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PROVING LOST PROFITS AFTER *DAUBERT*: FIVE QUESTIONS EVERY COURT SHOULD ASK BEFORE ADMITTING EXPERT TESTIMONY

*Robert M. Lloyd **

When a business seeks to recover lost profits, whether the cause of action is in contract, tort, or antitrust, expert testimony is the way they prove their loss. An expert witness, typically an accountant or an economist, presents a model, a set of calculations intended to show the profits the plaintiff would have made had it not been for the defendant's actions. Some of these models are honest, solid evaluations based on the best available data. Others are pure fantasy. Most are somewhere in between.

When it is not clear how honest and accurate the expert's testimony is, the trial judge has to decide whether to admit it or exclude it.¹ The United States Supreme Court's decisions in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*² and *Kumho Tire Co. v. Carmichael*³ made it clear that the trial judge must act as a gatekeeper to exclude expert testimony that is likely to mislead the trier of fact,⁴ and much has been written to guide the courts

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1. See FED. R. EVID. 104(a).

2. 509 U.S. 579 (1993).

3. 526 U.S. 137 (1999).

4. In *Daubert*, the Supreme Court said that Rule 702 of the Federal Rules of Evidence requires that "the trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable." 509 U.S. at 589. To assist trial courts in making that determination, the Court proposed a list of questions and considerations which it said were not "a definitive checklist or test." *Id.* at 593. These included whether

when scientific evidence is in question.⁵ In spite of all the controversy *Daubert* and *Kumho Tire* have generated,⁶ neither the reported decisions nor the academic literature has given much guidance for trial courts when the testimony in question is intended to show the plaintiff's lost profits.

This article attempts to fill that void. It suggests five questions every trial court should ask before admitting expert testimony on lost profits:

Is the expert qualified for *this* analysis?

How reliable is the underlying data?

Are the expert's assumptions supported by the record?

Does the expert deal adequately with facts inconsistent with the expert's theory?

Has the expert considered alternative scenarios?

The questions are not intended to form an exclusive test. There will, on occasion, be other reasons for excluding the testimony. But these five questions address the issues that come up repeatedly. They are questions that need to be dealt with in every case.

In lost-profits cases, the courts have a long way to go in fulfilling *Daubert's* purpose, which Judge Richard Posner characterized, in his typically blunt language: "to protect juries from being bamboozled by technical evidence of dubious merit."⁷ Too often, courts have admitted misleading testimony with the explanation that it could be countered by testimony from opposing experts and by vigorous cross examination.⁸ In far too many cases, juries

the expert's theory or technique can or would be tested, whether it has been subject to peer review or publication and the known or potential rate of error. *Id.* at 593-94. Although in *Daubert* the Court specifically limited its discussion "to the scientific context," *id.* at 590, it subsequently held in *Kumho Tire* that the "gatekeeping" function prescribed in *Daubert* applied to all expert testimony, *see* 526 U.S. at 141. There the Court reiterated that "the test of reliability is 'flexible,' and *Daubert's* list of specific factors neither necessarily nor exclusively applies to all experts or in every case." 526 U.S. at 141.

5. A search on LEXIS shows 266 law review articles containing "Daubert" in the title.

6. In addition to the articles in the preceding footnote, LEXIS shows sixty articles with "Kumho" in the title.

7. *SmithKline Beecham Corp. v. Apotex Corp.*, 247 F. Supp. 2d 1011, 1042 (N.D. Ill. 2003) (Posner, J., sitting by designation).

8. *See, e.g., Hertz Corp. v. Gaddis-Walker Elec., Inc.*, Nos. 96-6022, 96-6136, 1997 WL 606800, at *3 (10th Cir. Oct. 2, 1997) (expert's failure to deduct certain costs could be corrected on cross-examination); *Swierczynski v. Arnold Foods Co.*, 265 F. Supp. 2d 802, 810 (E.D. Mich. 2003) (expert's use of inappropriate discount rate goes to weight of testimony, not admissibility); *Spalla v. Navarre Corp.*, No. 01-598, 2002 WL 31500395, at *4

were taken in by business and economic experts, and it was only the vigilance of the appellate court that brought to light the problems with the expert's testimony.⁹ There are undoubtedly many more cases in which the appellate court, working from a limited record, was deceived as well. Often, the experts who bamboozled the jury were faculty from prestigious universities or members of internationally respected accounting firms.¹⁰ A few examples illustrate the point.

*Sostchin v. Doll Enterprises, Inc.*¹¹ was a tort case in which a commercial building burned, and the jury found the landlord negligent in causing the fire.¹² It awarded the tenant the \$1.18 million in profits the tenant claimed to have lost when forced to relocate its shoe store.¹³ In the four years before the fire, the tenant's total profit had been \$25,862 (an average of less than \$7,000 per year), consisting of a loss of \$16,220 in 1994, a profit of \$11,833 in

(D. Minn. Nov. 11, 2002) (expert's use of incomplete data in report can be attacked on cross-examination); *Stelwagon Mfg. Co. v. Tarmac Roofing Sys., Inc.*, 862 F. Supp. 1361, 1368 n.11 (E.D. Pa. 1994) (flaws in methodology go to weight of testimony, not admissibility) *aff'd in part, rev'd in part*, 63 F.3d 1267 (3d Cir. 1995).

After reviewing the previous psychological research on the effect of cross-examination and conducting their own study, three psychologists concluded that, "[a]lthough more research along these lines is needed, this preliminary evidence suggests that cross-examination may not be an effective safeguard against junk science in the courtroom." Margaret Bull Kovera et al., *Assessment of the Commonsense Psychology Underlying Daubert: Legal Decision Makers' Abilities to Evaluate Expert Evidence in Hostile Work Environment Cases*, 8 PSYCH. PUB. POL. & L. 180, 193 (2002).

The *Daubert* opinion itself states: "Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence." 509 U.S. at 596. But this begs the question. The court still has to decide whether the evidence should be admitted or whether, even though the other party has an opportunity to counter it, it is likely to mislead the jury.

9. See, e.g., *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 [plaintiff's] expert witness had done the usual magic tricks . . ."); *Cell, Inc. v. Ranson Investors*, 427 S.E.2d 447, 450 (W. Va. 1992) (reversing jury verdict where expert based projections on data for larger stores).

10. See, e.g., *Mid-Am. Tablewares, Inc. v. Mogi Trading Co.*, 100 F.3d 1353, 1369, 1374-75 (7th Cir. 1996) (reversing damages award based on model created by professor from University of Wisconsin School of Business); *William Inglis & Sons Baking Co. v. Cont'l Baking Co.*, 942 F.2d 1332, 1341 (9th Cir. 1991) (verdict reduced on appeal to extent based on national accounting firm's unsupported assumption as to profit margin), *amended, in part, on reh'g*, 981 F.2d 1023 (1992) *Johnson Elec. N. Am., Inc. v. Marbuchi Motor Am. Corp.*, 103 F. Supp. 2d 268, 273, 287 (S.D.N.Y. 2000) (excluding the testimony of a CalTech economics professor).

11. 847 So. 2d 1123 (Fla. Dist. Ct. App. 2003).

12. *Id.* at 1124-25.

13. *Id.* at 1125.

1995, a loss of \$1,513 in 1996, and a profit of \$31,762 in 1997.¹⁴ By selectively interpreting figures, the tenant's expert witness, a certified public accountant, concluded that the store's profits were growing at a rate of 35.26% per annum and that the store would have earned \$1.2 million in profits over the remaining six years of the lease.¹⁵ In other words, he testified that the store's average annual profits in the last six years of the lease would have been more than twenty-five times those of the first four years. And the jury believed him. This was in spite of the fact that the store was located in a high-crime area of downtown Miami and that it reopened with the same employees six weeks after the fire and a block and a half away from its original location, incurring continuous losses until its owners gave up and closed it.¹⁶ Moreover, the store's pre-fire profits had been even less than the accountant claimed, because his calculations had counted as profits what were actually the salaries of the company's officers.¹⁷

Although the jury was taken in, the Florida District Court of Appeals was not. In reversing the jury verdict on damages, the court characterized the expert's work as "accounting alchemy by which this humble enterprise was transformed into an engine of commerce."¹⁸ It explained that the "fire was not the purchase of a winning lottery ticket."¹⁹

In another case alleging both breach of contract and antitrust violations, the plaintiff's expert opined that the defendant's actions had cost the plaintiff \$54 million in lost profits.²⁰ This was in spite of the fact that the plaintiff had been organized as a tax shelter and had internally projected that its total profits over ten years would be only \$1.4 million.²¹ To arrive at his \$54 million damage figure, the expert projected that the plaintiff would have been able to purchase telex terminals for \$2,400 each and that it would have made a profit of \$4,576 (discounted to present value)

14. *See id.* at 1125.

15. *See id.*

16. *See id.*

17. *See id.* at 1125-26.

18. *Id.* at 1125.

19. *Id.* at 1129.

20. *Olympia Equip. Leasing Co. v. W. Union Tel. Co.*, 797 F.2d 370, 382 (7th Cir. 1986).

21. *Id.*

on each of 11,800 terminals it planned to purchase.²² This was in spite of the fact that the plaintiff had numerous competitors, most of them (unlike the plaintiff) having representatives calling on customers.²³ The district court jury bought this scenario, and awarded the plaintiff the full \$54 million.²⁴ The Seventh Circuit reversed on the grounds that there had been no breach of contract and no antitrust violation.²⁵ In its opinion, however, the Seventh Circuit felt compelled to comment on the damage verdict which it characterized as “astonishing” and having been a result of the expert having “dazzled the jury.”²⁶ The court noted that the expert’s projections would have given the plaintiff a rate of return of 191 percent on its investment, an impossible rate for a business that had many competitors and no substantial advantages over them.²⁷

In these cases, the reported opinions do not tell whether the glaring deficiencies in the expert testimony were pointed out to the jury or whether it was only in the appellate court that the defendants showed how grossly the experts had overstated the profits. But, in *Mid-America Tableware, Inc. v. Mogi Trading Co.*,²⁸ the Seventh Circuit included with its opinion a lengthy appendix in which it detailed all of the damaging admissions that the defendant’s counsel had obtained from the plaintiff’s experts.²⁹ In spite of these admissions, the jury had returned a verdict the court characterized as “monstrously’ excessive and find[ing] no rational basis in the evidence.”³⁰ The defendant had breached a contract to produce a line of harvest-themed dinnerware for the plaintiff.³¹ The plaintiff’s economics expert, a member of the graduate business school faculty at a prestigious university, calculated that the plaintiff would have earned average *profits* of more than \$300,000 per year from the line over a ten-year period, in spite of evidence that no similarly themed dinnerware had ever

22. *Id.*

23. *See id.* at 373.

24. *Id.* at 382–83.

25. *See id.* at 381–82.

26. *Id.* at 382.

27. *See id.*

28. 100 F.3d 1353 (7th Cir. 1996).

29. *Id.* at 1369–77.

30. *Id.* at 1367 (internal quotation marks omitted).

31. *Id.* at 1356.

achieved *sales* in excess of \$150,000 per year.³² The defendant's attorneys had not only produced their own expert who pointed out the flaws in the plaintiff's experts' testimony, but had also obtained many damaging admissions from the plaintiff's experts.³³ These admissions should have shown the jury that the lost profits calculation of the plaintiff's expert was, in the words of the appellate court, "one speculative inference heaped upon another."³⁴ The sales projections assumed that the plaintiff's dinnerware line would equal the success of one uniquely successful line of dinnerware that had many advantages the plaintiff's line lacked. These advantages included having the pattern inked into the ceramic, rather than applied as a decal as was done on the plaintiff's pieces.³⁵ Moreover, virtually all of the retailers the plaintiff brought in to testify that they planned to buy the dinnerware admitted on cross examination that they could not project future sales until they saw how the product actually sold in their stores.³⁶ The plaintiff's expert economist himself admitted on cross examination that he had conducted no market research on the themed dinnerware and had in fact conducted no research of any kind on the dinnerware industry.³⁷ He admitted, in fact, that he had based calculations solely on information the plaintiff's president had supplied and which he (the expert) had done nothing to verify except to read the documents that existed in the litigation.³⁸ In spite of all the contrary evidence, the jury bought the expert's story. The award that the Seventh Circuit described as "monstrously excessive" substantially "tracked" the expert's testimony.³⁹

These were situations in which vigorous cross-examination was not sufficient to make the jury aware of what, to sophisticated observers, were obvious defects in the testimony.⁴⁰ Of course, the

32. *Id.* at 1368, 1374-75.

33. *Id.* at 1375-77.

34. *Id.* at 1368.

35. *See id.* at 1370.

36. *See id.* at 1370-74.

37. *Id.* at 1375.

38. *Id.*

39. *Id.* at 1367, 1368 n.8.

40. In *DeLong Equip. Co. v. Washington Mills Electro Minerals Corp.*, 990 F.2d 1186, 1204-05 (11th Cir. 1993), the appellate court believed that the trial court, which reviewed the evidence more than a year after the verdict, misunderstood the economist's testimony on lost profits. If a U.S. district court judge, reading from a written transcript, misunderstands this complex evidence, it is easy to assume that many lay jurors would do the same.

sophisticated observers were not listening to the testimony at the end of a long and boring trial.

To understand one reason why vigorous cross-examination is not enough to protect against testimony of this kind, consider what one expert witness told his audience at a meeting. A court opinion quoted his lesson on how to defeat cross-examination:

I used the technique as [sic] science as a foreign language. I made a statement to the attorney that absolutely nobody could understand. Now, what it amounts to, it's going to terminate the cross examination, and it's going to terminate it in a hurry.

I want the jury to understand what I say when I feel there are certain conditions. Under direct examination, the jury understands everything that I say. Under cross examination, there are some things I will allow the jury to understand and there are some things which I will not allow the jury to understand.

....

. . . [If opposing counsel] says "Can you simplify it?" You say, "See, there's too much simplification already. This is the only way that I can state it to you so there will be no misunderstanding."⁴¹

While this advice pertained to scientific evidence, economics and accounting can be made every bit as arcane as science.

Many have put the blame for biased expert testimony on the prevalence of the so-called "hired guns," professionals who earn a large part of their income from acting as expert witnesses.⁴² Judge Posner, however, takes the opposite position. He argues that the need to earn an income as an expert witness provides an important safeguard against overly biased testimony.⁴³ If a court

41. *Sanchez v. Black Bros. Co.*, 423 N.E.2d 1309, 1320 (Ill. App. Ct. 1981) (quoting speech by Mr. Ralph Barnett) (emphasis omitted).

42. See DAVID H. KAYE ET AL., *THE NEW WIGMORE: A TREATISE ON EVIDENCE—EXPERT EVIDENCE* § 10.3.1 (2004) (collecting and summarizing criticism). Since at least 1887, judges, lawyers, academics, and even expert witnesses themselves have called for the use of court appointed neutral experts. See *id.* at § 10.4.1 (collecting and summarizing sources). But still "neutral experts remain the rare exception in the swamp of party-selected expert witnesses." *Id.* This is in spite of Rule 706 of the Federal Rules of Evidence, which specifically authorizes judges to appoint neutral experts. FED. R. EVID. 706(a).

