⁹ It is therefore difficult to conceive how a national registry would alone resolve the issue of partisanship.⁵⁰⁰

There is evidence that judges appreciate the use of conservative assumptions in developing damages reports.⁵⁰¹ One commentator has

494. John Markoff, *A Boom in Expert-Witness Firms; The Idea Economy / Who Owns That?*, INT'L. HERALD TRIB., Oct. 3, 2005, at 6.

495. Lloyd, *supra* note 25, at 385.

496. *Id.* at 386.

497. Seigneur, *supra* note 166.

498. These include a number of major public accounting firms and large expert boutiques.

499. Krishna, *supra* note 167 (citing a refusal of United Kingdom expert accrediting organizations to band together).

500. Hilton, *supra* note 223.

501. *See, e.g.*, Kay v. First Cont'l Trading, Inc., 976 F. Supp. 772, 776 (N.D. Ill. 1997)

proposed that experts be required to provide several alternative damages scenarios based upon different assumptions, but he then partly impeaches this argument by noting an instance in which a court held that damages had not been proven because of the presentation of alternative scenarios.⁵⁰² Another difficulty with this proposal is that given the multitude of assumptions often necessary to produce damages reports, how would an expert choose which assumptions are the most critical and therefore the ones to vary, and what values would the expert assign for these assumptions? Moreover, would juries simply become inundated with data instead of better understanding the nature of the damages, as suggested by the commentator?⁵⁰³

Another proffered solution—albeit one that is certainly not new and has several negative implications—is to make greater use of consulting experts or special masters to assist judges in determining the admissibility of scientific evidence. Rule 706 of the Federal Rules of Evidence provides judges with the power to appoint testifying experts, and Rule 53 of the Federal Rules of Civil Procedure permits appointments of special masters.⁵⁰⁴ Outside Rule 706, courts may appoint judicial tutors to aid in comprehension of expert testimony and assist with admissibility issues.⁵⁰⁵ Court-appointed experts can provide independent analysis, critique experts hired by opposing parties, and tutor juries.⁵⁰⁶ Some have argued analytically that judges should appoint experts when damage estimates by opposing experts are extremely disparate and that developing a reputation for doing so will discourage such disparity.⁵⁰⁷

Courts have been historically reluctant, however, to use their power to appoint independent experts, and judges who have used it consider their actions extraordinary.⁵⁰⁸ This reluctance to use court-appointed experts

(explaining how an expert witness provided a worst case scenario).

502. Lloyd, *supra* note 25, at 418 (citing *Grantham & Mann, Inc. v. Am. Safety Prods., Inc.*, 831 F.2d 596, 604 (6th Cir. 1987)). Other courts have, however, allowed multiple damage scenarios to be presented by the same expert. *See, e.g.*, *Kilpatrick v. Wiley, Rein & Fielding*, 37 P.3d 1130, 1145 (Utah 2001).

503. Lloyd, *supra* note 25, at 415.

504. Aspen, *supra* note 144.

505. *Id.* To a partial extent, a methodological solution to the issue of alternative valuations may rest on the possibility of capturing the spirit of alternative scenarios through the use of simulations that distill these to a single value. Two rather obvious difficulties with this proposal, however, are that sophisticated valuation models such as Monte Carlo simulations are very complex and difficult to understand, and have outcomes that are a function of probability estimates that experts will no doubt debate as vigorously as they currently do other assumptions.

506. Jones, *supra* note 144.

507. Jonathan T. Tomlin & David Cooper, *When Should Judges Appoint Experts? A Law and Economics Perspective* 32-33 (Bepress Legal Series, Working Paper No. 1699, 2006), available at <http://law.bepress.com/expresso/eps/1699>.

508. Jones, *supra* note 144. Attorney opposition is often credited for causing this

stems, in part, from concern that juries may perceive these experts as infallible.⁵⁰⁹ Their use is not increasing in spite of providing an easy route for discovery, education of the court, and more rapid settlement, and even though courts possess the ability to have both parties absorb the attendant fees.⁵¹⁰ Other matters of concern with the use of special masters and court-appointed experts include, but are not limited to, the belief that there can be honest disagreements over scientific matters that are best explored and exposed through the adversarial process and the belief that court-appointed experts can be biased.⁵¹¹ If such disagreements arise from “genuine uncertainty or differing theoretical perspectives,” there is concern that neutral experts would only suppress, not eliminate, the disagreements.⁵¹² Finally, the cost of court-appointed experts, which must be borne by the parties to the lawsuit, may be another factor contributing to judges’ restraint in their use.⁵¹³ Consequently, these long-noted concerns about court-appointed experts continue to loom large, making it doubtful that neutral experts alone are a complete solution to concerns about partisanship.⁵¹⁴

reluctance, but available data suggest that it is judges themselves who are limiting its use, perhaps out of concern about its effect on the adversarial process. Ellen E. Deason, *Court-Appointed Expert Witnesses: Scientific Positivism Meets Bias and Deference*, 77 OR. L. REV. 59, 142 (1998). Evidence of this reluctance can be found in *McCormick v. Brevig*, No. DV-95-86, 1996 Mont. Dist. LEXIS 1004 (Mont. Dist. 1996), in which the court, rather than appointing a special master, instead ordered the parties to address the issue of whether a special master should be appointed and, absent such an appointment, whether complex accounting matter should be tried before a jury or the bench. *Id.* Moreover, the Seventh Circuit has warned against the overuse of special masters. *See Checkers Eight Ltd. P’ship v. Hawkins*, No. 95 C 7708, 1997 U.S. Dist. LEXIS 7936, at *45 (N.D. Ill. June 3, 1997) (*citing* *Jack Walters & Sons Corp. v. Morton Bldg., Inc.*, 737 F.2d. 698, 712 (7th Cir. 1984)).

