

# Gatekeeping Trends in Reasonable Royalty Cases

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## Abstract

*Five years ago, in Uniloc USA Inc. v. Microsoft Corporation, the Federal Circuit rejected the well-established “25-percent rule of thumb” used to calculate reasonable royalties in patent infringement cases. Viewing that rule of thumb as an arbitrary starting point untethered to the facts of the underlying infringement claim, the Uniloc court found it inconsistent with the standards of acceptable expert testimony established in Daubert v. Merrell Dow Pharmaceuticals, Inc. In a series of decisions since Uniloc, the Federal Circuit has addressed alternative reasonable royalty methodologies, endorsing some while criticizing others. Irrespective of methodology, the Federal Circuit has enforced its gatekeeping role by emphasizing that the data utilized in any reasonable royalty analysis must be sufficiently tied to the facts of the case.*

*This paper reviews the landscape of Federal Circuit decisions over the last five years, and describes why they are unlikely to lead to the type of rational certainty that business markets crave and the legal system strives for. The paper also explores the possibility that perhaps there is a better way to incentivize the behavior we wish from the parties by using procedural rules, including the possibility of applying a baseball-style arbitration system to patent litigation to encourage parties to present more “realistic” damage calculations. In that system, the parties each enter a number, and the trier of fact may choose only one of the two numbers offered, not some number in between.*

## I. Introduction

It is no secret that patent damage calculations have caused considerable heartburn over the last decade, particularly for products that contain large numbers of patented components. Patent cases have included eye-popping damage awards, some of which are reduced substantially on appeal or after trial.<sup>1</sup> The smart phone wars and other epic patent disputes have spilled into the news, becoming highly public battles. Moreover, the possibility of large and outsized damage awards has, at times, created a casino atmosphere in which patent holders are willing to roll the dice in hopes of hitting it big.

The lack of a quick and reliable method of predicting damages dooms parties to the types of wild swings that make a case difficult to resolve before reaching the

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<sup>1</sup> See, e.g., *Lucent Techs. Inc. v. Gateway, Inc.*, 509 F.Supp. 912 (2007) (vacating a jury award of \$1.52 billion in damages for insufficient evidence to establish the correct royalty base), *aff'd* 543 F.3d 710 (2008) (affirming judgment as a matter of law due to lack of standing to sue over one patent and non-infringement on the second patent, which obviated the need to decide damages issues).

courthouse steps. At the end of the day, the ability to accurately predict the value of a patent claim is essential for the rational functioning of the patent litigation system.

Uncertainty breeds opportunism, inviting behavior that is less than optimal. Such behavior can be particularly tempting for those whose business model involves mass market patent litigation.<sup>2</sup> Like venture capitalists or private equity funds, these market players can roll the dice across a large number of cases, gambling that at least one will return the type of massive award that can fuel the entire enterprise. This may be good for the player's bottom line, but it is bad for the patent system. Courts waste time on cases that should have settled early or not been filed at all. Defendants waste money fending off claims of uncertain value, and the entire system becomes bogged down.

Predictability, a value in business, can also be a virtue in litigation. A legal system, however, must temper such predictability with fairness. As an extreme example, imagine a criminal justice system that executes murder defendants no-matter-what. Such a totalitarian system might be predictable, but certainly not fair. There must be a balance struck between fairness and predictability.

How can the legal system foster both fairness and predictability in its evaluation of patent damages? One key aspect of this question revolves around the role of the expert in identifying an appropriate damage number. Experts, and the standards by which they can recommend a damage measure, have been at the center of the struggle to define a workable damages standard in patent law. In particular, over the past five years, beginning with *Uniloc v. Microsoft Corp.*, the Federal Circuit has criticized, limited, and flat out rejected several methodologies that had been industry standards.<sup>3</sup> Some of these standards, like the so-called 25% rule of thumb, had the virtue of predictability, but ranked low on the scale of fairness and rationality. In the alternative, the Federal Circuit has largely assigned trial courts the role of gatekeeper for evaluating damages methodologies, creating a landscape with few signposts. Although the Circuit has attempted repeatedly in recent years to provide additional clues for the trial courts, the morass remains.

This paper reviews the landscape of Federal Circuit decisions over the last five years and describes why they are unlikely to lead to the type of rational certainty that business markets crave and the legal system strives for. The paper also explores the possibility that perhaps there is a better way to incentivize the behavior we wish from the parties by using procedural rules. The substantive test itself, influences a party's choices of whether to bring a case and what to assert, but perhaps a procedural rule could further incentivize the behavior desired. With this in mind, the final section explores ways to encourage the parties to choose a damages approach similar to that used in baseball arbitration, in which both parties present a number, and the trier of fact can choose only one or the other, but nothing in between.

The suggestion certainly risks being burned at the stake for heresy. Baseball arbitration rules would disrupt the intricate dance of patent litigation that has become so

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<sup>2</sup> See, Tom Ewing & Robin Feldman, *The Giants Among Us*, 2012 STAN. TECH. L. REV. 1, 23-25 (2012).

<sup>3</sup> See, e.g., *Uniloc USA Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011) (rejecting the well established 25% rule of thumb); *VirnetX Inc. v. Cisco Systems Inc.*, 767 F.3d 1308, 1325 (Fed. Cir. 2014) (rejecting the Nash Bargaining Solution); *Commonwealth Scientific and Industrial Research Organization v. Cisco Systems, Inc.*, 809 F.3d 1295 (Fed. Cir. 2015) (refining the application of the apportionment with the smallest salable patent-practicing unit).

familiar—and frankly so lucrative for expert fees, attorneys fees, and for the Eastern District of Texas which specializes in patent cases. Nor would they be easy to implement in our judicial system, requiring some finesse, at a minimum. Nevertheless, bringing rationality to the patent system would benefit all.

## II. How Courts Determine Patent Damages

The proper starting point for determining damages in a patent infringement lawsuit is Section 284 of the Patent Act, which instructs courts to award “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention.”<sup>4</sup> While this statutory language seems perfectly straightforward, its application has caused a great deal of confusion.

There are two general methods for determining damages for patent infringement: (1) the lost profits method, which calculates a patent holder’s lost income due to the infringement; or, (2) the reasonable royalties approach, in which a reasonable royalty rate is applied to an appropriate royalty base.<sup>5</sup> Of the two, it is the calculation of reasonable royalties that has caused so much consternation in recent years. While the focus of this paper is on reasonable royalty analyses in district courts, the interplay between the two forms of damage calculations is important for understanding the full landscape.

As its name suggests, lost profits are simply the profits from sales that the patent holder would have made if the infringer had not interfered.<sup>6</sup> To prove lost profits, the patent holder must show: (1) demand for the patented product; (2) the absence of acceptable non-infringing substitutes; (3) the patent holder’s ability to exploit the additional demand by expanding manufacturing capacity; and, (4) the extent of profits the patentee would have made.<sup>7</sup> Patent holder’s can prove all these elements only if they are already using and selling the invention in the market.

The reasonable royalty approach comes into play if patent holders cannot prove all the elements of lost profits.<sup>8</sup> Even if they can prove lost profits, patent holders sometimes opt to try their luck recovering reasonable royalties; or they present damage calculations under both theories simultaneously.<sup>9</sup> Calculating a reasonable royalty starts

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<sup>4</sup> 35 U.S.C. § 284.

<sup>5</sup> See *Lucent Techs. Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009).

<sup>6</sup> *Id.*

<sup>7</sup> *Panduit Corp. v. Stahl Bros. Fibre Works Inc.*, 575 F.2d 1152, 1156 (6th Cir. 1978). This is the predominant but not the exclusive framework used by the Federal Circuit to analyze lost profits. See also *Gyromat Corp. v. Champion Spark Plug Co.*, 735 F.2d 549 (Fed. Cir. 1984).

<sup>8</sup> It is worth noting that non-practicing entities, which are bringing a growing proportion of patent actions, are not eligible for lost profits. As such, they are responsible, in part, for the increase in reasonable royalty cases. See PRICEWATERHOUSECOOPERS, 2015 PATENT LITIGATION STUDY: A CHANGE IN PATENTEE FORTUNES 8 (2015), available at <http://www.pwc.com/us/en/forensic-services/publications/assets/2015-pwc-patent-litigation-study.pdf>.

<sup>9</sup> See *id.* at 8 (providing that between 2005-2014, 81 percent of the awards included a reasonable royalty); see also PRICEWATERHOUSECOOPERS, 2016 PATENT LITIGATION STUDY: ARE WE AT AN INFLECTION POINT? 6 (2016), available at <http://www.pwc.com/us/en/forensic-services/publications/assets/2016-pwc-patent-litigation-study.pdf> (stating that between 2006-2015, among patentees that are practicing entities, 61 percent of successful claims received a reasonable royalty only; 21 percent received lost profits only; and, 18 percent received a hybrid award of lost profits and reasonable royalties).

with the simple concept that a patent holder should be able to recover a fair share of the sales made by the infringer.<sup>10</sup> Damages are measured by multiplying the infringer's total sales of the infringing product (royalty base) by a reasonable royalty rate (royalty rate).<sup>11</sup>

Although simple in the abstract, this process in reality is mired in confusion. Unlike a lost profits calculation, which aims to capture actual damages, the determination of a reasonable royalty is typically structured in the context of a hypothetical negotiation.<sup>12</sup> As such, it rests on a legal fiction.<sup>13</sup> Nevertheless, this hypothetical approach has become the gold standard in reasonable royalty analyses. Under this fictional approach, a reasonable royalty is the court-determined licensing deal that would have taken place between the parties if the deal had occurred before the patent was infringed.<sup>14</sup>

Courts must carry out a torturous thought experiment in which they try to divine how parties would have acted in the past, without regard for what has actually transpired in the market and between the parties. This exercise is made all the more difficult by the fact that patent negotiating is an extraordinarily complex and unpredictable endeavor when it occurs in real time. Trying to replicate results that would have occurred at some point in the past while shrouded under a veil of ignorance and the fog of time is an activity fraught with uncertainty.<sup>15</sup> Rather than serving as a guidepost to objective and efficient dispute resolution, this hypothetical framework has allowed for uncertain<sup>16</sup> – and sometimes astounding<sup>17</sup> – monetary awards.

Perhaps in response to such unpredictable and outsized awards, the Federal Circuit has increased its scrutiny of the expert testimony used to help establish reasonable royalties. Beginning with *Uniloc v. Microsoft Corp.*, the Federal Circuit has tossed aside several methodologies that had been standard.<sup>18</sup> At the same time, the Federal Circuit has enforced its gatekeeping role by emphasizing that the data utilized in any reasonable

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<sup>10</sup> See *Panduit Corp. v. Stahl Bros. Fibre Works Inc.*, pp. 1157-58; 35 U.S.C. § 284.

<sup>11</sup> ROBIN FELDMAN, *RETHINKING PATENT LAW* 85 (2012).

<sup>12</sup> See John C. Jarosz & Michael J. Chapman, *The Hypothetical Negotiation and Reasonable Royalty Damages: The Tail Wagging the Dog*, 16 Stan. Tech. L. Rev. 769, 782 (2013) (“The most important, and lasting, impact of *Georgia-Pacific* . . . has been the elevation of a hypothetical negotiation construct as the primary tool for considering reasonable royalty damages.”)

