# THE JOHN MARSHALL REVIEW OF INTELLECTUAL PROPERTY LAW



# PROTECTING THE GATES OF REASONABLE ROYALTY: A DAMAGES FRAMEWORK FOR PATENT INFRINGEMENT CASES

### MERRITT J. HASBROUCK

### Abstract

The reasonable royalty analysis in patent infringement cases remains confusing to juries because of the numerous and arbitrary methods of calculation. The use of confusing methodologies, such as the Georgia-Pacific analysis, the Entire Market Value Rule, and the former 25 percent rule, increase the risk of overcompensating patentees in patent infringement cases. Without suitable changes to the reasonable royalty analysis, damages award amounts will continue to increasingly undermine the incentive for subsequent inventors to create new products. Although the courts have had some success in establishing new methods, Congress should create a more rigid and clear test for use in the courts. Clear and predictable patent damages rules created through the powers of the legislature and the judiciary will lead to fair damages awards and encourage innovation. This comment proposes a modern framework for determining reasonable royalty damages amounts to supplant outdated methodologies. This proposed framework includes a rule of apportionment, combined with strong judicial gatekeeping, to ensure that only reliable evidence based in sound economic and factual predicates is allowed to reach a jury.

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# PROTECTING THE GATES OF REASONABLE ROYALTY: A DAMAGES FRAMEWORK FOR PATENT INFRINGEMENT CASES

### MERRITT J. HASBROUCK\*

"Estimating the cost of taking an invention from idea to issued patent is easy. But determining what that intellectual property is worth once the patent is approved, is anyone's guess."

### INTRODUCTION

Patents require proper protection through clear guidance from the legislature and predictable results from the judiciary.<sup>2</sup> Although the courts have made some progress in other areas of patent law, one troublesome area remains: the appropriate standard for determining a reasonable royalty damages amount.<sup>3</sup> Clear and predictable patent damages rules that lead to fair damages awards encourage subsequent inventors to improve upon existing inventions. When the patent laws allow for overcompensation of patentees through large damages awards, the patent system provides insufficient incentives to these inventors.<sup>4</sup>

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<sup>&</sup>lt;sup>1</sup> Jameson Berkow, Unlocking the Mysteries of Patent Valuation, FIN. POST TECH DESK (Oct. 7, 2011 5:57 PM), http://business.financialpost.com/2011/10/07/how-do-you-determine-the-price-of-a-patent/.

 $<sup>^2</sup>$  Erick S. Lee, Historical Perspectives on Reasonable Royalty Patent Damages and Current Congressional Efforts for Reform, 2009 UCLA J.L. & TECH. 2, ¶ 2 (2009) (stating that "future versions of patent reforms must take care to ensure compliance with . . . historical concerns").

<sup>&</sup>lt;sup>3</sup> Id. (stating that the various methodologies for calculating a reasonable royalty have created controversy and have been blamed as a reason for failure of attempted patent reform); Patent Reform in the 111th Congress: Legislation and Recent Court Decisions Patent: Hearing Before the S. Comm. on the Judiciary, 111th Cong. 1, 2 (2009) [hereinafter Kappos] (statement of David J. Kappos, Vice President and Assistant General Counsel, IBM Corp.); see Steven Pearlstein, What Smartphone Makers can Teach Legislators, WASH. POST, June 11, 2008, at D1, http://www.washingtonpost.com/wp-dyn/content/article/2008/06/10/AR2008061003133.html ("[Patent reform] was a response to widespread complaints that by tilting too heavily in favor of existing patent holders, a patent system meant to encourage innovation was beginning to stifle it."); Stephen Albainy-Jenei, Patent Changes: Coming and Going, PAT. BARISTAS (May 7, 2008), http://www.patentbaristas.com/archives/2008/05/07/patent-changes-coming-and-going/ ("A problematic area was a proposed change to the award of damages under the provision for Reasonable Royalty Damages.").

