THE CARE AND FEEDING OF EXPERTS:
ACCOUNTANTS, LAWYERS, INVESTMENT
BANKERS, AND OTHER NON-SCIENTIFIC
EXPERTS

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I. INTRODUCTION

“Trial lawyers may be the peacocks of the courtroom, strutting before a judge or jury and making arguments with a sense of drama and style, but often these days it’s a tweedy professor, explaining some impossibly arcane subject in plain English, who may make the

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difference.”

A. Daubert and Its Decade of Impact—An Overview

Over one hundred years ago, Judge Learned Hand astutely observed that “[n]o one will deny that the law should in some way effectively use expert knowledge wherever it will aid in settling disputes. The only question is as to how it can do so best.” Albeit articulated in a myriad of ways, the genesis of the dialogue has been the desire to find an efficient, effective methodology for the use of experts. Indicative of this jurisprudential mantra and the age-old displeasure for the proliferation of expert testimony in federal and state courts, the United States Supreme Court in Winans v. New York & Erie Railroad Co. opined, “Experience has shown that opposite opinions of persons professing to be experts may be obtained to any amount . . . wasting the time and wearying the patience of both court and jury, and perplexing, instead of elucidating, the questions involved in the issue.” Similarly, as the frustration persisted, the Fifth Circuit in In re Air Crash Disaster at New Orleans, Louisiana expressed its disappointment with experts “for hire.” “Our message to our able trial colleagues: it is time to take hold of expert testimony in federal trials.”

The inquiry propounded by Judge Hand was squarely addressed ninety-two years later by the United States Supreme Court in Daubert v. Merrell Dow Pharmaceuticals, Inc., which spawned a new generation of expert examination jurisprudence: the “Daubert challenge.” Plagued with concerns that “[a]n expert can be found to testify to the truth of almost any factual theory, no matter how frivolous,” the Supreme Court proclaimed in Daubert the debut of a new era in judicial expert testimony gate-keeping. The Court’s landmark 1993 ruling articulated standards that trial judges should use to assess whether expert testimony should be heard, including

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4. See In re Air Crash Disaster at New Orleans, La., 799 F.2d 1230, 1233–34 (5th Cir. 1986).
5. Id. at 1234.
determining whether the reasoning on which the testimony is based is scientifically sound and whether the reasoning and methodology are relevant to the facts of a particular case.\textsuperscript{8}

Subsequent to \textit{Daubert}, the judiciary and practitioners continued the search for the most effective utilization of expert knowledge. The Texas Supreme Court, in \textit{Gammill v. Jack Williams Chevrolet, Inc.}, and the Fifth Circuit Court of Appeals, in \textit{Moore v. Ashland Chemical, Inc.}, expressed the need for additional guidance from the United States Supreme Court on \textit{Daubert}'s application to expert testimony based on skill and experience (non-scientific expert testimony), and to clinical physicians (non-“hard science” testimony).\textsuperscript{9}

In \textit{Kumho Tire Co. v. Carmichael}, the United States Supreme Court clarified these issues: Trial courts are charged with an expert witness relevance and reliability gate-keeping responsibility with respect to all expert witnesses, not just scientific experts.\textsuperscript{10}

As a result, any party whose case depends heavily upon expert testimony should carefully analyze the contemplated testimony and its bases under each applicable \textit{Daubert} factor and prepare each expert to address each \textit{Daubert} factor in a nonexclusive, flexible manner. The facts of the particular case, the expert, and the information available

\textsuperscript{8} The Supreme Court set forth an illustrative, nonexhaustive list of factors that may be considered by the district court to assess whether expert testimony is sufficiently reliable. \textit{Daubert}, 509 U.S. at 593–94. These factors include whether the theory or technique that forms the basis of the expert's testimony (i) can be and has been tested; (ii) has been subjected to peer review and publication; (iii) has a high known or potential rate of error and standards controlling its operation; and (iv) is generally accepted within the relevant scientific or technical community. \textit{Id.}

\textsuperscript{9} See Moore v. Ashland Chem. Inc., 151 F.3d 269, 280 (5th Cir. 1998) (en banc); Gammill v. Jack Williams Chevrolet, Inc., 972 S.W.2d 713, 722 (Tex. 1998). The \textit{Gammill} Court faced two inquiries: (i) whether the scrutiny of reliability required by \textit{Robinson} is reserved for opinions based on novel science, as opposed to established science; and (ii) whether opinions based on an expert’s individual skill, experience, or training are subject to the \textit{Robinson} reliability test. \textit{Gammill}, 972 S.W.2d at 721; see E.I. du Pont de Nemours & Co. v. Robinson, 923 S.W.2d 549, 557 (Tex. 1995). In this appeal from a summary judgment for the defendant, the Texas Supreme Court held that the “standard adopted in \textit{Robinson} applies to all scientific expert testimony” and that “Rule 702's fundamental requirements of reliability and relevance are applicable to all expert testimony offered under that rule.” \textit{Gammill}, 972 S.W.2d at 722, 726.

to the expert will dictate whether the proposed testimony can be evaluated under and meet all of the *Daubert* factors. The fundamental objective of the court’s gate-keeping requirement is to assure the reliability and relevancy of the expert testimony at issue.

**B. Litigation Risk Management 101—“Care and Feeding” of the Expert**

The *Daubert* decade, the 1993–2003 generation of expert testimony jurisprudence, has permanently impacted how litigants and experts approach litigation. “*Daubert* has changed the way many courts view technical evidence, because of the greater pretrial scrutiny that is required . . . .”

Although the initial surge in motions to exclude expert opinions and the dramatic increase in expert exclusions has passed, frequent, substantial, and credible attacks on experts still occur more frequently now than at almost any time in the past.

Because expert opinions are important to almost every type of litigation and the exclusion of expert testimony can be outcome determinative, counsel, in fulfilling the professional and ethical obligations owed to their clients, must actively attend to the proper “care and feeding” of their experts. Among all litigation risk management measures, this task remains one of the most overlooked.

Experts and their preparation indeed remains a hot topic in litigation. With the goal of “Care and Feeding of Experts 101,” this Article addresses: (i) recent studies and trends regarding the exclusion of experts; (ii) recent cases highlighting the risks of not taking proper care of your experts; (iii) key considerations and checklists of how to properly care for and feed your experts; and (iv) examples of steps to better *Daubert*-proof your expert’s opinions.


II. WHY CARE?

A. Studies and Trends

Recent studies and trends reflect that in the early 1990s, after Daubert was decided, there was a dramatic increase in the frequency and success of efforts to exclude expert opinions. Although this rate retreated in the late 1990s, the frequency of successful efforts to exclude expert opinions remains higher today than before Daubert. Further, challenges to exclude expert opinions are taking place at the earlier stages of litigation, often coming as part of the summary judgment process. And, as studies discussed below evidence, the efforts that take place earlier in litigation are, on average, more successful.

1. Case-Type Studies

For a number of years, we have closely observed case law that examines the role of non-scientific experts (i.e., accountants, economists, statisticians, appraisers, other business and industry experts, and so forth) and discusses issues such as damages, econometrics, valuation, technical and specialized knowledge issues, and business custom and practice. For example, since 1993, there have been more than 500 substantive, published federal court decisions discussing a Daubert or Rule 702 challenge to the competency of a financial expert. About 40% of these decisions were issued from 1993–1999, coinciding with our first publication, and about 60% of these decisions have been issued since 1999, reflecting continued growth in the frequency of expert exclusion challenges. Figure 1 shows that exclusion rates have generally increased in the most recent period (2002–2004).