509. Jones, *supra* note 144.

510. FED. R. CIV. P. 26(b)(4) addresses fees for expert discovery in federal courts. Rules for fee recovery in state courts may differ across jurisdictions.

511. Mnookin, *supra* note 164, at 776.

512. *Id.* at 778.

513. See, e.g., *Rispler v. Sol Spitz Co.*, NO. 04-CV-1323, 2006 U.S. Dist. LEXIS 75840 (E.D.N.Y. Oct. 18, 2006), for a reported instance of “sticker shock” with respect to a court-appointed expert.

514. Some commentators have suggested having both parties agree upon one common expert, but aside from the obvious issue of how to proceed if parties disagree over which expert, there is concern as to whether the disclosures required to make such an agreement workable might conflict with an attorney’s obligation of absolute loyalty to the client. Krishna, *supra* note 167. Others might be tempted to argue for movement toward a specialized court system such as that used in appeals of patent cases. As Judge Posner notes, however, such a specialized system would bring its own set of problems. RICHARD A. POSNER, *FRONTIERS OF LEGAL THEORY* 401 (2001). For a discussion of these problems, see RICHARD A. POSNER, *THE FEDERAL COURTS: CHALLENGE AND REFORM* ch. 8 (1996). One obvious difficulty would be in discerning what types of cases should go to the specialized courts, since business damages can arise in a variety of settings from commercial litigation

VII. IMPLICATIONS FOR THE COURTS, EXPERTS, AND THE QUALITY OF JURISPRUDENCE

This part explores several concerns raised in the foregoing parts regarding case complexity and partisanship, and their effect on the quality of jurisprudence. It then introduces a novel approach that we believe represents a material step in the direction of reducing courts' difficulties in dealing with widely disparate valuation estimates that result from expert partisanship.

A. *Questions Regarding the Evolving Nature of Damages Expert Testimony*

Collectively, the prior parts raise troubling questions. For example, will the trend toward greater and greater amounts of businesses' values being vested in intellectual capital render extant valuation methodologies increasingly obsolete? New, developing non-financial models hold some promise of providing better measures of intellectual capital.⁵¹⁵ These non-financial measures should link to the value of firms inasmuch as value is a leading barometer of the existence of intellectual capital.⁵¹⁶ A challenge for damages experts will be integrating these models in some fashion with extant financial methodologies to increase valuation accuracy through a more integrated and holistic approach to intellectual asset measurement. This may well require the use of additional, sophisticated methodologies such as factor analysis and simultaneous equation modeling that have yet to be utilized by the business valuation community.⁵¹⁷ Courts' receptivity to this integrative process is likely to have a great deal to do with the pace of progress for the integrative process. Complicating this issue, the expert market's growing drift into commodity and differentiated segments may pose problems for the courts as differences in the quality of expert testimony across cases of different magnitudes become more pronounced. Issues will also arise concerning the affordability of experts capable of using cutting-edge methodologies in complex cases regardless of the potential magnitude of the damages.

Will the complexity of damages estimation ensuing from the growing preeminence of intellectual capital become so great that a hodge-podge of

to tax to divorce. Another problem is that even if federal business damages cases were tried in specialized courts, there would still be an issue with those cases brought in state courts.

515. See, e.g., Kannan & Kannan & Aulbur, *supra* note 345, at § 1.3.1. Examples of these new models include the intangible asset monitor, the skandia value scheme, and the knowledge capital scorecard. See *id.*

516. Abeysekera, *supra* note 4, at 426.

517. See, e.g., *id.* (calling for the development of an intellectual capital index); Marr, *supra* note 344, § 4.3 (noting the possibility of simultaneous equation modeling).

decisions stemming from judges' confusion makes identification of acceptable methodologies a nightmare of experts? Two notable cases illustrate the point that courts have not always dealt well with methodological complexity in business damages cases. In both *Estate of Dunn v. Commissioner* and *Estate of Jelke v. Commissioner*, the court majorities knowingly opted for simplistic valuations while anticipating criticism from business damages experts for embracing unsophisticated methodologies. The *Jelke* dissent said the court's decision to take the less-complicated road to damages estimation was "the judicial equivalent of the doctrine of ignoble ease," a term taken from former President Theodore Roosevelt's expressed disdain for living a sedentary life.⁵¹⁸ The dissent went on to state that the more sophisticated valuation methodology would produce a more accurate valuation, suggesting that not taking the intellectually more difficult road impairs the quality of jurisprudence.⁵¹⁹

Will this increasing methodological complexity in combination with growing partisanship in expert testimony result in more and more extreme damages estimates, thereby making the "split the baby" heuristic, so often used when courts are in doubt, even less reliable?⁵²⁰ If increasing difficulty in surviving *Daubert* hearings is driving attorneys toward full-time, professional experts with a demonstrated ability to survive *Daubert* hearings, then these professionals whose living depends upon satisfying attorneys can be expected to want to please because recurrent business is, to a significant extent, dependent upon past attorney satisfaction.