<sup>&</sup>lt;sup>4</sup> Patent Reform in the 111th Congress: Legislation and Recent Court Decisions: Hearing Before the S. Comm. on the Judiciary, 111th Cong. 1, 3 (2009) (statement of Philip S. Johnson, Chief

The litigation of patent infringement suits costs the economy approximately \$4.5 billion annually.<sup>5</sup> Furthermore, the number of patent infringement suits filed annually has increased over time.<sup>6</sup> Of those patent infringement suits, litigation costs and damages awards have also increased substantially.<sup>7</sup> From 1994 to 2004, the number of patent cases increased from 1617 to 3075.<sup>8</sup> In 2009 the median cost for a plaintiff and a defendant to take a patent infringement suit through trial with less than \$1 million at risk was \$650,000; in a suit with \$1 million to \$25 million at risk, the median cost was \$2.5 million; and in a suit with more than \$25 million at risk, the median cost was \$5.5 million.<sup>9</sup> Also in 2009, a jury in the Eastern District of Texas awarded one of the largest patent infringement damage awards ever, at \$1.67 billion.<sup>10</sup> In the first half of 2008, the aggregate of the top seven damages awards totaled close to \$1.5 billion.<sup>11</sup>

Intellectual Property Counsel, Johnson & Johnson) ("[P]atents should be promptly and reliably enforceable against infringers, and result in damages awards that fairly compensate for the unauthorized uses made of the patented inventions."); Letter from Hon. Patrick Leahy, U.S. Senate, and twenty-three other Senators to Hon. Harry Reid, U.S. Senate Majority Leader (Sept. 15, 2010), available at <a href="http://www.patentsmatter.com/issue/pdfs/20100915\_pjl\_etal\_to\_reid.pdf">http://www.patentsmatter.com/issue/pdfs/20100915\_pjl\_etal\_to\_reid.pdf</a> ("Patents granted represent jobs for the American people . . . [s]trengthening our patent system and spurring innovation is an action we should take now to stimulate our economy.").

- <sup>5</sup> Kappos, supra note 3, at 2; T. Randolph Beard et al., Quantifying the Cost of Substandard Patents: Some Preliminary Evidence, 12 YALE J.L. & TECH. 240, 401 (2010); Robert Weber, Op-Ed, Congress: Reform Those Patents, FORBES, Dec. 26, 2007, at 1, available at http://www.forbes.com/2007/12/24/ibm-patents-congress-oped-cx\_rwe\_1226ibm.html.
  - <sup>6</sup> Kappos, supra note 3, at 7.
  - $^{7}$  *Id*. at 2.
- 8 Id.; see Aron Levko et al., A Closer Look, 2008 Patent Litigation Study: Damages Awards, Success Rates and Time to Trial 1 (2008) [hereinafter Levko et al. 2008], available at http://www.pwc.com/en\_US/us/forensic-services/assets/2008\_patent\_litigation\_study.pdf; Aron Levko et al., A Closer Look, 2009 Patent Litigation Study: Patent Litigation Trends and the Increasing Impact of Nonpracticing Entities 4 (2009) [hereinafter Levko et al. 2009], available at http://www.pwc.com/en\_US/us/forensic-services/publications/assets/2009-patent-litigation-study.pdf; J. Shawn McGrath & Kathleen M. Kedrowski, Trends in Patent Damages 1 (2007), available at http://www.abanet.org/litigation/committees/intellectual/articles.html.
- <sup>9</sup> Kappos, *supra* note 3, at 2; *see* LEVKO ET AL. 2008, *supra* note 8, at 1; LEVKO ET AL. 2009, *supra* note 8, at 4; McGrath & Kedrowski, *supra* note 8, at 1; Am. Intell. Prop. Law Ass'n, 2009 Report of the Economic Survey 29 (2009) (including costs such as outside legal and paralegal services, local counsel, associates, paralegals, travel and living expenses, fees and costs for court reporters, photocopies, courier services, exhibit preparation, analytical testing, expert witnesses, translators, surveys, jury advisors, and similar expenses).
- <sup>10</sup> Centocor Ortho Biotech, Inc. v. Abbott Labs., 669 F. Supp. 2d 756, 774 (E.D. Tex. 2009) rev'd, 2011 U.S. App. LEXIS 3514, at \*30 (Fed. Cir. Feb. 23, 2011) (reversing the district court because the claims at issue were found invalid for lack of written description, but not discussing the damages award.); see Jim Edwards, 3000 Abbott Workers Losing Their Jobs May Have Patent Lawyers to Blame, BNET, Sept. 21, 2010, available at http://www.bnet.com/blog/drug-business/3000-abbott-workers-losing-their-jobs-may-have-patent-lawyers-to-blame/5826.
- <sup>11</sup> RICHARD F. CAULEY, WINNING THE PATENT DAMAGES CASE: A LITIGATOR'S GUIDE TO ECONOMIC MODELS AND OTHER DAMAGE STRATEGIES xiii (Oxford University Press 2009); Jay P. Kesan & Gwendolyn G. Ball, How Are Patent Cases Resolved? An Empirical Examination of the Adjudication and Settlement of Patent Disputes, 84 WASH. U. L. REV. 237, 278–79 (2006) ("Among all cases filed in 2000, fourteen awarded damages in excess of \$1 million . . . .").