43. See Richard A. Posner, *The Law and Economics of the Economic Expert Witness*, 3 J. ECON. PERSP., Spring 1999, at 91, 93–94. But in *Olympia Equip. Leasing Co. v. Western Union Tel. Co.*, 797 F.2d 370, 382 (7th Cir. 1986), Judge Posner described a jury verdict which he thought "bore no relation . . . to economic reality" as "one more illustration of the old problem of expert witnesses who are 'often the mere paid advocates or partisans of

criticizes an expert for biased testimony, that criticism will be used against the expert in other trials, thereby reducing his or her value as a witness.⁴⁴ A few years ago, Judge Posner proposed a national registry for information about expert witnesses.⁴⁵ With respect to economic experts, this function is now performed by the Economics Department of the University of Missouri—St. Louis.⁴⁶ The department maintains a web site which lists cases in which economic experts have testified, naming the expert witness and summarizing the testimony and the court's evaluation of it.⁴⁷

Readily available information about prior testimony can provide an incentive for experts to be more conservative (no one believes they will become impartial, only that they will be less inclined to render extreme opinions). But it will be effective only if the courts are willing to exclude testimony when the expert exceeds the bounds of what can be reasonably extrapolated from the evidence. If courts allow an expert to exceed reasonable bounds and the expert is able to convince a jury to render a particularly outrageous verdict, that expert will be more in demand as a witness.⁴⁸

I. IS THE EXPERT QUALIFIED FOR *THIS* ANALYSIS?

The trial judge needs to look beyond the fact that the expert is a well qualified professional with advanced degrees and years of relevant experience, and ask whether the expert is qualified to

those who employ or pay them, as much so as the attorneys who conducted the suit.” (quoting *Keegan v. Minneapolis & St. Louis R.R.*, 26 Minn. 90, 95 (1899)).

44. Posner, *supra* note 43, at 94.

45. *See id.* at 98.

46. Forensic Economics, Univ. Mo.—St. Louis, Court Decisions of Special Interest to Forensic Economists, <http://www.umsl.edu/divisions/artscience/economics/ForensicEconomics/CasesFE.html> (last visited Nov. 8, 2006).

47. *See id.*

48. Cf. Jonathan T. Tomlin & David R. Merrell, *The Accuracy and Manipulability of Lost Profits Damages Calculations: Should the Trier of Fact be “Reasonably Certain?”* 7 *TRANSACTIONS: TENN. J. BUS. L.* 295, 304 (2006) (stating that financial experts may expect more business if they provide results favorable to client).

A paper by two economists, both of whom have considerable experience in high-stakes litigation, uses game theory to demonstrate that the admission of biased expert testimony will lead to damage awards favoring the party providing the more biased testimony and that where both parties provide equally biased testimony, the biases will not cancel each other out as commonly supposed, but will often result in awards that substantially exceed the actual damage amount. Jonathan T. Tomlin & David Cooper, *The Importance of Unbiased Expert Testimony* (May 3, 2006) (unpublished manuscript, on file with author).

make *this* analysis.⁴⁹ This may require some careful study by the court (assisted, of course, by briefs of counsel).⁵⁰

In some situations, courts should be willing to allow experts to testify on the basis of their general background in a field such as accounting or economics. For example, where the projected revenues and expenses are already in evidence and the expert merely needs to calculate the profits so as to come up with a number that is comprehensible to the jury, an accountant with no expertise in the industry in question would be perfectly capable of rendering an opinion as to the amount of profits the plaintiff has lost.⁵¹ On the other hand, where the expert is going to project the sales and market share growth that the plaintiff would have achieved absent the defendant's conduct, the expert is going to need specialized knowledge, and a generalist just will not qualify.⁵² As one judge noted:

[I]t must be recognized that a witness' justifiable patina, which may be conferred by his or her status as an expert in some acknowledged field of expertise, poses a special danger that the trier of fact may extend a comparable credence to the witness' opinions that fall outside of that area of expertise.⁵³

49. See, e.g., *Westfed Holdings, Inc. v. United States*, 55 Fed. Cl. 544, 571 (2003) ("[T]he issue is not the qualifications of the witness in the abstract or in general but 'whether those qualifications provide a foundation for a witness to answer a specific question.'") (quoting *Berry v. City of Detroit*, 25 F.3d 1342, 1351 (6th Cir. 1994)); *Ways & Means, Inc. v. IVAC Corp.*, 506 F. Supp. 697, 705 (N.D. Cal. 1979) (finding insufficient evidence that "medical research economist" had expertise in survey-research).

50. Scrutiny of the expert's report can help in this regard. One survey of federal judges indicated that one of the effects of exchanging expert reports was that it discourages testimony that is outside the expert's areas of expertise. 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, 313 n.2 (2002).

51. See, e.g., *In re Merritt-Logan, Inc.*, 901 F.2d 349, 360 (3d Cir. 1990) (stating that a CPA could testify as to how lost profits were calculated where he did not express an opinion on underlying projections); cf. *Supply & Bldg. Co. v. Estee Lauder Int'l, Inc.*, 57 Fed. R. Evid. Serv. (West) 1309, 1312 n.3, 1316 (S.D.N.Y. 2001) (finding that an accountant without relevant experience in the Middle East was qualified to testify as to the opposing expert's mathematical and accounting errors).

52. See, e.g., *R.S.E., Inc. v. Pennsy Supply, Inc.*, 523 F. Supp. 954, 966 (M.D. Pa. 1981) (finding that a damage-model prepared by a lawyer-economist could not be relied upon in pre-*Daubert* antitrust case because he was not an expert in road construction or blacktop production). *But see* *Polymer Dynamics, Inc v. Bayer Corp.*, 67 Fed. R. Evid. Serv. (West) 201, 204 (E.D. Pa. 2005) (allowing a financial economist to make projections as to growth of footwear company in spite of having no expertise in footwear industry).

53. *Kay v. First Cont'l Trading, Inc.*, 976 F. Supp. 772, 775 (N.D. Ill. 1997). At the time he wrote the majority opinion, Senior District Judge Milton I. Shadur was a member of the Advisory Committee on the Rules of Evidence of the Judicial Conference of the

A few examples illustrate how some courts have excluded testimony of acknowledged experts who attempted to go beyond their areas of expertise.

In *Chemipal Ltd. v. Slim-Fast Nutritional Foods International, Inc.*,⁵⁴ a manufacturer of diet foods was sued by its Israeli distributor for failing to provide promised promotional support.⁵⁵ The court excluded the testimony of the distributor's damages expert because, among other reasons, the expert had no experience with slimming products and could not relate his knowledge of the sales growth of beer, chocolate, and cosmetics to the potential sales growth of the slimming products at issue.⁵⁶

In another case, the court said of a marketing professor who had taught at some of the nation's most prestigious business schools: "Dr. Frank has an impressive list of qualifications. . . . He certainly possesses the specialized knowledge to qualify him as an expert witness under the proper circumstances. Whether an expert qualifies to answer specific questions in a particular case is a different issue."⁵⁷ The court went on to reject the expert's testimony because, among other reasons, he had never before made a twenty-year sales projection.⁵⁸

*M.S. Distributing Co. v. Web Records, Inc.*⁵⁹ presented a similar situation. The principal of a record company sought to testify as an expert in order to project the sales lost when the defendant breached a distribution agreement.⁶⁰ The court excluded her expert testimony because her experience was dated, the business had changed while she had been out of it, and her experience in rock and roll did not transfer to hip-hop, country, or comedy.⁶¹

In contrast, where the expert seeks to testify on principles that are not limited to a particular field, then the fact that the expert

United States. *Id.* at 774 n.2.

54. 350 F. Supp. 2d 582 (D. Del. 2004).

55. *Id.* at 584.

56. *See id.* at 593; *cf.* *TK-7 Corp. v. Estate of Barbouti*, 993 F.2d 722, 728-29 (10th Cir. 1993) (ruling that familiarity with the Israeli market did not qualify a witness to project sales in Venezuela).

57. *Pfizer, Inc. v. Advanced Monobloc Corp.*, No. 97C-04-037-WTQ, 1999 Del. Super. LEXIS 330, at *15 n.9 (Sept. 2, 1999) (citation omitted).

58. *Id.* at *24.

59. No. 00 C 1436, 2003 U.S. Dist. LEXIS 8078 (N.D. Ill. May 13, 2003).

60. *See id.* at *30, *31 & n.4.

61. *See id.* at *31 n.4.

has no experience in the industry should not be grounds for excluding the testimony. *TC Systems Inc. v. Town of Colonie*⁶² involved the question of whether a fee based on gross revenues was a reasonable way for a town to charge telecommunications companies for the use of its rights of way.⁶³ The town offered as an expert witness an economist who specialized, not in telecommunications, but in U.S.-Asia trade.⁶⁴ The court nevertheless allowed him to testify because his testimony involved only broad general principles of economics.⁶⁵

In a libel case, a U.S. District Court accepted an accountant's testimony even though the accountant had no experience calculating damages for libel.⁶⁶ The court held: "Calculations for lost profits and damages are the same whether the case is about breach of contract or libel, and they do not require any specialized knowledge of a specific area of the law."⁶⁷ Similarly, where the plaintiffs, Mexican nationals, had been defrauded in a U.S. real estate development scheme, the court allowed an economist with no real estate development expertise to testify as to the amount the plaintiffs would have earned if they had invested the same amount in an average American real estate investment trust (REIT).⁶⁸ Once it was established that the measure of damages was the profits that would have been earned on such an investment, calculating those profits was something that an economist, even an economist without specialized experience, was well qualified to do.⁶⁹

62. 213 F. Supp. 2d 171 (N.D.N.Y. 2002).

63. *Id.* at 173.

64. *Id.* at 174.

65. *See id.* at 174-75.

66. *Lieberman v. Am. Dietetic Ass'n*, No. 94 C 5353, 1996 U.S. Dist. LEXIS 13143, at *10-12 (N.D. Ill. Sept. 9, 1996).

67. *Id.* at *13 n.2.

68. *Maiz v. Virani*, 253 F.3d 641, 665 (11th Cir. 2001); *cf. Computer Sys. Eng'g, Inc. v. Qantel Corp.*, 740 F.2d 59, 66-67 (1st Cir. 1984) (holding that a CPA could testify as to lost profits where testimony consisted of extrapolating from forecasts made by the adverse party); *Beverly Hills Concepts, Inc. v. Schatz & Schatz*, 717 A.2d 724, 733 (Conn. 1998) ("Some economists' and accounting professionals' skills may be transferred between industries.").

69. *See Maiz*, 253 F.3d at 665; *cf. Elizabeth A. Evans, Interaction Between Accountants and Economists*, in *LITIGATION SERVICES HANDBOOK: THE ROLE OF THE FINANCIAL EXPERT* § 3.1 (Roman L. Weil et al. eds., 3d ed. 2001) ("[Economists] know where to find the data and what biases the data may have.").

On the other hand, lawyers often try to use economists and, especially, accountants for things that go far beyond their expertise.⁷⁰ It's tempting to do so because the client's accountant is available and is already familiar with the client's business. Moreover, jurors (and even some judges) seem to think of CPAs as all-around business experts.⁷¹ But, courts need to keep in mind that what accountants are trained to do is calculate and report on past profits.⁷² In spite of the fact that many CPAs have qualified as business appraisers or lost profits analysts,⁷³ the mere fact that a person has years of experience as a CPA does not automatically qualify them as an expert to predict future profits or value a business.⁷⁴

It should be clear, too, that a witness may be qualified to testify as to one aspect of the damages in a case and not as to others.⁷⁵ A marketing expert might be qualified to project sales but not to opine as to the net profits the plaintiff would earn from that level of sales, and a CPA might be able to determine the profits that would result from a given level of sales, but not to opine on whether the plaintiff's sales would reach such a level.⁷⁶

70. See, e.g., *Hunters Int'l Mfg. Corp. v. Christiana Metals Corp.*, 561 F. Supp. 614, 617 (E.D. Mich. 1982) (holding CPA not qualified to testify as to profits of a new and untried business); *AGF, Inc. v. Great Lakes Heat Treating Co.*, 555 N.E.2d 634, 640 (Ohio 1990) (CPA not qualified as an expert in the heat treating business).

71. For a comparison of the areas of expertise of accountants and economists, see Evans, *supra* note 69, §§ 3.1–3.

72. See Sofia Adrogué & Alan Ratliff, *Kicking the Tires After Kumho: The Bottom Line on Admitting Financial Expert Testimony*, 37 HOUS. L. REV. 431, 477–78 (2000) (describing the training of accountants).

73. See, e.g., *Engineered Prods. Co. v. Donaldson Co.*, 313 F. Supp. 2d 951, 1008–11 (N.D. Iowa 2004).

74. See, e.g., *Acker v. Burlington N. & Santa Fe Ry. Co.*, 347 F. Supp. 2d 1025, 1031 (D. Kan. 2004) (CPA admitted he was not qualified as an expert in lost profit projections); *Sun Ins. Mktg. Network, Inc. v. AIG Life Ins. Co.*, 254 F. Supp. 2d 1239, 1245 (M.D. Fla. 2003) (testimony of expert as to the value of a business stricken because he “is a forensic accountant, not a business appraiser”); *Beverly Hills Concepts, Inc. v. Schatz & Schatz*, 717 A.2d 724, 732 (Conn. 1998) (“[A]n accounting degree alone should not qualify a witness to testify that a given volume of sales, for example, will continue in the future.”) (internal quotations omitted).

75. A criminal case provides a vivid example. Where the defendant in a ritual killing case sought to introduce testimony of a professor of religious studies who specialized in the occult, the court allowed him to testify as to the general tenets of Satanism, but it did not allow him to testify as to the effects of satanic beliefs on the psyche of an individual. *State v. Roland*, 808 S.W.2d 855, 858–59 (Mo. Ct. App. 1991). The court noted that the professor had no degree in psychology or psychiatry and that he had no empirical knowledge of the effect of satanic beliefs on individuals. *Id.* at 859.

76. In order to make such a calculation, the expert would, of course, have to forecast

When they consider how strict to be in requiring specialized qualifications, courts need to take into account the amount at stake in the case. No court seems to have articulated this, but it probably underlies the expressed reasoning in many of the decisions discussed above. Where the amount at stake is relatively small, it is not fair to require a party to conduct a nationwide search to find the individual best qualified to opine on the particular issue, especially when there may be several distinct areas of testimony that might call for different areas of expertise and thus require different experts.⁷⁷ On the other hand, where there are tens or hundreds of millions of dollars at stake and the party clearly has the resources to find and hire the people best qualified to testify, a court should not accept less. The fact that counsel chose someone not among the top people in the field should lead the court to suspect that the better-qualified experts would have given less-favorable testimony.⁷⁸

II. HOW RELIABLE IS THE UNDERLYING DATA?

Rule 703 of the Federal Rules of Evidence allows an expert to rely not only on facts or data not in evidence, but also on facts or data that would not be admissible into evidence.⁷⁹ The rule tempers this by requiring the facts or data to be "of a type reasonably

expenses as a percentage of sales. But, in most businesses expenses as a percentage of sales can be forecast with much less uncertainty than can sales themselves. *But see* Kenford Co. v. County of Erie, 489 N.Y.S.2d 939, 948 (N.Y. App. Div. 1985), *aff'd in part*, 493 N.E.2d 234 (N.Y. 1986) (rejecting assumptions that "various expenses would be a percentage of gross revenue").