<sup>13</sup> See *Panduit Corp.*, 575 F.2d at 1159 (“Created in an effort to ‘compensate’ when profits are not provable, the ‘reasonable royalty’ device conjures a ‘willing’ licensor and licensee, who like Ghosts of Christmas Past, are dimly seen as ‘negotiating’ a ‘license.’”)

<sup>14</sup> *Riles v. Shell Exploration & Prod. Co.*, 298F.3d 1311 (Fed. Cir. 2002).

<sup>15</sup> ROBIN FELDMAN, *RETHINKING PATENT LAW* 85 (2012).

<sup>16</sup> See Jarosz & Chapman, *supra* at 808 (“The net result is that *Georgia-Pacific*'s hypothetical negotiation approach has been used to support a wide range of reasonable royalty damages.”) (collecting cites supporting the variability of awards.)

<sup>17</sup> See, e.g., *Lucent Techs. Inc. v. Gateway, Inc.*, 509 F.Supp. 912 (2007) (vacating a jury award of \$1.52 billion in damages for insufficient evidence to establish the correct royalty base), *aff'd* 543 F.3d 710 (2008) (affirming judgment as a matter of law due to lack of standing to sue over one patent and non-infringement on the second patent, which obviated the need to decide damages issues).

<sup>18</sup> See, e.g., *Uniloc USA Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011) (rejecting the well established 25% rule of thumb); *VirnetX Inc. v. Cisco Systems Inc.*, 767 F.3d 1308, 1325 (Fed. Cir. 2014) (rejecting the Nash Bargaining Solution); *Commonwealth Scientific and Industrial Research Organization v. Cisco Systems, Inc.*, 809 F.3d 1295 (Fed. Cir. 2015) (refining the application of the apportionment with the smallest salable patent-practicing unit).

royalty analysis must be sufficiently tied to the facts of the case.<sup>19</sup>

Since the *Uniloc* decision, there has been a boom in the number of *Daubert*<sup>20</sup> challenges heard by district courts.<sup>21</sup> Whether in response to the vacuum left by the defunct 25% rule of thumb, or simply fueled by the simultaneous surge of patent infringement cases<sup>22</sup>, it is clear that *Daubert* motions now play an important role in the patent litigation process.

### III. The Role of *Daubert* in Determining Patent Damages

In *Daubert*, the Supreme Court of the United States uprooted 70 years of precedent, which had held that expert testimony based upon a scientific principle should be admissible only if that principle had gained “general acceptance” in its field.<sup>23</sup> Beginning with *Daubert*, the Court instituted a more flexible analysis to be administered by the trial court. Instead of looking solely at the general acceptance of a scientific principle within its field, the Supreme Court directed lower courts to consider the utility of the evidence more broadly and to “ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.”<sup>24</sup> Thus, *Daubert* cloaks trial courts with the role of gatekeeper to determine whether expert testimony “both rests on a reliable foundation and is relevant to the task at hand.”<sup>25</sup>

The Court enumerated several factors that a trial court may use to determine whether testimony based upon scientific knowledge is sufficiently reliable. These factors, which are not exhaustive, include whether the “theory or technique has been subjected to peer review and publication,” “the known or potential rate of error,” “the existence and maintenance of standards controlling the technique’s application,” and whether the technique has been generally accepted in the relevant scientific community.<sup>26</sup> The Court emphasized that the inquiry was “a flexible one” with “[i]ts overarching subject” as “the scientific validity and thus the evidentiary relevance and reliability—of the principles that underlie a proposed submission.”<sup>27</sup>

In *Kumho Tire Co. v. Carmichael*, the Supreme Court clarified that a trial court’s gatekeeping obligation extends to all expert testimony, even if based upon experiential or other non-scientific knowledge.<sup>28</sup> The Court held that there should be no distinction between scientific knowledge and other knowledge, noting that the judge’s role as

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<sup>19</sup> See, e.g., *Summit 6, LLC v. Samsung Electronics Co., Ltd.*, 802 F.3d 1283, 1296 (Fed. Cir. 2015) (“[W]here the methodology is reasonable and its data or evidence are tied to the facts of the case, the gatekeeping role of the court is satisfied and the inquiry on the correctness of the methodology and of the results produced thereunder belongs to the factfinder.”)

<sup>20</sup> *Daubert v. Merrell Dow Pharms. Inc.*, 509 U.S. 579 (1993).

<sup>21</sup> See Joel Lutzker, *Daubert and Damages Experts Post-Uniloc*, Law360 (September 9, 2011), available at: <http://www.law360.com/articles/268150/daubert-and-damages-experts-post-uniloc> (discussing the increased emphasis on *Daubert* challenges after the Federal Circuit’s decision in *Uniloc USA Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011); see also *infra* at Chart 1.

<sup>22</sup> See *infra* at Chart 2.

<sup>23</sup> *Daubert*, 509 U.S. at 585.

<sup>24</sup> *Id.* at 589.

<sup>25</sup> *Id.* at 592.

<sup>26</sup> *Id.* at 593-94.

<sup>27</sup> *Id.* at 594-95.

<sup>28</sup> *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999).

gatekeeper can assist the jury in deciphering all varieties of knowledge.<sup>29</sup> The Court also reiterated *Daubert's* flexible approach and granted trial courts “considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable.”<sup>30</sup>

The holdings in these cases have been adopted in Rule 702 of the Federal Rules of Evidence<sup>31</sup>, which was amended in 2000 to provide:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.<sup>32</sup>

The amended Rule 702 codifies several key points from the *Daubert* and *Kumho* holdings.<sup>33</sup> First, it maintains the trial court’s gatekeeping role to ensure that the expert testimony is based on reliable principles and methods. Second, its role extends to all expert evidence, not just scientific evidence. Third, it states that judges both evaluate whether there are some facts or data supporting the expert’s opinion and determine whether the data are “sufficient” to support that opinion. Finally, the amended Rule 702 requires that courts decide whether the basis for the expert’s opinion can be “reliably applied” to the particular case.<sup>34</sup>

Despite this codification in Rule 702, there remains confusion on the part of trial court judges, who have been given greater flexibility but little guidance on how to apply *Daubert*.<sup>35</sup> A national study has shown that trial court judges are not certain which standards should be applied or the relative weight that should be afforded to each of those standards.<sup>36</sup> The study, which surveyed 400 state court trial judges revealed many discrepancies in their understanding of *Daubert*. In particular, the specter of the old “general acceptance in the field” hung heavily over the decisionmaking. Among judges who were willing to weight the *Daubert* factors by their importance, half were still giving the most weight to the question of whether a principle or methodology was generally accepted in its field. The remaining factors were split nearly evenly. In addition,

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<sup>29</sup> *Id.* at 147-48.

<sup>30</sup> *Id.* at 152.

<sup>31</sup> Cassandra H. Welch, *Flexible Standards, Deferential Review: Daubert's Legacy of Confusion*, 29 Harv. J.L. & Pub. Pol'y 1085 (2006).

<sup>32</sup> Fed. R. Evid. 702.

<sup>33</sup> David L. Faigman, *The Daubert Revolution and the Birth of Modernity: Managing Scientific Evidence in the Age of Science*, 46 U.C. DAVIS L. REV. 893, 9120 (2013).

<sup>34</sup> *Id.*

<sup>35</sup> Cassandra H. Welch, *Flexible Standards, Deferential Review: Daubert's Legacy of Confusion*, 29 Harv. J.L. & Pub. Pol'y 1085, 1096 (2006).

<sup>36</sup> *Id.* at 1098-99.

approximately twenty percent of all the judges responding to the survey admitted to being unsure of how to combine the factors.<sup>37</sup>

While the 2001 study is now dated, confusion over the correct application of *Daubert* remains. The flexibility afforded by *Daubert* has allowed the Federal Circuit to focus on the requirements of Federal Rule of Evidence 702 regarding the “reliable application” of “sufficient facts or data” in gatekeeping for patent cases. We will discuss in the next section how the Federal Circuit is increasingly emphasizing the importance of tethering case-specific facts to a reasonable methodology when evaluating expert testimony.

#### **IV. The Development of Patent Damage Methodologies at the Federal Circuit: From *Georgia-Pacific* to *Summit 6***

With a touch of melodrama, the plight of the patent damages expert can be likened to that of Sisyphus, the figure in Greek mythology who the gods doomed to roll a giant bolder uphill every day and watch it roll back down at the end.<sup>38</sup> Instead of pushing a boulder uphill, however, it is the expert’s Sisyphean task to raise a new reasonable royalty methodology into common use over and over again. To succeed, the new theory must first survive a *Daubert* motion. The jury must then adopt the motion, which the trial judge later affirms. If it gets that far, other damages experts might borrow and refine the motion. Ultimately, however, the Federal Circuit is sure to weigh in, threatening to send the boulder tumbling downhill by vacating or remanding the damages award. If the damages expert is lucky, however, the Federal Circuit might spare the methodology, choosing instead to focus on how it is applied to the facts of the case.<sup>39</sup>

By emphasizing the importance of tethering the methodology to the specific facts of the case, the Federal Circuit has risked untethering the district courts from precedent. By keying in on the facts unique to each case, district courts may unwittingly defer to the expert witnesses who can best exploit those facts of by choosing and applying the most appropriate methodology to support their client’s claim. Deferring too greatly to scientific wunderkinds spouting impressive sounding conclusions is dangerous. Scientific expertise alone does not make one a neutral and dependable arbiter of difficult legal dilemmas.<sup>40</sup> Nevertheless, the Federal Circuit appears to be encouraging fact specific rulings at the

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<sup>37</sup> *Id.* (citing Sophia I. Gatowski et al., *Asking the Gatekeepers: A National Survey of Judges on Judging Expert Evidence in a Post-Daubert World*, 25 *Law & Hum. Behav.* 433 (2001)).

<sup>38</sup> Jim Bergman, Speaking in March 28, 2016 Webinar sponsored by the California Bar: “Apportionment in Patent Damages: Daubert Proof Patent Damages Using the CAFC Valuation Methodology – Careful Apportionment Using Facts and Circumstances”

<sup>39</sup> *Id.*; see also, *Commonwealth Scientific and Industrial Research Organization v. Cisco Systems, Inc.*, 809 F.3d 1295 (Fed. Cir. 2015); *Summit 6, LLC v. Samsung Electronics Co., Ltd.*, 802 F.3d 1283 (Fed. Cir. 2015); *VirnetX Inc. v Cisco Systems Inc.*, 767 F.3d 1308, 1325 (Fed. Cir. 2014); *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201 (Fed. Cir. 2014); *ActiveVideo Networks, Inc. v. Verizon Commc’ns, Inc.*, 694 F.3d 1312 (Fed. Cir. 2012); *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51 (Fed. Cir. 2012); *Whitserve, LLC v. Computer Packages, Inc.*, 694 F.3d 10 (Fed. Cir. 2012); *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292 (Fed. Cir. 2011); *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860 (Fed. Cir. 2010); *Wordtech Sys., Inc. v. Integrated Network Solutions, Inc.*, 609 F.3d 1308 (Fed. Cir. 2010); *i4i Ltd. P’ship v. Microsoft Corp.*, 589 F.3d 1246 (Fed. Cir. 2009); *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301 (Fed. Cir. 2009).

<sup>40</sup> See ROBIN FELDMAN, *THE ROLE OF SCIENCE IN LAW* 59-61 (Oxford 2009).

expense of generalized defensible logic. This is an example of the Federal Circuit's inclination to rely on ever-finer distinctions at the expense of a coherent logical base, which has been criticized by the Supreme Court.<sup>41</sup>

Even if the Sisyphus analogy is a stretch, it remains true that since 2009 the Federal Circuit has vacated several damages awards or reduced them as being unsupported by the evidence.<sup>42</sup> The remainder of this section will explore some of the most influential reasonable royalty methodologies, as well as the Federal Circuit decisions that address them.