One of the main reasons for this increase is that the reasonable royalty analysis does not provide clear guidance for juries making damages determinations. Without suitable changes to the reasonable royalty analysis, damages award amounts will continue to increase and undermine the incentive for subsequent inventors to innovate. Additionally, because of the potential for obtaining large damages awards, the disparity between the use of jury trials, as compared to bench trials, has increased substantially. This increase in patent jury trials will require juries to make more damages determinations, thereby increasing the potential for large damages verdicts to be awarded.

This comment will discuss the current trend in the law with respect to making reasonable royalty damages determinations, particularly from the legislature and the judiciary. Part I provides an explanation of a reasonable royalty, as well as an overview of the history and background of the more common methods for calculating a reasonable royalty amount. Part II analyzes these methods in the context of jury trials. Part III proposes a number of steps the legislature and judiciary should take to ensure that juries receive quality information for making reasonable royalty damages determinations. Finally, the comment concludes with an overview of the issues and solutions.

### I. BACKGROUND

This comment begins with an outline of the more common methods of determining a reasonable royalty damages amount. Next, is a brief history of the various reasonable royalty analyses generally in patent infringement cases including the *Georgia-Pacific* factors, the Entire Market Value Rule ("EMVR"), and the 25 percent rule. Part I.A.1 discusses the problems with the *Georgia-Pacific* analysis. Part I.A.2 discusses the problems with the EMVR analysis. Part I.A.3 discusses the problems with the 25 percent rule. Part I.B discusses the legislature's failed attempts to reform the reasonable royalty analysis. Finally, Part I.C discusses the trend in recent case law for determining reasonable royalty damages amounts.

### A. History of the Reasonable Royalty Analysis

Currently, the reasonable royalty calculation is the predominant methodology for calculating a damages amount in patent infringement cases.<sup>16</sup> Until the recent passage of the America Invents Act ("AIA"), the damages section of the Patent

<sup>&</sup>lt;sup>12</sup> Kappos, *supra* note 3, at 7; 154 CONG. REC. S9983 (daily ed. Sept. 27, 2008) (statement of Sen. Jon Kyl) [hereinafter Kyl] ("[T]here is room for improvement in current law . . . [s]ome unsound practices have crept into United States patent damages litigation").

<sup>&</sup>lt;sup>13</sup> Kappos, supra note 3, at 7; Kyl, supra note 12, at S9983.

 $<sup>^{14}</sup>$  Levko et al. 2009, supra note 8, at 1.

 $<sup>^{15}</sup>$  Id.

<sup>&</sup>lt;sup>16</sup> TWM Mfg. Co. v. Dura Corp., 789 F.2d 895, 898 (Fed. Cir. 1986); LEVKO ET AL. 2009, supra note 8, at 5; Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1324 (Fed. Cir. 2009) (stating that the more common approach for calculating a reasonable royalty is the hypothetical negotiation).

Statute had not been amended since its passage in 1952.<sup>17</sup> Section 284 of the statute requires that a court "award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty." The purpose of section 284 is to set a floor below which the damages amount should not fall and the courts are not authorized to go. In calculating a reasonable royalty, trial evidence commonly centers around the value of the patented invention in the hands of the infringer. The focus on the infringer's acts, however, is seemingly unrelated to compensating the inventor, creating confusion amongst juries tasked with calculating a reasonable royalty amount. In a reasonable royalty amount.