On the other hand, extreme valuations, no matter how favorable to a client from the standpoint of their magnitude, apparently carry an increasing risk of being rejected by the courts, given recent decisions.⁵²¹ The balancing act that an expert must seemingly maintain, then, is one of being biased enough to deliver a good result for the client while not providing a damages estimate that is so far apart from that of the opposing expert as to risk the court's rejecting both valuations. As long as these two forces of the pressure for bias and the cost of bias are in approximate equilibrium and there is symmetry of bias, then "splitting the baby" may not always deliver a poor result for the court.⁵²² These bias issues

518. *Estate of Jelke v. Comm'r*, 507 F.3d 1317, 1333 (11th Cir. 2007); *Estate of Dunn v. Comm'r*, 301 F.3d 339 (5th Cir. 2002).

519. See John J. Stockdale, Jr., *Legal & Court Case Update*, BUS. VALUATION UPDATE, Jan. 2008, at 14, 14-17, for a discussion of *Dunn* and *Jelke*.

520. Tomlin & Cooper, *supra* note 507, at 11. (noting that this practice becomes particularly unreliable when triers of fact split the difference between damage estimates provided by opposing experts even though only one expert renders a biased estimate).

521. See *supra* text accompanying notes 449-82.

522. See Tomlin & Cooper, *supra* note 507, at 12 (noting that opposing biases may not always be present and that asymmetry of bias nullifies the conclusion that courts will reach unbiased decisions based upon splitting biased estimates). Further, another form of

essentially constitute a game theoretic problem,⁵²³ and indeed have been addressed by legal research in that vein with the unfortunate implication that disequilibrium exists.⁵²⁴ Given that allegations of partisanship are increasing despite the proliferation of exclusions of damages expert testimony,⁵²⁵ there is further reason to believe that disequilibrium exists and is growing worse.

B. A Novel Approach to Addressing Expert Partisanship

Given that the adversarial trial process was not designed for decisions about the complexities of valuation science⁵²⁶ and that the foregoing remedies for expert partisanship all seem at a minimum seriously flawed and more probably largely lacking in efficacy, it seems appropriate to ask some fundamental questions. Does the major problem in damages expert testimony stem from partisanship in general, or is the major problem only one outcome of partisanship: frequent, large disparities in experts' damages estimates? Is it really desirable that courts squelch disagreement in expert testimony to the extent perhaps implied in portions of the recent rhetoric lamenting bias? Or is such disagreement a natural product of a highly structured, adversarial process combined with human nature, the changing of which is tantamount to swimming against an impossibly strong current? Would the courts be better served instead to, analogously, adopt the strategy often espoused for those caught in rip tides and find a way to swim perpendicular to the current?⁵²⁷ Given that a silver-bullet solution seems unlikely to kill the beast, would jurisprudence be best served by an examination of how multiple remedies might be coupled to reduce the disparity in damages estimates?

asymmetry, a statistically non-normal distribution of the range of damages, makes a biased outcome almost certain in some cases because of the impossibility of negative damages. For example, suppose hypothetically that the true damages are \$6 million, and the plaintiff's expert provides an estimate of \$20 million. The defense expert can only opine zero damages, not the negative \$14 million required for a "split the baby" heuristic to yield \$6 million.

523. Hypothetical negotiation has been admitted as evidence in patent cases as a means of determining such matters as reasonable royalties. *See, e.g.,* *Micro Chem., Inc. v. Lextron, Inc.*, 317 F.3d 1387, 1390-92 (Fed. Cir. 2003).

524. Lloyd, *supra* note 25; Jonathon T. Tomlin & David Cooper, *The Importance of Unbiased Expert Testimony* (May 3, 2006) (unpublished manuscript, on file with authors). The authors note that two economists did precisely this in finding that expert bias works to the advantage of the expert's client and that equally biased testimony on the parts of all parties' experts does not result in a neutral solution.

525. *See supra* text accompanying notes 433-82.

526. Deason, *supra* note 508, at 141.

527. *See* Mnookin, *supra* note 164, at 789 ("After all, ordinary witnesses, even eye witnesses to an event, frequently disagreed contradicting one another on points larger and small. . .").

Before attempting to answer these questions through our proposed solution, it is useful to consider some of the most salient points in Professor Kaye's article on *Daubert* and the admissibility of scientific testimony.⁵²⁸ In concluding that the *Daubert*-like screening of complex statistical methodologies is a positive development,⁵²⁹ Kaye raises two major concerns about *Daubert's* legacy that bear directly upon our subsequent proposal: a boundary problem and a usurpation problem with its attendant methodological puzzle.⁵³⁰ The boundary problem refers to the fact that *Daubert's* criteria do not extend to identifying the type of evidence deserving of special scrutiny, and the usurpation problem arises because *Daubert* permits sufficient latitude for trial judges to exclude evidence that should be presented to a jury.⁵³¹ Kaye's conclusion is that *Daubert* requires the articulation of further legal standards by which these problems may be addressed by the courts.⁵³²

The remainder of this subpart proposes a novel approach built upon three basic propositions that may aid courts in dealing with these issues while helping reverse concerns about the intersection of methodological complexity and expert partisanship, thereby reducing the variance in damages estimates provided by Drs. Pangloss and Scrooge. This approach is admittedly neither a panacea for all the ills of expert partisanship nor the complete answer for dealing with concerns about boundary demarcation and usurpation. However, it does seemingly hold promise for reducing these concerns while satisfying Kaye's caveat that any approach to dealing with *Daubert's* aforementioned deficiencies should be functional, as opposed to merely philosophical, in nature.⁵³³

The environment of business damages "actively works to seek out a justification for a centrist view."⁵³⁴ In light of this, consider the question of whether the disparity in damages estimates is the major issue. Historically, it would appear that violent disagreements among experts over the magnitude of damages cause the most consternation.⁵³⁵ This makes both

528. See generally Kaye, *supra* note 109 (discussing the admissibility of scientific evidence).

529. *Id.* at 1937.