#### a. *Georgia-Pacific v. U.S. Plywood (1970)*

Of all the reasonable royalty methodologies, only one has withstood the test of time: the *Georgia-Pacific* analysis. Unfortunately, it is the test that provides the least for a judge to hold onto in the middle of the maelstrom. Specifically, in 1970, Judge Tenney of the Southern District of New York issued an opinion in *Georgia-Pacific v. U.S. Plywood*<sup>43</sup> that has become the “touchstone of modern reasonable royalty damages analysis.”<sup>44</sup> In it, Judge Tenney compiled a list of considerations used in other cases he found especially pertinent to the dispute before him. Here is the original formulation of the fifteen-factor test, which has since become sacrosanct:

A comprehensive list of evidentiary facts relevant, in general, to the determination of the amount of a reasonable royalty for a patent license may be drawn from a conspectus of the leading cases. The following are some of the factors *mutatis mutandis* seemingly more pertinent to the issue herein:

1. The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
2. The rates paid by the licensee for the use of other patents comparable to the patent in suit.
3. The nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.
4. The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.

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<sup>41</sup> See Robin Feldman, *Coming of Age for the Federal Circuit*, 18 GREEN BAG 29-30 (2014).

<sup>42</sup> L. Scott Oliver and Dawn Rice Hall, *Patent Infringement Remedies—An Overview and Update* from the 10th Annual Patent Law Institute, PLI Intellectual Property Course Handbook Series, number G-1268 at p. 12 (2016).

<sup>43</sup> *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970).

<sup>44</sup> RICHARD F. CAULEY, WINNING THE PATENT DAMAGES CASE 7 (2009).

5. The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.
6. The effect of selling the patented specialty in promoting sales of other products of the licensee; that existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.
7. The duration of the patent and the term of the license.
8. The established profitability of the product made under the patent; its commercial success; and its current popularity.
9. The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.
10. The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.
11. The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
12. The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.
13. The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.
14. The opinion testimony of qualified experts.
15. The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and

which amount would have been acceptable by a prudent patentee who was willing to grant a license.<sup>45</sup>

Although Judge Tenney thought a complete collection of reasonable royalty factors could be compiled, he did not intend for his list to be exhaustive.<sup>46</sup> Nevertheless, it has become indispensable; so much so that the Federal Circuit has explicitly recognized that “a ‘reasonable royalty’ rate under section 284 is calculated with reference to the long list of factors outlined in *Georgia-Pacific* . . . .”<sup>47</sup>

Notwithstanding the affirmation of the Federal Circuit and its widespread adoption, the *Georgia-Pacific* analysis is cumbersome and unwieldy.<sup>48</sup> “[N]ot all factors are relevant to all cases and courts do not always use the same factors.”<sup>49</sup> With such variability, the test has been described as involving “more the talents of a conjurer than those of a judge.”<sup>50</sup> Nowhere is that more apparent than in Factor 15, which teed up the hypothetical negotiation framework that is now synonymous with a reasonable royalty estimate.<sup>51</sup>

“The [*Georgia-Pacific*] test is particularly troubling in the way it has been applied to complex multipart products.”<sup>52</sup> When a product is made up of many components, the price of the product may reflect not just one patented process or component, but potentially thousands of patented inventions.<sup>53</sup>

The price may also reflect unpatented technology included in the product, as well as the value added by the manufacturer in putting everything together and marketing the product. The *Georgia-Pacific* test does not adequately take all of this into account, and patented inventions that make a small contribution to an overall product have received damages awards well beyond their contribution to the whole.<sup>55</sup>

Despite its shortcomings, experts must account for the *Georgia-Pacific* factors in their analysis, even when they think another methodology is superior.<sup>56</sup> Until Congress or

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<sup>45</sup> *Georgia-Pac.*, 318 F. Supp. at 1120, *modified, sub nom.* Georgia-Pac. Corp. v. U.S. Plywood-Champion Papers, Inc., 446 F.2d 295 (2d Cir. 1971).

<sup>46</sup> See Jarosz & Chapman, *supra* note 12, at 781 (describing Tenney’s list as “nonexhaustive” and noting that the factfinder has discretion to weigh each factor on that list).

<sup>47</sup> Parental Guide of Texas, Inc. v. Thomson, Inc., 446 F.3d 1265, 1270 (Fed. Cir. 2006).

<sup>48</sup> See Daralyn J. Durie & Mark A. Lemley, *A Structured Approach to Calculating Reasonable Royalties*, 14 LEWIS & CLARK L. REV. 627, 628 (2010); Jarosz & Chapman, *supra* note 12, at 784-85 (2013).

<sup>49</sup> Robin Feldman, *Intellectual Property Wrongs*, 18 STAN. J.L. BUS. & FIN. 250, 261 (2013).

<sup>50</sup> *Fromson v. W. Litho Plate & Supply Co.*, 853 F.2d 1568, 1574 (Fed. Cir. 1988); see also FELDMAN, *supra* note 11, at 85-88 (describing problems with the *Georgia-Pacific* test in the context of bargaining within the patent system).

<sup>51</sup> See Jarosz & Chapman, *supra* note 12, at 782.

<sup>52</sup> Feldman, *supra* note 49, at 261.

<sup>53</sup> Estimates of the number of patents implicated in a contemporary smart phone range from a few hundred to 250,000. See Mike Masnick, *There Are 250,000 Active Patents That Impact Smart Phones; Representing One In Six Active Patents Today*, TECHDIRT (Oct. 18, 2012, 8:28 AM), <https://www.techdirt.com/blog/innovation/articles/20121017/10480520734/there-are-250000-active-patents-that-impact-smartphones-representing-one-six-active-patents-today.shtml>.

<sup>54</sup> Feldman, *supra* note 49, at 261. See also FELDMAN, *supra* note 11, at 86.

<sup>56</sup> See, e.g., Jarosz & Chapman, *supra* note 12, at 810 n.197 (affirming their continued use of the *Georgia-Pacific* hypothetical negotiation construct “until courts and/or Congress no longer allow” its use, while arguing for an improved approach to calculating reasonable royalties).

the courts decide to simplify or replace this fifteen-factor test, every expert opining on a reasonable royalty rate must acknowledge the rule. Given the broad and multifactorial framework, it is difficult for courts to exercise their gatekeeping function. No matter the factual circumstances of a case, at least one of the *Georgia-Pacific* factors will likely support a claimed reasonable royalty calculation.<sup>57</sup>

#### **b. The 25% Rule of Thumb and *Uniloc v. Microsoft* (2011)**

In many ways, the twenty-five percent rule of thumb is the polar opposite of the *Georgia-Pacific* analysis. It is simple to grasp and easy to apply. Unfortunately, it lacks generalizable logic, and it is no longer relevant. Before being cast aside by the Federal Circuit in *Uniloc v. Microsoft*,<sup>58</sup> however, courts used the twenty-five percent rule of thumb for more than forty years to help value patent licenses. Although primarily used with patents, the rule also applied to copyright, trademark, and trade secret.<sup>59</sup>

The rule calls for an estimate to be made of the licensee's expected profits for the product that embodies the patent at issue. Those profits are divided by the anticipated net sales over the same period to arrive at a profit rate; which, in turn, is multiplied by twenty-five percent to identify a running royalty rate.<sup>60</sup>

The theory supporting the twenty-five percent rule of thumb is that the licensor and licensee should share in the profits attributable to the patented technology. The seventy-five percent–twenty-five percent split was chosen as a starting point because it was thought that the licensee should retain a majority of the profits after overcoming substantial development, operational, and commercialization risks.<sup>61</sup> With a baseline established, the split rises or falls by applying the factors outlined in the *Georgia-Pacific* framework.<sup>62</sup>

In *Uniloc*, the Federal Circuit rejected the twenty-five percent rule of thumb because it was in no way tied to the facts of the case.<sup>63</sup> In order to prove damages through a generalized methodology, the patent holder's expert must tie the theory to the facts of the case.<sup>64</sup> When there is no reason in the factual record to support setting the starting point of a hypothetical negotiation at twenty-five percent, then the rule of thumb could not suffice. This is true even when accounting for the *Georgia-Pacific* factors because, as the Federal Circuit noted, “[b]eginning from a fundamentally flawed premise and adjusting it based on legitimate considerations specific to the facts of the case nevertheless results in a fundamentally flawed conclusion.”<sup>65</sup>

If the *Uniloc* decision left any doubt as to whether the twenty-five percent rule of thumb could still be used as a general starting point, the Federal Circuit resolved the issue resoundingly in 2013 when it vacated a reasonable royalty award in *Douglas Dynamics*

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<sup>57</sup> Durie & Lemley, *supra* note 48, at 632.

<sup>58</sup> *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1315 (Fed. Cir. 2011).

<sup>59</sup> Robert Goldscheider et al., *Use of the 25 Per Cent Rule in Valuing IP*, 37 LES NOUVELLES 123, 123 (2002).

<sup>60</sup> *Id.* at 124.

<sup>61</sup> *Id.*

<sup>62</sup> *Uniloc*, 632 F.3d at 1317.

<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

<sup>65</sup> *Id.*

because the district court had applied the “infamous 25% rule of thumb, which this court held in *Uniloc* was fundamentally flawed.”<sup>66</sup>

### **c. The Entire Market Value Rule**

The *Uniloc* decision is notable not only for its rejection of the twenty-five percent rule of thumb; it also refined the Federal Circuit’s stance on another method of calculating damages: the entire market value rule. Under the entire market value rule, a patent holder can recover damages based on the value of an entire apparatus containing multiple features, but only when the patented feature constitutes the basis for customer demand.<sup>67</sup> In *Uniloc*, the Federal Circuit determined that the “Supreme Court and this court’s precedents do not allow consideration of the entire market value of accused products for minor patent improvements simply by asserting a low enough royalty rate.”<sup>68</sup> To safeguard against this potential manipulation, the Federal Circuit allowed the entire market value rule to be invoked only when the patented technology creates the basis for customer demand.<sup>69</sup> Unfortunately, the entire market value rule has proven difficult to implement in products in which many patents may be implicated. For example, it is hard to believe that any single one of the several hundred thousand patented components that are part of a smart phone is really responsible for customer demand.

Closely related to the entire market value rule is the concept of apportionment, in which a patent holder must apportion royalties between patented and unpatented features. In *Uniloc*, the Federal Circuit emphasized proper apportionment as being critical to the selection of appropriate royalties. Support of such apportionment must be reliable and tangible, rather than conjectural or speculative.<sup>70</sup> In practice, this is extremely difficult to show, especially when the multiple components in a product complement one another, creating synergistic value greater than the sum of each part.

### **d. *Laser Dynamics v. Quanta Computer* (2012) and the Smallest Salable Patent Practicing Unit**

In *Laser Dynamics v. Quanta Computer*, the Federal Circuit tightened its concept of apportionment by adopting the Smallest Salable Patent-Practicing Unit doctrine, which seeks to identify the most discrete, individually salable component of a product that reflects the patent.<sup>72</sup> That component sets the revenue base when determining reasonable royalties. This formulation was first advanced in a decision in the Northern District of New York.<sup>73</sup>

Although *Cornell* was a district court case, the former Chief Judge Rader of the Federal Circuit, sitting by designation, wrote the opinion.<sup>74</sup> Ruling on a post-trial motion, Chief Judge Rader reduced a damages award from \$184 million to \$53 million by

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<sup>66</sup> Douglas Dynamics, LLC v. Buyers Prods. Co., 717 F.3d 1336, 1346 (Fed. Cir. 2013).