Current law gives no clear explanation for calculation of a reasonable royalty amount.<sup>22</sup> There is a general consensus that current law provides juries with insufficient information for determining a reasonable royalty.<sup>23</sup> Often juries are given little guidance in calculating a reasonable royalty amount and are forced to use a confusing list of fifteen *Georgia-Pacific* factors with the expectation that they will calculate a fair damages award.<sup>24</sup> The significant increase in the number of cases decided by juries exacerbates the problem.<sup>25</sup>

The House Judiciary Committee identified the flaws in the reasonable royalty analysis as one of the keys for reform of the damages calculation.<sup>26</sup> The United States Court of Appeals for the Federal Circuit ("Federal Circuit") also recognized the problems with the reasonable royalty analysis in that reasonable royalty awards

17 35 U.S.C. § 284 (2006).

Upon finding for the claimant the court shall award the claimant damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.

When the damages are not found by a jury, the court shall assess them. In either event the court may increase the damages up to three times the amount found or assessed.

The court may receive expert testimony as an aid to the determination of damages or of what royalty would be reasonable under the circumstances.

Id.

<sup>18</sup> Id.; Lucent, 580 F.3d at 1340 (vacating and remanding a jury award as excessive); Crystal Semiconductor Corp. v. Tritech Microelecs. Int'l, Inc., 246 F.3d 1336, 1354 (Fed. Cir. 2001); Fromson v. Western Litho Plate & Supply Co., 853 F.2d 1568, 1574 (Fed. Cir. 1988); Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1554 (Fed. Cir. 1995).

<sup>19</sup> Revolution Eyewear, Inc. v. Aspex Eyewear, Inc., 563 F.3d 1358, 1372 (Fed. Cir. 2009).

<sup>20</sup> See e.g., Serpentix Conveyor Corp. v. Roth, 726 F. Supp. 282, 285–86 (D. Colo. 1989) (recognizing the substantial value of a patent to the infringer, but awarding only a one dollar reasonable royalty because the infringer did not manufacture or sell the infringing product); Fromson v. Western Litho Plate & Supply Co., 670 F. Supp. 861, 869 (E.D. Mo. 1987) (basing damage award on invention).

<sup>21</sup> Serpentix Conveyor Corp., 726 F. Supp. at 285–86; Fromson, 670 F. Supp. at 869.

<sup>22</sup> COALITION FOR PATENT FAIRNESS, CLARIFICATION OF THE "REASONABLE ROYALTY" STANDARD IS ESSENTIAL TO UNLEASH INNOVATION AND PROMOTE ECONOMIC GROWTH 1 (2009), available at http://www.patentfairness.org/pdf/whitepapers/Damages\_FINAL.pdf.

<sup>23</sup> COALITION FOR PATENT FAIRNESS, supra note 22, at 2.

<sup>24</sup> S. Rep. No. 110-259, at 11-12 (2008).

<sup>25</sup> LEVKO ET AL. 2009, supra note 8, at 8.

<sup>26</sup> S. REP. No. 110-259, at 26.

have exceeded the infringer's entire profit on the infringing product or service.<sup>27</sup> These problems are compounded by the large disparity between damages awarded by judges as compared to juries.<sup>28</sup> Since 2001, the median award for jury trials has been more than ten times the median award by judges as compared to one-and-a-half times the median award in the prior twenty years.<sup>29</sup> The median jury award has increased by 124 percent in just the last few years alone.<sup>30</sup>

A prevailing patentee in a patent infringement case is entitled to no less than a reasonable royalty on the infringer's sales.<sup>31</sup> A reasonable royalty provides a just recovery to patentees when they cannot prove lost profits or an established royalty.<sup>32</sup> Litigants routinely adopt two approaches for calculating a reasonable royalty. The first, the analytical method, focuses on the infringer's projections of profit for the infringing product.<sup>33</sup> The second, more common approach, is known as the hypothetical negotiation.<sup>34</sup> The hypothetical negotiation is often referred to as a willing licensee/licensor negotiation.<sup>35</sup> In a hypothetical negotiation the court must determine the licensing terms that willing licensors and licensees would have agreed to at the time of infringement.<sup>36</sup> The hypothetical licensing terms are the royalty rate and the royalty base.<sup>37</sup> The reasonable royalty damages amount is calculated by multiplying the royalty rate by the royalty base.<sup>38</sup>