14. See Adrogué & Ratliff, supra note 10, at 437, 439–43. This publication has been periodically supplemented from 2001 to 2004 in the online or print editions of The Trial Lawyer by Aspen Business Publishing, The IP Litigator by Grimes & Battersby, and the newsletters for the ABA Litigation and IP Sections.

15. FED. R. EVID. 702.

16. Based on research conducted by the Legal Research Network of all Daubert cases involving accountants, economists, valuation professionals, and other business experts reported to Westlaw from 1993 through 2005.
Figure 1: Federal Commercial Litigation Daubert Decisions

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>30</td>
<td>27</td>
<td>47%</td>
<td>40%</td>
</tr>
<tr>
<td>Economics &amp; Marketing</td>
<td>44</td>
<td>40</td>
<td>48%</td>
<td>60%</td>
</tr>
<tr>
<td>Valuation</td>
<td>15</td>
<td>12</td>
<td>44%</td>
<td>33%</td>
</tr>
<tr>
<td>Other Business</td>
<td>17</td>
<td>26</td>
<td>60%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Summary: Roughly the same 50% exclusion rate exists across all groups but, among three of the four groups, significant increases in exclusion percentages exist.

Historically, the opinions of economists and marketing experts on issues including econometrics, statistics, and market surveys have been more frequently excluded than other types of financial expert opinions. Although we cannot be certain of the factors impacting this trend, we hypothesize that this occurs for two main reasons. First, many of these experts are academics and often address controversial, theoretical, or cutting-edge issues not yet accepted in real world practice. Second, there are no uniform rules or standard-setting organizations comparable to those found in the accounting and appraisal disciplines for economists, statisticians, and marketing experts; thus, it is often hard for these experts to prove that their theories and methods enjoy general acceptance.

More recently, the “other business” type of financial expert has been successfully challenged. “Other business” experts include market custom and practice experts, industry experts, and behavioral experts; they opine on subjects including industries, markets, particular business operations, and the workplace in general. Again, we cannot be certain why these opinions are more frequently excluded. Because their opinions are often based on experience limited to particular settings or environments, these experts often face difficulties proving their qualifications, i.e., that they have experience with the issue on which they have been asked to opine and that their theories are generally accepted.

Another area that we have watched closely over the years relates
to experts in intellectual property ("IP") matters. There have been roughly 200 substantive Daubert or Rule 702 decisions since 1993 in federal IP matters.\(^{17}\) The five categories in Figure 2 below characterize the expert challenge dispositions rendered in most of these cases.

**Figure 2: Federal IP Litigation Daubert Decisions**

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Claim Construction</td>
<td>8</td>
<td>12</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Patent Technical</td>
<td>7</td>
<td>10</td>
<td>11</td>
<td>28</td>
</tr>
<tr>
<td>IP Damages</td>
<td>9</td>
<td>10</td>
<td>12</td>
<td>31</td>
</tr>
<tr>
<td>Trademark Survey</td>
<td>10</td>
<td>11</td>
<td>18</td>
<td>39</td>
</tr>
<tr>
<td>Other Testing &amp; Science</td>
<td>6</td>
<td>3</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>46</td>
<td>62</td>
<td>148</td>
</tr>
</tbody>
</table>

Consistent with our general financial expert challenge findings discussed above, we have found that economists and marketing experts who typically testify about consumer confusion surveys in trademark cases are the experts most often successfully challenged. Aside from the same possible issues (the lack of uniform standards and general acceptance), these experts also must contend with judges and lawyers, both trained in asking objective, nonleading questions, who review and often second-guess their work.

Patent damages experts and patent claim construction experts have also experienced frequent challenges. However, the success of these challenges in recent years has been more limited. Prior to 2002, damages experts lost about 60% of challenges; since 2002, damage experts have won about 50% of challenges. Claim construction experts, technical or scientific experts who explain the connection

\(^{17}\) See *supra* text accompanying note 16.
between the patent verbiage and real world science and technology, on the other hand, experienced an increase in the frequency of exclusion of their testimony. Before 2002, claim construction experts won about 60% of challenges; since 2002, they have lost about 60% of challenges.

In the case of patent damages experts, while we can offer no certain explanations for these results, we note that in the late 1990s and early 2000s, the Federal Circuit settled a great number of unresolved issues that had caused much uncertainty for experts. This trend in Federal Circuit jurisprudence may explain why patent damages experts were less frequently excluded. The increase in the exclusions of claim construction experts may simply be a consequence of the general rapid increase in challenges across all areas of litigation; of interest, two-thirds of these decisions have been issued in the last three years. Simply put, Daubert has finally caught up with claim construction experts.

On the state level, we reviewed about 100 decisions rendered in Texas state courts between 1996 and 2004.\textsuperscript{18} As Figure 3 illustrates, in most areas of expertise, the results were similar to those obtained from our federal case review. However, we observed that financial and technical experts addressing issues of causation in Texas state courts fared significantly worse than their counterparts in federal courts. The type of issue being examined might explain the difference in exclusion rates. While in the federal court decisions, the valuation experts were the least successfully challenged type of financial expert, they were typically applying general business valuation standards, whereas in state court many of the cases related to statutory real property valuations which are very specific and different than general business valuation standards.

Medical technical experts experienced a high rate of exclusion. In most instances, state court is the preferred venue for plaintiffs’ personal injury and toxic tort cases; most of the excluded experts were plaintiffs’ experts. The medical technical experts may have been excluded so frequently because the experts rely on evolving or unsettled scientific principles; thus, the experts struggle to convince the factfinders that their bases are generally accepted.

\textsuperscript{18} See supra text accompanying note 16.
**Figure 3: Texas State Court Robinson Decisions***

<table>
<thead>
<tr>
<th>Case Type/Issue</th>
<th>Admitted</th>
<th>Excluded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical/Causation</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>Medical/Methodology</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Valuation</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>Science/Cause or Method</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Technical/General Acceptance</td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>

*Judgmental sample of representative cases 1996–2004

2. National Studies

In addition to these case-type studies, other national studies provide a lens through which we can further observe and opine: (i) the 2000 Federal Judicial Center Study (“2000 FJC Study”), (ii) the 2002 study by the RAND Institute for Civil Justice (“RAND Study,” as updated through supplemental releases in 2003); and (iii) an analysis in the Journal of Psychology, Public Policy, and Law of multiple studies (including the 2000 FJC Study) performed by other organizations.

In the late 1990s, the Federal Judicial Center (“FJC”) conducted a survey in which federal judges and attorneys were asked about their experiences with expert testimony in civil cases. The judges answered questions about their recent relevant civil cases and about their overall experience with expert testimony. The analysis of the aggregated data from the earlier, similar pre- Daubert study and from the latest FJC study focused on comparing the respondents’ experiences with expert testimony, both before and after Daubert, and explored the judges’ current concerns regarding expert testimony in

20. Dixon & Gill, supra note 11; RAND Summary, supra note 11.
22. See Johnson et al., supra note 19, at 1; Krafka, supra note 21, at 312. The 1991 and 1998 Federal Judicial Center Survey results, along with results of other studies, are all reported and discussed in Krafka, supra note 21, and for convenience subsequent references to those studies will be to the results reported therein.
23. Krafka, supra note 21, at 311.
civil trials. 24

The authors presented their findings on the following topics: (i) types of cases in which experts are involved; 25 (ii) areas of expertise of testifying experts; 26 (iii) issues addressed by expert testimony; 27 (iv) deciding the admissibility of expert testimony; 28 and (v) the most common problems associated with expert testimony. 29 Interestingly, the most prevalent problem judges experienced with testifying experts was a perceived tendency for experts to abandon their objectivity; from the judges’ perspectives, experts seemed to offer opinions that most closely reflected the views of the side that hired the expert. 30 Thus, it is easy to understand why the legal community continues to debate the potential use of court-appointed experts in civil trials.