77. *Cf.* Holbrook v. Lykes Bros. S.S. Co., 80 F.3d 777, 782 n.1 (3d Cir. 1996) (admitting testimony of expert because requiring better qualified experts would "unjustly increase litigation costs by requiring litigants in countless cases to hire a host of experts . . . in personal injury cases").

78. *See* Posner, *supra* note 43, at 94 (stating that the choice of an economist testifying outside of his or her field "implies that the lawyer was unable to find a knowledgeable economist willing to testify in support of the client's position"); *cf.* Grantham & Mann, Inc. v. Am. Safety Prods., Inc., 831 F.2d 596, 603 (6th Cir. 1987) ("If a party could produce better evidence than that which is introduced, the presumption is that the better evidence would be detrimental . . ."); S. Pac. Commc'ns Co. v. AT&T, 556 F. Supp. 825, 1090 (D.D.C. 1982) (noting that an antitrust plaintiff has "an obligation to come forward with the best, most accurate measure of damages that is reasonably available. . . . Failure to come forward with the relevant evidence produces a presumption that the actual data is adverse to plaintiffs' claims.").

79. *See* FED. R. EVID. 703.

relied upon by experts in the particular field in forming opinions or inferences upon the subject."⁸⁰

It is important to note that the test is not whether the trial judge thinks the data is reliable, but whether the data is *of a type reasonably relied upon by experts in the particular field*. In a pre-*Daubert* case, one district judge developed his own six-factor test for the reasonableness of reliance on data in lost profits cases and other "cases outside the 'mainstream' of Rule 703,"⁸¹ but the Third Circuit reversed him on that point because the appropriate standard is not what the court deems reliable, but what experts in the field deem reliable.⁸² Still, where the expert's testimony relies on inadmissible evidence, the trial court has a duty to make an independent factual determination of whether the information the expert is relying upon is in fact of a type reasonably relied on by experts in the field.⁸³ To fail to do so invites reversal.⁸⁴

This raises the question, for what purposes do experts rely on this data? Outside of litigation, experts often use data of questionable reliability for one purpose when they would not think of using it for another.⁸⁵

Two academic economists (one of whom has practiced as a CPA) have considered this question in some detail in an article discussing the types of financial statements that should be used to determine lost profits.⁸⁶ They note that when CPAs attach

80. *Id.*

81. *Zenith Radio Corp. v. Matsushita Elec. Indus. Co.*, 505 F. Supp. 1313, 1330 (E.D. Pa. 1980).

82. *In re Japanese Elec. Prods. Antitrust Litig.*, 723 F.2d 238, 282 (3d Cir. 1983), *rev'd on other grounds, sub. nom. Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574 (1986).

83. *In re Paoli R.R. Yard PCB Litig.*, 916 F.2d 829, 853 (3d Cir. 1990); 4 JACK B. WEINSTEIN & MARGARET A. BERGER, *WEINSTEIN'S FEDERAL EVIDENCE* § 703.04[1] (Joseph M. McLaughlin, ed., Matthew Bender 2d ed. 2006); *see also* *U.S. Info. Sys. v. IBEW Local Union No. 3*, 313 F. Supp. 2d 213, 239 (S.D.N.Y. 2004) (excluding portions of expert testimony based on "skewed data sample"); *cf. In re Japanese Elec.*, 723 F.2d at 282 (criticizing trial court for ignoring expert's uncontradicted affidavit stating all data he relied on "were of the type on which experts in field would reasonably rely").

84. *See Head v. Lithonia Corp.*, 881 F.2d 941, 944 (10th Cir. 1989) (reversing trial court that admitted expert testimony without such a preliminary determination).

85. For example, in making business decisions, planners will often use for checks and confirmation data that is not reliable enough to be the primary basis of a major decision. Even the data that is used in the most important decisions may not be suitable for use in preparing financial statements to be distributed to the public. *See Evans, supra* note 69, § 3.3(b).

86. Tyler J. Bowles & W. Cris Lewis, *A Note on the Credibility of Financial Data Used*

their names to financial statements, they give one of three distinct levels of assurance that the statements are accurate.⁸⁷ CPA-compiled financial statements carry the lowest level of assurance.⁸⁸ In a compilation engagement, the CPA essentially takes the client's raw numbers and compiles them into the customary forms for financial statements.⁸⁹ The resulting statement carries a disclaimer that the CPAs involved "have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them."⁹⁰ CPA-reviewed financial statements give more assurance. To prepare them, the CPA firm performs a limited inquiry and limited analytical procedures designed to give some (although far from complete) assurance that the financial statements are accurate.⁹¹ The statement of the CPAs gives essentially negative assurance, stating that the CPAs are "not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in conformity with generally accepted accounting principles."⁹² The authors note that while the formal assurance given by such statements is quite limited, most CPAs, for reasons of professionalism as well as potential liability, go beyond the minimum and conduct quite extensive investigations when preparing CPA-reviewed statements.⁹³ The gold standard, of course, is audited financial statements, in which the accountants thoroughly and systematically investigate the transactions underlying the numbers.⁹⁴

This leads to the obvious question: What types of financial statements can experts rely upon when they testify as to lost profits? Professors Bowles and Lewis, the authors of the article discussed above, give some guidance but no definite answer. They

in *Lost-Profit Appraisals*, LITIG. ECON. DIG., Spring 2006, at 51, available at http://www.nafe.net/LER/11_2_5.pdf.

87. *Id.*

88. *See id.* at 52.

89. *See id.* at 52–53.

90. 2 AM. INST. OF CERTIFIED PUB. ACCOUNTANTS, AICPA PROFESSIONAL STANDARDS AR § 100.17 (1993). While this literally (and in terms of the accountants' legal liability) means "garbage in, garbage out," the authors note that the mere fact that a CPA firm is willing to have its name associated with the statements is an indication that "there is some likelihood" that the statements are accurate. Bowles & Lewis, *supra* note 86, at 53.

91. *See* Bowles & Lewis, *supra* note 86, at 53–54.

92. 2 AM. INST. OF CERTIFIED PUB. ACCOUNTANTS, *supra* note 90, at AR § 100.35.

93. *See* Bowles & Lewis, *supra* note 86, at 54.

94. *See id.* at 54–55.

conclude that CPA-compiled financial statements should be used “with caution,” although they are better than statements that have been prepared with no CPA involvement.⁹⁵ CPA-reviewed statements, they conclude, can be used “with a moderate level of assurance that the financial assertions contained in them are accurate.”⁹⁶ Obviously, audited statements are preferred.⁹⁷

All of this leaves the question of what the court should do when a party seeks to present expert testimony that relies on unaudited financial statements. The answer, of course, is that the court should consider all of the surrounding circumstances. What other assurances are there of the accuracy of the statements? Conversely, what incentive did the person who prepared them have to falsify the statements, or merely take advantage of the flexibility inherent in generally accepted accounting principles,⁹⁸ to show high (or low) profits? If the financial statements were prepared for tax purposes, there was probably an incentive to understate profits. If they were prepared to persuade investors to invest in the enterprise or lenders to lend to it, there may have been the opposite incentive.

Similar considerations apply with respect to other types of data that experts use to project lost profits. Courts have to look not only at the fact that others use this type of data, but also at the purpose for which they use it. The fact that professionals accept or use certain data does not necessarily mean they *rely* on it. For example, businesses often make sales projections which they know are only educated guesses as to what actual sales will be.⁹⁹ They then make every effort to limit their reliance on these pro-

95. *Id.* at 55.

96. *Id.*

97. *See id.*

98. The flexibility in generally accepted accounting principles is a problem with audited financial statements as well as with unaudited statements. *See, e.g.*, ROBERT W. HAMILTON & RICHARD A. BOOTH, BUSINESS BASICS FOR LAW STUDENTS: ESSENTIAL CONCEPTS AND APPLICATIONS § 6.20 (4th ed. 2006) (explaining how profits may be increased or decreased without violating generally accepted accounting principles).

99. *See, e.g.*, N. Dade Cmty. Dev. Corp. v. Dinner's Place, Inc., 827 So.2d 352, 353 (Fla. Dist. Ct. App. 2002) (reversing award of lost profits based on sale projections court characterized as “little more than an unsupported wish list”).

One business school professor, writing in an academic journal, puts it more strongly: “Most executives would agree that any given new product forecast will be wrong. In fact, many executives characterize new product forecasting as an inaccurate endeavor.” Kenneth B. Kahn, *An Exploratory Investigation of New Product Forecasting Practices*, 19 J. PROD. INNOVATION MGMT. 133, 133 (2002).

jections, using such devices as sale-or-return purchases, limiting commitments to minimum purchases necessary,¹⁰⁰ initially marketing products only in limited markets,¹⁰¹ or simply launching new products in spite of what the sales forecasts say with the hope that the profits from the winners will more than offset the losses from the losers.¹⁰² Moreover, businesses generally use more than one sales forecasting technique, comparing the results of one test with those of another.¹⁰³ In striking an expert's testimony as to lost profits from a contract breach, one court said: "This case is a good example of the unreliability inherent in basing an opinion on a marketing estimate."¹⁰⁴

Bankers often make loans on the basis of loan applications containing projections as to sales, revenues, profits, and the like.¹⁰⁵ This does not mean, as a few courts have mistakenly stated,¹⁰⁶ that the bankers relied on these projections in making their credit decisions. This misunderstands the nature of the lender's relationship with its customer. The lender is little concerned with whether the borrower is profitable or unprofitable. The lender is concerned with whether the loan will be repaid. As long as there is sufficient revenue for that, the lender has only limited concern as to whether the business will be spectacularly successful or whether it earns only enough to repay the loan.¹⁰⁷

How one characterizes the "type" of data also affects whether it is of a type reasonably relied upon by experts in the field. Real es-

100. See, e.g., *Mid-Am. Tableware, Inc. v. Mogi Trading Co.*, 100 F.3d 1353, 1372 (7th Cir. 1996) (recognizing that the buyer who projected strong sales for product had made no commitment to purchase beyond the initial order).

101. See *id.* at 1373 (noting that product was carried in only half of the witnesses' stores).

102. See Peter N. Golder, *Insights from Senior Executives about Innovation in International Markets*, 17 J. PROD. INNOVATION MGMT. 326, 332 (2000).

103. See Kahn, *supra* note 99, at 138.

104. *Sun Ins. Mktg. Network, Inc. v. AIG Life Ins. Co.*, 254 F. Supp. 2d 1239, 1249 (M.D. Fla. 2003).

105. See *Am. Road Equip. Co. v. Extrusions, Inc.*, 29 F.3d 341, 344 (8th Cir. 1994) (noting that the defendant argued that sales projections were inflated to encourage lenders to continue financing).

106. See, e.g., *Wharfside Two, Ltd. v. W.W. Gay Mech. Contractor, Inc.*, 523 So. 2d 193, 195 (Fla. Dist. Ct. App. 1988) (holding that the use of projections in consummating financing made them reliable enough to support a jury verdict).

107. The lender will of course prefer that the borrower be highly successful because a highly successful borrower will usually generate more additional business (for example, loans for expansion, sales financing, etc.) than a borrower that is only marginally successful.

tate appraisers commonly rely upon “comparable sales,” but where the data is characterized as “unverified comparable sales” or “comparable sales unadjusted for size differences” its use should be cause for excluding the expert’s testimony.¹⁰⁸ Similarly, economists and business people often make decisions based on sales projections, but where a Ph.D. economist relied on sales projections that could best be characterized as speculative sales projections, the court properly excluded his testimony.¹⁰⁹ At the *Daubert* hearing, the economist admitted that there were firms, including his own, which could have done surveys, which presumably would have given more reliable projections, but the client did not order such surveys.¹¹⁰

An interesting contrast to the above case—where the expert failed to get the good data that it appears he could have obtained without undue expense—is *Ventura v. Titan Sports, Inc.*¹¹¹ In that case there was no truly comparable data available, but the court was so impressed with the expert’s efforts to get the best data available that it admitted his testimony.¹¹² Professional wrestler Jesse “The Body” Ventura (later Governor of Minnesota) sued to recover royalties for the use of his likeness in World Wrestling Federation videotapes.¹¹³ To determine the appropriate royalty rate to be applied to the profits the defendants made from the sales,¹¹⁴ the expert surveyed “thousands” of licensing agreements involving sports and entertainment personalities.¹¹⁵ The court recognized that none of the agreements was “on all fours” with the subject deal, but it nevertheless held that the expert’s methodology was reliable enough that his testimony should be admitted.¹¹⁶ This is consistent with my earlier premise that in deciding whether the expert is qualified to make the analysis, the court should consider what is at stake in the case and be more

108. See *Cayuga Indian Nation of N.Y. v. Pataki*, 83 F. Supp. 2d 318, 324–25 (N.D.N.Y. 2000).

109. See *Fraud-Tech, Inc. v. Choicepoint, Inc.* 102 S.W.3d 366, 383–85 (Tex. App. 2003).

110. *Id.* at 383; see also *TK-7 Corp. v. Estate of Barbouti*, 993 F.2d 722, 732–33 (10th Cir. 1993) (holding that an economist could not rely on a marketing report where he knew “little or nothing at all about” the author of the report).

111. 65 F.3d 725 (8th Cir. 1995).

112. See *id.* at 734.

113. *Id.* at 728.

114. Normally royalties are based on gross sales revenues, but data on gross revenues was unavailable, so royalties were computed on net profits. See *id.* at 734.

115. *Id.*

116. See *id.*

demanding when the stakes are higher. In the same way, courts should require the expert to base his or her testimony on the best data available under the circumstances, taking into account such factors as the cost of obtaining better data, the client's resources, and the amount at stake in the case.¹¹⁷ An expert who has gone to extra lengths to get the best available data should be given the benefit of the doubt, whereas an expert who has not gathered and dealt with all the reasonably available data (favorable and unfavorable) should be viewed with suspicion.

Courts have been particularly concerned (and justly so) when the expert relies on projections and other soft data supplied by a party with a financial interest in the outcome of the litigation.¹¹⁸ A few courts have said that this is not a cause for excluding the testimony but is something that can be corrected on cross-examination.¹¹⁹ Other courts, however, have excluded the testimony where the expert failed to take reasonable steps to verify the data provided by the client. Where an expert relied on sales projections made by his client's president, a U.S. district court held that the testimony should have been excluded under *Daubert*, saying that "Rule 703 'implicitly requires that the in-

117. *Cf. Q Sales & Leasing, LLC v. Quilt Protection, Inc.*, No. 01 C 1993, 2004 U.S. Dist. LEXIS 21610, at *5-6 (N.D. Ill. Oct. 24, 2004) (holding that where defendant had failed during discovery to produce reliable records, defendant could not complain of the expert's reliance on the records that were produced).