<sup>&</sup>lt;sup>27</sup> Monsanto Co. v. Ralph, 382 F.3d 1374, 1384 (Fed. Cir. 2004) ("Although an infringer's anticipated profit from use of the patented invention is 'among factors to be considered in determining' a reasonable royalty, . . . the law does not require that an infringer be permitted to make a profit."); State Indus., Inc. v. Mor-Flo Indus., Inc., 883 F.2d 1573, 1580 (Fed. Cir. 1989) ("There is no rule that a reasonable royalty be no higher than the infringer's net profit margin.").

 $<sup>^{28}</sup>$  Levko et al. 2008,  $supr\alpha$  note 8, at 6.

 $<sup>^{29}</sup>$  Id.

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

<sup>31 35</sup> U.S.C. § 284 (2006).

<sup>&</sup>lt;sup>32</sup> 1-20 DONALD S. CHISUM, CHISUM ON PATENTS § 20.07 (2007).

<sup>&</sup>lt;sup>33</sup> See TWM Mfg. Co. v. Dura Corp., 789 F.2d 895, 899 (Fed. Cir. 1986).

<sup>&</sup>lt;sup>34</sup> Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1554 n.13 (Fed. Cir. 1995).

 $<sup>^{35}</sup>$  Id.

<sup>&</sup>lt;sup>36</sup> See Dowagiac Mfg. Co. v. Minn. Moline Plow Co., 235 U.S. 641, 648 (1914) (finding that "it was permissible to show the value by proving what would have been a reasonable royalty"); Rite-Hite, 56 F.3d at 1554; Hunt Bros. Fruit-Packing Co. v. Cassidy, 64 F. 585, 587 (9th Cir. 1894) (finding "where damages cannot be assessed upon the basis of a royalty, nor on that of lost sales, nor on that of hurtful competition, the proper method of assessing them is to ascertain what would have been a reasonable royalty to have paid"); see also Unisplay, S.A. v. Am. Elec. Sign Co., Inc., 69 F.3d 512, 517 (Fed. Cir. 1995) ("A reasonable royalty is defined as the amount that a willing licensor and licensee would bargain for at an arm's length hypothetical negotiation occurring on the date the infringement began."); but see Rite-Hite, 56 F.3d at 1554 (holding that "the hypothetical negotiation is often referred to as a willing licensor/willing licensee negotiation. However, this is an inaccurate, and even absurd, characterization when . . . the patentee does not wish to grant a license").

<sup>&</sup>lt;sup>37</sup> CHISUM, *supra* note 32, § 20.07.

<sup>&</sup>lt;sup>38</sup> Code-Alarm, Inc. v. Electromotive Techs. Corp., 1997 U.S. App. LEXIS 13031, \*1, 8 (Fed. Cir. Jun. 4, 1997) (finding that a reasonable royalty consisted of a "[royalty rate] applied to the entire royalty base"); *Rite-Hite*, 56 F.3d at 1555 (affirming the trial court's calculation of a reasonable royalty rate and remanding for a redetermination of the royalty base, based only on the sale of the infringing restraints.). *Reasonable Royalty Amount* = *Royalty Rate* × *Royalty Base*. The Royalty Base can be calculated by utilizing the *Georgia-Pacific* factors and/or the EMVR. The Royalty Rate can be calculated by using the *Georgia-Pacific* factors and/or the former 25 percent rule.