Comparing the results of the latest FJC survey to its predecessor, the FJC found that the percentage of all federal trial judges who had allowed an expert to testify without limitation in their most recent trial dropped from 75% to 59%. 31 The FJC tempered these results by cautioning that these findings may understate the degree of change in exclusions of expert witness testimony because the survey focused on trials; many rulings that exclude expert opinions are issued prior to trial and in cases that are settled or resolved by summary judgment. 32 Other findings of interest included the following:

• Cases that most commonly used experts: torts (45%), civil rights (23%), contracts (11%), intellectual property (10%), labor (2%), prisoner rights (2%), and all other civil cases (8%). 33
• Most common types of experts: medical, engineering, financial, and other science. 34
• Sixty-one percent of lawyers with trial experience prior to Daubert say a judge is more likely to exclude expert testimony today than prior to Daubert. 35

24. See id. at 309. The findings appearing in this article are the final, as opposed to preliminary findings, but both are discussed.

25. Id. at 318.
26. Id. at 319–20.
27. Id. at 321–22.
28. Id.
29. Id. at 327–28.
30. Id. at 328.
31. Id. at 322 n.14.
32. See id. at 321.
33. Id. at 318.
34. Id. at 319–20.
35. Id. at 329.
Fifty-six percent of lawyers say a judge is more likely to hold a pretrial hearing on expert evidence today than prior to Daubert.36

Both judges and lawyers agree that the two main problems with expert witness testimony are (i) that experts abandon objectivity and become partisan advocates, and (ii) the high cost of expert testimony.37

The following table summarizes the rankings of judges and lawyers (average rank, scale of 1–4) relating to their concerns with experts:38

<table>
<thead>
<tr>
<th>Factor</th>
<th>Judges</th>
<th>Lawyers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Objectivity</td>
<td>3.69</td>
<td>3.72</td>
</tr>
<tr>
<td>Expense</td>
<td>3.05</td>
<td>3.40</td>
</tr>
<tr>
<td>Questionable value</td>
<td>2.86</td>
<td>3.05</td>
</tr>
<tr>
<td>Unexplained differences between experts</td>
<td>2.76</td>
<td>3.13</td>
</tr>
<tr>
<td>Disparity between experts</td>
<td>2.67</td>
<td>3.02</td>
</tr>
<tr>
<td>Testimony not comprehensible to trier of fact</td>
<td>2.49</td>
<td>2.66</td>
</tr>
<tr>
<td>Testimony not helpful to the trier of fact</td>
<td>2.43</td>
<td>2.63</td>
</tr>
<tr>
<td>Incomplete expert disclosure</td>
<td>2.43</td>
<td>2.62</td>
</tr>
</tbody>
</table>

In terms of the procedural and case management issues, 69% of judges reported that their procedures for assessing expert testimony had changed since Daubert, while the other 31% of judges came onto the bench after Daubert.39 Sixty percent of attorneys felt that judicial procedures had changed after Daubert, while the other 40% either did not practice before Daubert or did not feel that they handled enough cases with expert evidence to offer an informed opinion.40 Also, 60% of responding judges did not believe that their use of procedures had changed very much since Daubert, while a smaller but still sizeable

36. Id.
37. Id. at 328.
38. Id.
39. Id.
40. Id. at 328–29.
number of attorneys (29%) reported results similar to judges.\footnote{Id. at 329.}

This finding is puzzling because the evidence indicates that despite the perceptions of the majority (60%) of judges, common practice has been altered. Perhaps the changes are a matter of degree rather than transformation, or perhaps the change is accounted for by the actions of the 40% of judges who report managing expert testimony differently. Regardless of the explanation, \textit{Daubert} gives every appearance of having affected the judicial approach to handling expert evidence in federal civil cases.\footnote{Id.}

Other results of the FJC surveys show judges consider more motions in limine and limit expert testimony with increased frequency.\footnote{Id.} Also, the likelihood of a pretrial hearing being held has increased since \textit{Daubert} was decided, with 45% of judges reporting that they hold more frequent pretrial hearings regarding admissibility of expert testimony than they used to; their account is supported by 56% of attorneys reporting the same.\footnote{Id.} Thirty-three percent of judges maintain that they admit expert evidence less often than they did before \textit{Daubert}, and 61% of the attorneys agreed.\footnote{Id.}

The RAND Study also shows that the rate of expert opinion challenges and exclusions has changed and that these issues are dealt with in earlier stages of litigation. The survey reviewed data from approximately 400 federal district court opinions rendered between 1980 and 1999.\footnote{Eftimoff, \textit{supra} note 11, at 1; \textit{see also} DIXON & GILL, \textit{supra} note 11, at xiii; RAND SUMMARY, \textit{supra} note 11, at 1.} According to the data, the judiciary analyzes reliability and other factors more carefully after \textit{Daubert} and applies stricter standards when deciding whether to admit expert evidence.\footnote{See RAND SUMMARY, \textit{supra} note 11, at 2.} Such increased scrutiny culminates in the more frequent exclusion of key expert testimony or summary judgment. Contrary to predictions, the RAND Study found no indication that it was easier to admit novel scientific evidence after \textit{Daubert}.\footnote{See id.} Specifically, the RAND Study noted that \textit{Daubert} has not increased the admissibility of novel scientific theories.\footnote{Id.}

Moreover, a cursory review of the survey results suggests no
significant changes in the relative frequency of expert reliability objections or opinion exclusions during the decade before and after *Daubert*. However, a closer look reveals that the situation has changed significantly and potentially for the worst.

Figure 5 illustrates the percentage of reliability challenges asserted in those cases where at least some challenge was made to an expert.\(^{50}\)

**Figure 5**

![Graph illustrating the percentage of reliability challenges and exclusions over time.](graph)

Note: Case type, substantive area of evidence, and appellate circuit are held constant.

During the early 1980s, expert reliability was questioned in 80% of cases that utilized an expert witness, the same frequency as experienced in cases in the late 1990s. In these early 1980s and late 1990s cases, the questioned expert was found unreliable 60% of the time. However, these rates did not remain constant during the twenty-year period considered in the study. Rather, challenges to and exclusions of experts went through a cycle and reached a new equilibrium in the late 1990s after nearly a decade of fluctuation.

Further, the rates of challenges and exclusions fell to their lowest point, below 70% and 40%, respectively, in the period preceding

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50. *Id.*
Daubert, and then reached their zenith, 90% and 70%, respectively, a few years after Daubert, in 1997. However, Figure 5 does not reflect a very germane fact discussed in the RAND Study: The total number of expert challenges increased significantly in the 1990s compared to challenges made in the 1980s.\footnote{See id.} Thus, although the study’s beginning and end rates of challenges and exclusion indicate that little has changed, in fact the challenge and exclusion rates fluctuated significantly, experiencing 20% to 30% swings, and the absolute number of reliability challenges and exclusions rose sharply after Daubert.

Figure 6 analyzes the frequency of partial or complete expert opinion exclusions within the survey population on the whole,\footnote{Id. at 3.} as opposed to exclusions in those cases that only raise expert objections, as in Figure 1.