In *Sterling Nelson & Sons, Inc. v. Rangen, Inc.*, 235 F. Supp. 393 (D. Idaho 1964), *aff'd*, 351 F.2d 851 (9th Cir. 1965), the court allowed an inference that because the plaintiff was one of four suppliers of fish food to the state, it would have, absent the antitrust violation, obtained one-fourth of the state's business. *Id.* at 400-01. While this would not have been reasonable in a case with more at stake, this case involved damages of \$18,900 (trebled to \$56,700), *id.* at 401, and therefore, it seems quite reasonable that the court did not require more extensive proof.

118. *See, e.g., Mid-Am. Tablewares, Inc. v. Mogi Trading Co.*, 100 F.3d 1353, 1375 (7th Cir. 1996); *Fraud-Tech, Inc. v. Choicepoint, Inc.* 102 S.W.3d 366, 384-85 (Tex. App. 2003); *cf. Loeffel Steel Prods., Inc. v. Delta Brands, Inc.* 387 F. Supp. 2d 794, 807 (N.D. Ill. 2005) (holding that it was improper for an expert to rely on the client's statements as to productivity losses).

119. *See, e.g., PRS Benefits, LP v. Cent. Leasing Mgmt., Inc.*, No. 3:03-CV-1183-B, 2004 U.S. Dist. LEXIS 24135, at *4-6 (N.D. Tex. Nov. 29, 2004) (holding that a CPA's failure to verify data provided by a health plan administrator could be dealt with by presenting evidence as to its lack of reliability); *In re Tasch, Inc.*, No. 97-15901 JAB, 1999 U.S. Dist. LEXIS 12368, at *1, *10-11 (E.D. La. Aug. 4, 1999) (admitting the testimony of an expert as to profits lost on breach of contract for sandblasting and painting of semi-submersible oil rig, in spite of an admission by the expert that he "made no effort to verify the financial information provided by his client").

formation be viewed as reliable by some independent, objective standard beyond the opinion of the individual witness."¹²⁰

In *Chemical Ltd. v. Slim-Fast Nutritional Foods International, Inc.*, the court precluded the testimony of the plaintiff's expert economist because, among other reasons, he had accepted without question the data in a report prepared by the plaintiff's advertising agency.¹²¹ The data was that the market for diet products in Israel was \$100 million per year and that the market for slimming products like those that the plaintiff was to distribute there was twenty percent of that amount.¹²² The report cited a business information service as the source for its data, and the economist admitted in his deposition that he had not verified that the service had actually reported those numbers because maintaining the service was expensive.¹²³ Because the expert's testimony was the entire basis for the plaintiff's damage assertion, the court granted the defendant summary judgment.¹²⁴

In another case, an economist relied on deposition testimony of his client's president to determine that the product in question was "homogeneous" (i.e., that it was of such uniform quality that consumers did not distinguish among brands).¹²⁵ The court excluded the economist's conclusion, accepting the opposing expert's contention that "it is not acceptable methodology for an economist to rely on deposition testimony of an interested party where objective evidence and analysis exists [sic]."¹²⁶

It is clear that the court must exercise some oversight on the data that goes into the expert's opinion. Otherwise the advocate who is willing to push the envelope will be able to get before the jury the sort of testimony that one court excluded with this description:

120. *ID Security Sys. Canada, Inc. v. Checkpoint Sys., Inc.*, 249 F. Supp. 2d 622, 695-96 (E.D. Pa. 2003) (quoting *TK-7 Corp. v. Estate of Barbouti*, 993 F.2d 722, 733 (10th Cir. 1993)).

121. 350 F. Supp. 2d 582, 588 (D. Del. 2004).

122. *Id.* at 590.

123. *Id.* at 588, 590.

124. *Id.* at 597.

125. *United Phosphorus, Ltd. v. Midland Fumigant, Inc.*, 173 F.R.D. 675, 685 (D. Kan. 1997).

126. *Id.*; cf. *TK-7 Corp. v. Estate of Barbouti*, 993 F.2d 722, 732-34 (10th Cir. 1993) (granting directed verdict where the only damage-evidence was the testimony of an expert who relied on a marketing study which contained unexplained and unsupported assertions).

What [the expert] has done is to present his own speculative numbers without having tempered them in any way to account for their “iffy” nature. Those deficiencies involve a fundamental flaw that causes the overall [expert] opinion to be the Rule 702 equivalent of what in early computer vocabulary bore the label “GIGO” (“garbage in, garbage out”).¹²⁷

It should also be noted that in order to prove lost profits with “reasonable certainty,” as the law requires, courts have required that any calculations be based on “definite, certain and reasonable data.”¹²⁸ Thus, when experts have relied on bad data, courts have held that plaintiffs have failed to prove their damages and have granted summary judgments,¹²⁹ directed verdicts,¹³⁰ judgments n.o.v.,¹³¹ and new trials.¹³²

III. ARE THE EXPERT’S ASSUMPTIONS SUPPORTED BY THE RECORD?

As the Fourth Circuit put it, “When the assumptions made by an expert are not based on fact, the expert’s testimony is likely to mislead a jury, and should be excluded by the district court.”¹³³ Other courts have agreed, and litigants have often been able to

127. *Kay v. First Cont’l Trading, Inc.*, 976 F. Supp. 772, 776 (N.D. Ill. 1997).

128. *Roboserve, Ltd. v. Tom’s Foods, Inc.*, 940 F.2d 1441, 1452 (11th Cir. 1991) (quoting *Grossberg v. Judson Gilmore Assoc.*, 395 S.E.2d 592, 594 (Ga. Ct. App. 1990)).

129. *See Lanphere Enter., Inc. v. Jiffy Lube Int’l, Inc.*, No. CV 01-1168-BR, 2003 U.S. Dist. LEXIS 16205 at *45–47, *64 (D. Or. Jul. 9, 2003) (granting summary judgment for the defendant where plaintiff’s only evidence of damages was an expert’s testimony that was excluded for reliance on faulty data).

130. *See TK-7 Corp.*, 993 F.2d at 732–34.

131. *See ID Sec. Sys. Can., Inc. v. Checkpoint Sys., Inc.*, 249 F. Supp. 2d 622, 696 (E.D. Pa. 2003) (reducing damages by the amount that was based on testimony that should have been excluded).

132. *See Great Pines Water Co. v. Liqui-Box Corp.*, 203 F.3d 920, 925–26 (5th Cir. 2000); *cf. Children’s Broad. Corp. v. Walt Disney Co.*, 245 F.3d 1008, 1018–19 (8th Cir. 2001) (upholding grant of new trial where the expert failed to consider the potential competition).

133. *Tyger Constr. Co v. Pensacola Constr. Co.*, 29 F.3d 137, 144 (4th Cir. 1994), *quoted in Three Crowns Ltd P’ship v. Salomon Bros., Inc.*, 906 F. Supp. 876, 894 (S.D.N.Y. 1995). *But see Bic Corp. v. Far Eastern Source Corp.*, 23 F. App’x 36 (2d Cir. 2001). In the latter case, the court said that expert testimony may be excluded for being based on unsupported assumptions only

if it is speculative or conjectural, or if it is based on assumptions that are so unrealistic and contradictory as to suggest bad faith or to be in essence an apples and oranges comparison[;] other contentions that the assumptions are unfounded go to the weight, not the admissibility, of the testimony.

Id. at 38 (citations and internal quotations omitted).

exclude expert testimony by arguing that the expert's opinion was based on unfounded assumptions.¹³⁴ The attorney calling an expert has to ensure there is support for the premises on which the expert bases his or her opinion. In the published opinions excluding expert testimony, it is difficult to tell why the lawyer let the expert base his or her opinion on such shaky foundations. There are undoubtedly instances in which it is just an oversight. That is, the lawyer fails to realize that the opinion is based on assumptions that are open to challenge. More often, it's likely that the data needed to support the expert's opinion simply is not available. Or, if it is available, it is so costly to obtain that the plaintiff's team decides not to spend the money.¹³⁵ But in many cases it

134. See, e.g., *McGlinchy v. Shell Chem. Co.*, 845 F.2d 802, 807 (9th Cir. 1988) (noting in pre-*Daubert* case that witness assumed based on "experience plus inflation" that sales would grow at forty-one percent per annum); *JMJ Enters., Inc. v. Via Veneto Italian Ice, Inc.*, No. 97-CV-0652, 1998 U.S. Dist. LEXIS 5098, at *21-22 (E.D. Pa. Apr. 15, 1998) (expert projected sales by eight distributors solely on the basis of unsupported testimony as to sales by one of the eight); *Kay v. First Cont'l Trading, Inc.*, 976 F. Supp. 772, 775-76 (N.D. Ill. 1997) (statistician assumed an employee would have a five to 7.5 year career as a trader at the defendant-firm, despite that the average tenure of traders at that firm was 2.16 years); *De Jager Constr., Inc. v. Schleining*, 938 F. Supp. 446, 453 (W.D. Mich. 1996) ("Without any evidence to support his position, [expert] made the enormous assumption that [one defendant] took money at the same rate as [another defendant] as to whom there was evidence."); see also *Schonfeld v. Hilliard*, 218 F.3d 164, 174 (2d Cir. 2000) (listing eight unsupported assumptions on which expert's profit projections were based); *Am. Road Equip. Co. v. Extrusions, Inc.*, 29 F.3d 341, 344-45 (8th Cir. 1994) (reversing part of damages award that was based on the testimony of an expert who assumed without support that 1989 projections were valid for 1990); *Three Crowns Ltd. P'ship v. Salomon Bros., Inc.*, 906 F. Supp. 876, 893-94 (S.D.N.Y. 1995) (excluding the testimony of a "leading academic" in the field of financial economics" because it was based on unsupported assumptions as to certain markets and trades); *Colorado v. Goodell Bros.*, No. 84-A-803 1987 U.S. Dist. LEXIS 14549, at *10-11 (D. Colo. Feb. 17, 1987) (holding in pre-*Daubert* decision, the assumption that admittedly collusive prices were non-collusive made an expert's damage model too speculative to support the award); *Shannon v. Crowley*, 538 F. Supp. 476, 482 (N.D. Cal. 1981) (finding no support for MIT economics professor's assumption that prices would allow plaintiff to break even or make a profit); *Halliburton Co. v. E. Cement Corp.*, 672 So. 2d 844, 847 (Fla. Dist. Ct. App. 1996) (finding speculative the assumption that plaintiff would have chartered a ship and gone into the containerized cargo business); *Kenford Co. v. County of Erie*, 489 N.Y.S.2d 939, 948 (App. Div. 1985), *aff'd in part*, 493 N.E.2d 234 (N.Y. 1986) (finding inconceivable the assumptions that various expenses would be certain percentages of revenues); cf. *Morris v. Homco Int'l, Inc.*, 853 F.2d 337, 344 (5th Cir. 1988) (reversing award based on special master's report because report assumed without basis that plaintiff would have made certain sales and charged the same prices as competitors). *But see* *Polymer Dynamics, Inc. v. Bayer Corp.*, 67 Fed. R. Evid. Serv. (West) 201, 205 (E.D. Pa. 2005) (finding reasonable the assumption that a business will expand while the likelihood and extent of the expansion are issues that should be argued to jury); *Berk-Cohen Assocs. v. Orkin Exterminating Co.*, No. 94-3090, 2004 U.S. Dist. LEXIS 3789, at *4-5 (E.D. La. Mar. 11, 2004) (accepting testimony based on assumption that a termite control contract would remain in effect for thirty years).

135. See, e.g., *Chemipal v. Slim-Fast Nutritional Foods Int'l, Inc.*, 350 F. Supp. 2d 582, 590, 597 (D. Del. 2004) (excluding expert testimony where economist took data from a re-

is likely the lawyer knew the actual data would not have been as favorable as the assumptions, so the lawyer decided to roll the dice and try to get the expert's opinion in.

*Lithuanian Commerce Corp. v. Sara Lee Hosiery*¹³⁶ illustrates the way some courts react to unsupported assumptions. Sara Lee Corporation ("Sara Lee") donated "a large volume of pantyhose to an international relief organization."¹³⁷ This good deed did not go unpunished. Sara Lee had made Lithuanian Commerce Corporation, Ltd. ("Lithuanian Commerce") its exclusive distributor in Lithuania, and while none of the donated pantyhose were sent directly to Lithuania,¹³⁸ they were distributed in neighboring countries and were brought into Lithuania by black marketeers. These black marketeers undercut Lithuanian Commerce's prices.¹³⁹ Lithuanian Commerce apparently threatened to sue Sara Lee, but the dispute was settled when Sara Lee promised to give Lithuanian Commerce a large quantity of pantyhose that Sara Lee had manufactured in Mexico.¹⁴⁰ When the Mexican pantyhose proved defective, Lithuanian Commerce sued Sara Lee, seeking the profits it would have made had the pantyhose been of the quality promised.¹⁴¹ Sara Lee filed a motion in limine to exclude the testimony of six of Lithuanian Commerce's expert witnesses, including that of its damages expert.¹⁴² The magistrate judge excluded the testimony of some of the experts but ruled that the damages expert's testimony was "shaky, but admissible."¹⁴³ This

port by client's advertising agency without verifying it through the business information service from which it was supposedly derived because maintaining the service was "expensive").

In *Cayuga Indian Nation of New York v. Pataki*, 83 F. Supp. 2d 318 (N.D.N.Y. 2000), a real estate appraiser's testimony was excluded because, among other reasons, he admitted that because of budget constraints he had not done a complete analysis of each of the comparable sales he relied on in forming his opinion. *Id.* at 320, 327. The court said of this: "while the court is sympathetic to these constraints, the fact remains that the other appraisers [who testified] were operating under similar constraints; but that did not prevent them from developing formulas and presenting data which the court deems reliable for purposes of *Daubert*." *Id.* at 327.

136. 179 F.R.D. 450 (D.N.J. 1998).

137. *Id.* at 454. Actually, several affiliated organizations, all bearing the Sara Lee name, were involved in the transactions and the subsequent lawsuit. *Id.*

138. The opinion does not state directly that none of the contributed pantyhose were sent directly to Lithuania by the relief organization, but it is strongly implied. *See id.*

139. *Id.*

140. *Id.*

141. *Id.*

142. *See id.* at 455.