The Federal Circuit identified the hypothetical negotiation as an absurd characterization because the patentee may never have been a willing licensor.<sup>39</sup> The hypothetical negotiation is used to determine a reasonable royalty without the actual willingness of the parties taken into account.<sup>40</sup> The Federal Circuit noted that the willing licensee/licensor approach must be flexibly applied as a "device in the aid of justice," although there is no *actual* willingness by either of the parties.<sup>41</sup>

The methods for determining damages awards have always involved a difficult analysis combined with complex rules.<sup>42</sup> Various methods exist for calculating a reasonable royalty rate and royalty base. These methods produce unpredictable and inflated awards due to inherently confusing or arbitrary frameworks.<sup>43</sup> Once a jury grants a large damages award, it is extremely difficult to petition the court for a reduction because "a jury's supportable finding of the amount of damages must be upheld unless the amount is grossly excessive or monstrous."<sup>44</sup> Three of the most commonly utilized reasonable royalty calculation methods include the *Georgia-Pacific* analysis, the EMVR to determine the royalty base, and the former 25 percent rule to determine the royalty rate.<sup>45</sup>

### B. Reasonable Royalty Calculation Methods

1. The Problem with Calculating a Reasonable Royalty Amount Using the Georgia-Pacific Factors

The first major method of calculating a reasonable royalty is to utilize the fifteen *Georgia-Pacific* factors.<sup>46</sup> The *Georgia-Pacific* analysis also involves the use of the hypothetical negotiation, which is expressed under the fifteenth factor.<sup>47</sup> The

 $<sup>^{39}\,</sup>Rite\textsc{-}Hite,\,56$  F.3d at 1554 n.13.

 $<sup>^{40}</sup>$  *Id*.

<sup>41</sup> *Id*.

<sup>&</sup>lt;sup>42</sup> Fromson v. Western Litho Plate and Supply Co., 853 F.2d 1568, 1574 (Fed. Cir. 1988) (determining a "fair and reasonable royalty is . . . a difficult judicial chore, seeming often to involve more the talents of a conjurer than those of a judge"); Am. Med. Sys., Inc. v. Med. Eng'g Corp., 794 F. Supp. 1370, 1394 (E.D. Wis. 1992) ("Determining a reasonable royalty from a hypothetical negotiation is not easy; the process is truly artificial.").

<sup>&</sup>lt;sup>43</sup> Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120–21 (S.D.N.Y. 1970); Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1318 (Fed. Cir. 2011) ("Uniloc II").

<sup>&</sup>lt;sup>44</sup> Revolution Eyewear, Inc. v. Aspex Eyewear, Inc., 563 F.3d 1358, 1372 (Fed. Cir. 2009).

<sup>&</sup>lt;sup>45</sup> Additional methods, which are not discussed in this article, for calculating a reasonable royalty include the following: (1) an industry average license used as a starting point for calculating the value of a patent; (2) a patent portfolio average whereby every high-technology patent is entitled to one percent of the revenues on a product, made famous by IBM; and (3) a use of comparables, whereby the value of a patent is calculated by reference to the license paid for a supposedly comparable patent. Kyl, *supra* note 12, at S9982–83.

<sup>&</sup>lt;sup>46</sup> Georgia-Pacific, 318 F. Supp. at 1120–21.

<sup>&</sup>lt;sup>47</sup> Aro Mfg. Co. v. Convertible Top Co., 377 U.S. 476, 507 (1964); *Rite-Hite*, 56 F.3d 1538, 1554 (Fed. Cir. 1995) ("That is not to say that the 'analytical method' is not considered in the context of a hypothetical negotiation; it may well be."); Yale Lock Mfg. Co. v. Sargent, 117 U.S. 536, 552 (1886) ("The focus of damages analysis is through litigation to assess the difference between [the

hypothetical negotiation analysis may consider a wide range of evidence in relation to the *Georgia-Pacific* factors.<sup>48</sup> The evidence utilized in the analysis consists of facts either preceding or even subsequent to the hypothetical negotiation date.<sup>49</sup>

patentee's] pecuniary condition after the infringement, and what his condition would have been if the infringement had not occurred.").

- <sup>48</sup> Georgia-Pacific, 318 F. Supp. at 1120–21. The court compiled fourteen evidentiary factors and a fifteenth factor that, taken together, restate the hypothetical negotiation methodology from "a conspectus of the leading cases," including:
  - (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.
  - (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; the 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.