<sup>67</sup> Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1336 (Fed. Cir. 2009).

<sup>68</sup> *Uniloc*, 632 F.3d at 1320.

<sup>69</sup> *See id.* at 1318.

<sup>70</sup> *Id.* at 1318 (quoting Garretson v. Clark, 111 U.S. 120, 121 (1884)).

<sup>72</sup> *Laser Dynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 67 (Fed. Cir. 2012).

<sup>73</sup> *Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 287 (N.D.N.Y. 2009).

<sup>74</sup> *Id.* at 282.

“correcting” the royalty base to reflect the value of Hewlett-Packard’s processors, rather than the higher value that formed the central processing unit brick revenue base.<sup>75</sup> This change was made because the processors, rather than the bricks, were the smallest salable patent-practicing units.

The Federal Circuit’s *Laser Dynamics* case followed the same theme. The jury awarded damages based on a royalty base formed by the sales of an entire computer, rather than sales of the optical disk drive, which the Federal Circuit recognized as the patent practicing component.<sup>76</sup> In vacating the jury’s award, the Federal Circuit clarified that the principle of apportionment required the use of the “smallest saleable unit” incorporating the patented feature as a royalty base.<sup>77</sup> The Federal Circuit held that it is “generally required that royalties be based not on the entire product, but instead on the ‘smallest salable patent-practicing-unit.’”<sup>78</sup>

After *Laser Dynamics*, it is still possible to determine damages based on the sales of the entire product when the patented feature drives consumer demand for the whole product. This is a narrow exception, however, since it is difficult to prove that consumer demand of any multi-component product is due to a single patented feature.<sup>79</sup>

#### e. *VirnetX v. Cisco Systems* (2014) and the Nash Bargaining Solution

Two years later, in 2014, the Federal Circuit tightened its scrutiny of apportionment methodologies even further beyond the concept of the smallest salable patent-practicing unit. In the case of *VirnetX Inc. v. Cisco Systems Inc.*, the jury had awarded damages based on the total sales receipts from all relevant Apple devices, despite the fact the patents at issue related to only one aspect of Apple’s FaceTime software program.<sup>80</sup> In vacating the jury’s damage award, the court rejected the theory that “when the smallest salable unit is used as the royalty base, there is necessarily no further constraint on the selection of the base.”<sup>81</sup> Instead, “[w]here the smallest salable unit is, in fact, a multi-component product containing several non-infringing features with no relation to the patented feature . . . the patentee must do more to estimate what portion of the value of that product is attributable to the patented technology.”<sup>82</sup>

In addition to further refining the smallest salable unit definition, the *VirnetX* decision also criticized another formula that juries employed to calculate a damages value: the Nash bargaining solution. The Nash bargaining solution is premised on the notion that bargaining parties will seek to “jointly maximize the product of the surpluses generated by a successful bargain.”<sup>83</sup> In other words, rational bargaining partners will try

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<sup>75</sup> *Id.* at 291-93.

<sup>76</sup> *Laser Dynamics*, 694 F.3d at 60, 61, 63, 68.

<sup>77</sup> *Id.* at 67-68.

<sup>78</sup> *Id.* at 67 (quoting *Cornell Univ. v. Hewlett-Packard Co.*, 609 F. Supp. 2d 279, 287-88 (N.D.N.Y. 2009)).

<sup>79</sup> *Id.*

<sup>80</sup> *VirnetX Inc. v. Cisco Systems Inc.*, 767 F.3d 1308, 1328 (Fed. Cir. 2014).

<sup>81</sup> *Id.* at 1327, 1334.

<sup>82</sup> *Id.*

<sup>83</sup> J. Gregory Sidak, *Bargaining Power and Patent Damages*, 19 *Stan. Tech. L. Rev.* 1, 7 (2015) (citing John Nash, *The Bargaining Problem*, 18 *ECONOMETRICA* 155, 159 (1950)).

to evenly maximize the net payoffs to each side, and, will therefore divide down the middle the total surplus gains from their deal.<sup>84</sup>

The Nash bargaining solution can be an interesting academic thought exercise. Given that a hypothetical negotiation framework lacks much grounding in reality anyway, one could imagine an argument that Nash is as good as anything else. The Federal Circuit disagreed, however, finding that the fifty–fifty split of the bargained surplus proposed by the Nash bargaining solution was just as arbitrary as the twenty-five percent rule of thumb rejected in *Uniloc*.<sup>85</sup> In doing so, the Federal Circuit may have signaled its interest in finding an analytic framework beyond the realm of the pure hypothetical and grounded in some form of reality more directly related to the case.

The *VirnetX* case must be understood in the context of continued battles between the Federal Circuit and the Supreme Court over patent doctrines. In particular, the Supreme Court in a quartet of cases repeatedly, and sometimes pointedly, rejected the Federal Circuit’s attempts to conjure up bright-line rules in the realm of patentable subject matter.<sup>86</sup> The Supreme Court decided the fourth case in the quartet, *Alice v. CLS Bank*,<sup>87</sup> in June 2014, and the Federal Circuit handed down its decision in *VirnetX* three months later.<sup>88</sup> Thus, *VirnetX* may have reflected the Federal Circuit’s attempt to avoid another drubbing by the Justices and to prove its loyalty to finding rationality in its rulemaking.

Commentators disagree over whether the Nash bargaining solution remains a viable methodology for calculating reasonable royalty damages.<sup>89</sup> At a minimum, however, the Federal Circuit has made it clear that any application of the Nash bargaining solution must “sufficiently establish that the premises of the theorem actually apply to the facts of the case at hand.”<sup>90</sup> Without first demonstrating that the facts of the case satisfy the premises of the Nash bargaining solution, any analysis will be rejected as a theoretical exercise that is useless to the finder of fact.<sup>91</sup>

Although the Federal Circuit endorsed the smallest salable unit in *Laser Dynamics* and *VirnetX*, the court later left open a back door method of avoiding smallest salable unit by using license agreements as evidence. In *Ericsson v. D-Link Systems*, the court ruled that comparable licenses can be used as a basis for calculating reasonably

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<sup>84</sup> *Id.*

<sup>85</sup> *VirnetX*, 767 F.3d at 1332.

<sup>86</sup> For an examination of the struggles between the Federal Circuit and the Supreme Court over jurisprudential approaches and the patentable subject matter quartet of cases, see Robin Feldman, *Coming of Age for the Federal Circuit*, 18 GREEN BAG 2D 27 (2014). See also Robin Cooper Feldman, *A Conversation in Judicial Decision-Making*, 5 HASTINGS SCI. & TECH. L.J. 1 (2013).

<sup>87</sup> See *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. \_\_\_, 134 S.Ct. 2347 (2014) (decided on June 19, 2014).

<sup>88</sup> *VirnetX*, 767 F.3d at 1332 (decided September 16, 2014).

<sup>89</sup> Compare Sidak, *supra* note 83, at 6 (arguing that the Federal Circuit’s “rejection of the Nash bargaining solution is tantamount to a rejection of the admissibility of any damages calculation based on a theory of bargaining that is mathematically complex, not replicable or falsifiable by the finder of fact, and not sufficiently tied to the facts of the specific case), with Lance Wyatt, *Keeping Up With the Game: The Use of the Nash Bargaining Solution in Patent Infringement Cases*, 31 SANTA CLARA HIGH TECH L.J. 427, 448 (2015) (stating that “because the Federal Circuit did not place an outright bar on the use of the [Nash bargaining solution], it still stands as a reliable method for calculating damages”).

<sup>90</sup> *VirnetX*, 767 F.3d at 1332.

<sup>91</sup> *Id.*

royalty damages, even if those license fees are calculated by the entire value of a product while the technology relates to only one component of a product.<sup>93</sup> Pragmatically, the court noted that requiring comparable licenses to be tied to the smallest salable unit “would often make it impossible for a patentee to resort to license-based evidence.”<sup>94</sup>

On the one hand, using evidence of other licenses could have the potential to ground the hypothetical bargaining exercise in some semblance of reality. On the other hand, with the problem of patent trolling, licenses may reflect a company’s calculation of the cost of fighting off an aggressor, resulting in a figure that is largely unrelated to the value of patented item.<sup>95</sup> Thus, prior licenses may be a poor indication of the valuation a court should capture.

The Federal Circuit also has demonstrated that it is unwilling to fully embrace smallest salable unit—at least not as a sole approach. In the 2015 case of *Commonwealth Scientific v. Cisco Systems*,<sup>96</sup> the court rejected the notion that all damages models must be based on a single approach, such as the smallest salable unit. In *Commonwealth Scientific*, the defendant argued that the any damage analysis must start with the smallest salable patent-practicing unit.<sup>97</sup> The Federal Circuit found such a position untenable and reaffirmed that a reasonable royalty rate may be based on comparable licenses, which “are not inadmissible solely because they express the royalty rate as a percentage of total revenues, rather than in terms of the smallest salable unit.”<sup>98</sup>

The court recognized that there are many reliable methods for estimating a reasonable royalty. “This adaptability is necessary because different cases present different facts.”<sup>99</sup> The Federal Circuit again emphasized the importance of tethering the damages analysis to the facts of the case. Where the data used is not sufficiently tied to the facts of the case, “a damages model cannot meet the substantive statutory requirement of apportionment of royalty damages to the invention’s value.”<sup>100</sup>

#### **f. *Summit 6 LLC v. Samsung Electronics* (2015)**

*Summit 6 v. Samsung*<sup>101</sup> represents the Federal Circuit’s most recent dive into the gatekeeping duty of the courts. After a review of *Daubert* and the Federal Rules of Evidence, the court states that “where the methodology is reasonable and its data or evidence are tied to the facts of the case, the gatekeeping role of the court is satisfied and the inquiry on the correctness of the methodology and of the results produced thereunder belongs to the factfinder.”<sup>102</sup> The court also acknowledges that estimating a reasonable

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<sup>93</sup> *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201, 1228 (Fed. Cir. 2014).

<sup>94</sup> *Id.*

<sup>95</sup> For an empirical analysis of patent trolling, see Robin Feldman, Tom Ewing, & Sara Jeruss, *The America Invents Act 500 Expanded: Effects of Patent Monetization Entities*, 17 UCLA J.L. & TECH. 1 (2013); see also Robin Feldman & Thomas Ewing, *The Giants Among Us*, 2012 STAN. TECH. L. REV. 1 (2012).

<sup>96</sup> *Commonwealth Scientific and Industrial Research Organization v. Cisco Systems, Inc.*, 809 F.3d 1295 (Fed. Cir. 2015).

<sup>97</sup> *Id.* at 1303.

<sup>98</sup> *Id.*

<sup>99</sup> *Id.* at 1302-03.

<sup>100</sup> *Id.* at 1302 (quoting *Ericsson*, 773 F.3d at 1226).

<sup>101</sup> *Summit 6, LLC v. Samsung Electronics Co., Ltd.*, 802 F.3d 1283 (Fed. Cir. 2015).