**Figure 6**

As in Figure 5, Figure 6 shows the “before and after” Daubert frequency of exclusion based on reliability is roughly the same, about 50%. Similarly, the lowest point, at just over 40% exclusions, preceded Daubert; the highest point was reached again in 1997, at 70%. But as in Figure 1, what is not shown in Figure 2 is that the total number of challenges and exclusions grew significantly in the 1990s.
Last, we consider Figure 7, which summarizes the number of expert challenges asserted at the summary judgment stage and the associated relative frequency of exclusion of at least some portion of the expert testimony. This figure best exemplifies our conclusions regarding the growing expert witness crisis. A cursory review of this data might suggest that there was little change before and after Daubert. For example, looking at the rate of exclusion based on reliability at the summary judgment phase from 1980–1993 compared to the most recent period, both are approximately 60%.

![Figure 7](image)

<table>
<thead>
<tr>
<th>Opinion Date</th>
<th>Summary Judgment Requested</th>
<th>Summary Judgment Granted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/80 – 6/89</td>
<td>49</td>
<td>37</td>
</tr>
<tr>
<td>7/89 – 6/93</td>
<td>43</td>
<td>21</td>
</tr>
<tr>
<td>7/93 – 6/95</td>
<td>37</td>
<td>25</td>
</tr>
<tr>
<td>7/95 – 6/97</td>
<td>65</td>
<td>48</td>
</tr>
<tr>
<td>7/97 – 6/99</td>
<td>73</td>
<td>42</td>
</tr>
</tbody>
</table>

However, the increase in expert challenges asserted during the summary judgment phase is a critical indication of change for the worst; this observation is consistent with our previous discussion concerning the increase in total expert challenges observed in the RAND Study. As shown, the total number of challenges by summary judgment in the final two years of the RAND Study is 50% greater than in the entire decade of the 1980s: a true increase in frequency, taking into account the time periods, by a factor of eight.

Thus, at least two critical observations emerge from examining this data: (i) experts are being challenged and excluded in greater numbers since Daubert; and (ii) challenges are asserted more frequently and successfully at earlier stages in litigation. Scrutiny of recent jurisprudence places such observations into context and suggests some practical tips for the preparation of experts—their

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53. *Id.*
54. We note this rate is higher than the roughly 50% exclusion rate for the entire population of reliability challenges.
55. This observation is consistent with the trend suggested by the 2000 FJC Study. See Johnson et al., *supra* note 19, at 1.
B. Select Jurisprudence

I. Qualifications and Relevance are Not Enough: Take Care to Explain Your Basis and Fill the Legal Gap

In Kerr-McGee Corp. v. Helton, the plaintiffs, lessors, brought an action against well-driller lessees for breach of an implied covenant to prevent drainage from a well drilled by the lessees. The district court entered judgment in favor of the plaintiffs and awarded damages in excess of one million dollars. On appeal, the lessees argued that the plaintiffs' expert testimony was unreliable.

To establish liability and damages based on Kerr-McGee's alleged failure to drill an "offset well" to prevent drainage, the expert, a petroleum engineer, offered testimony to establish the amount of gas a hypothetical offset well would have produced, that a reasonably prudent operator would have drilled such a well, and the amount of royalties Helton would have received from the hypothetical well.

Kerr-McGee argued on appeal that the evidence did not support the trial court's damages award because the testimony that had been offered by Helton's expert on the amount of damages was unreliable. In reviewing the decisions of the trial court and the court of appeals, the Texas Supreme Court explained the reliability requirement and noted that long before E.I. du Pont de Nemours & Co. v. Robinson, a 1995 landmark decision of the Texas Supreme Court, "Texas courts required that evidence of drainage be based upon more than mere speculation." "At a minimum, opinions or estimates of lost profits must be based on objective facts, figures, or data from which the amount of lost profits can be ascertained."

In this case, the Texas Supreme Court agreed with Kerr-McGee that the expert's assumption that the hypothetical well would produce at the same rate as the actual well was unsupportable. The Texas Supreme Court explained:

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57. Id. at 250 n.5.
58. Id. at 251.
59. Id. at 249.
60. Id. at 254.
61. Id.
62. Id.
63. Id. at 258.
It is possible that the hypothetical well would have produced as much as Riley projected. But our task is not to determine whether Riley’s opinion regarding the hypothetical well’s productivity is correct. Rather, we must determine whether the analysis Riley used to reach his conclusions was reliable. Based on this record, there is simply “too great an analytical gap between the data and the opinion” to conclude that it is. As in *Gammill v. Jack Williams Chevrolet, Inc.*, 972 S.W.2d 713, 727 (Tex. 1998), the gap in Riley’s analysis was his “failure to show how his observations, assuming they were valid, supported his conclusions.”

Thus, although Riley examined facts and data that would be appropriate in reaching an opinion as to damages, there is no explanation of how these factors affected his calculations, if at all. As the United States Supreme Court has said: “Nothing in either *Daubert* or the Federal Rules of Evidence requires a . . . court to admit opinion evidence which is connected to existing data only by the *ipse dixit* of the expert. A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.”

Although the expert examined facts and data appropriate to formulate an opinion as to damages, the expert did not explain how these factors affected his calculations. Because it found that there was an analytical gap between the data and the expert’s conclusions, the Texas Supreme Court held that the testimony was unreliable and should have been excluded by the district court; therefore, there was no evidence to support the damages award. Accordingly, the Texas Supreme Court reversed the judgment of the court of appeals and, rather than remanding the case, rendered judgment that Helton take nothing. In issuing its holding, the Texas Supreme Court noted that the standards of *Daubert, Joiner, Kumho Tire*, and those of their Texas counterparts, *Robinson* and *Gammill v. Jack Williams Chevrolet*, were “well-known to Texas litigators,” and that Helton had ample opportunity to present reliable damages evidence.

2. *General Acceptance in the Real World is Not Enough: Select Methodologies that “Fit” Your Case Based on Their General Acceptance by Courts in the Circumstances of the Case or Risk*

65. *Id.* at 258.
66. *Id.* at 260.
67. *Id.* at 259–60.
Speculative Results

Methodologies that are generally accepted and practiced in the real world are not always accepted in court. Further, methodologies interchangeable in the real world are often more strictly separated by case law. Seven relatively recent decisions, six from Texas and the other discussing Texas law, highlight these principles. The first three decisions illustrate the risk an expert takes by departing from the generally accepted damages methodology recognized by Texas courts for lost profits and loss in value. The next three decisions address real-world methodologies that have not been accepted in court for valuing a loss. The last decision illustrates the importance of tailoring even an accepted, reliable methodology to the facts of the case.

[In Atlas Copco Tools, Inc. v. Air Power Tool & Hoist, Inc.,] appellant Atlas Copco Tools, Inc. manufacture[d] and [sold] industrial tools throughout the United States, primarily through regional distributors. Beginning in 1994, appellee Air Power Tool & Hoist, Inc. became one of appellant’s nonexclusive authorized distributors within parts of Texas and Louisiana. In May 2000, appellant appointed another Texas distributor, Tooling Technologies, L.L.C., by executing a nonexclusive distribution agreement, which included beneficial provisions that appellee’s agreement did not contain. Soon after, appellant began assigning customers between the two distributors. In September of 2000, a new contract was negotiated between appellant and appellee. Appellee felt it was coerced into signing the new agreement, which ceded large, existing customers to Tooling Technologies. During late 2000, appellant began receiving service complaints from its Motor Vehicle Industry (“MVI”) customers, which purchased the more complex electrical tools as opposed to basic pneumatic “air powered” tools. As a result, in late 2000 and early 2001, appellant assigned all of appellee’s MVI accounts to Tooling Technologies. Appellee felt it was forced to agree to these changes. Appellant notified appellee’s “reassigned” customers by email.