530. *Id.* at 1934.

531. *Id.*

532. *Id.* at 1937.

533. *Id.* at 1966.

534. Nancy Fannon, Fannon Valuation Group, *Ethics on the Witness Stand, Presentation at AICPA Business Valuation Conference*, New Orleans, La. (Dec. 2, 2007) (conference notes on file with authors).

535. See Mnookin, *supra* note 164, at 775-76 (noting that the divergence of expert testimony was prompted by testimony not justified by expertise or science, but by partial, biased, or highly speculative conclusions); Krafka et al., *supra* note 103, at 328 (showing survey results from 1998 and 1999 indicating that conflict among experts that defies reasoned assessment was one of the top problems cited by judges and attorneys).

intuitive and scientific sense. If a court is presented with two damages estimates of \$10 million and \$12 million, then the court might justifiably assume that a verdict of the mean of \$11 million in damages will not be very far off the mark. On the other hand, if that same court is presented with estimates of \$1 million and \$21 million, then the mean of \$11 million carries far less assurance of being accurate. As one source has noted, “[w]hile bias might well ‘average out,’ variance does not.”⁵³⁶ This can result in court making gross errors that produce “who-knows-what result[s].”⁵³⁷ Given that courts are not supposed to permit a jury to award a greater amount of damages than that reasonably supported by the evidence,⁵³⁸ the problem, then, would seem to rest with the variance in estimates.⁵³⁹ Science idealists may find comfort in that the negative association between confidence in decisions and the magnitude of the underlying variance has its roots in statistics.⁵⁴⁰ This leads to our first proposition:

Proposition 1: A major step in reducing the effects of the problem of expert partisanship is to reduce the variance in estimates supplied by opposing experts.

Now consider whether it is realistic to ask damages experts to behave in a manner that is contrary to the logic of the structure of the legal process⁵⁴¹ and game theory of human behavior.⁵⁴² Given that such admonitions aimed toward reducing expert partisanship have historically

536. David M. Levy & Sandra J. Peart, *Econometrics and the Truth-Seeking Assumption: Ethics and Research Independence*, Presentation at the Southern Economic Association (Nov. 12, 2001) (transcript available at http://edwardmcphail.com/dismal_science/truth_seeking_assumption_4.pdf, at 12).

537. Fannon, *supra* note 534 (citing *Olympia Equipment Leasing Co. v. Western Union Telegraph Co.*, 797 F.2d 370, 383 (7th Cir. 1986)) (finding no rational basis for the lower court’s reduction of damages from \$54 million to \$12 million).

538. *See* *Montage Group, Ltd. v. Athle-Tech Computer Sys., Inc.*, No. 2D03-2026, 2004 Fla. App. LEXIS 14973, at *42 (Fla. App. October 14, 2004) (stating that a jury may not award a greater amount of damages than what is reasonably supported by the evidence at trial).

539. *See* RICHARD A. POSNER, *FRONTIERS OF LEGAL THEORY*, *supra* note 514, at 406 (noting that the greatest difficulties with expert testimony arise when there is an absence of common ground among the experts, giving triers of fact little assurance in their decisions).

540. *See, e.g.*, RICHARD M. JAEGER, *STATISTICS: A SPECTATOR SPORT*, 50-58 (2d ed. 1993) (giving an intuitive presentation of the role of variance in uncertainty and discussion of uncertainty in the role of expert testimony); Sam L. Savage & Marc Van Allen, *The Law of Averages in Law and Accounting*, in *LITIGATION SERVICES HANDBOOK* 10.1-10.11 (Roman L. Weil, et al. eds., 4th ed. 2007) (discussing the flaw of averages in law and accounting).

541. *See supra* text accompanying notes 433-82 (discussing recent evidence of expert partisanship).

542. *See generally* Lloyd, *supra* note 25 (recommending certain questions to be asked of the testifying expert).

fallen upon deaf ears⁵⁴³ and that ethical and valuation standards likewise have apparently failed to show substantive efficacy,⁵⁴⁴ the notion of a materially changing human nature seems, at best, idealistic, and, more realistically, a vehicle for self-deception. Moreover, assuming one agrees with Proposition 1 above, writing standards that would somehow narrow these spreads seems hopelessly problematic given the subjective nature of the inputs to the estimates. This is not to say that standards may not have some positive effect and should not be strengthened, but rather to explicitly acknowledge their spotty history of success in causing experts to behave against their self interests. Consequently, our second proposition is as follows:

Proposition 2: Admonishing damages experts to behave as we might like and revising standards to better encourage them to do so are alone insufficient to result in a solution to the real problem facing courts in damages estimation.

Finally, consider that simple solutions to complex problems are seldom available, or, quite logically, the problems would be unlikely to exist. Certainly the longevity and severity of the issue of expert partisanship in the current trial process⁵⁴⁵ suggests that the problem is a complex one and that a fresh approach is needed. To continue with the previous analogy, when caught in a rip tide, it is foolhardy and counterproductive to expend energy by attempting to swim in the most direct manner toward the beach. Instead, swimming parallel to the beach can allow the swimmer to escape the grasp of the tide and eventually reach the shore. Similarly, we believe that it is time to recognize that the sour fruits of expert partisanship may best be minimized by some trial-process reconfiguration augmented by the judicious and limited use of some of the legacy remedies.