<sup>102</sup> *Id.* at 1296.

royalty is an inexact science. “The record may support a range of reasonable royalties, rather than a single value.”<sup>103</sup>

Likewise, the Federal Circuit recognizes that there may be more than one reliable method for estimating a reasonable royalty. “A party may use the royalty rate from sufficiently comparable licenses, value the infringed features based upon comparable features in the marketplace, or value the infringed features by comparing the accused product to non-infringing alternatives. A party may also use what this court has referred to as ‘the analytical method,’ focusing on the infringer’s projections of profit for the infringing product.”<sup>104</sup> The court views its flexibility on reasonable royalty methodologies as a necessary complement to its requirement that case specific facts be emphasized in any analysis.

In summary, none of the recent guidance from the Federal Circuit is likely to help trial courts find their way through the haze. Smallest salable unit is appropriate, but there are ways around it. Lawyers will battle over which components constitute the smallest salable units while experts use multiple, alternative theories to support their estimated amount of reasonable royalties. Thus, it is entirely predictable that the trial courts will continue to struggle, that experts will be stuck pushing the Sisyphean bolder up the hill, and that the area of law will defy any efforts to discern predicable and reliable doctrines.

## V. Trends in District Court *Daubert* Decisions

Having reviewed the Federal Circuit’s positions on reasonable royalties in the previous section, I turn now to the front lines of gatekeeping – the district courts. In this section, I will first review the growth of *Daubert* decisions in patent litigation. The past five years have witnessed an explosive increase in the number of *Daubert* decisions issued by judges. This increase cannot be fully accounted for by the slower and steadier growth in patent litigation. I will then survey the *Daubert* decisions that have been issued by district courts between January and May 2016. It is becoming apparent that experts are using more than one methodology to support their calculations of reasonable royalties.

For the purposes of this symposium, I took a brief look at the number of trial court *Daubert* decisions in reasonable royalty cases from January 1, 2008 through December 31, 2015. This is not intended as a detailed quantitative exploration—that would require extensive research into the details of the individual cases—but as a rough look at the contours of the landscape. According to the patent litigation analytics website, Docket Navigator, there were only six *Daubert* decisions issued on challenges to reasonable royalty testimony in 2008.<sup>105</sup> In 2015, the number of *Daubert* decisions had grown to 74, an increase of more than twelvefold. Over the same period, the number of patent cases slightly more than doubled, increasing from 2608 in 2008 to 5767 in 2015.<sup>106</sup> The growth of *Daubert* decisions from 2008 through 2015 was nearly six times greater than the growth of patent cases.

Of course, an increase in *Daubert* decisions does not necessarily indicate an increase in the number of *Daubert* motions filed. If the pace of judicial decision making

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<sup>103</sup> *Id.* (citing *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1315 (Fed. Cir. 2014)).

<sup>104</sup> *Id.* (citations omitted).

<sup>105</sup> See <http://docketnavigator.com>; see also Chart 1, *infra*.

<sup>106</sup> See Chart 2, *infra*.

has changed, that could alter the number of decisions. It could be, for example, that judges used to sit on such motions for some reason and are now able to decide more of them.

There is reason to believe, however, that the number of decisions is reasonably related to the number of motions being filed. Since the Federal Circuit’s 2011 ruling in *Uniloc* to end the use of the 25% rule of thumb, it has become more common for litigants on each side of a patent infringement case to file *Daubert* motions attacking expert witness testimony on damages. This is consistent with what those entrenched in the system are reporting anecdotally. In a recent decision from the District of Delaware, Judge Robinson noted that, “[a]s per the normal course of events, both plaintiffs and defendants accuse the opposing experts of basing their economic analyses on inappropriate data.”<sup>107</sup> The comment is particularly telling coming from Judge Robinson. She has been identified as the most active district court judge – by far – in deciding patent litigation disputes between 1996-2015. According to PricewaterhouseCoopers most recent annual study on patent litigation, Judge Robinson has produced more than twice the identified patent litigation decisions of the second most active judge.<sup>108</sup>

To help visualize the trend that Judge Robinson described, I created a chart of federal district court rulings on motions to exclude expert testimony on reasonable royalties from January 1, 2008 through December 31, 2015:<sup>109</sup>



Chart 1 – Daubert Decisions Per Year

*Uniloc* was decided on January 4, 2011. This chart reveals a significant increase in *Daubert* motions filed in 2011 over the number filed in 2010. After the Federal Circuit wiped away the 25% rule of thumb in *Uniloc*, motions in limine seeking to exclude expert testimony on reasonable royalties nearly tripled from 9 in 2010 to 26 in 2011.<sup>110</sup>

An increase in the number of *Daubert* motions, however, must be examined in the context of number of patent lawsuits filed over the same period. The number of patent

<sup>107</sup> *Amgen Inc. v. Sanofi*, No. 14-1317-SLR (Consolidated) (D. Del. Feb. 18, 2016) at p. 5.

<sup>108</sup> See PRICEWATERHOUSECOOPERS, 2016 PATENT LITIGATION STUDY: ARE WE AT AN INFLECTION POINT? 1 (2016), available at <http://www.pwc.com/us/en/forensic-services/publications/assets/2016-pwc-patent-litigation-study.pdf>.

<sup>109</sup> This chart was created using Docket Navigator, <http://docketnavigator.com>.

<sup>110</sup> None of the opinions included in the data for 2011 were issued before *Uniloc*.

lawsuits increased in the same time period as well. Thus, more motions could simply flow from an increase in patent lawsuits.

The data, however, suggest that the number of *Daubert* motions has been rising faster than the number of patent lawsuits in the relevant period. The chart below shows the number of patent lawsuits filed tracked as well as the number of *Daubert* motions filed.<sup>111</sup>

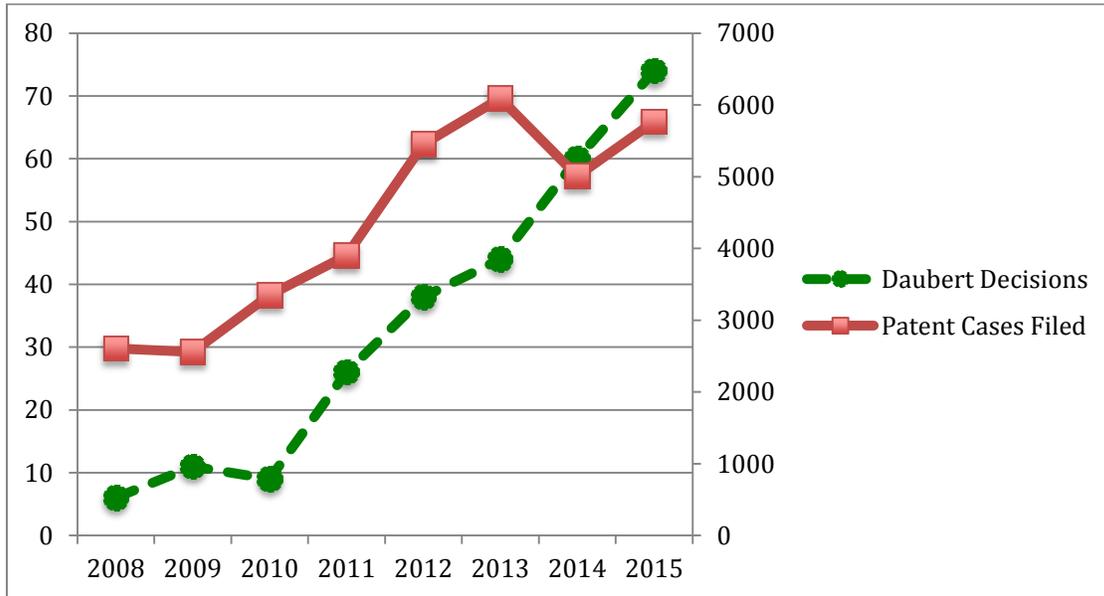


Chart 2 – *Daubert Decisions vis-à-vis Patent Cases Filed*

While the two trend lines track each other pretty closely, an inspection of the data reveals that the ratio of *Daubert* decisions to patent cases has steadily increased each year since *Uniloc*: 0.0027% in 2010; 0.0067% in 2011; 0.0069% in 2012; 0.0072% in 2013; 0.0119% in 2014; and 0.012% in 2015.<sup>112</sup> This data shows a shift to more *Daubert* decisions issued per patent cases filed. Regardless of the underlying reason, the increasing frequency of *Daubert* motions indicates points to their increasing prominence in patent litigation.

The bottom line is that – at least at a superficial level – the numbers suggest what is predicted in the paper: recent Federal Circuit decisions have not stemmed the tide or provided the type of resolution that would bring certainty, clarity, and rationality.

Although it is still too early to know whether the trend will continue in 2016, I have reviewed the *Daubert* motions regarding reasonable royalty calculations for the first half of the year. Using the same search terms in Docket Navigator for Chart 1 yields 40

<sup>112</sup> Here are the data points in Chart 2 for each of the following years: 2010 (9 *Daubert* motions to 3351 patent cases); 2011 (26 to 3900); 2012 (38 to 5454); 2013 (44 to 6090); 2014 (60 to 5008); 2015 (74 to 5767).

rulings between January 1, 2016 and June 30, 2016.<sup>113</sup> Of these 40 rulings, 26 allowed the challenged testimony while 14 excluded it.<sup>114</sup>

In nearly all instances, the district courts heeded the Federal Circuit's emphasis on the application of case specific facts to a reasonable methodology. This is true even for the 14 rulings excluding testimony. Thirteen focused on the disconnect between methodology and relevant facts.<sup>115</sup> In other words, there was nothing inherently wrong with the theories being used; they were simply not tethered to relevant facts for the case.

This 35% exclusion rate is slightly higher than other research has found in the past.<sup>116</sup> This could mean that the district courts are exercising their gatekeeping functions with greater scrutiny. But it is worth noting that several of the rulings excluding testimony in our survey were for alternative theories of damages. Meaning, there appear to be more decisions granting in part and denying in part the *Daubert* motions.<sup>117</sup> This suggests a trend to parties more often presenting multiple theories of damages.

Here is a chart showing the methodologies of all the reasonable royalty expert testimony challenged in the first half of 2016:

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<sup>113</sup> See Appendix 1. The search, conducted on Docket Navigator as outlined in footnote 93, revealed 21 separate written opinions. Some of these opinions include rulings on multiple expert witnesses or on multiple theories of damages. Taking into account all the rulings, there have been 40 *Daubert* decisions.

<sup>114</sup> See *id.*

<sup>115</sup> See *id.* (In the one instance where the methodology was rejected, it was due to the fact that methodology used was personal experience, which the court found unreliable. See *BMC Software, Inc. v. Servicenow, Inc.*, No. 2:14-CV-903-JRG (E.D. Tex. Feb. 1, 2016)).

<sup>116</sup> In a 2010 study, the exclusion rate was 23% when including exclusions in part. Daralyn J. Durie & Mark A. Lemley, *A Structured Approach to Calculating Reasonable Royalties*, 14 LEWIS & CLARK L. REV. 627, 635 (2010) "Of the 39 cases . . . only 6 excluded the patentee's expert testimony on reasonable royalty, with another 3 excluding the patentee expert's testimony in part."

<sup>117</sup> In the 2010 study by Durie and Lemley, only 3 of the 39 decisions were partial. In 2016, 7 of 24 opinions have been partial.