On April 4, 2001, appellee filed suit against appellant and Tooling Technologies for anticompetitive practices under Section 15.05 of the Texas Free Enterprise and Antitrust Act (“TFEAA”), false promise of future performance, business disparagement, tortious interference with prospective relationships, fraud and constructive fraud, misrepresentation of confidential information, and negligent or intentional misrepresentation. The trial court granted summary judgment for Tooling Technologies on all claims against it.
At trial, the jury found that (1) appellant engaged in “a contract, combination or conspiracy in restraint of trade” and that such action was “willful and flagrant” under the TFEAA; (2) appellant disparaged the business or reputation of appellee; and (3) appellant breached the relationship of trust and confidence that existed between appellant and appellee. Based on the jury’s findings, the trial court awarded appellee $700,000, which it trebled pursuant to the finding of willful or flagrant conduct under the TFEAA to $2,100,000, attorney’s fees in the amount of $123,761.56, and court costs in the amount of $9,160.60.

The court of appeals reversed the judgment of the trial court because damages were not computed using a proper methodology under Texas law and were otherwise based on speculation.

Under Texas law, a party seeking to recover lost profits must prove the loss through competent evidence with reasonable certainty, and opinions or estimates of lost profits must be based on objective facts, figures, or data from which the amount of lost profits can be ascertained. The court explained that reasonable certainty is not established when the profits claimed to be lost are largely speculative or a mere hope for success, as from an activity dependent on uncertain or changing market conditions, on chancy business opportunities, or on promotion of untested products or entry into unknown or unproven enterprises.

The damages expert testified about lost profits and loss to goodwill and relied on analyses that projected relevant financial data six years into the future. These projections, however, ignored the terms of the agreement, the facts of the case, and Texas law regarding the calculation of lost profits. The court considered the future six-year period mere “speculation.” Furthermore, the expert projected a dramatic increase in appellee’s sales of appellant’s products over the six-year period that bore no relation to established facts and results and incorrectly calculated profits by measuring lost gross profits, not lost net profits, as Texas law requires. According to the court, the

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69. Id. at 209.
70. Id. at 206.
71. Id.
72. Id. at 207.
73. Id.
74. Id. at 209.
75. Id.
expert’s testimony was ineffective because she improperly deducted the incremental costs of selling the tools and failed to deduct other expenses incurred in carrying on the business as required by Texas law.\footnote{76}{Id.}

Similarly, later in 2004, the Fifth Circuit Court of Appeals reversed a damage award in excess of $120 million because the court found that the expert’s testimony was speculative.\footnote{77}{Fluorine On Call, Ltd. v. Fluorogas Ltd., 380 F.3d 849, 861 (5th Cir. 2004).} The court determined that the available remedy for a new business with no history of profitability was loss in market value of an exclusive license when the business alleged, in effect, that an exclusive supplier became its competitor and usurped its business opportunities.\footnote{78}{Id. at 860.} While the expert performed an analysis that was arguably similar to loss in value, the court characterized the analysis as a determination of future lost profits that was subject to a different and higher standard of proof.\footnote{79}{Id. at 860–61.}

More recently, the Texas Court of Appeals reminded practitioners of the higher standard of proof in lost profits cases, especially when there is no history of profitability.\footnote{80}{El Dorado Motors, Inc. v. Koch, 168 S.W.3d 360, 366–67 (Tex. App.—Dallas 2005, no pet.).} In a business tort dispute over the alleged mismanagement of an automobile dealership, the court concluded that an expert’s testimony, coupled with a spreadsheet containing estimates of alleged lost profits where the business was not previously profitable and where no explanation was provided about how any loss of profitability was calculated and what normal expenses would have been in contrast to the claimed excess expenses, was no evidence of lost profits.\footnote{81}{Id. at 367–68.}

In Alcatel USA, Inc. v. Cisco Systems, Inc., the lawsuit between plaintiff Alcatel and its competitor Cisco arose from alleged patent and copyright infringement and tortious acts, specifically, the misappropriation of trade secrets, committed by Cisco and Monterrey Networks, a company that Cisco acquired in 1999.\footnote{82}{Alcatel USA, Inc. v. Cisco Sys., Inc., 239 F. Supp. 2d 660, 662 (E.D. Tex. 2002) (mem.).} Alcatel alleged that Monterrey and Cisco “systematically misappropriated and used cutting-edge Alcatel technology to develop and market a product called the Wavelength Router,” a “telecommunications product allegedly designed to compete directly with Alcatel’s
telecommunications products.

Alcatel further contended that Monterrey’s ability to get the Wavelength Router ready to market quickly was “critically important” to Monterey. First, certain major national customer accounts were contingent upon Monterey’s ability to quickly develop the Wavelength Router, and, second, Monterey’s speed to the market increased the likelihood that it would be acquired by Cisco and would increase the price that it would command. Monterrey was able to achieve this accelerated product development by hiring Alcatel employees in 1998, who disclosed Alcatel’s trade secrets.

Cisco acquired Monterey for a little more than $500 million in 1999, in two separate transactions. Subsequently, in April of 2001, due to its failure to complete any sale of the Wavelength Router, Cisco cancelled the project.

In connection with summary judgment proceedings, the court questioned Alcatel’s $500 million damages claim. Alcatel’s expert calculated the damages using a simplistic acquisition price methodology; the expert assumed that Monterrey’s entire value rested on the allegedly misappropriated trade secrets and, thus reasoned that the value of the trade secrets must have been the entire purchase price paid by Cisco to acquire Monterrey. The court commenced its criticism of the damages experts:

This Court has long been suspicious of Alcatel’s alleged entitlement to an award of over a half [of] a billion dollars. During a hearing in July 2001 on various pending motions in this case, the Court, sua sponte, questioned the propriety of Alcatel’s prospective damage theory. To help dispel these concerns, the Court ordered the parties to brief the legal viability of Alcatel’s damage theory. . . . In its brief, Alcatel argued that it was entitled to recover the value of the trade secrets at the time of the misappropriation. Alcatel further argued that this value could be measured based on a reasonable royalty or unjust enrichment. In response to Alcatel’s brief on damages, Cisco filed a motion for summary judgment. . . . In its motion, Cisco argued that Alcatel’s damage theory was untenable because

83. Id.
84. Id. at 664.
85. Id.
86. See id. at 663–64.
87. Id. at 664.
88. Id. at 665.
89. Id.
90. Id. at 666.
Alcatel had not suffered any lost profits as a result of the alleged misappropriation and that, due to its cancellation of the Wavelength Router, Cisco had not profited from sales based on Alcatel's intellectual property. Accordingly, for these and other reasons, Cisco insisted that Alcatel could not recover pursuant to any conceivable damage theory.\footnote{90} In a previous ruling, the court identified one damages approach (the reasonable royalty method) that was conceivably available to Alcatel.\footnote{91} The court held that such an approach is appropriate, for example, where the trade secret has not been destroyed, where the plaintiff is unable to prove specific injury, and where the defendant has not gained any profits to use in valuing the secrets.\footnote{92} The court further acknowledged that, where “‘damages are uncertain,’” the uncertainty should not “‘preclude recovery’” and the “‘plaintiff should be afforded every opportunity to prove damages once the misappropriation is shown.’”\footnote{93}

Despite affording Alcatel every benefit of the doubt and in spite of the insistence of Alcatel’s expert that Monterrey’s acquisition price was a reasonable measure of the trade secret’s value, the court was not persuaded to abandon well-established trade secret damage law principles.\footnote{94} Addressing the basis for the expert’s opinion:

In the Court’s opinion, these assumptions and opinions, all of which serve as the foundation for Alcatel’s damage theory, are simply too speculative. A break or non-occurrence in any of the above chain of events would eviscerate the foundation of Alcatel’s damages, and consequently, Alcatel’s damage theory is rendered exceedingly uncertain.\footnote{95}

The court continued, addressing the expert’s methodology:

Aside from the speculative assumptions on which Alcatel’s damage theory rests, there is substantial uncertainty as to the amount of damages Alcatel allegedly suffered. In the Court’s opinion, the value of the alleged trade secrets cannot be reasonably extrapolated from the purchase price of Monterrey. Because Alcatel is not claiming it suffered lost profits from Monterrey’s alleged misappropriation or that Monterrey or Cisco financially benefited from direct sales, for example, of the

\begin{footnotes}
\item[90] Id. at 665.
\item[91] Id.
\item[92] Id.
\item[93] Id.
\item[94] Id. at 667 (quoting Univ. Computing Co. v. Lykes-Youngstown Corp., 504 F.2d 518, 538–39 (5th Cir. 1974)).
\item[95] See id. at 668.
\item[96] Id.
\end{footnotes}
allegedly infringing product. Alcatel’s damage theory necessarily seeks to recover the value of the alleged secrets to Monterey/Cisco. Furthermore, this measure is to be calculated based on a reasonable royalty to which the parties would have agreed at the time of the alleged misappropriation. While the Court recognizes that some degree of speculation is inherent in calculating a suppositious licensing agreement between two parties that has never occurred, this hypothetical construct, however, must contain some degree of certitude. After all, the method does not permit the recovery of a simple royalty, but only a reasonable one. In this regard, Alcatel’s attempt at recovering the value of the alleged trade secrets based largely on the acquisition price of Monterey, contravenes fundamental notions of reasonableness. 97

The court noted the “‘[e]stimation of damages . . . should not be based on sheer speculation. If too few facts exist to permit the trier of fact to calculate proper damages, then a reasonable remedy in law is unavailable.’” 98 Moreover, “‘evidence by which the jury can value the rights the defendant has obtained’” and the value of these rights should not “‘be based on sheer speculation.’” 99

Even assuming that Alcatel’s questionable valuation approach was generally accepted, the court criticized the application of the methodology, including: (i) the expert’s use of the acquisition date rather than the misappropriation date to value the trade secrets (problematic because it ignores events that may have affected value between those dates and takes into account information, including the acquisition price itself, that could not have been known by the parties at the hypothetical negotiation date); 100 (ii) the failure to apportion the acquisition price to the trade secrets; 101 (iii) the dearth of case law recognizing the acquisition price of a company as a measure of a reasonable royalty in the absence of actual lost profits; 102 and (iv) the inadmissibility of purchase price evidence where the evidence relies on speculative profit projections based on “‘uncertain or changing market conditions, or on changing business opportunities, or on promotion of untested products, or entry into an unknown or unviable

97. Id. at 669.
98. Id. at 670 (quoting Metallurgical Indus., Inc. v. Fourtek, Inc., 790 F.2d 1195, 1208 (5th Cir. 1986)).
99. Id. at 668 (quoting Univ. Computing Co., 504 F.2d at 545; Metallurgical Indus., Inc., 790 F.2d at 1208).
100. Id. at 670.
101. Id.
102. Id. at 671–72.
markets, or on the success of a new and unproven enterprise.”

Looking, as courts often do, to federal patent law to guide the damages analysis in trade secret cases, the court quoted from a recent federal circuit decision in closing out its critique of the expert’s acquisition-price methodology:

[T]he price received by an infringing defendant for the sale of its business is not sound evidence on which to measure damages in a reasonable royalty case. . . . “Reasonable royalty damages for patent infringement arise from the fact of infringement, and the portion of the sales price consisting of intangible goodwill is not the sale of infringing goods. It is partial compensation for the sale of a business . . . . [C]ompensation in excess of tangible assets, is not sales of infringing goods that can form the base for determination of a reasonable royalty.”

Based on the three and a half years of litigation in which Alcatel had the opportunity to develop a supportable theory of damages and failed to do so, the district court granted summary judgment against Alcatel.

In a similar scenario, relying on Alcatel, the Eighth Circuit Court of Appeals disapproved of using the acquisition price methodology to value component assets. A Texas state court also reached this result independent of Alcatel in late 2003.

In El Aguila Food Products, Inc. v. Gruma Corp., the plaintiffs, seventeen manufacturers of tortillas, appealed a take-nothing judgment entered in favor of the defendant, who was also a manufacturer of tortillas. The plaintiffs specifically claimed that the defendant’s use of marketing agreements with retailers, which provided price reductions and other financial incentives to obtain and manage shelf and display space, violated various monopolization and price discrimination provisions of the Sherman, Clayton, and Robinson-Patman Acts.

At trial, the court excluded plaintiff’s damages, causation, and

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103. Id. at 672 (quoting Tex. Instruments, Inc. v. Teletron Energy Mgmt., Inc., 877 S.W.2d 276, 279 (Tex. 1994)).
104. Id. (quoting Transclean Corp. v. Bridgewood Servs., Inc., 290 F.3d 1364, 1376 (Fed. Cir. 2002)).
105. Id. at 673.
108. El Aguila Food Prods., Inc. v. Gruma Corp., 131 F. App’x 450, 451 (5th Cir. 2005).
109. Id. at 451–52.
antitrust injury experts. The trial court dismissed the jury because the plaintiffs had no admissible evidence of antitrust damages or causation. The trial court granted a take-nothing judgment in favor of the defendant holding that the plaintiffs’ claims failed as a matter of law; the plaintiffs appealed.

On appeal, among other issues, the Fifth Circuit Court of Appeals explained that the fact of damages is an issue of causation—a plaintiff is required to show that the defendant’s unlawful conduct was a material cause of their injury. The court noted that, to prove actual damages, the plaintiffs relied primarily on McCoin’s, the expert’s, damage model. The model was a “yardstick” measure of damages whereby he compared the plaintiffs’ sales history with sales data from the tortilla market as a whole. His approach was based on the assumption that, absent the defendant’s illegal conduct, each of the plaintiffs would have “performed to the rate of the market as a whole.”

The Fifth Circuit opined that the expert made no effort to demonstrate a reasonable similarity (i.e., the “fit”) between the plaintiffs’ firms and the earnings data he relied on as his “benchmark.” The expert did not consider whether the plaintiffs were even able to handle the excess capacity the projected rates of return entailed; by characterizing all of the losses as “lost profits,” the expert did not allow for losses based on other factors.