143. *Id.* at 456, 458.

expert was a CPA with "several advanced degrees" and experience both with the Internal Revenue Service and in private practice,¹⁴⁴ but in calculating the damages, he made a number of assumptions that were not supported by the evidence and in fact looked like little more than guesses. He assumed "with no apparent basis" that Lithuanian Commerce had a ten percent share of the pantyhose market in Lithuania, Latvia and Estonia, and that the market share in Lithuania would increase by one percent a year.¹⁴⁵ Extrapolating from data for U.S. women compiled by an American trade organization, he assumed that "Baltic women consume ten pair of pantyhose a year."¹⁴⁶ Combining the testimony of a former Sara Lee employee that Sara Lee had had a few customer relationships that lasted between eighteen and twenty-four years with other testimony that Lithuanian Commerce was an above-average distributor, the expert assumed that Lithuanian Commerce would retain its position in its markets for similar periods.¹⁴⁷ The cumulative effect of all of these assumptions was that the district judge reviewing the magistrate's decision held that the testimony was so unreliable that it would be inadmissible even without the application of the *Daubert* standard.¹⁴⁸

Courts have recognized that experts with fine credentials, associated with the finest of business and academic institutions, will base their projections on the most unrealistic of assumptions.¹⁴⁹ In one case, two firms entered into a joint venture to produce a direct mail publication advertising automobiles.¹⁵⁰ They began their venture in Cleveland and initially signed fifteen advertisers to contracts.¹⁵¹ When all but three advertisers left them, they tried New Orleans and Baton Rouge.¹⁵² Obtaining no advertisers at all in those cities, they tried San Antonio and Austin.¹⁵³

144. *Id.* at 458.

145. *Id.* at 461.

146. *Id.* at 458.

147. *See id.* at 460.

148. *Id.* at 462 (citing prior Third Circuit cases excluding expert testimony that was based on unreliable data and assumptions).

149. *See, e.g., De Jager Constr., Inc. v. Schleining*, 938 F. Supp. 446, 455 (W.D. Mich. 1996) (accusing a CPA with credentials as Certified Fraud Examiner as having a "*modus operandi* of making unsupported assertions and projections").

150. *Target Mkt. Publ'g, Inc. v. ADVO, Inc.*, 136 F.3d 1139, 1140 (7th Cir. 1998).

151. *Id.*

152. *Id.* at 1141.

153. *Id.*

In that joint market, they got one advertiser.¹⁵⁴ At that point, one of the joint venturers told the other it was backing out of the deal.¹⁵⁵ Refusing to accept that they had a losing product, the other venturer sued in federal court, claiming as damages its share of the profits it would have made if it had gone on with the project.¹⁵⁶ The defendant moved for summary judgment on the basis that the damages were less than the \$50,000 required for diversity jurisdiction.¹⁵⁷ In response the plaintiff sought to introduce the expert report of an accountant and business appraiser from one of the world's largest and most respected accounting firms.¹⁵⁸ The expert opined that if the defendant had not backed out, the venture would have earned \$1.4 million in profits.¹⁵⁹ To reach this conclusion, he assumed that the publication would penetrate into forty-nine marketing zones, that it would obtain fourteen advertisers per zone, and that all of these advertisers would pay the publication's full advertising rate.¹⁶⁰ The district court held that these assumptions rendered the expert's report insufficient not only to show that the damages would have been the amount claimed, but even to show that the damages would have reached the \$50,000 jurisdictional amount.¹⁶¹ The plaintiff argued that the expert's assumptions were based on projections the defendant itself had made, but the appellate court pointed out that these numbers were goals, not predictions.¹⁶²

In another case, a federal court excluded the testimony of an economics professor from CalTech with a Ph.D. from M.I.T. because he based his complex and obviously painstakingly created economic model on assumptions that the court characterized as "highly questionable."¹⁶³ Another professor, this time a marketing professor whom the court characterized as having "an impressive list of qualifications" and as "a marketing expert to be consulted

154. *Id.*

155. *Id.*

156. *See id.*

157. *Id.*

158. *Id.* at 1142.

159. *Id.*

160. *Id.* at 1144.

161. *Id.* at 1141.

162. *See id.* at 1145.

163. *Johnson Elect. N. Am. Inc. v. Marbuchi Motor Am. Corp.*, 103 F. Supp. 2d 268, 273, 283 (S.D.N.Y. 2000).

across a broad spectrum of industries”¹⁶⁴ had his testimony excluded, in part because he assumed, without sufficient support, that the product in question, a premium women’s shave gel, would have achieved the same market coverage as the plaintiff’s men’s shave gel.¹⁶⁵

In a pre-*Daubert* breach of contract action, the Fourth Circuit held that a district court was within its discretion in excluding the testimony of a damages expert “on the grounds that it was based on assumptions which were speculative and not supported by the record.”¹⁶⁶ To calculate lost profits, the expert assumed that the breach of an automobile distributorship agreement had set back by two years the distributor’s attempts to establish new dealers.¹⁶⁷ His damage model therefore assumed that in each of the years in question the distributor had the same number of dealers it actually had two years later.¹⁶⁸ There was no support in the record for that assumption.¹⁶⁹

Other assumptions that courts have been unwilling to accept because the record failed to support them include an assumption that a trend of increasing sales or profits would continue,¹⁷⁰ assumptions as to the costs of buildings and equipment,¹⁷¹ data as to comparable sales of real estate,¹⁷² assumptions that subcontractors would be found and that they would be as successful as the existing subcontractor,¹⁷³ assumptions that a terminable contract would not be terminated,¹⁷⁴ an assumption that a supplier

164. *Pfizer, Inc. v. Advanced Monobloc Corp.*, No. 97C-04-037-WTQ, 1999 Del. Super LEXIS 330, at *15 n.9 (Sept. 2, 1999).

165. *Id.* at *16–17, *24–25.

166. *E. Auto Distribs., Inc. v. Peugeot Motors of Am., Inc.*, 795 F.2d 329, 337 (4th Cir. 1986).

167. *Id.* at 337–38.

168. *Id.*

169. *Id.*

170. *See In re Elder-Beerman Stores Corp.*, 206 B.R. 142, 165–66 (S.D. Ohio 1997).

171. *See KW Plastics v. United States Can Co.*, 131 F. Supp. 2d 1289, 1293 (M.D. Ala. 2001).

172. *See Cayuga Indian Nation of N.Y. v. Pataki*, 83 F. Supp. 2d 318, 323, 327 (N.D.N.Y. 2000).

173. *See De Jager Constr., Inc. v. Schleining*, 938 F. Supp. 446, 454 (W.D. Mich. 1996).

174. *See Hiller v. Mfrs. Prod. Research Group of N. Am., Inc.*, 59 F.3d 1514, 1529 (5th Cir. 1995).

would reduce its price,¹⁷⁵ and assumptions that competitors would not enter the market.¹⁷⁶

Merely having support in the record for the assumptions is not enough. The support has to be solid. It cannot itself be based on someone else's assumptions. Where an airline breached a contract to sell travel coupons, which the plaintiff had planned to use for a variety of promotional activities, the plaintiff's expert witness tried to show how much the plaintiff had lost because the breach had prevented it from using the coupons for supermarket promotions.¹⁷⁷ In calculating the lost profits, the expert assumed that the plaintiff would enter into ten supermarket promotions a year using the coupons, that the average profit for each certificate redeemed would be thirty dollars, and that thirty percent of the customers purchasing a certificate would also purchase a companion ticket.¹⁷⁸ All of these numbers were based on the testimony of the president of the plaintiff corporation. The court excluded the expert's testimony because the president's predictions were unreliable.¹⁷⁹ The president had admitted he had no experience in supermarket promotions.¹⁸⁰

Defendants can also use the expert's unsupported assumptions to argue the plaintiff has failed to prove its case with sufficient certainty.¹⁸¹ This approach worked when the Resolution Trust Corporation ("RTC") sued a law firm, alleging that the firm had caused the RTC a loss by failing to advise a savings and loan, which later became insolvent, that certain junk bond purchases

175. *See id.* at 1528.

176. *See Children's Broad. Corp. v. Walt Disney Co.*, 245 F.3d 1008, 1018 (8th Cir. 2001) (upholding grant of new trial where expert failed to consider potential competition); *Cent. Office Tel., Inc. v. AT&T*, 108 F.3d 981, 992 (9th Cir. 1997); *Heary Bros. Lightning Prot. Co. v. Lightning Prot. Inst.*, 287 F. Supp. 2d 1038, 1066 (D. Ariz. 2003) (excluding expert testimony based on the assumption that there were no potential competitors).

177. *Real Estate Value Co. v. USAir, Inc.*, 979 F. Supp. 731, 734, 744 (N.D. Ill. 1997).

178. *Id.* at 744.

179. *See id.* at 734, 744.

180. *Id.* at 744.

181. *See, e.g., Hiller v. Mfrs. Prod. Research Group of N. Am.*, 59 F.3d 1514, 1524–25 (5th Cir. 1995) (finding insufficient certainty where expert testimony was based on the unsupported assumption as to plaintiff's future sales); *Fifth Third Bank of W. Ohio v. United States*, 55 Fed. Cl. 223, 241 (2003) (holding that an unfounded assumption "renders plaintiff's model speculative as a matter of fact and law"); *Endersby v. Schneppe*, 596 N.E.2d 1081, 1084 (Ohio Ct. App. 1991) ("Unless the figure is substantiated by calculations based on facts available or in evidence, the courts will properly reject it as speculative and uncertain.") (quoting ROBERT L. DUNN, *RECOVERY OF DAMAGES FOR LOST PROFITS* § 5.4 (2d ed. 1981)).

were illegal.¹⁸² The RTC's expert calculated damages by assuming that if the law firm had advised the savings and loan it could not legally purchase junk bonds, the savings and loan would have purchased bonds graded BBB because those bonds were "the closest substitute to junk" it could legally have purchased.¹⁸³ The court, however, refused to accept this reasoning, finding "the record simply devoid of any evidence to show—much less, create 'reasonable certainty'—that [the institution] would have bought BBB bonds (or any other single investment) but for the alleged negligence of the defendants."¹⁸⁴ It granted a summary judgment in favor of the law firm.¹⁸⁵

Even before *Daubert*, courts held that unfounded assumptions could be grounds for excluding expert testimony,¹⁸⁶ for reversal on appeal,¹⁸⁷ or for granting a summary judgment,¹⁸⁸ directed ver-

182. *Resolution Trust Corp. v. Stroock & Stroock & Lavan*, 853 F. Supp. 1422, 1424 (S.D. Fla. 1994).

183. *See id.* at 1425.

184. *Id.* at 1425–26.

185. *Id.* at 1430. In *Maiz v. Virani*, 253 F.3d 641, 650, 664–65 (11th Cir. 2001), the court arguably reached a contrary conclusion. It allowed an expert to use a broad-based real estate investment trust (REIT) index to conclude that the plaintiffs, Mexican nationals, would have earned a 12% per annum return on their money if they had not invested it in the defendants' fraudulent development scheme. There was no basis for assuming they would have invested in REITs (or any other American real estate) other than that they invested in it in this and other instances. The court said:

[T]he fact Plaintiffs *did* invest in U.S. real estate on this occasion is persuasive evidence that they had earmarked the funds they contributed to the Defendants specifically for U.S. real estate. Although that proposition may be debated (and indeed, Defendants challenged it vigorously during cross-examination), it is enough to support the admission of [the expert's] testimony, especially in conjunction with evidence that some Plaintiffs actually did invest in U.S. real estate on other occasions.

Id. at 664.

Maiz and *Resolution Trust Corp.* are not necessarily inconsistent, however. *Maiz* involved a *Daubert* challenge to the expert's testimony, rather than a challenge that the damages had not been proved with reasonable certainty. Moreover, the REIT index used by the expert in *Maiz* was a broad index appropriate to measure the performance of U.S. real estate generally, *see id.* at 664, whereas in *Resolution Trust Corp.* the yardstick used by the expert measured only one of many different types of investments that the institution could have invested in, *see* 853 F. Supp. at 1424–25.

186. *Shannon v. Crowley*, 538 F. Supp. 476, 483–84 (N.D. Cal. 1981) (granting motion in limine where the damages calculation was based on unsupported assumptions).

187. *See Am. Road Equip. Co. v. Extrusions, Inc.*, 29 F.3d 341, 344–45 (8th Cir. 1994) (reversing trial court decision based in part on the testimony of an expert who based a profits forecast on unsupported assumptions and failed to account for adverse facts).

188. *See Ways & Means, Inc. v. IVAC Corp.*, 506 F. Supp. 697, 703, 707 (N.D. Cal. 1979) (granting summary judgment where plaintiff's damage model was excluded because of defects in a survey).

dict¹⁸⁹ or judgment n.o.v.,¹⁹⁰ for reducing a jury verdict,¹⁹¹ or for holding that the plaintiff failed to prove damages with reasonable certainty.¹⁹² The classic case in this regard is *Southern Pacific Communications Co. v. American Telephone & Telegraph Co.*¹⁹³ In spite of an elaborate computer model,¹⁹⁴ which the plaintiffs' experts developed to compute damages, the court held that they had not proven their lost profits with reasonable certainty.¹⁹⁵ Taking language from the Supreme Court of the United States's opinion in *Bigelow v. RKO Radio Pictures, Inc.*,¹⁹⁶ the court noted that: "Although a plaintiff may make a 'just and reasonable' approximation of the amount of damages based on 'relevant data,' a damage claim cannot be based upon mere 'speculation or guesswork.'"¹⁹⁷ After considering at length the assumptions the plaintiffs' experts had used to construct their damages model,¹⁹⁸ the court held that the plaintiffs had failed to prove that they had

189. See, e.g., *Herman Schwabe, Inc. v. United Shoe Mach. Corp.*, 297 F.2d 906, 911-13 (2d Cir. 1962) (affirming directed verdict where plaintiff failed to establish reasonableness of assumptions underlying damage calculations).

190. See *Grantham & Mann, Inc. v. Am. Safety Prods., Inc.*, 831 F.2d 596, 601 (6th Cir. 1987) (upholding a grant of judgment n.o.v. where an expert assumed without basis that plaintiffs could meet sales targets); *E. Auto Distribs., Inc. v. Peugeot Motors of Am., Inc.*, 795 F.2d 329, 338-39 (4th Cir. 1986) (affirming judgment n.o.v. on one part of plaintiff's case where expert testimony was excluded because of, inter alia, unsupported assumptions); *R.S.E., Inc. v. Pennsy Supply, Inc.*, 523 F. Supp. 954, 965-71 (M.D. Pa. 1981) (granting judgment n.o.v. where plaintiff's damages model contained incorrect assumptions); *Beverly Hills Concepts, Inc. v. Schatz & Schatz*, 717 A.2d 724, 740 (Conn. 1998) (remanding case with instructions to enter judgment for defendants because damages testimony was based on unsupported assumptions).

191. See *Hiller v. Mfrs. Prod. Research Group of N. Am., Inc.*, 59 F.3d 1514, 1524-25 (5th Cir. 1995) (modifying jury verdict resulting from expert testimony based on unsupported assumption as to plaintiff's future sales); *William Inglis & Sons Baking Co. v. Cont'l Baking Co.*, 942 F.2d 1332, 1341 (9th Cir. 1991) (reducing verdict on appeal to the extent it was based on a national accounting firm's unsupported assumption as to profit margin), *amended, in part, on reh'g*, 981 F.2d 1023 (1992); *Larsen v. Walton Plywood Co.*, 390 P.2d 677, 689 (Wash. 1964) (granting remittitur where the verdict was based on expert testimony using unsupported assumptions as to potential sales).