Proposition 3: The best hope for a substantive reduction in the disparity between opposing experts' damages estimates rests in trial process reconfiguration augmented by the judicious and limited use of some of the legacy remedies.

Also, in addressing this issue, amidst all of the discordant rhetoric of what one legal commentator has termed the "failed romance between law and science,"⁵⁴⁶ we should not lose sight that the leading reason for the exclusion of expert testimony under *Daubert* is the validity of the facts and

543. See Mnookin, *supra* note 164, at 774 (stating that the impassioned pleas of attorneys and judges were easily outweighed by the hard cash given by a party to an expert).

544. See Herdman, *supra* note 493 (discussing problems with the financial reporting system that were made more evident with the Enron scandal); Hitchner, *supra* note 486, at 1 (addressing valuation issues pertaining to public companies and their stock prices).

545. See generally Mnookin, *supra* note 164 (discussing the history of expert testimony).

546. Mnookin, *supra* note 164, at 801.

the data.⁵⁴⁷ As previously noted, damages experts are often at the mercy of their clients,⁵⁴⁸ attorneys, and available data,⁵⁴⁹ and often the great differences in value estimates proffered by experts for opposing parties⁵⁵⁰ result from their assumptions about these facts and data that represent the inputs into valuation models.⁵⁵¹ Consequently, if the specific goal is to narrow the range of values proffered by opposing experts, and if assumptions are the leading cause of these differences, then focusing on ways to achieve a greater degree of consensus on assumptions may hold some promise of meaningful change. Interviews with leading experts suggest two important points: first, that the methods experts use to produce a value are very often the same,⁵⁵² and second, that frequently the critical assumptions creating large differences in value estimates are relatively few, but their import is often lost in the rancor of cross-examination.⁵⁵³ As one expert notes, counsel with a weak case, the facts of which do not refute critical assumptions in expert testimony, will often attempt to confuse juries by prolonged argumentation regarding complicated but less material matters.⁵⁵⁴

Based upon the premise that “[t]he factors enumerated in *Daubert* work reasonably well with some aspects of the expert’s work, but these factors are less well adapted to other aspects,”⁵⁵⁵ the cornerstone of our proposed remedy rests in bifurcating the trial process into two segments.⁵⁵⁶

547. See PricewaterhouseCoopers, *supra* note 3, at 31 (stating that lack of reliability is the top reason financial experts are excluded).

548. See *March 2007 Court Case: In re Nellson Nutraceutical*, BUS. VALUATION RES. (Mar. 2007), at 1, (citing *In re Nellson Nutraceutical*, No. 06-10072, 2007 Bankr. LEXIS 99, *61 (Del. Bkr. January 18, 2007)) (discussing how damages experts were “left in the dark” by deliberately manipulated management projections), available at <http://www.bvlibrary.com>.

549. See discussion of assumptions *supra* at Part III.

550. See Lloyd, *supra* note 25, at 385 (analyzing the problems of biased expert testimony).

551. See, e.g., *Lane v. Cancer Treatment Ctr. of Am., Inc.*, C.A. No. 12207-NC, 2004 Del. Ch. LEXIS 108, at *34-56 (Del. Ch. July 20, 2004).

552. See Hilton, *supra* note 223 (discussing expert testimony and financial matters).

553. See Seigneur, *supra* note 166 (discussing how the interviewee noted that this rancor, and that of the trial process in general, is so intimidating at times that it is difficult to induce young valuation experts to become testifying experts).

554. See Hilton, *supra* note 223 (discussing expert testimony and financial matters).

555. Kaye, *supra* note 109, at 1937.

556. Bifurcation of trials is one of the case management tools permitted courts in damages cases. See, e.g., *In re Visa Check/Mastermoney Antitrust Litigation*, 280 F.3d 124, 141 (2nd Cir. 2001) (where bifurcation occurred under FED. R. CIV. P. 23). Business damages trials have been bifurcated on occasion, see, e.g., *Imaging Int’l v. Hell Graphic Sys., Inc.*, 816 N.Y.S.2d 696, 704 (N.Y. 2006) (stating that defendants had consented to bifurcate the liability and damages phases of the trial), and decisions to bifurcate have been upheld on appeal under the abuse of discretion standard. See, e.g., *Mandeville v. Quinstar Corp.*, 109 Fed. Appx. 191, 194 (10th Cir. 2004) (affirming the lower court’s decision to

The first segment would deal with the appropriate methodologies to use in producing a value, a matter often prescribed by theory and requiring sophisticated thought.⁵⁵⁷ The second segment would pertain to the inputs to the methodology, often a factual matter.⁵⁵⁸ Methodological issues are usually the most technical in nature and frequently the ones least understood by judges, attorneys, and juries.⁵⁵⁹ Perhaps even more importantly, they are the place where pure science and valuation meet most closely and the opportunity for objective demarcation between them is the greatest. This line of demarcation also has the important effect of preserving the spirit under which the seminal cases on admissibility have rested. As Kaye notes, “*Daubert* works no change in the principle, clearly established by *Frye* that the heightened scrutiny [of expert evidence] pertain[s] strictly to methodology.”⁵⁶⁰ He also observes that “[w]hen heightened scrutiny is confined to methodology, the usurpation problem is manageable.”⁵⁶¹

Moreover, the arena of methodology is one of two points in the process where neutral experts,⁵⁶² as an adjunct to opposing experts, might be employed to greatest benefit in the role of advising judges in situations where opposing experts disagree about complex methodologies.⁵⁶³ Further, some courts may be becoming more amenable to neutral experts,⁵⁶⁴ as evidenced by one federal judge’s suggestion that courts should make innovative use of special masters.⁵⁶⁵ Using neutral experts at this juncture

bifurcate a trial because the issues were logically separable).