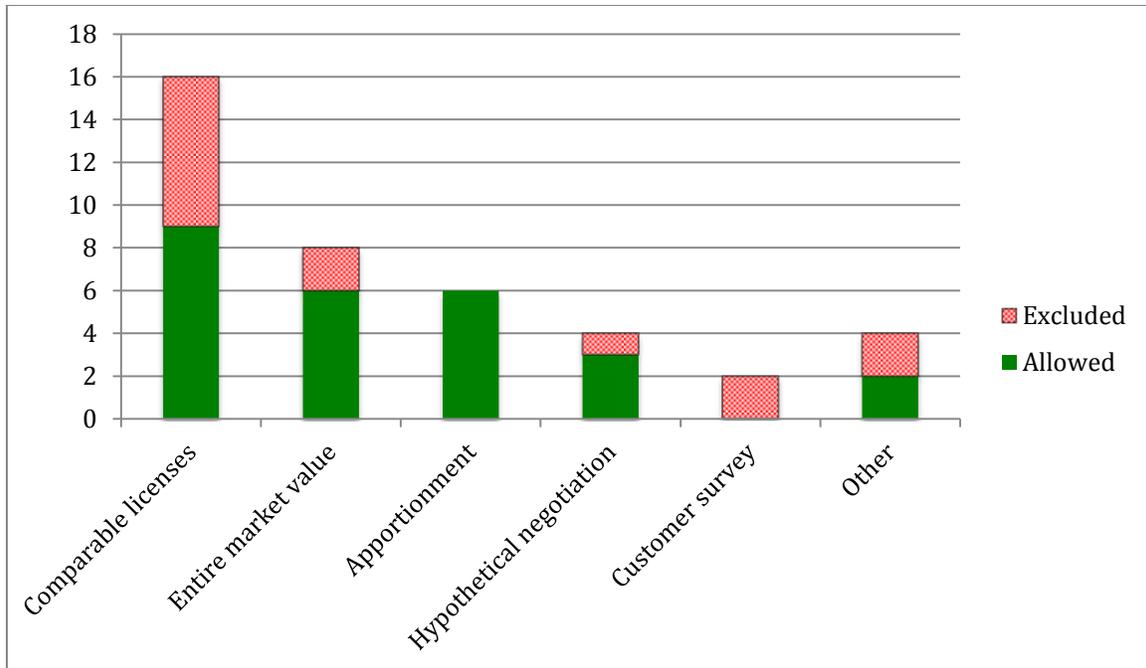


Chart 3 (District Court Daubert decisions in first half of 2016)

As can be seen in Chart 3, the comparable licenses approach has been the most commonly attacked methodology this year. Perhaps not surprisingly, it has also been the most vulnerable, with the testimony excluded in 7 of 16 instances. Most of the excluded testimony involved efforts to use litigation settlements as comparable licenses.<sup>118</sup> To the extent such settlements may be allowed in a comparable license approach, the courts require an accounting for the coercive nature of the litigation environment to make the settlements more like licenses negotiated in the business world.<sup>119</sup>

The entire market value rule has been challenged eight times, resulting in only two exclusions. Typically, these challenges relate to a failure of the expert to use the smallest salable patent-practicing unit. Given the Federal Circuit's recent confirmation that apportionment need not begin with the smallest salable patent-practicing unit, the testimony invoking the entire market value is largely being allowed. This is especially true when the party challenging a failure to identify and apportion the smallest salable patent-practicing unit cannot offer an alternative smallest salable unit.<sup>120</sup>

All six challenges to an expert's method of apportionment were denied, allowing testimony on the subject. As long as the facts being used to apportion are case specific, courts are allowing testimony on apportionment.

The four hypothetical negotiation rulings refer broadly to *Georgia-Pacific* factors. The only testimony excluded was an assumption regarding the length of the hypothetical license period that was not based in facts specific to the case.<sup>121</sup>

<sup>118</sup> See *infra* at Appendix 1.

<sup>119</sup> See *id.*

<sup>120</sup> See *infra* at Appendix 1; see also, e.g., *ART+COM Innovationpool GmbH v. Google Inc.*, No. 1:14-217-RGA (D. Del. Apr. 28, 2016).

<sup>121</sup> See *infra* at Appendix 1.; see also *ART+COM Innovationpool GmbH v. Google Inc.*, No. 1:14-217-RGA (D. Del. Apr. 28, 2016).

Of the two customer surveys that challenged this year, both have been excluded. The rulings indicate that the surveys must relate specifically to the patented technology at issue.<sup>122</sup>

Finally, the four methodologies captured in the “Other” bar in Chart 3 include the analytical approach (allowed); book of wisdom (allowed); personal experience (excluded); and the top-down approach (excluded).<sup>123</sup>

## VI. Reducing the Range

The Federal Circuit acknowledges that estimating a reasonable royalty is an inexact science. “The record may support a range of reasonable royalties, rather than a single value.”<sup>124</sup> The obvious danger in having a range of acceptable royalty estimates is that it encourages parties to push their calculations to the outer limits. This problem is exacerbated by the proliferation of methodologies available to support damages calculations.<sup>125</sup> A study of opinions issued since 1978 in which a suggested royalty rate was reported for both the patentee and the accused infringer has shown that the range between the damages calculations can be as great as 300 to 1.<sup>126</sup> Although that large a spread may be an outlier, the difference is more than 20 to 1 in many cases. And it is not decreasing over time.<sup>127</sup> The Federal Circuit’s two most recent reasonable royalties cases illustrate the typical spread between expert estimates. In *Summit 6 v. Samsung*, the plaintiff’s expert estimated the reasonable royalties at \$29 million, while defendant’s expert arrived at \$1.5 million. The jury split the difference and awarded \$15 million. In *Commonwealth Scientific v. CISCO*, the experts’ estimates totaled \$30.18 million for the plaintiff and \$1.05 million for the defendant. In a bench trial, the court split the difference and awarded \$16.24 million. The remainder of this section will explore what can be done to rein in such enormous ranges.

In *Summit 6*, the Federal Circuit praised the flexibility of its approach in allowing multiple methods of estimating reasonable royalties. But flexibility has its drawbacks. With so many factors and methods of analysis available, the gatekeeping role of the court is severely hindered. District courts exclude just a fraction of the expert testimony that is challenged.<sup>128</sup> Many courts end up punting the testimony to the jury, rationalizing that any problems with the methodology can be addressed on cross-examination.<sup>129</sup> But juries are easily swayed by scientific methods. A juror’s strength lies in sorting out facts, not in sussing out the relative strengths of competing economic models while simultaneously

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<sup>122</sup> See *infra* at Appendix 1; *M2M Solutions LLC v. Enfora, Inc.*, No. 12-32-RGA (D. Del. Mar. 9, 2016)

<sup>123</sup> See *infra* at Appendix 1.

<sup>124</sup> *Summit 6*, 802 F.3d at 1296.

<sup>125</sup> Daralyn J. Durie & Mark A. Lemley, *A Structured Approach to Calculating Reasonable Royalties*, 14 LEWIS & CLARK L. REV. 627, 632 (2010) (“The breadth of the available factors also means that it is difficult to exclude evidence or expert testimony espousing virtually any theory of reasonable royalty damages, no matter how outlandish.”)

<sup>126</sup> See John C. Jarosz & Michael J. Chapman, *The Hypothetical Negotiation and Reasonable Royalty Damages: The Tail Wagging the Dog*, 16 Stan. Tech. L. Rev. 769, 809 (2013).

<sup>127</sup> See John C. Jarosz & Michael J. Chapman, *The Hypothetical Negotiation and Reasonable Royalty Damages: The Tail Wagging the Dog*, 16 Stan. Tech. L. Rev. 769, 809 (2013).

<sup>128</sup> See *supra* at Chart 3.

<sup>129</sup> See *infra* at Appendix 1.

juggling 15 factors that might or might not have been relevant to a fictional negotiation between the parties in some fanciful past.

Others have offered up a number of theories for simplifying and unifying the calculation of reasonable royalties.<sup>130</sup> Rather than adding another voice to an already muddled field of potential solutions, I suggest instead that it would be more helpful to settle on a single, simple approach. Regardless of the method selected, it would necessarily be more efficient and predictable than the current mess of methods mapped over the multifactorial *Georgia-Pacific* framework.

To that end, consider what the result would be if the Federal Circuit were to reverse the course it set in *Uniloc* and suddenly established the 25 percent rule of thumb as the starting point for all reasonable royalty analyses. Of course, parties could still adjust their share of the profits according to any and all relevant facts. For instance, if a patentee has comparable licenses that show a 10% royalty rate, that would trump the rule of thumb.

The primary downside to using a simple heuristic like the 25 percent rule of thumb is that we risk inaccuracy due to using an arbitrary starting point. But is that really such a concern when the Federal Circuit already acknowledges that a “range” of reasonable royalties is the best we can do? When the reasonable range – as measured by expert testimony surviving *Daubert* challenges – routinely differs by a factor of 20 between opposing experts<sup>131</sup>, it is hard to imagine that a 25 percent rule of thumb would produce estimates that regularly stretched the range even farther apart.

If, however, we were to establish the 25 percent rule of thumb, or any other simple method, as the starting point of a reasonable royalty analysis, then we would gain predictability, efficiency, and cost savings in litigation.

Predictability in litigation processes and outcomes is beneficial. It avoids litigation hold up and allows reliable evaluation of the outcomes. Given a single, common starting point, it is reasonable to believe that parties could more easily gauge their litigation exposure as they would be measuring damages in the same manner as their opponent. With fewer *Daubert* challenges, the average length of litigation would be shortened. Finally, with less need for multiple, complicated economic models, parties could save on their litigation expenses to expert witnesses.<sup>132</sup> Given all the advantages to a simplified system, the value added outweighs the cost of reduced accuracy.

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<sup>130</sup> See, e.g., Daralyn J. Durie & Mark A. Lemley, *A Structured Approach to Calculating Reasonable Royalties*, 14 LEWIS & CLARK L. REV. 627, 635 (2010); John C. Jarosz & Michael J. Chapman, *The Hypothetical Negotiation and Reasonable Royalty Damages: The Tail Wagging the Dog*, 16 Stan. Tech. L. Rev. 769 (2013); Michael A. Greene, *All Your Base Are Belong to Us: Towards an Appropriate Usage and Definition of the ‘Entire Market Value’ Rule in Reasonable Royalties Calculations*, 53 B.C. L. REV. 233 (2012); Thomas F. Cotter, *Four Principles for Calculating Reasonable Royalties in Patent Infringement Litigation*, 27 SANTA CLARA COMPUTER AND HIGH TECH. L.J. 725 (2011); Christopher B. Seaman, *Reconsidering the Georgia-Pacific Standard for Reasonable Royalty Patent Damages*, 2010 BYU L. REV. 1661 (2010); Eric E. Bensen & Danielle M. White, *Using Apportionment to Rein in the Georgia-Pacific Factors*, 9 COLUM. SCI. & TECH. L. REV. 1 (2008); Amy L. Landers, *Let the Games Begin: Incentives to Innovation in the New Economy of Intellectual Property Law*, 46 SANTA CLARA L. REV. 307 (2006).

<sup>131</sup> See John C. Jarosz & Michael J. Chapman, *The Hypothetical Negotiation and Reasonable Royalty Damages: The Tail Wagging the Dog*, 16 Stan. Tech. L. Rev. 769, 809 (2013).