192. See *Beverage Cannery, Inc. v. Cott Corp.*, 372 So. 2d 954, 956 (Fla. Dist. Ct. App. 1979) (awarding nominal damages where damages-expert made multiple unsupported assumptions); *Bell Atl. Network Servs., Inc. v. P.M. Video Corp.*, 730 A.2d 406, 420-21 (N.J. Super. Ct. App. Div. 1999) (holding that damages were not proved with reasonable certainty where experts relied on projections but ignored "caveats, contingencies, and assumptions" contained in the reports).

193. 556 F. Supp. 825 (D.D.C. 1982).

194. See *id.* at 1074-76.

195. *Id.* at 1098.

196. 327 U.S. 251 (1946).

197. 556 F. Supp. at 1075 (quoting *Bigelow*, 327 U.S. at 264).

198. *Id.* at 1079-95.

suffered any damages at all, let alone that they had proven with sufficient certainty the amount of damages.¹⁹⁹

Although they seldom say so, courts undoubtedly realize that there are many situations where the expert simply has to make assumptions, estimates, and even guesses.²⁰⁰ So why do courts sometimes exclude the testimony and at other times say it is a problem that can be dealt with on cross-examination?²⁰¹ Certainly a lot has to do with the predilections of the individual judge, but it is also surely true that a court will be more willing to allow the testimony when the expert can show that he has made a reasonable, conservative estimate than when it is clear that the expert is pushing the envelope to get the numbers most favorable to his client.²⁰² Similarly, the court should not allow an expert to make assumptions if the expert could have obtained the necessary data without undue effort or expense.²⁰³ One court excluded an expert's report where the expert assumed that if a cosmetics distributor in Kuwait had received the shipments it ordered, it

199. *See id.* at 1098.

200. In *Rossi v. Standard Roofing, Inc.*, 156 F.3d 452 (3d Cir. 1998), the court allowed an expert to present a damage model based on the assumption that if the defendants had not put a building materials distributorship out of business, the distributorship would have attained the same sales revenues that a branch distributorship owned by one of the defendants had attained when the plaintiff's principal was its manager. *See id.* at 486–87. In *Eastern Auto Distributors, Inc. v. Peugeot Motors of America, Inc.*, 795 F.2d 329 (4th Cir. 1986), in an opinion which had upheld the exclusion of part of an expert's testimony because it was based on unsupported assumptions, the court held that lost profits on another aspect of the plaintiff's breach of contract case had been proven with sufficient certainty even though the expert assumed that an auto distributor would have established a dealer in a particular location at a particular time and that the dealer would have achieved the same level of sales achieved by a dealer established in that location by the manufacturer. *See id.* at 339–40. The court acknowledged that "the question is close." *Id.* at 339; *cf.* *Sterling Nelson & Sons, Inc. v. Rangen, Inc.*, 235 F. Supp. 393, 400–01 (D. Idaho 1964) (making "reasonable and conservative inference" that because plaintiff was one of four suppliers of fish food to the state, plaintiff would have received one-fourth of the state's business had competitors not bribed state officials), *aff'd*, 351 F.2d 851 (9th Cir. 1965).

201. *See, e.g.,* *Marvin Lumber & Cedar Co. v. PPG Indus., Inc.*, 401 F.3d 901, 915 (8th Cir. 2005) (rejecting claim that an expert's focus on selected years skewed the calculation because that defendant had opportunity to cross-examine).

202. *Compare* *Pfizer, Inc. v. Advanced Monobloc Corp.*, No. 97C-04-037-WTQ, 1999 Del. Super LEXIS 330, at *16, *24 (Sept. 2, 1999) (excluding testimony where an expert used "peak performance [sales] numbers instead of the average baseline") *with* *Nilavar v. Osborn*, 738 N.E.2d 1271, 1289 (Ohio Ct. App. 2000) (permitting expert testimony where expert relied on work life tables not subjected to peer review or widely accepted by the scientific community but which had been published for at least nine years and were more conservative than a study that the opposing expert said was authoritative).

203. How much is at stake and how important the expert's testimony is to the case should, of course, be major considerations in determining what is undue effort or expense.

would have sold the full shipments within two months of receipt.²⁰⁴ The expert based this assumption on the client's assurances, rather than on the client's records, which could have been made available to him.²⁰⁵

Similarly, unsupported assumptions should not be fatal if the assumptions were not necessary to the expert's testimony or if the effect of their not being correct would not have had a major impact. The American Institute of Certified Public Accountants has dealt with the question of assumptions in the context of auditors' reports on financial statements: "[T]he attention devoted to the appropriateness of a particular assumption should be commensurate with the likely relative impact of that assumption on the prospective results. Assumptions with greater impact should receive more attention than those with less impact."²⁰⁶

On the other hand, testimony that relies on multiple assumptions should be viewed with extreme skepticism. Where one estimate is piled on another, the uncertainty is magnified in a way that few jurors are likely to understand.²⁰⁷ For example, suppose that reasonable estimates of the market for a particular product are between \$50 million and \$100 million per year. Then assume that the estimates of the plaintiff's lost market share are between ten and twenty percent of the total market and that the estimates of the plaintiff's profit margin are between four and eight percent of sales. Further assume that the period over which the plaintiff lost sales is between three and six years. Based upon these assumptions, the plaintiff's lost profits could vary between \$600,000 and \$9.6 million.²⁰⁸

204. *Supply & Bldg. Co. v. Estee Lauder Int'l, Inc.*, 57 Fed. R. Evid. Serv. (West) 1309, 1310, 1315-16 (S.D.N.Y. 2001).

205. *See id.* at 1316; *cf. Brooks v. Outboard Marine Corp.*, 234 F.3d 89, 92 (2d Cir. 2000) (approving exclusion of expert testimony where expert failed to review relevant and available evidence).

206. Am. Inst. of Certified Pub. Accountants, *AICPA Audit and Accounting Guide: Guide for Prospective Financial Information* 2004 Guideline 6.31 (quoted in *JMJ Enters., Inc. v. Via Veneto Italian Ice, Inc.*, No. 97-CV-0652, 1998 U.S. Dist. LEXIS 5098, at *21 (E.D. Pa. Apr. 15, 1998)).

207. *See Debra L. Worthington, et al., Hindsight Bias, Daubert, and the Silicone Breast Implant Litigation: Making the Case for Court-Appointed Experts in Complex Medical and Scientific Litigation*, 8 PSYCHOL. PUB. POLY & L. 154, 159 (2002) (noting that most individuals do not understand principles of statistical probability); *cf. JOHN ALLEN PAULOS, INNUMERACY: MATHEMATICAL ILLITERACY AND ITS CONSEQUENCES* 25-48 (1988) (discussing common failure to understand probabilities).

208. Taking the lowest estimates, 10% of a \$50 million market is \$5 million in sales.

When Erie County, New York breached a contract to build a stadium to be used by the Buffalo Bills, the jury returned a verdict awarding the developers nearly \$50 million.²⁰⁹ The appellate court reversed the award, not only because the damages were speculative, but also because the damages experts' models had relied on too many assumptions.²¹⁰ The court distinguished other cases in which damages verdicts had been based on assumptions, noting that:

The common thread running through those cases is that only one variable was involved, i.e., how many of the product would have been sold. Thus it was certain that the plaintiff would have made money and the only uncertainty was the amount. The instant case, by contrast, is filled with conjecture. The expert had to estimate, first, how many, if any, events would have been held at the stadium; how many people would attend each event; and how much each person would spend on parking and concessions. Additionally, and even more compelling, the expert also had to estimate all expense items.²¹¹

IV. DOES THE EXPERT DEAL ADEQUATELY WITH FACTS INCONSISTENT WITH THE EXPERT'S THEORY?

Where there are facts inconsistent with the expert's theory or model, the expert cannot just ignore them.²¹² Sometimes the ex-

Four percent profit on this is \$200,000. Over three years, this is \$600,000 in lost profits. Alternatively, the highest estimates of a \$100 million market and 20% of this gives \$20 million in sales. Profits on this at 8% are \$1.6 million. Over six years, this is \$9.6 million, sixteen times the amount calculated using the lower estimates.

209. *Kenford Co. v. County of Erie*, 489 N.Y.S.2d 939, 942 (N.Y. App. Div. 1985), *aff'd in part*, 493 N.E.2d 234 (N.Y. 1986).

210. *See id.* at 943-45, 948-49.

211. *Id.* at 947-48.

212. *See, e.g., TK-7 Corp. v. Estate of Barbouti*, 993 F.2d 722, 734 (10th Cir. 1993) (noting that expert's projections of large profits were inconsistent with plaintiffs' history of domestic losses); *Handi Caddy, Inc. v. Am. Home Prods. Corp.*, 557 F.2d 136, 140-42 (8th Cir. 1977) (ordering a new trial where evidence showed a response rate that was much lower than that assumed by expert); *Coleman Motor Co. v. Chrysler Corp.*, 525 F.2d 1338, 1352 (3d Cir. 1975) (noting that expert ignored deteriorating character of area where plaintiffs business was located and assumed that all losses were caused by unlawful competition, in spite of evidence of increased lawful competition); *First Sav. Bank v. U.S. Bancorp*, 117 F. Supp. 2d 1078, 1084-85 (D. Kan. 2000) (noting that expert failed to account for numerous factors potentially contributing to the bank's decline in profits, including the loss of a major customer and publicized regulatory problems); *Midland Hotel Corp. v. Reuben H. Donnelley Corp.*, 515 N.E.2d 61, 66-68 (Ill. 1987) (ordering a new trial limited to the issue of damages because expert did not take into account the fact that the hotel's occupancy rate was consistently below the city's average); *Bell Atl. Network Servs., Inc. v. P.M. Video Corp.*, 730 A.2d 406, 420 (N.J. Super. Ct. App. Div. 1999) (noting that experts

pert will be able to make a reasonable argument that the contrary data is wrong or that it does not apply to the question he or she is addressing. In those cases, the court should admit the testimony and allow the opposing party to attempt to discredit it through cross-examination or by presenting opposing expert testimony.²¹³ But where the expert simply ignores the data and, without a reasonable basis, simply chooses other data more favorable to the party who hired him or her, the testimony should be excluded.²¹⁴

The fact that the expert was ignorant of the data does not excuse the failure to consider it if the expert should have discovered the data in the course of his or her investigation.²¹⁵ In *United Phosphorous, Ltd. v. Midland Fumigant, Inc.*,²¹⁶ the court excluded portions of an expert's testimony because they contained errors of this type.²¹⁷ The expert opined that plaintiff's trademark had no value, in spite of the fact that his own client had paid a

relied on projections made by others "while ignoring the numerous caveats, contingencies, and assumptions contained in [them]".

213. Even then, it would be preferable for the expert to present an alternative model using the rejected data so that the trier-of-fact can see how the different data would affect the outcome. See Patrick A. Gaughan, *Economic and Financial Issues in Lost Profits Litigation*, in LITIGATION ECONOMICS 175, 184-85 (Patrick A. Gaughan & Robert J. Thornton eds., 1993) (discussing options and uncertain loss periods). In close cases, whether the expert has presented such alternative models should factor into the decision whether to admit or exclude the testimony.

214. See, e.g., *Children's Broad. Corp. v. Walt Disney Co.*, 245 F.3d 1008, 1018, 1022 (8th Cir. 2001) (granting a new trial where damages expert, among other things, ignored the effect of a powerful competitor); *De Jager Constr., Inc. v. Schleining*, 938 F. Supp. 446, 455 (W.D. Mich. 1996) (excluding the testimony of an expert with the "modus operandi of making unsupported assertions and projections, of deliberately ignoring documents and figures which would strike a certified public accountant in the face, and of picking and choosing among purported facts to maximize plaintiff's damages"); see also *Am. Road Equip. Co. v. Extrusions, Inc.*, 29 F.3d 341, 344-45 (8th Cir. 1994) (reversing in part a judgment based on the testimony of an expert who failed to account for a decline in orders for reasons unrelated to the breach of contract); *Thomas J. Kline, Inc. v. Lorillard, Inc.*, 878 F.2d 791, 799-800 (4th Cir. 1989) (excluding, in a pre-*Daubert* case, expert's testimony in part because of expert's failure to consider certain facts); *Metrix Warehouse, Inc. v. Daimler-Benz Aktiengesellschaft*, 828 F.2d 1033, 1044-45 (4th Cir. 1987) (upholding the setting aside of a jury verdict, in a pre-*Daubert* antitrust case, where expert failed to consider effects of lawful competition).

215. See *Supply & Bldg. Co. v. Estee Lauder Int'l, Inc.*, 57 Fed. R. Evid. Serv. (West) 1309, 1315-16 (S.D.N.Y. 2001) (excluding an expert report where the model was based on an assumption that the plaintiff had re-commenced operations in June, 1991, but the plaintiff had claimed in another forum that it had not re-commenced operations until January 1992).

216. 173 F.R.D. 675 (D. Kan. 1997).

217. *Id.* at 683.

premium price for products bearing the plaintiff's trademark.²¹⁸ The court said of this:

[The expert] was required to evaluate the [plaintiff's] trademark with little knowledge about the facts of the case, and no knowledge about the underlying admissions from [the defendant's] president and sales managers. The court finds that such ignorance of undisputed facts violates *Daubert's* requirement that an expert report and opinions must be based on "scientific knowledge."²¹⁹

The court also found the expert's analysis deficient because he failed to consider the effect of the advertising the product's manufacturer had done,²²⁰ and because he failed to take into account the fact that a competitor had left the market.²²¹

In *Telecomm Technical Services, Inc. v. Siemens Rolm Communications Inc.*,²²² an expert, attempting to establish the profits lost because of infringements on intellectual property rights, estimated one infringer's sales on the assumption that this company's business-mix was the same as those of the other infringers for which he had better data.²²³ While this assumption might otherwise have been justified because the party in question had failed during discovery to produce records that would have allowed a more precise calculation,²²⁴ the court nevertheless excluded that portion of the expert's report because he had failed to account for the fact, clearly established by the evidence, that this party's business mix was substantially different from that of the other parties on whose data the expert based his calculations.²²⁵ While other courts might have treated the expert's report as the sort of "shaky but admissible evidence" that can be corrected by "vigorous cross-examination,"²²⁶ this court seems correct in excluding the testimony. The case was already a complex one,²²⁷

218. *See id.* at 683, 687.

219. *Id.* at 683.

220. *See id.* at 684, 687.

221. *See id.* at 686-87.

222. No. 1:95-CV-649-WBH, 1999 U.S. Dist. LEXIS 21415 (N.D. Ga. Aug. 24, 1999).

223. *See id.* at *6-8.

224. *See id.* at *8-9.