The court further acknowledged that, even if the expert’s testimony had been admitted, “it would not have provided a sufficient basis on which the jury could have arrived at a reasonable and just estimate of actual damages.” The plaintiffs did not present any additional evidence of damages. Thus, the Fifth Circuit determined that the plaintiffs failed to offer sufficient evidence on which a principled award of money damages could be based, and the district

110. Id. at 452.
111. Id.
112. Id.
113. Id.
114. Id. at 453.
115. Id.
116. Id.
117. Id.
118. Id.
119. Id.
120. Id. at 453–54.
121. Id. at 454.
court did not err in granting judgment in favor of the defendant.\textsuperscript{122}

In connection with the causation issue, again the court addressed the fit. The court reviewed the voir dire of the plaintiffs' causation expert, and determined his opinion “amounted to abstract conclusions not adequately grounded in the facts of the case.”\textsuperscript{123} The court explained that the witness did not examine the sales data from the retailers in the relevant markets to determine whether space allocation was disproportionate to sales.\textsuperscript{124} The expert did not tie the shelf space allocation to the retailers with which the defendant had marketing agreements.\textsuperscript{125} Moreover, he failed to adequately account for alternative causes of the plaintiffs' reduction in shelf space, such as their failure to compete for it by offering incentives to retailers.\textsuperscript{126} Ultimately, the Fifth Circuit concluded that because the plaintiffs failed to present sufficient evidence of causation, their antitrust claims failed as a matter of law.\textsuperscript{127}

3. Observations

Scrutiny of state and federal jurisprudence on the use of experts reveals common, recurring reasons for excluding expert testimony, such as when experts (i) venture into areas beyond their realm of expertise; (ii) offer opinions that cannot be evaluated under any objective, accepted standard within the field or discipline; (iii) assume facts or conclusions that are inconsistent with the evidence or ignore other feasible alternative explanations; (iv) rely on insufficient or unreliable supporting data; (v) apply a lower standard of care to their work in litigation contrasted with the approach customarily used outside the courtroom; (vi) select a methodology that does not “fit” the case and context; and (vii) fail to bridge the analytical gap between work performed and opinions reached. Clearly, clients and counsel must make the selection, support, and preparation of experts a priority. As reflected in the recent case law, lack of proper care and feeding of experts can cause devastating results. To that end, the next section addresses a framework for the preparation of your expert based on Rule 702, \textit{Daubert} and its progeny, and practical experience.

\textsuperscript{122} Id.
\textsuperscript{123} Id.
\textsuperscript{124} Id.
\textsuperscript{125} Id.
\textsuperscript{126} Id.
\textsuperscript{127} Id. at 455.
III. YOU ARE WHAT YOU EAT

A. Factors, Caveats, and Rules

Much uncertainty remains concerning what is required and what is allowed in developing admissible expert opinions in federal and state courts. Despite thousands of relevant court decisions published since 1993, the “battle of the experts” has not been simplified by the post-\textit{Daubert} jurisprudence; rather, it has evolved into a complex expert crisis.

Cognizant of the constant developments in this emerging law of evidence concerning expert witnesses, below we articulate key considerations—inquiries and caveats in the expert testimony realm—developed through scrutiny of expert witness jurisprudence and professional experience. These factors and caveats are not necessarily relevant to all cases, but they are certainly worthy of initial consideration.

\textit{Factors}

1. Does the proffered testimony relate to expert subject matter under Rule 702; that is, is it scientific, technical, or relate to other specialized matters?
2. Is the field of expertise a legitimate one and known to yield reliable results?
3. How will the opinions assist the trier of fact?
4. How is the proffered testimony relevant?
5. Is the expert qualified based upon knowledge, skill, experience, training, or education?
6. Are opinions based on sufficient facts or data of the type normally relied upon by an expert in the field?
7. Are any assumptions reasonable and specific to the facts of the case, as well as consistent with the undisputed facts and at least one party’s view of the disputed facts?
8. Are the expert’s opinions based on a generally accepted methodology?
9. What are the relevant standards within the field?
10. Are the opinions within the scope of the relevant field?
11. Does the methodology “fit” the case and the facts proved or assumed?
12. Has the methodology been tested?
13. Has the methodology been the subject of peer review and publication?
14. Does the methodology have a known and acceptable error rate?
15. During the performance of the methodology, were standards and controls properly maintained?
16. Was the methodology properly applied?
17. Is there an analytical gap between the work performed and opinions reached?
18. Do the expert’s opinions reasonably extrapolate from the results of applying the methodology to the conclusion reached?
19. Has the expert considered and addressed alternative explanations?
20. Did the expert apply the same care in preparing the evidence for the courtroom as he or she normally applies in performing a comparable analysis in the field?
21. Was the analysis prepared solely for litigation?
22. Does the technique rely upon subjective interpretation by the expert?
23. How clearly can the underlying theory or technique be explained to the court?
24. What are the opinions of other experts concerning the theory or technique?
25. What other theories or methodologies are generally accepted?

Caveats
1. Qualifications alone are not dispositive of whether the expert opinions are admissible because the courts cannot rely on the ipse dixit of the expert.
2. Gate-keeping requirements are applicable to all expert opinions and not just those based on scientific knowledge.
3. The trial court has the discretion to decide whether to apply any, all, or none of the Daubert factors to determine the reliability of an expert’s opinion.
4. The trial court has the discretion to decide how to apply the Daubert factors in determining the reliability of an expert’s opinion.
5. The trial court does not have the discretion to ignore the Daubert factors, and the failure to consider them may be an abuse of discretion.
6. The trial court may also apply several other factors in addition to the Daubert factors to determine the reliability of an expert’s opinion (see above).
7. While an expert’s methodology must be generally accepted, the methodology need not be the only or predominate methodology in the field, nor need the court chose between competing alternative methodologies debated within the field, so long as there is sufficient evidence of reliability.

8. While the expert’s opinion must not be speculation, it need not be precise or completely without error.

9. Where an analysis, survey, or study is prepared specifically for litigation, it is a relevant consideration—but does not per se prevent admission of testimony—where the subject of the opinion is of the type typically developed solely for litigation (e.g., damages analysis).

10. Exclusion of expert opinions is still the exception and not the rule; most issues can be resolved on cross-examination.

While these factors and caveats reflect our real world experience and those of our colleagues, the results are anecdotal, not scientific. However, the various surveys of judges and lawyers corroborate our results.

[For example, t]he most frequent reasons cited by judges for excluding testimony relate to traditional rules governing expert testimony. In 1998, judges most frequently said they excluded testimony because it was not relevant (47%), because the witness was not qualified (42%), or because the proffered testimony would not assist the trier of fact (40%). . . . Other reasons for exclusion . . . were that the facts or data on which the expert’s testimony was based were not reliable (22%), that the prejudicial nature of the testimony outweighed its probative value (21%), and that the principles and methods underlying the expert’s testimony were not reliable (18%). About 10% of judges said they excluded evidence because the proffered evidence was repetitious and wasteful of court time, and an equal number said the expert’s testimony was not applied reliably to the facts of the case.128

In sum, Figure 8 represents the most commonly applied factors used to determine whether to admit or exclude expert opinions.

**Figure 8**

128. Krafa et al., supra note 21, at 322–23.
Worth noting are attorneys’ unique concerns with expert reports.

Although only a small percentage of attorneys cited problems with their own expert reports, larger numbers cited problems with opposing expert reports. Of the 70% of the attorneys who received one or more written expert reports from opposing counsel, 44% stated the reports failed to provide a complete statement of all expert opinion, 30% claimed the reports failed to reveal the basis for expert opinions, and 27% contended that the opposition failed to supplement or update its expert reports.  

129. *Id.* at 324.
B. Framework

1. How to Use the Factors

These factors can be useful in all phases of the litigation involving experts, including retention, preparation, presentation, and defense, as well as in critiquing the work of an opposing expert. Retaining the expert requires more than just engaging the expert; it begins with identifying the expert issues in the case, determining the type of expert needed, searching for and evaluating prospective experts, interviewing experts, and hiring experts. Preparing the expert includes the entire process of assisting the expert in obtaining the information needed to perform the work and providing reasonable guidance to avoid wasted effort. Presenting the expert requires an attorney to verify that a report complies with the Federal Rules of Civil Procedure, rules of evidence, and case law; the attorney must also prepare for and present the expert at trial.