<sup>132</sup> Brandon Baum, Practising Law Institute, *Fundamentals of Patent Litigation 2014: Anatomy and Timeline for a District Court Patent Infringement Case*, recorded May 14, 2014, in San Francisco (stating

There could be other ways to encourage a more rational process and result, outside of the more substantive doctrines related to damage standards. Procedural rules, as well as substantive ones, may provide helpful avenues. In particular, in a paper released in 2012, Robin Feldman suggested that baseball style arbitration could be operate as a reality check for damages calculations from each party.<sup>133</sup> Other scholars have elaborated on the idea as well.<sup>134</sup>

In a baseball style arbitration system, which is also known as final-offer arbitration, the parties each enter a number, and the trier of fact may choose only one of the two numbers offered, not some compromise in between.<sup>135</sup> As a result, parties have less incentive to enter a ridiculous number, given the risk that the trier of fact will ignore it and choose what one's opponent has proposed.<sup>136</sup>

Because it involves a high level of risk, final-offer arbitration incentivizes the parties to negotiate in good faith and to settle before a hearing.<sup>137</sup> According to most commentators, it also promotes the convergence of the two positions since each side wants to appear reasonable to the arbitrator.<sup>138</sup> There are a few, however, who argue that "[t]he lack of compromise created by the [final-offer] arbitration systems encourages the players and owners to submit increasingly unreasonable proposals knowing that the arbitration panel cannot compromise but rather must choose one of the two options."<sup>139</sup> Tracing this argument to its roots reveals that the claim of unreasonableness on both sides

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that damages experts can cost several hundred thousand dollars, and likely over one million dollars for big cases.)

<sup>133</sup> See Robin Feldman, *Intellectual Property Wrongs* (August 10, 2012), 18 *Stanford Journal of Law, Business, and Finance*, 250, 262 (2013), available at SSRN: <http://ssrn.com/abstract=2127558>

<sup>134</sup> See Mark A. Lemley & Carl Shapiro, *A Simple Approach to Setting Reasonable Royalties for Standard-Essential Patents*, 28 *Berkeley Tech. L.J.* 1135 (2013); J. Gregory Sidak, *Mandating Final-Offer Arbitration of FRAND Royalties for Standard-Essential Patents*, 18 *Stan. Tech. L. Rev.* 1 (2014).

<sup>135</sup> See, e.g., JERRY CUSTIS, *LITIGATION MANAGEMENT HANDBOOK* § 9:18 (2012); Matt Mullarkey, *For the Love of the Game: A Historical Analysis and Defense of Final Offer Arbitration in Major League Baseball*, 9 *VA. SPORTS & ENT. L.J.* 234, 238 (2010); John E. Sands, *Baseball Arbitration and the 'Engineering' of Effective Conflict Management*, 13 *DISP. RESOL. MAG.* 10 (2007); Ben Einbinder, *What FINRA Can Learn from Major League Baseball*, 12 *Pepp. Disp. Resol. L. J. Iss.* 2, 333 (2012); Vittorio Vella, *Swing and A Foul Tip: What Major League Baseball Needs to Do to Keep Its Small Market Franchises Alive at the Arbitration Plate*, 16 *Seton Hall J. Sports & Ent. L.* 317 (2006); Thomas J. Hopkins, *Arbitration: A Major League Effect on Players' Salaries*, 2 *Seton Hall J. Sport L.* 301, 306 (1992); Adam Primm, *Salary Arbitration Induced Settlement in Major League Baseball: The New Trend*, 17 *Sports L. J.* 73, 87 (2010).

<sup>136</sup> Robin Feldman, *Intellectual Property Wrongs*, 18 *Stanford Journal of Law, Business & Finance* 250, 262 (2013).

<sup>137</sup> Ben Einbinder, *What FINRA Can Learn from Major League Baseball*, 12 *Pepp. Disp. Resol. L. J. Iss.* 2, 333, 342 (2012).

<sup>138</sup> Ben Einbinder, *What FINRA Can Learn from Major League Baseball*, 12 *Pepp. Disp. Resol. L. J. Iss.* 2, 333, 342 (2012). (citing Adam Primm, *Salary Arbitration Induced Settlement in Major League Baseball: The New Trend*, 17 *Sports L. J.* 73, 88 (2010)).

<sup>139</sup> Matt Mullarkey, *For the Love of the Game: A Historical Analysis and Defense of Final Offer Arbitration in Major League Baseball*, 9 *VA. SPORTS & ENT. L.J.* 234, 239 (2010) (citing Vittorio Vella, *Swing and A Foul Tip: What Major League Baseball Needs to Do to Keep Its Small Market Franchises Alive at the Arbitration Plate*, 16 *Seton Hall J. Sports & Ent. L.* 317, 327 (2006)).

is based on the fact that the players' final offers were 63% of the owners' final offers in 1993.<sup>140</sup>

A difference in offers of only 63% would qualify as a huge success in the reasonable royalty damages realm, where the difference is often measured in factors, not percent. As such, this concept of convergence is particularly attractive for resolving conflicting reasonable royalty estimates. Setting aside the difficulties involved in implementing a final-offer system within the courts, the goals of convergence and early settlement are worth pursuing.

## **VII. Conclusion**

From a gatekeeping perspective, the Federal Circuit has become more flexible with respect to the methodologies it allows. At the same time, it is more closely scrutinizing the application of those methodologies to the specific facts of each case. The Federal Circuit has also acknowledged that a calculation of reasonable royalties cannot be exact, falling instead inside a range of reasonableness. Too often, however, the range between the reasonable royalty calculations of each party is too great to be considered reasonable. By simplifying damage calculations and/or forcing a reality check on each side through final-offer arbitration, this range can be reduced, bringing greater predictability to patent litigation.

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<sup>140</sup> Vittorio Vella, *Swing and A Foul Tip: What Major League Baseball Needs to Do to Keep Its Small Market Franchises Alive at the Arbitration Plate*, 16 Seton Hall J. Sports & Ent. L. 317, 327 (2006).

## APPENDIX

*Table 1: District Court Daubert Reasonable Royalty Decisions (Jan. 2016 – June 2016)*

CASE	WITNESS FOR PATENTEE / ACCUSED INFRINGER	METHODOLOGY AT ISSUE	OUTCOME & RATIONALE
ART+COM Innovationpool GmbH v. Google Inc., No. 1:14-217-TBD (D. Del. May 16, 2016).	Patentee	Apportionment	<b><i>Allowed;</i></b> “[M]ay not be the most accurate apportionment . . . but that goes to the weight and credibility of the evidence.” (p. 6).
GoDaddy.com LLC v. RPost Communications Ltd., No. CV-14-00126-PHX-JAT (D. Ariz. May 10, 2016)	Accused Infringer	Entire market value	<b><i>Excluded;</i></b> The testimony contains no evidence that the accused products were the SSPPU, or contained infringing and non-infringing features. The court found the data not sufficiently tied to the facts. “[N]ot a case where . . . ‘shaky’ evidence should be weighed by the jury—the evidence is completely irrelevant to the apportionment inquiry.” (p. 11).
Arctic Cat Inc. v. Bombardier Recreational Products, Inc., No. 14-cv-62369-BLOOM/Valle (S.D. Fla. May 2, 2016)*	Patentee	Book of wisdom	<b><i>Allowed;</i></b> Evidence of component cost information after the hypothetical negotiation date is allowed if the technology supporting the components was knowable at the time of the hypothetical negotiation. (pp. 26-27). The parties dispute that point; the court determined the factual dispute should be decided by a jury. (p. 28).
Arctic Cat Inc. v. Bombardier Recreational Products, Inc., No. 14-cv-62369-BLOOM/Valle (S.D. Fla. May 2, 2016)*	Accused Infringer	Comparable licenses	<b><i>Allowed;</i></b> License proposal offered 4 years prior to the hypothetical negotiation date was comparable (p.10); court’s role is to exclude “speculative, unreliable testimony,” not to draw “ultimate conclusions as to the persuasiveness of the proffered evidence.” (p. 12).

CASE	WITNESS FOR PATENTEE / ACCUSED INFRINGER	METHODOLOGY AT ISSUE	OUTCOME & RATIONALE
ART+COM Innovationpool GmbH v. Google Inc., No. 1:14-217-RGA (D. Del. Apr. 28, 2016).*	Accused Infringer	Comparable licenses	<b>Excluded;</b> Of the 7 comparable licenses used by the expert, 5 were pulled from litigation settlements with no accounting for the coercive circumstances surrounding their negotiation (pp. 28-29).
ART+COM Innovationpool GmbH v. Google Inc., No. 1:14-217-RGA (D. Del. Apr. 28, 2016).*	Accused Infringer	Comparable licenses	<b>Allowed;</b> Of the 7 comparable licenses used by the expert, 2 were the result of real-world licensing negotiations and allowed to be used as a ‘check’ against the reasonable royalty analysis (pp. 29-30).
ART+COM Innovationpool GmbH v. Google Inc., No. 1:14-217-RGA (D. Del. Apr. 28, 2016).*	Patentee	Entire market value	<b>Allowed;</b> The royalty base calculation begins with the total revenue for the Google Geo segment, but there is no clear SSPPU and Google does not offer an alternative starting point; thus no violation of the entire market value rule. (pp. 30-33).
ART+COM Innovationpool GmbH v. Google Inc., No. 1:14-217-RGA (D. Del. Apr. 28, 2016).*	Patentee	Apportionment	<b>Allowed;</b> The royalty rate was supported by Google’s own documents reflecting a range of the percentage of revenues attributable to accused infringing product; the selected percentage may not be most accurate but it is tethered to the facts of the case. (pp. 33-34).
ART+COM Innovationpool GmbH v. Google Inc., No. 1:14-217-RGA (D. Del. Apr. 28, 2016).*	Patentee	Hypothetical negotiation	<b>Excluded;</b> The testimony assumed a licensing period of 5.5 years regardless of when each user-activation occurred; thus detached from the facts of the case. (pp. 35-36).

CASE	WITNESS FOR PATENTEE / ACCUSED INFRINGER	METHODOLOGY AT ISSUE	OUTCOME & RATIONALE
BioMedical Enterprises, Inc. v. Solana Surgical, LLC, No. A-14-CV-0095-LY (W.D. Tex. Apr. 26, 2016)*	Patentee	Entire market value	<b>Allowed;</b> Defendants fault the expert's use of the entire market value of the accused infringing product, but offer no alternatives for SSPPU; further, the expert provides factual support for the patented features driving demand. The court concludes that Defendants' objections go only to weight of the evidence. (pp. 9-11).
BioMedical Enterprises, Inc. v. Solana Surgical, LLC, No. A-14-CV-0095-LY (W.D. Tex. Apr. 26, 2016)*	Patentee	Apportionment	<b>Allowed;</b> Expert relied on Defendants' marketing materials and testimony of their technical expert in setting a royalty rate. Court allowed the testimony because it incorporated facts in the case and articulated a rationale; any weakness in the calculation can be addressed in cross-exam (pp. 11).
Mars Inc. v. TruRX LLC, No. 6:13-cv-526-RWS-KNM (E.D. Tex. Apr. 18, 2016)*	Accused Infringer	Comparable licenses	<b>Excluded:</b> The expert relied on two licenses: the first was irrelevant because it involved neither party in the case; the second was irrelevant because Patentee was the licensor, not licensee, and it did not involve any patent in the instant suit. (pp. 7-9).
Mars Inc. v. TruRX LLC, No. 6:13-cv-526-RWS-KNM (E.D. Tex. Apr. 18, 2016)*	Patentee	Comparable licenses	<b>Excluded:</b> The comparable license was the result of litigation; the expert did not account for the accompanying different economic circumstances. (pp. 10-11).
SRI International, Inc. v. Cisco Systems, Inc., No. 13-1534-SLR (D. Del. Apr. 11, 2016)*	Patentee	Comparable licenses	<b>Excluded:</b> The court excluded all settlement agreements that were a product of litigation. (p. 41).
SRI International, Inc. v. Cisco Systems, Inc., No. 13-1534-SLR (D. Del. Apr. 11, 2016)*	Patentee	Comparable licenses	<b>Allowed:</b> The court allowed all licenses entered into as a product of business negotiations outside the context of litigation. (p. 41).