557. See Kaye, *supra* note 109, at 1937 (describing the difficulties of identifying methodological defects in statistical assessments).

558. It is noteworthy that bifurcation of proceedings is an increasingly frequent aspect of trials involving patent cases in which infringement issues are separated from damages. Goldscheider, *supra* note 6, at 56.

559. See Seigneur, *supra* note 166 (discussing the interviewee’s expert witness experience).

560. Kaye, *supra* note 109, at 1975.

561. *Id.* at 1972.

562. Judge Posner has noted the prospect of using neutral experts as a means of dealing with the problem of intelligibility in expert testimony. POSNER, FRONTIERS OF LEGAL THEORY, *supra* note 514, at 405.

563. See *McCormick v. Brevig*, No. DV-95-86, 1996 Mont. Dist. LEXIS 1004 (Mont. Dist. 1996) (citing cases supporting the appointment of special masters when accounting issues are involved); *Reich v. Priba Corp.*, 890 F. Supp. 586 (N.D. Tex. 1995); *Sierra Pac. Ins. Co. v. Am. Sentinel Ins. Co.*, 2004 Cal. App. Unpub. LEXIS 1206 (2d Cir. 2004); *Horn v. McQueen*, 353 F. Supp. 2d 785 (W.D. Ky. 2004) (appointing special referees to sort out complex damages issues in the presence of conflicting expert testimony).

564. See, e.g., *Sanders v. Sanders*, CA03-738, 2004 Ark. App. LEXIS 114, at *26-7 (Ark. App. February 4, 2004) (accepting the report of a court-appointed damages expert over that of another expert).

565. See Aspen, *supra* note 144 and Deason, *supra* note 508, at 98-136, for a detailed and thoughtful explanation of the potential problems and abuses that the use of court-appointed experts could create for courts and opposing parties.

would have several benefits. First, if there were a substantive question regarding the most appropriate methodologies, both sides would receive a hearing attended by the neutral expert, who could assist the bench in deciding whether there exists a question of fact that would dictate jury involvement.⁵⁶⁶

Second, if advised by neutral experts, judges would be far more likely to be properly informed about the pros and cons of competing methodologies and would better understand the ramifications of choosing some over others without the necessity of educating themselves in order to separate rhetoric from methodological appropriateness.⁵⁶⁷ There would also be less risk of overstepping *Kumho's* intellectual rigor standard by excluding expert testimony that is less than ideal but still scientifically valid.⁵⁶⁸ Third, the difficulty of neutral experts radiating an aura of infallibility to a jury would be eliminated because the neutral expert would testify only before the judge, not the jury.⁵⁶⁹

Despite these benefits, care would be needed to avoid due process usurpation and other arguments levied against the use of neutral experts.⁵⁷⁰ For this reason, even though our thesis point of bifurcating trials does not strictly depend upon the use of court-appointed experts, we foresee the use of such experts to be a salutary adjunct to this trial bifurcation only if properly controlled. Controls should at a minimum include what we outline in the following paragraph.

Independent expert advice and testimony should be confined only to appropriate methodologies in the first segment of the bifurcated process, and only if the methodological complexity is sufficient to warrant such

566. Courts have, on occasion, appointed experts for the purpose of assessing the reliability of opposing experts' reports. *See, e.g.,* Horn v. McQueen, 353 F. Supp. 2d 785, 791 (W.D. Ky. 2004) (instructing the special master to consider the reports and testimony of the experts).

567. There is empirical evidence that judges have difficulty resolving technical issues associated with complex patent cases, and alternative methods of trial-level resolution and neutral experts have been proposed as possible solutions. Kimberly A. Moore, *Are District Court Judges Equipped to Resolve Patent Cases?*, 15 HARV. J.L. & TECH. 1, 39 (2001).

568. *See* Deason, *supra* note 508, at 134 (noting that the possible difficulty of judicial deference to independent experts becomes greater where judges struggle to adapt existing law to new technologies). In this context, judges must be careful to confine independent experts' role to that of proffering opinion on appropriate methodologies and not on the application of such methodologies to law.

569. Another potentially efficacious aspect of this first component could be to get opposing parties to stipulate to as many assumptions as possible before proceeding to the second component. This would have the salubrious effect of reducing the amount of noise in arguments the jury hears.