225. *See id.* at *7-10.

226. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 596 (1993) ("Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.")

227. The case was originally filed as a class action antitrust case. *See Telecomm Technical Servs., Inc. v. Siemens Rolm Commc'ns Inc.*, 172 F.R.D. 532, 536-37 (N.D. Ga. 1997).

and having a battle of experts over this point would only have added to the jurors' information overload.

Even where the expert's testimony is admitted, failure to deal with inconsistent evidence can be grounds for reversal on appeal.²²⁸ In *Leisure Time Entertainment v. Cal Vista*²²⁹ the Ninth Circuit held that in a bench trial the trial court had not erred in admitting the expert testimony of a twenty-year veteran of the adult film industry with "specialized knowledge."²³⁰ Nevertheless, the Ninth Circuit vacated the damages award that was based on that expert's testimony because the expert had treated certain films as comparable to other films without dealing with evidence that the other films were longer, had more popular actors and directors, bore more attractive titles, and had cost more to produce.²³¹

In a pre-*Daubert* decision, a federal district court held that an expert's calculation of antitrust damages for collusive bidding was "too speculative to support an award of damages" where the expert's estimate of a hypothetical competitive bid failed to account for the fact that an engineer had estimated the project cost to be almost thirty percent more than the amount of the expert's hypothetical bid.²³²

Often, the failure to deal with inconsistent facts will be a failure to consider factors other than the defendant's conduct which may have led to the decline in the plaintiff's profits.²³³ Courts in

It involved complex telecommunications equipment, *see id.* at 536, and there were counterclaims involving the infringement of several types of intellectual property rights as well as the violation of a number of state and federal statutes, *see id.* at 539 n.16.

228. *See, e.g.,* Cell, Inc. v. Ranson Investors, 427 S.E.2d 447, 450 (W. Va. 1992) (holding that expert testimony could not prove damages with sufficient certainty where expert failed to account for the fact that the store operator had no experience and for a market analysis that said that the proposed store was too small to be profitable).

229. 35 F. App'x 565 (9th Cir. 2002). It has been noted that it is almost impossible for a judge to commit reversible error by admitting evidence in a bench trial. *See, e.g.,* Rondout Valley Cent. Sch. Dist. v. Coneco Corp., 321 F. Supp. 2d 469, 473-74 (N.D.N.Y. 2004).

230. *Leisure Time*, 35 F. App'x at 566 (quoting *United States v. Hankey*, 203 F.3d 1160, 1167-68 (9th Cir. 2000)).

231. *See id.* at 568.

232. *Colorado v. Goodell Bros., Inc.*, Civ. A. No. 84-A-803, 1987 WL 6771, at *4 (D. Colo. Feb. 17, 1987); *cf. Shannon v. Crowley*, 538 F. Supp. 476, 482 (N.D. Cal. 1981) (noting that expert's testimony that it was easier to raise prices for tugboat services in San Francisco than in Los Angeles was inconsistent with the fact that competitive prices in Los Angeles were higher than monopoly prices in San Francisco).

233. *See, e.g., Isaksen v. Vt. Castings, Inc.*, 825 F.2d 1158, 1165 (7th Cir. 1987) (noting that plaintiff's damages model failed to account for the diminished demand for woodburn-

antitrust cases have been more vigilant in looking out for this defect,²³⁴ but it should be considered in contract, tort, and other lost profits cases as well. As Judge Posner put it: "We do not allow antitrust plaintiffs or any other plaintiffs to obtain damage awards without proving what compensable damages were actually suffered as a result of the defendant's unlawful conduct."²³⁵ *Eastern Auto Distributors, Inc. v. Peugeot Motors of America, Inc.*²³⁶ provides an example. In a breach of contract action, the Fourth Circuit found that the district court had properly excluded the testimony of the plaintiff's damages expert and granted judgment n.o.v. on the ground that the plaintiff had failed to present admissible evidence of damages.²³⁷ In making his damages calculations, the expert had assumed that, absent the contract breach, the plaintiff, a distributor of Peugeot automobiles, would have had the same share of the relevant market in 1977-81 (the period for which damages were sought) as it had in 1983.²³⁸ In making that assumption, he failed to account for (1) the plaintiff's "admittedly more efficient dealer force in 1983," (2) "the large increase in demand for Peugeot products during [the] period," (3) "the shift in demand from gas to diesel automobiles and then back to gas," and (4) Peugeot's introduction of new models during the period.²³⁹

V. HAS THE EXPERT CONSIDERED ALTERNATIVE SCENARIOS?

This question is different from the other four. There is a great deal of case law supporting the requirement that the trial judge ask the other four questions.²⁴⁰ There is much less support for making the trial court look at whether the expert should have presented alternative scenarios.²⁴¹ This is unfortunate. If courts are serious about following the Supreme Court's admonition to

ing stoves and changes in the dealer's service costs).

234. See Roger D. Blair & William H. Page, "Speculative" Antitrust Damages, 70 WASH. L. REV. 423, 446-50 (1995) (discussing various "other causal factors" that courts have considered in antitrust cases).

235. *Isaksen*, 825 F.2d at 1165 (emphasis added).

236. 795 F.2d 329 (4th Cir. 1986).

237. See *id.* at 337-38.

238. *Id.* at 338.

239. *Id.*

240. See *supra* notes 49-239.

241. Cf. Blair & Page, *supra* note 234, at 461-62 (stating that courts often accept, rather than require, alternative scenarios).

require experts to use “the same level of intellectual rigor that characterizes the practice of an expert in the relevant field,”²⁴² they should require the lost profits expert to show that he or she has considered alternative scenarios.²⁴³ A business strategist would not plan a business campaign on the assumption that everything would go according to plan any more than a military strategist would plan a military campaign according to such a naive assumption.²⁴⁴ The use of alternative scenarios is so much a part of analysis and planning in business that Microsoft Excel, the leading business analysis software, incorporates a “Scenarios” tool designed for the express purpose of making it easier to develop alternative scenarios.²⁴⁵ Yet in most lost profits cases, the plaintiff’s expert presents a single scenario of the way the world would have been had there been no breach, or no tort or antitrust violation, and the defendant’s expert presents a single scenario very different from the plaintiff’s.²⁴⁶ While each expert may acknowledge the other’s scenario in order to attack it, neither acknowledges that there are many other ways the scene could have played out.

Juries could understand cases much better if each expert developed several alternative scenarios based on different assumptions. For example, plaintiffs often allege that the defendant’s

242. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999).

243. *Cf. Northern Helex Co. v. United States*, 634 F.2d 557 (Ct. Cl. 1980). In that case, the concurring opinion criticized the majority’s failure to consider the uncertainty inherent in “a contract that had almost [thirteen] years to run at the time of breach,” saying: “[T]his assumes . . . a certainty in the prediction of future events that we do not rely on in managing our own affairs.” *Id.* at 565 (Nichols, J., concurring).

244. The old military axiom, “no plan of battle survives first contact with the enemy,” has become an accepted principle of business as well. *See, e.g.,* JAMES R. ENGLISH, *APPLIED EQUITY ANALYSIS: STOCK VALUATION TECHNIQUES FOR WALL STREET PROFESSIONALS* 176 (2001); MARK MCNEILLY, *SUN TZU AND THE ART OF BUSINESS: SIX STRATEGIC PRINCIPLES FOR MANAGERS* 80 (2000); BRIAN TRACY, *TURBOSTRATEGY: 21 POWERFUL WAYS TO TRANSFORM YOUR BUSINESS AND BOOST YOUR PROFITS QUICKLY* 59 (2003).

245. *See* STEPHEN G. POWELL & KENNETH R. BAKER, *THE ART OF MODELING WITH SPREADSHEETS* 118–21 (2004) (explaining the use of the Excel scenarios tool in business modeling).

246. *See, e.g., E. Air Lines, Inc. v. McDonnell Douglas Corp.*, 532 F.2d 957, 999 (5th Cir. 1976) (noting that plaintiff’s expert opined that delays in the delivery of an aircraft caused plaintiff to lose \$23,400,000, while defendant’s expert opined that the delay allowed plaintiff to save at least \$1,294,000); *OWBR LLC v. Clear Channel Commc’ns, Inc.*, 266 F. Supp. 2d 1214, 1227 (D. Haw. 2003) (noting that plaintiff’s expert asserted that damages were at least \$410,645, while defendant’s expert calculated them to be between \$29,000 and \$38,000); *Fera v. Village Plaza, Inc.*, 242 N.W.2d 372, 374–75 (Mich. 1976) (noting that plaintiff’s expert opined that the store would earn \$270,000, while defendant’s expert opined that it would lose money).

contract breach prevented the plaintiff from bringing a new product to market.²⁴⁷ In such a situation it may be difficult to predict how large a share of the market the product would have captured but for the breach.²⁴⁸ A court should be much more willing to allow an expert to testify as to the profits lost in such a situation if the expert presents, for instance, three versions of his or her model, one showing the lost profits under the most optimistic reasonable assumption as to market share captured, another with a pessimistic, from the expert's not unbiased viewpoint, assumption, and a third with a middle-of-the-road assumption.

This is not a new idea. Other commentators have long advocated such an approach in certain circumstances,²⁴⁹ but it does not appear to have been widely used, and courts have not insisted on it.²⁵⁰ They should. Whenever a crucial parameter in the ex-

247. See, e.g., *Hiller v. Mfrs. Prod. Research Group of N. Am., Inc.*, 59 F.3d 1514, 1516-17 (5th Cir. 1995) (video units for advertising displays); *Am. Road Equip. Co. v. Extrusions, Inc.*, 29 F.3d 341, 342-43 (8th Cir. 1994) (new type of gas stove).

248. See, e.g., *Pfizer, Inc. v. Advanced Monobloc Corp.*, No. 97C-04-037-WTQ, 1999 Del. Super. LEXIS 330, at *15, *27 (Sept. 2, 1999) (noting that plaintiff's expert opined that the product would capture 11% market share, while defendant's expert opined that it was "doomed to end in failure"); *Fraud-Tech, Inc. v. ChoicePoint, Inc.*, 102 S.W.3d 366, 382-84 (Tex. Ct. App. 2003) (noting that plaintiff's expert opined that plaintiff would achieve 15% market share within four years, while defendant's expert testified that much better-positioned competitors had failed to achieve similar results).

249. See, e.g., *Gaughan*, *supra* note 213, at 184-85. One article suggests that it can be a method for getting into evidence models that would otherwise be inadmissible because they use arbitrarily chosen values:

In most instances, the plaintiff cannot predict competitive responses with certainty. Courts nevertheless often accept damage theories that take account of competitive responses of others explicitly, even if the estimated magnitude of the responses is virtually arbitrary. In such cases, the plaintiff typically will offer several scenarios on differing assumptions, and leave the choice of the appropriate scenario to the jury. Such an approach makes the jury's choice of a "conservative" scenario apparently reasonable, despite the inherent arbitrariness of the values chosen.

Blair & Page, *supra* note 234, at 461 (citation omitted).

250. One court even held the use of alternative scenarios against the party presenting them. In *Grantham & Mann, Inc. v. American Safety Products, Inc.*, 831 F.2d 596, 604 (6th Cir. 1987), the court "buttressed" its conclusion that the damages had not been proven with sufficient certainty by noting that the plaintiff presented two different scenarios, each of which was based on different assumptions as to expenses and product mix.

In another case, however, a court seems to have invited an expert to amend his report to present alternative scenarios. In a distributorship termination case, the plaintiff's expert assumed that, but for the breach, the distributor would have earned profits from the distributorship until he retired. *Swierczynski v. Arnold Foods Co.*, 265 F. Supp. 2d 802, 810-11 (E.D. Mich. 2003). When the defendant moved to exclude the expert report on other grounds, the court pointed out *sua sponte* that under the applicable state law a plaintiff under an agreement of indefinite duration may recover profits only for a reasonable time. *Id.*

pert's model is at issue, the court should require that the model consider alternative values for the parameter.

As an example, consider the situation in which the defendant's breach prevented a new product from reaching the market (or from reaching it in time to capture a significant market share). The plaintiff might want to argue that if the product had reached the market in time, it would have captured 20% of the market. If the evidence that it would have captured 20% is less than totally convincing, which it usually is in such circumstances, the plaintiff might be better off if it presented damages models showing the profits it would have earned if it had captured 20%, 15%, and 10% of the market. Its marketing expert could present the evidence tending to show that it would have captured 20% of the market, but its economic expert could present the model showing the profits that would have been earned under all three scenarios.²⁵¹ The defendant's marketing experts would of course argue that the market share would have been much less, but the defendant's experts should also be required to present alternative models.

A pre-*Daubert* case, *Miller v. Cudahy Co.*,²⁵² presents an excellent example of experts on both sides presenting alternative scenarios from which the trier-of-fact could choose the one it believed to be based on the most reliable estimates of the relevant variables. The defendant had for many years polluted an aquifer with salt.²⁵³ As a result, the plaintiffs could not grow irrigated corn on their land, but instead had to grow less profitable crops, such as milo and wheat, which could be grown without irrigation.²⁵⁴ The court noted that the computation of the plaintiffs' lost profits

251. Cf. *Hiller*, 59 F.3d at 1523-24 (concluding that expert's damage calculations, based on the leases of 800 units, were supported by evidence, but alternative calculations, based on 1200 units, were not supported); *Computer Sys. Eng'g, Inc. v. Qantel Corp.*, 740 F.2d 59, 66 (1st Cir. 1984) (noting that plaintiff's expert created three different lost profit scenarios by extrapolating from three different profit and loss forecasts made by defendant); *Holmes v. Lerner*, 88 Cal. Rptr. 2d 130, 137 (Cal. Ct. App. 1999) (noting that plaintiff's "expert at valuing start-up businesses valued [the company] under different risk scenarios"); *Chung v. Kaonohi Ctr. Co.*, 618 P.2d 283, 292-93 & n.11 (Haw. 1980) (noting that plaintiff's expert presented one scenario in which the net income remained constant and second in which the net income increased at ten percent per year); *Stroud v. Arthur Andersen & Co.*, 37 P.3d 783, 793 (Okla. 2001) (concluding that damages proven with sufficient certainty where plaintiff's expert valued the companies "at different times under different scenarios").

252. 592 F. Supp. 976 (D. Kan. 1984), *aff'd in part, rev'd in part*, 858 F.2d 1449 (10th Cir. 1988).

253. *See id.* at 982.

254. *See id.* at 991.