Finally, defending the expert necessitates that the attorney work with the expert to respond to any rebuttal report and opposing expert testimonial criticism, responding to Daubert motions, and preparing the expert for deposition examination and cross-examination at trial. Thinking through these factors at each stage forces counsel to focus on the critical issues, define possible weaknesses in the client’s case and in the expert’s opinions, and clarify weaknesses in the opposition’s case.

Although there are no guarantees that an opinion will not be limited or stricken, using a disciplined and focused approach based on the rules and case law is the surest way to attempt to Daubert-proof your experts. A disciplined approach is necessary because of the more rigorous gate-keeping roles state and federal trial courts are adopting. Our annual review of expert jurisprudence does not suggest any definitive trends in terms of specific considerations from the foregoing list that are more important or more likely to be the focus of a court’s attention. However, we have highlighted a few that have seemed to become more prominent. For instance, assuring that the same standard of care—that is, the same quality of work using the same standards—is applied to work performed in the litigation as is applied to similar work outside the litigation, reflects the increased rigor that courts are applying to expert opinions.

Similarly, courts further scrutinize the facts and data supporting expert opinions rather than simply letting the jury decide whether the
facts and data upon which the expert’s opinions are based are consistent with the evidence and sufficient to support the opinions. Furthermore, the analytical gap between the results of applying the expert’s methodology and the opinions reached receive formidable review. Thus, where the gap is wide and the expert cannot explain persuasively how he or she moved from methodological results to opinions, the opinions are considered unreliable.

Nonetheless, the jurisprudential trend does suggest that, if the expert employs the same intellectual rigor practiced in the relevant field as he or she does in the courtroom, the expert will survive the trial court’s preliminary inquiry to ensure relevance and reliability and proceed to the true challenge—the vigors of cross-examination in the courtroom. In essence, as long as a reasonable indication of qualifications is adduced, the trial court’s prerogative is to admit the evidence without abdicating its gate-keeping function.

Of course, merely focusing more closely on the inquiries and caveats highlighted will not necessarily prevent testimony from being limited or stricken. Rather, all considerations relevant to each stage of the expert’s work that ultimately lead to the expert’s opinions must be adequately addressed. This is not unlike the process of building a large structure that requires a solid foundation, then frame, walls, and so forth. We carry this analogy forward to the next section as we discuss the Daubert-proofing pyramid.

2. Daubert-Proofing

A viable approach to the Daubert-proofing process and framework is utilizing a pyramid, or hierarchy, flowing from the facts to the final opinions. Many nuances, caveats, and caution signs exist along the way; however, the “big picture” looks something like Figure 8 below. In essence, one level builds on another. A weakness in the base ultimately leads to a weakness at the point, although the whole pyramid does not necessarily fall just because of a weakness at the bottom. The impact of gaps arising in the building of the pyramid must be evaluated on a case-by-case basis and often leads to limits on, as opposed to complete exclusion of, opinions.

Clearly, a correlation exists among the factors and caveats enumerated above and the Daubert-proofing pyramid. The inquiries and caveats reflect the building blocks of the pyramid. Certain considerations raise issues that must be addressed at a particular stage before moving to the next. Failure to do so may have unwanted and outcome-determinative consequences. However, where this
disciplined and progressive approach is utilized, an expert’s final opinions, like the ancient pyramids themselves, should weather the storms of motions to strike and cross-examination and stand the test of time.

Figure 9

Visually:
The Daubert-proofing Pyramid
“Input → Processing → Output”

3. Expert Selection

The process of Daubert-proofing starts with expert selection—assuring you have an expert that is qualified based on knowledge, experience, skill, or training in the relevant field. This is often difficult because there is no directory that organizes expertise in the contexts in which it arises in litigation. Further, it often takes a long period of time to define the type of expertise needed on a particular issue. Thus, developing key themes, understanding the burden of proof, and identifying the likely proof that will be offered on each issue and element early in the case can be helpful to determine the type of expert testimony that will be needed.

4. Engagement Execution

After the expert has been selected, you must assure that the expert obtains customary and reliable supporting data, sufficiently
tests that data on an independent basis (as opposed to, e.g., relying on the client’s word for it), selects and applies a generally accepted methodology, and applies that methodology in the generally accepted manner or explains why such methodology must be applied differently in the subject case. A few key questions in each category illustrate the type of inquiry that can help minimize the risk that expert opinions will be excluded. The following analysis is configured with a Rule 702 “input-processing-output” approach to determining the admissibility of expert opinions.

**Source Data**
- Is the source of data and assumptions of the type normally relied upon by experts in the field?
- Has the data been reasonably tested or verified?
- Are the facts used in the analysis consistent with the undisputed facts?
- Are the assumptions consistent with the undisputed facts? Are they reasonable under the circumstances?
- Is the best available data being used? If not, why?
- Is the data sufficient to support the anticipated conclusion to a degree of reasonable certainty, or such other standard as may be applicable?

**Selection of Methodology**
- What methodology(ies) was(were) used?
- What are the professional/technical standards/guidelines relating to the subject matter?
- What authority exists for the methodology(ies)—professional standards, industry practice, studies, tests, academic texts, other?
- Has the methodology(ies) been peer reviewed, or published and critiqued?
- What is the known or estimated error rate associated with the methodology?
- What alternative methodologies exist? Considered? Why not used?

**Application of Methodology**
- Do the results/opinions appear to be reasonably supported and well explained?
- What is the actual error rate associated with applying the methodology?
- Do any opinions extrapolate an unfounded conclusion from an accepted premise?
- Are there any analytical “gaps”?
• Was the same standard of care used in the litigation analysis as is used in the real world?

Albeit not an exhaustive list and while certain inquiries may be important in some cases and not others, an attorney should incorporate such an analysis in his or her normal routine when working with experts.

IV. CONCLUSION

Recognition of the shortcomings of partisan expert testimony and the conundrum of its use is not new. According to Judge Hand, “What hope have the jury, or any other layman, of a rational decision between . . . conflicting statements each based upon [a lifetime of technical] experience.” 130 In his consideration of whether expert witnesses were used in the best possible manner, Judge Hand set out to prove two things: “[F]irst, that logically the expert is an anomaly; second, that from the legal anomaly serious practical difficulties arise.” 131

Although espoused 104 years ago, the pervasive dilemma remains. Clearly, the responsibility for Daubert-proofing an expert’s opinions does not fall solely on the client, counsel, or the expert. In fact, any one of the “trio” can obviate the protections implemented by the others through conduct inconsistent with Daubert-mandated reliability. This can happen where an expert oversells his or her qualifications in a particular area or fails to consider alternative explanations; where counsel attempts to stretch an expert’s opinions (and the expert) into areas beyond the originally contemplated scope of testimony and area of expertise; or where the client fails to commit the human or fiscal resources necessary to provide the expert with sufficient information upon which to base reliable opinions, or to allow the expert to spend the time necessary to perform a sufficiently thorough analysis that will withstand criticism.

As with any complex litigation, there is an ever-looming collision of time, resources, and information that can be fatal to a case. However, clients must accept that Daubert is now a permanent part of the litigation and evidentiary jurisprudence. The expert must assist counsel in defining the relevant areas of expertise and the standards applicable to them, then make sure the expert’s qualifications are consistent with such requirements and that the opinions are consistent.

130. Hand, supra note 2, at 55.
131. Id. at 50.
with the standards. Finally, counsel must identify the issues, marshal the resources and witnesses, and serve, in the first instance, as his client’s gate-keeper, to minimize the risk of the court “closing the gate” on important evidence.