570. *See generally* Deason, *supra* note 508, for a thorough analysis of court-appointed expert witnesses in which Professor Deason raises many concerns about the use of such witnesses and offers several ways of partially mitigating these concerns.

advice.⁵⁷¹ Conflicting expert testimony alone should not be sufficient to require an independent expert.⁵⁷² In keeping with Judge Posner's proposal,⁵⁷³ there should be a voluntary national registry of independent experts that includes a complete disclosure of areas of expertise, credentials, and all prior testimony experience.⁵⁷⁴ A high set of standards, to which all independent experts would be held accountable, should be developed.⁵⁷⁵ Conflicts of interest through prior or existing financial and other associations with any of the parties or their experts should be reasons for disqualification.⁵⁷⁶ Unless opposing parties agree otherwise, independent experts should be used only in addition to experts hired by opposing parties, and opposing parties should have the opportunity not only to comment upon the qualifications of independent experts prior to appointment, but also to examine independent experts under oath.⁵⁷⁷ Opposing parties and their experts should not be allowed to communicate *ex parte* with independent experts, and vice-versa.⁵⁷⁸ Although these controls, even if properly and consistently applied, may not be foolproof, they do hold the promise of allowing independent expertise to inform judges without undue risk to the adversarial process.⁵⁷⁹

The second segment of our novel approach deals with the inputs to the valuation models chosen during the first component. It is in this far more subjective arena that judges and jurors are most comfortable⁵⁸⁰ and also where the spirit of evidentiary truth embodied in both *Daubert* and *Frye* is maintained. In this segment, opposing parties should be first asked to stipulate to as many of the inputs to the selected valuation model(s) as possible. Stipulating to inputs is nothing new, and courts typically appreciate opposing parties stipulating to as much as possible.⁵⁸¹ What is different, however, is our recommended use of consulting experts to assist

571. This is intended to address concerns about independent experts crossing the line and intruding upon judicial prerogatives by providing advice on the law. *See* Deason, *supra* note 508, at 134. Moreover, various sources counsel against the use of court-appointed experts in simple matters. *See, e.g.,* WEINSTEIN'S FEDERAL EVIDENCE §§ 706.02, 53.10 (citing FED. R. CIV. P. 53(a)(1)(C)); William W. Schwarzer & Joel S. Cecil, *Management of Expert Evidence*, in REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 61 (2d ed. 2000).

572. *See* Deason, *supra* note 508, at 133.

573. *See* Lloyd, *supra* note 25, at 385-86.

574. *See* Deason, *supra* note 508, at 148.

575. *See id.*

576. *See id.* at 143-47.

577. This control would substantively mitigate several concerns that include even unbiased experts having disagreements about scientific knowledge. *See id.* at 118, 153.

578. *See id.* at 151-52.

579. An additional advantage of court-appointed experts is that they enjoy absolute immunity from liability. *See, e.g.,* Riemers v. O'Halloran, 678 N.W.2d 547, 550-51 (N.D. 2004).

580. *See supra* text accompanying notes 555-61.

581. Aspen, *supra* note 146.

judges in identifying those inputs which ultimately matter most and least at the margin in the estimation of damages.⁵⁸² Since the valuation methodology would have already been agreed upon, an independent expert could likely, without undue difficulty, vary the inputs to the selected model(s) and perform a sensitivity analysis to identify those assumptions that make any appreciable difference in the damages outcome, thereby providing a check on the inclinations of opposing parties not to stipulate to inputs of minimal import for reasons of partisanship.⁵⁸³

Of course, an opposing party could still refuse to stipulate and proceed to trial with inputs of minimal import, but absent some compelling reason, probably not without risking the judge's ire.⁵⁸⁴ Thus, what would ultimately be presented to the jury as questions of fact would be most often those issues related to valuation model inputs that actually affect damage estimates in some material way. Such screening would, as Kaye puts it, "prevent[] the jury from relying on a legislative fact" as opposed to "adjudicative facts."⁵⁸⁵ The distinction between these categories of "facts" is important. Legislative facts are those that can be asserted across cases as opposed to adjudicative facts, which are case-specific. For example, a legislative fact might be whether or not closed-form option-pricing models may be appropriately applied in valuing options if the options have certain special characteristics such as reload features. An adjudicative fact might be whether or not option holders surrender at the optimal time or earlier than optimal, as some studies have indicated.⁵⁸⁶ Thus, legislative facts lend themselves more generally to methodological issues, whereas adjudicative facts generally fall into the category of inputs to methodology. Adopting Kaye's distinction between the types of facts helps to make a clearer

582. Neutral experts have sometimes been used to recalculate damages, but this is rarely done. See Lloyd, *supra* note 25.

583. Court-appointed experts have also been utilized by courts to deal with post-trial matters involving detailed financial issues. See, e.g., Triple Five of Minn., Inc. v. Simon, 2003 U.S. Dist. LEXIS 17922 (D. Minn. Sept. 30, 2003).

584. Hilton, *supra* note 223. The interviewee notes that greatest differences by far in how expert testimony is handled, and the ones that cause the most problem for experts, result from differences among judges as opposed to across jurisdictions. He also notes that one judge in whose court he has testified on multiple occasions routinely holds pretrial conferences in which he has the experts appear before him in person and asks direct questions regarding the important differences in their reports. In an effort to reduce the variance in experts' estimates of damages, this judge sometimes advises the experts regarding assumptions that he feels are out of line, with the implication that he wants more conservative estimates in one direction or the other. Such informal coercion of experts reinforces our recommendation for a new process that will accomplish the ends sought by this particular judge and will help ensure more homogeneity of process across courts.

585. Kaye, *supra* note 109, at 1975.

586. Jaksa Cvitanic, et al., *Analytic Pricing of Employee Stock Options*, REV. FIN. STUDIES, Dec. 2007, at 1, available at <http://rfs.oxfordjournals.org/cgi/content/full/hhm065v1>.

demarcation between the respective issues to be decided in each segment of the bifurcated process much clearer.