“rests on the intricate inter-relationship of many factors,” such as the value of the crops that could have been grown, the value of the crops actually, and the expenses involved in growing the actual and hypothetical crops.²⁵⁵ The plaintiffs’ expert calculated the lost profits “by six different methods using three basic variables: yields per acre, prices per bushel, and production costs per acre.”²⁵⁶ His different methods and data produced results ranging approximately from \$1,500,000 to \$11,500,000.²⁵⁷ The high number was based on estimates of yields stated by another of the plaintiffs’ experts, while the low number was based on data acquired from “several independent sources.”²⁵⁸ The defendant’s expert calculated damages using two of the same methods as the plaintiffs’ expert but with different numbers for production costs per acre.²⁵⁹ Defendant’s expert’s calculations showed lost profits ranging approximately from \$940,000 to \$1,000,000.²⁶⁰

The court found two of the plaintiffs’ expert’s six methods to be the most reliable, but it found that even those contained an unsupported assumption.²⁶¹ The court replaced the unsupported data with data supported by the record and repeated the most reliable of the expert’s calculations.²⁶² By the court’s calculations, one method yielded damages of approximately \$3,125,000 and the other damages of approximately \$2,995,000, so the court awarded lost profits damages of \$3,060,000, apparently splitting the difference.²⁶³

A damages expert used multiple scenarios in litigation involving the famous Brennan’s Restaurant in New Orleans.²⁶⁴ In violation of an intra-family agreement, a nephew of the restaurant’s founder opened a competing business several blocks away under the name “Dickie Brennan’s Steakhouse.”²⁶⁵ In the suit that fol-

255. *Id.* at 991.

256. *Id.*

257. *See id.*

258. *Id.* at 991–92.

259. *Id.* at 992.

260. *Id.*

261. *See id.* The expert assumed that 3018 acres would have been used for irrigated corn, but the court found that the maximum that could have been used for this crop was 2800 acres. *Id.*

262. *See id.*

263. *See id.*

264. *See Brennan’s Inc. v. Dickie Brennan & Co.*, 376 F.3d 356, 372 (5th Cir. 2004).

265. *See id.* at 359.

lowed, the operators of the original restaurant claimed that they had lost profits because potential customers had been confused by the similar name.²⁶⁶ To prove the number of customers lost, the plaintiffs' economic expert calculated the original restaurant's customer counts as a percentage of attendance at the New Orleans Convention Center.²⁶⁷ The expert's premise, which the court seems to have accepted without question, was that if the ratio between convention center visitors and customers at the original Brennan's declined, the decline was due to the name confusion.²⁶⁸ The expert's model yielded three different lost profits figures, each representing a different set of assumptions as to the original restaurant's historical market share.²⁶⁹

In *William Inglis & Sons Baking Co. v. Continental Baking Co.*,²⁷⁰ multiple scenarios in the damages model saved an antitrust verdict from being overturned.²⁷¹ One of the expert's damages models assumed that but for the antitrust violation the plaintiff would have had a profit margin of 1.7%.²⁷² The expert based this assumption on his survey of companies that he alleged were comparable to the plaintiff.²⁷³ The Ninth Circuit held that this assumption was not sufficiently certain to be a basis for a verdict because of the lack of similarity between those companies and the plaintiff.²⁷⁴ The court did, however, hold that there was sufficient support for the plaintiff's alternative damages model which used a profit margin of 0.8%, the plaintiff's actual profit margin during the period in question.²⁷⁵

In another antitrust case, *Fontana Pipe & Fabrication v. Ameron, Inc.*,²⁷⁶ the trial court granted the defendant a directed verdict because the plaintiff's damages expert had based his calcula-

266. *See id.* at 361.

267. *Id.* at 372.

268. *See id.*

269. *See id.* The jury awarded the plaintiffs only a fraction of the amount the expert opined they had lost. *See id.* at 361. The use of multiple scenarios did, however, help the expert's testimony survive a challenge by the defendants, who claimed that his testimony should have been excluded and that without it the jury verdict could not stand. *See id.* at 372, 374, 376.

270. 942 F.2d 1332 (9th Cir. 1991), amended in part, on reh'g, 981 F.2d 1023 (1992).

271. *See id.* at 1341.

272. *See id.*

273. *See id.*

274. *Id.*

275. *See id.*

276. No. 91-35761, 1993 U.S. App. LEXIS 11962 (9th Cir. May 14, 1993).

tions on unsupported assumptions.²⁷⁷ The Ninth Circuit, however, reversed the directed verdict and ordered a new trial because the expert had presented four alternative damages scenarios, and two of them contained adequate support.²⁷⁸ The expert would have done better, however, if he had presented even more damages scenarios. The magistrate who tried the case criticized the expert's models because they projected damages to infinity, when the relevant market (for steel pipe) ran in twenty-year cycles.²⁷⁹ The Ninth Circuit held that because the testimony gave the jury sufficient basis for separating out the profits from the first cycle, they could have done this in reaching a verdict.²⁸⁰ In other circumstances, however, courts have been unwilling to require a jury to make adjustments to the expert's model.²⁸¹ So when the loss period is uncertain, experts would serve their clients better if they presented alternative scenarios based on the different loss periods.

In *DeLong Equipment Co. v. Washington Mills Electro Minerals Corp.*,²⁸² the district court set aside a jury's Sherman Act damages verdict because the plaintiff's expert based some of his projections on an assumption the court believed to be unrealistic.²⁸³ The Eleventh Circuit reversed and reinstated the jury verdict because the expert had actually presented five different alternative damage scenarios, and the jury apparently chose a scenario that did not depend on the questioned assumption and was one of scenarios least favorable to the plaintiff.²⁸⁴

277. See *id.* at *3, *7-10.

278. See *id.* at *7, *10, *12.

279. See *id.* at *9.

280. See *id.*

281. See, e.g., *Coleman Motor Co. v. Chrysler Corp.*, 525 F.2d 1338, 1353 (3d Cir. 1975) (finding that a jury "could not have determined plaintiff's damages by 'just and reasonable inference' from the evidence presented"); *R.S.E., Inc. v. Pennsy Supply, Inc.*, 523 F. Supp. 954, 964-65 (M.D. Pa. 1981) (holding that where projections fail to consider other causes of losses, the jury cannot adjust projections); *ILC Peripherals Leasing Corp. v. IBM Corp.*, 458 F. Supp. 423, 434 (N.D. Cal. 1978) (granting defendant's motion for a directed verdict after finding that plaintiff's evidence was insufficient in that any jury verdict rendered thereon would be the result of speculation), *aff'd sub nom.* *Memorex Corp. v. I.B.M. Corp.*, 636 F.2d 1188 (9th Cir. 1980).

282. 990 F.2d 1186 (11th Cir. 1993), *amended by* 997 F.2d 1340 (1993).

283. See *id.* at 1204.

284. See *id.* at 1204-05, 1207; see also *Fontana Pipe & Fabrication v. Ameron, Inc.*, No. 91-35761, 1993 U.S. App. LEXIS 11962, at *7-8 (9th Cir. May 14, 1993) (finding that the presentation of "a range of estimates does not in itself prove that the figures are overly speculative").

When deciding whether to admit expert testimony that is less than perfect, as almost all expert testimony in lost profits cases is, courts are faced with the difficult decision whether to exclude the testimony as misleading or admit it with the hope that cross-examination will make the jury aware of the weaknesses in the testimony. But, as discussed above, cross-examination is not the effective control some courts seem to think it is.²⁸⁵ In addition to the weaknesses discussed above, control through cross-examination requires the jury to either reject the expert's model in toto or to somehow try to recalculate the damages themselves, something that usually leads to error.²⁸⁶ In a few non-jury cases in which courts have found serious flaws in the data the expert used to construct his model, the courts have accepted the expert's model but recalculated the result using numbers the court deemed more appropriate.²⁸⁷ And in others they have corrected what was itself a flawed model, while accepting the substance of the expert's testimony.²⁸⁸ This approach should be used sparingly, if at all. The courts that have been able to use it successfully have generally been courts sophisticated in business cases, such as bankruptcy courts and the Court of Federal Claims.²⁸⁹ It is not something to be done by a judge without a great deal of experience in business matters, and certainly not by a jury.²⁹⁰

If the expert's model presents alternative scenarios, however, the jury can, when the assumptions underlying the more extreme

285. See *supra* text accompanying notes 7–35.

286. Based on more than twenty years experience in trying to teach first-year law students to calculate damages, I can assure the reader that calculating damages is not something most people can do without considerable study.

287. See, e.g., *Energy Capital Corp. v. United States*, 47 Fed. Cl. 382, 401–02 (2000) (noting that the expert assumed 44.5% of HUD-assisted housing properties used electric resistance heating and recalculating using 35%); *Riley v. Gen. Mills, Inc.*, 226 F. Supp. 780, 783–84 (E.D. Pa. 1964) (noting that the plaintiff's expert said that a return rate on the promotion would be 60–90% and defendant's expert said that it would be 1% and calculating damages using a return rate of 25%).

288. See *In re Elder-Beerman Stores Corp.*, 206 B.R. 142, 161 (Bankr. S.D. Ohio 1997) (factoring costs into expert's model that expert had failed to consider).

289. See, e.g., *Energy Capital*, 47 Fed. Cl. at 402.

290. Cf. *Olympia Equip. Leasing Co. v. W. Union Tel. Co.*, 797 F.2d 370, 383 (7th Cir. 1986) (finding no rational basis for judge's reduction of damages from \$54 million to \$12 million); *Herman Schwabe, Inc. v. United Shoe Mach. Corp.*, 297 F.2d 906, 912 (2d Cir. 1962) ("It might indeed have been possible for a judge, with days to study the exhibits of plaintiff's expert, to come up with some rational computation of damages; . . . it would be foolhardy to expect a jury to do so.").

scenarios have been shown to be doubtful, choose a scenario based upon a more supportable assumption.

Another advantage to having experts present multiple scenarios is that it alleviates the false impression of certainty that has troubled many courts.²⁹¹ For example, when a highly credentialed economist or accountant takes the stand and states that the plaintiff's lost profits were \$12,719,323.52, a jury of lay people, unfamiliar with the methods of business modeling, has no idea of the uncertainties involved in the calculation. When the expert presents alternative scenarios, a bit of the uncertainty is driven home to them. This is consistent with the admonition of Judge Friendly in his oft-cited opinion in *Herman Schwabe, Inc. v. United Shoe Machinery Corp.*²⁹² In upholding the exclusion of the plaintiff's expert's testimony as to lost profits, Judge Friendly, more than thirty years before *Daubert*, noted that it was especially important to protect juries against expert testimony containing "an array of figures conveying a delusive impression of exactness in an area where a jury's common sense is less available than usual to protect it."²⁹³

Presenting alternative scenarios is of course no cure-all for the problems of expert testimony. Experts can still present several extreme scenarios, giving the least outrageous of them an appearance of plausibility by labeling it the "conservative" scenario. But in those cases, courts should be willing to exclude one expert's testimony in toto because that expert pushed the limits too far, while admitting the testimony of the other side's expert, if that expert is more reasonable in her assumptions. The more courts do this, the more there will be a real incentive to present scenarios that are realistic.²⁹⁴

291. See, e.g., *Maheu v. Hughes Tool Co.*, 569 F.2d 459, 476 (9th Cir. 1977); *E. Air Lines, Inc. v. McDonnell Douglas Corp.*, 532 F.2d 957, 999-1000 (5th Cir. 1976); *Joseph E. Seagram & Sons, Inc. v. Hawaiian Oke & Liquors, Ltd.*, 416 F.2d 71, 87 (9th Cir. 1969).

292. 297 F.2d 906 (2d Cir. 1962).

293. *Id.* at 912, quoted in *E. Auto Distrib., Inc. v. Peugeot Motors of Am., Inc.*, 795 F.2d 329, 338 (4th Cir. 1986).

294. *Coleman Motor Co. v. Chrysler Corp.*, 525 F.2d 1338, 1352 (3d Cir. 1975) is an example of a court rejecting multiple scenarios because all of them ignored a relevant fact. The plaintiff's damages experts presented alternative scenarios, but the Third Circuit vacated a judgment based on them because both scenarios attributed all of the plaintiff's losses to the defendant's unlawful competition, whereas it was clear that some of the losses were attributable to lawful competition. See *id.*

Similarly, in *Johnson Electric North America, Inc. v. Marbuchi Motor America Corp.*,

VI. CONCLUSION

The list of questions discussed in this article is not intended to be an exclusive list or a checklist. But the questions do emphasize the principle that should guide the trial court in exercising its role as gatekeeper: Is the expert presenting a fair model of the plaintiff's lost profits or is the expert simply trying to, in Judge Posner's words, "bamboozle the jury"?

No one expects an expert chosen and paid by a plaintiff or defendant to present a balanced, unbiased analysis.²⁹⁵ But it is not too much to expect the expert to present an analysis that he or she could defend to a group of his or her peers. If courts want to keep alive the ideal that expert witnesses really tell the truth, they need to be willing to exclude bad expert testimony, rather than depending on cross-examination to weaken it. If the lawyer introducing the expert testimony believes that the expert's opinion is merely a "first offer," which will later be cut down to a more appropriate number, there will be pressure for the expert to use unrealistic numbers in the hope that they won't be cut down too much.²⁹⁶

Although much of the expert testimony involves technical issues that many judges are unfamiliar with, the trial judge should, if opposing counsel is competent, be able to get a feel for the kind

103 F. Supp. 2d 268, 277, 287 (S.D.N.Y. 2000), the expert's model contained twenty different scenarios, but the court still excluded his testimony because all of the scenarios were based on assumptions the court deemed unrealistic.

295. See Joseph Sanders, *The Merits of the Paternalistic Justification for Restrictions on the Admissibility of Expert Evidence*, 33 SETON HALL L. REV. 881, 921 (2003) ("A number of commentators have observed that because the experts are chosen by the parties, the system favors the selection of experts with extreme views . . .").

It has been suggested that financial experts testifying as to lost profits may not only manipulate the data but may manipulate the methodology as well. Tomlin & Merrell, *supra* note 48, at 304-06.

296. In one case, this strategy backfired. After the jury was unable to reach a verdict, the court declined to order a new trial and instead entered a judgment n.o.v. for the defendant, saying:

It becomes clear to the court that either plaintiff could not compile a reasonable damage model or introduce evidence to support a reasonable damage award, or plaintiff did not choose to do so, opting instead to place an enormous damage figure and one that could not be supported by the evidence in front of the jury and let them "cut it down." If the former was true, plaintiff was given every possible opportunity to correct the defects. If the latter was true, plaintiff seriously abused the good graces of this court and the judicial process and should not be given a chance to correct his errors.

R.S.E., Inc. v. Pennsy Supply, Inc., 523 F. Supp. 954, 974 (M.D. Pa. 1981).

of expert she is dealing with through the briefs and the *Daubert* hearing. She should be able to tell whether the expert has made moderate estimates and explained areas of uncertainty or whether the expert is pushing the envelope, trying to sell the jury on an extreme position.

It is widely understood that the system of party-selected expert witnesses has serious flaws. Most of the proposals, such as widespread use of court-appointed experts, cannot be implemented in the foreseeable future.²⁹⁷ The remedy advocated in this article—greater scrutiny of individual expert testimony—is simple and easy to implement. While it will not solve the whole problem, it will have an effect. If lawyers understand that experts who take unreasonable positions will have their testimony excluded, lawyers will more often make their experts conform to the standards.

297. See KAYE, *supra* note 42, § 10.4.1.