CASE	WITNESS FOR PATENTEE / ACCUSED INFRINGER	METHODOLOGY AT ISSUE	OUTCOME & RATIONALE
SRI International, Inc. v. Cisco Systems, Inc., No. 13-1534-SLR (D. Del. Apr. 11, 2016)*	Patentee	Apportionment	<i>Allowed:</i> Cisco challenged the qualifications of the expert to opine on apportionment. The court allowed the testimony and provided that “Cisco is free to challenge the conclusions and analysis . . . on cross-examination.” (p. 41).
Presidio Components, Inc. v. American Technical Ceramics Corp., No. 14-CV-2061-H (BGS) (S.D. Cal. Apr. 4, 2016)	Accused Infringer	Entire market value	<i>Allowed:</i> The court allowed the testimony because it found that there was a factual dispute as to whether the accused products contain unpatented features, which would make the entire market value rule relevant. (pp. 6-7).
Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc., No. 2:14-cv-911-JRG-RSP (E.D. Tex. Mar. 19, 2016)*	Patentee	Hypothetical negotiation	<i>Allowed:</i> LG argued that the expert’s <i>Georgia-Pacific</i> analysis was conclusory. The court held allowed the testimony, finding that the analysis was framed around <i>Georgia-Pacific</i> and the expert considered the applicability of each factor. (pp. 7-8).
Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc., No. 2:14-cv-911-JRG-RSP (E.D. Tex. Mar. 19, 2016)*	Patentee	Entire market value	<i>Allowed:</i> The court allowed the testimony because the expert identified the SSPPU and isolated the fraction of value due to the patented features. (p. 8).
Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc., No. 2:14-cv-911-JRG-RSP (E.D. Tex. Mar. 19, 2016)*	Accused Infringer	Comparable licenses	<i>Allowed:</i> The court found that the expert did not rely on loose or vague comparability. Instead, he explained the economic comparability in detail. (pp. 8-9).

CASE	WITNESS FOR PATENTEE / ACCUSED INFRINGER	METHODOLOGY AT ISSUE	OUTCOME & RATIONALE
M2M Solutions LLC v. Enfora, Inc., No. 12-32-RGA (D. Del. Mar. 9, 2016)*	Accused Infringer	Comparable licenses	<p><b>Excluded:</b></p> <p>The proffered testimony relied on two licenses obtained from litigation settlements. The court excluded the testimony because it “virtually ignored” the drastically different backdrop of litigation. The court also found the discussion of the technological comparability ambiguous. (pp. 18-19).</p>
M2M Solutions LLC v. Enfora, Inc., No. 12-32-RGA (D. Del. Mar. 9, 2016)*	Patentee	Customer survey	<p><b>Excluded:</b></p> <p>The court found that the customer surveys relied upon by the expert were unrelated to the patented technology and any allegedly infringing features of the accused products. As such, the testimony was unreliable regarding how many customers used the patented features of the accused products. (pp 20-21 (citing to the same rationale the court used in M2M Solutions LLC v. Motorola Solutions, Inc., No. 12-33-RGA (D. Del. Feb. 25, 2016))).</p>
Metaswitch Networks Ltd. V. Genband US, LLC, No. 2:14-cv-744-JRG-RSP (E.D. Tex. Mar. 7, 2016)*	Patentee	Comparable licenses	<p><b>Allowed:</b></p> <p>The court found that the technology licensed under a separate patent pool was technically and economically comparable to the technology at issue to allow it to be used as evidence for a FRAND rate in this case. (p. 4).</p>

CASE	WITNESS FOR PATENTEE / ACCUSED INFRINGER	METHODOLOGY AT ISSUE	OUTCOME & RATIONALE
Metaswitch Networks Ltd. V. Genband US, LLC, No. 2:14-cv-744-JRG-RSP (E.D. Tex. Mar. 7, 2016)*	Patentee	“Top down” approach	<b>Excluded:</b> The court excluded testimony supporting an alternative FRAND rate, based on an estimate for the minimum number of standard-essential patents. This approach ignored the size of each company that provided disclosures to the IETF standard setting organization, the number of patents in each company’s portfolio, and the differences in value between patents. (pp. 4-5).
M2M Solutions LLC v. Motorola Solutions, Inc., No. 12-33-RGA (D. Del. Feb. 25, 2016)*	Patentee	Customer survey	<b>Excluded:</b> Customer surveys relied upon by the expert were unrelated to the patented technology and any allegedly infringing features of the accused products. As such, the testimony was unreliable regarding how many customers used the patented features of the accused products. (pp 4-9).
M2M Solutions LLC v. Motorola Solutions, Inc., No. 12-33-RGA (D. Del. Feb. 25, 2016)*	Accused Infringer	Comparable licenses	<b>Excluded:</b> The expert relied on two worldwide, standard-essential, FRAND patent portfolio licenses. The court excluded the testimony because they were not “economically comparable to a license that the parties would have negotiated for a single asserted patent. (pp. 14-15).
Amgen Inc. v. Sanofi, No. 14-1317-SLR (Consolidated) (D. Del. Feb. 18, 2016)*	Patentee	Comparable licenses	<b>Allowed:</b> With no comparable bare license agreements, Amgen’s expert relied on distributor fees as relevant comparables. The court allows the testimony, finding the relevance of the data adequately explained under the <i>Georgia-Pacific</i> factors.

CASE	WITNESS FOR PATENTEE / ACCUSED INFRINGER	METHODOLOGY AT ISSUE	OUTCOME & RATIONALE
Amgen Inc. v. Sanofi, No. 14-1317-SLR (Consolidated) (D. Del. Feb. 18, 2016)*	Accused Infringer	Comparable licenses	<b>Allowed:</b> With no comparable bare license agreements, Sanofi’s expert relied on collaboration agreements and cross-license agreements as relevant comparables. The court allows the testimony, finding the relevance of the data adequately explained under the <i>Georgia-Pacific</i> factors.
Amgen Inc. v. Sanofi, No. 14-1317-SLR (Consolidated) (D. Del. Feb. 18, 2016)*	Accused Infringer	Comparable licenses	<b>Excluded:</b> The court excluded testimony regarding a corporate acquisition and litigation settlement as being too far afield from a bare patent license to be relevant comparables. (p. 5).
HSM Portfolio LLC v. Elpida Memory Inc., No. 11-770-RGA (D. Del. Feb. 11, 2016)	Accused Infringer	Comparable licenses	<b>Allowed:</b> The court allows the use of worldwide licenses to support a US license based on the expert’s accounting for the difference. Any criticism to that analysis “can be brought out on cross-examination.” (p. 2).
BMC Software, Inc. v. Servicenow, Inc., No. 2:14-CV-903-JRG (E.D. Tex. Feb. 1, 2016)*	Accused Infringer	Personal experience	<b>Excluded:</b> The expert’s analysis was based on “direct experience . . . with customer purchase decisions for IT products.” The court excluded the testimony because it was not the product of reliable and articulated principles. (pp. 3-4).
BMC Software, Inc. v. Servicenow, Inc., No. 2:14-CV-903-JRG (E.D. Tex. Feb. 1, 2016)*	Patentee	Entire market value	<b>Excluded:</b> The court found that the expert failed to properly apportion out the value of the unpatented features of the accused products. (pp. 6-7).
Imperium IP Holdings (Cayman), Ltd. V. Samsung Electronics Co., No. 4:14-CV-371 (E.D. Tex. Jan. 28, 2016)	Patentee	Apportionment	<b>Allowed:</b> The court found that the expert appropriately apportioned the profits attributable to the accused products between infringing and unpatented features. (p. 3).

CASE	WITNESS FOR PATENTEE / ACCUSED INFRINGER	METHODOLOGY AT ISSUE	OUTCOME & RATIONALE
Better Mouse Company, LLC v. SteelSeries APS, No. 2:14-cv-198-RSP (E.D. Tex. Jan. 9, 2016)	Patentee	Apportionment	<i>Allowed:</i> The court allowed the testimony, ruling that the expert did not need to start with the SSPPU and that the apportionment method can be addressed on cross-exam. (p. 6).
Better Mouse Company, LLC v. SteelSeries APS, No. 2:14-cv-198-RSP (E.D. Tex. Jan. 9, 2016)	Patentee	Comparable licenses	<i>Allowed:</i> The court allowed the testimony, ruling that the specifics of the expert’s method of relying on summaries of comparable licenses can be addressed on cross-exam. (pp. 5-6).
Motio, Inc. v. BSP Software LLC, No. 4:12-CV-647 (E.D. Tex. Jan. 8, 2016)	Patentee	Entire market value	<i>Allowed:</i> Despite the fact that the expert acknowledged that he was assuming, for purposes of his opinion, that the patented technology was the basis for demand, the court allowed the testimony; stating that defendants’ challenge was more appropriately suited for the trier of fact. (pp. 5-7).
Exergen v. Kaz USA, No.1:13-CV-10628-344 (D. Mass. Jan. 7, 2016)	Patentee	Entire market value	<i>Allowed:</i> The court found that defendant impermissibly applied a Section 101 analysis to damages by arguing that an unpatentable law of nature was the primary driving factor in the sales of the accused product.
Rensselaer Polytechnic Institute v. Apple Inc., No. 1:13-CV-0633 (DEP) (N.D. N.Y., Jan 6, 2016)	Patentee	Hypothetical negotiation	<i>Allowed:</i> The court determined that Apple was not challenging the expert’s methodology in using the hypothetical negotiation framework, but the underlying assumptions. As such, the court allowed the testimony while noting that Apple will have “fertile ground for vigorous cross-examination.” (pp. 30-36).

CASE	WITNESS FOR PATENTEE / ACCUSED INFRINGER	METHODOLOGY AT ISSUE	OUTCOME & RATIONALE
Rensselaer Polytechnic Institute v. Apple Inc., No. 1:13-CV-0633 (DEP) (N.D. N.Y., Jan 6, 2016)	Patentee	Analytical approach	<p><i>Allowed:</i> The court determined that Apple was not challenging the expert's methodology in using the analytical approach, but the underlying assumptions. As such, the court allowed the testimony while noting that Apple will have "fertile ground for vigorous cross-examination." (pp. 30-36).</p>
Rensselaer Polytechnic Institute v. Apple Inc., No. 1:13-CV-0633 (DEP) (N.D. N.Y., Jan 6, 2016)	Accused Infringer	Hypothetical negotiation	<p><i>Allowed:</i> The court allowed testimony regarding a non-infringing design-around as a reliable basis to adjust the reasonable royalty that would have been paid by the accused infringer in a hypothetical negotiation. (pp. 25-27).</p>
<p>*Cases listed more than once indicate multiple <i>Daubert</i> rulings within the same written opinion. These multiple entries account for the testimony of more than one expert and/or separate theories challenged within the testimony of an expert.</p>			