Extending our previous example of option valuation may assist in better understanding this proposal. Assume, again, a divorce action in which the asset of interest is the marital appreciation in stock options containing reload features granted to one spouse by her employer.⁵⁸⁷ Any valuation method that does not take into account the additional value of the reloads would result in a low value estimate. Consequently, binomial models and Monte Carlo simulations might be appropriately proposed as suitable methodologies, whereas a closed-form model that does not value the reloads would clearly be inappropriate. Once the models are decided upon, two inputs into such models would be the price volatility of the underlying security (the stock) and the amount of time the option holder takes to sell or convert “in-the-money” options once they are vested.⁵⁸⁸ Suppose the opposing parties offer volatility estimates of 18% and 19%⁵⁸⁹ and also differ on the issue of whether to assume the option holder would have held the options until the optimal surrender time. The differences in volatility estimates may have little effect on the damages and might be stipulated, whereas the assumed surrender behavior could have a potentially large effect. Under the proposed trial regime, jurors would not need to hear expert testimony regarding complex binomial models and determination of stock price volatility, but instead would hear testimony focused on such matters as past option surrender behaviors of executives having similar options.

To summarize, there are several benefits of this approach. Heightened scrutiny of expert testimony would be reserved for methodological issues, as Kaye stipulates.⁵⁹⁰ This approach might be applied in both *Daubert* and *Frye* jurisdictions, given that the complexities of valuation methodologies certainly justify heightened scrutiny under both standards.⁵⁹¹ Trials would be materially shortened in length and costs reduced concomitantly. Juries could focus on those aspects of business damages cases that matter most in terms of outcomes and those about which they are likely to be most comfortable. Materially relevant information would be less likely to be lost in the smoke of methodological rhetoric and jargon. Judges would be relieved of some of the responsibility to become educated on the intricacies

587. *See supra* note 422.

588. An in-the-money option is one in which the option holder could extract a positive value by immediately exercising the option. FRANK K. REILLY & KEITH C. BROWN, INVESTMENT ANALYSIS AND PORTFOLIO MANAGEMENT 812 (8th ed. 2006).

589. Such differences might arise, for example, because experts disagree over the period over which to measure stock price volatility. For a discussion about measuring stock price volatility, *see id.* at 915-18.

590. Kaye, *supra* note 109, at 2014.

591. *Id.*

of increasingly complex valuation methodology. The trend toward greater and greater discovery requirements that interfere with attorney/expert communication might be reversed as the number of issues subject to debate during trial—especially those related to objective science—would be reduced. Perhaps most importantly, however, the opportunity for partisanship would be materially reduced. Attorneys harboring fears of limitations upon their degrees of freedom and purists who object on the basis of denial of due process would need to confront the reality that judges strongly prefer for parties to stipulate to matters that are not really in question or make minimal difference in consequence.⁵⁹²

VIII. SUMMARY AND CONCLUSIONS

In the end, when considering the considerable dissatisfaction that attends the use of expert witnesses,⁵⁹³ we are left with the following conclusions. First, there is a particular need to scrutinize scientific evidence because it is often impenetrable yet more impressive than non-scientific evidence, and the usual safeguards in the trial process are inadequate to always ensure that juries will see only good science.⁵⁹⁴ Second, from a practical perspective, the demarcation separating art and science in damages estimation is hazy at best; yet, in this regard, *Daubert* and its progeny, as well as *Daubert*'s predecessor, *Frye*, are largely silent. Third, *Daubert* has had a far-reaching effect on damages expert testimony in several ways, most notably for damages experts by increasing their risk. Fourth, at the same time the demand for expert testimony and numbers of experts are increasing, the complexity of business damages cases is also increasing as a result of fundamental changes in the business environment. This increased complexity is in turn leading to the use of more sophisticated methodologies, which makes it even more difficult for courts to decipher what has been already a confusing mix of art and science. Fifth, against this backdrop are alarming allegations of burgeoning partisanship on the part of experts, which is resulting in highly disparate damages estimates and creating uncomfortable uncertainty about the real magnitude of damages. Finally, infused in this already vexatious mixture is a trend toward increasingly expansive discovery that inhibits attorney/expert communication.

Allegations of expert bias, though growing in intensity, are nothing new historically, and none of the legacy remedies that have been proffered have alone proven efficacious in addressing the problem. Perhaps foremost among the reasons for persistent expert partisanship is a trial regime in

592. Seigneur, *supra* note 166.

593. POSNER, *FRONTIERS OF LEGAL THEORY*, *supra* note 514, at 401.

594. Kaye, *supra* note 109, at 1967.

which experts are expected to perform as effective players on a litigation team, but simultaneously are supposed to be immune from developing any conscious or subconscious allegiance to that team—and must be willing to so testify. It might as well be decreed that professional baseball players in a year prior to free agency should have no interest in their present team's winning because they might be playing for the opposition next year.

If real progress is to be made in culling the worst of the sour fruits of partisanship—highly disparate damage estimates—it is time to declare this charade as such and take a fresh approach to addressing underlying structural problems based upon a modified trial regime, analogous in some respects to that used in complex patent cases. This regime involves the bifurcation of trials: dividing damages estimation into two components in a manner that augments expert testimony in complex business damages cases by incorporating independent experts in a limited, yet productive and economical way. Such an approach would enable jurors to focus on material questions of fact that produce much of the real difference in damage estimates. Although we do not maintain that this proposed modification is the silver bullet that will kill the beast of partisanship, we believe that it would greatly reduce opportunities for partisanship to bear bad fruit and that it represents a workable alternative far preferable to the present lament.