The analysis is so complex that courts recognize that "any reasonable royalty analysis necessarily involves an element of approximation and uncertainty." Moreover, the Federal Circuit has noted the difficulty of determining a reasonable royalty using the *Georgia-Pacific* analysis because it requires "the talents of a conjurer [rather] than those of a judge." The factors do not give clear guidance on how to calculate damages awards because there is no standardized way to apply or prioritize the factors. Jurors also appear to be confounded by the *Georgia-Pacific* factors, what they mean, and how to apply them. As a consequence . . . jurors tend to ignore them." S

Legal scholars agree that the *Georgia-Pacific* factorial analysis is one of the main culprits causing confusion in damages calculations.<sup>54</sup> Professor Tom Cotter from University of Minnesota Law School, observed that the "*Georgia-Pacific* factors...can be easily manipulated by the trier of fact to reach virtually any outcome."<sup>55</sup> A potential infringer is exposed to a huge risk of being subjected to a large damages award because the courts do not set aside a jury's damages determination "unless the amount is grossly excessive or monstrous."<sup>56</sup>

The courts have made some strides in clearing up the confusion surrounding the *Georgia-Pacific* analysis, but scholars suggest more aggressive action should still be taken.<sup>57</sup> One current trend is that the licenses considered in the analysis must be sufficiently comparable, in circumstances and technology, to the hypothetical license

<sup>&</sup>lt;sup>50</sup> Id. at 1325; i4i Ltd. P'ship v. Microsoft Corp., 598 F.3d 831, 857–58 (Fed. Cir. 2010); Unisplay, S.A. v. Am. Elec. Sign Co., 69 F.3d 512, 517 (Fed. Cir. 1995).

<sup>&</sup>lt;sup>51</sup> Fromson v. Western Litho Plate & Supply Co., 853 F.2d 1568, 1574 (Fed. Cir. 1988); Callaway Golf Co. v. Acushnet Co., 691 F. Supp. 2d 566, 574 (D. Del. 2010).

<sup>&</sup>lt;sup>52</sup> Lucent, 580 F.3d at 1325.

<sup>&</sup>lt;sup>53</sup> Martha K. Gooding & William C. Rooklidge, *The Real Problem with Patent Infringement Damages*, 91 J. PAT. & TRADEMARK OFF. SOC'Y 484, 489 (2009).

<sup>&</sup>lt;sup>54</sup> Paul M. Janicke, HIPLA Professor of Law, Univ. of Hous. Law Ctr., Remarks at the Federal Trade Commission Hearing On: The Evolving IP Marketplace—Remedies, Panel 1: Standards for Assessing Patent Damages and Their Implementation by Courts 1, at 15 (Feb. 11, 2009), available at http://www.ftc.gov/bc/workshops/ipmarketplace/feb11/090211transcript.pdf (stating "we're still using the Georgia-Pacific grab bag... [t]his is where we need to tighten up damages law. The approach of throwing fifteen factors to the jury could be why we are getting erratic results. It does not lend itself to predictable results. I think that should be abandoned"); see 4-86 MODERN FEDERAL JURY INSTRUCTIONS-CIVIL P, SUBSTANTIVE CIVIL INSTRUCTIONS: PATENTS 86.04 [hereinafter MODERN FEDERAL JURY INSTRUCTIONS] ("In determining the reasonable royalty, you should consider all facts known and available to the parties at the time the infringement began, which is the time when the royalty would have been negotiated. The following [Georgia-Pacific factors] are among the kinds of factors that might have influenced the royalty.").

<sup>&</sup>lt;sup>55</sup> Tom Cotter, Briggs and Morgan Professor of Law, Univ. of Minn. Law Sch., Remarks at the Federal Trade Commission Hearing On: The Evolving IP Marketplace—Remedies, Panel 1: Standards for Assessing Patent Damages and Their Implementation by Courts 1, at 39 (Feb. 11, 2009), available at http://www.ftc.gov/bc/workshops/ipmarketplace/feb11/090211transcript.pdf.

 $<sup>^{56}\,\</sup>text{Id.}$  at 40; Biotec Biologische Naturverpackungen GmbH & Co. v. Biocorp, Inc., 249 F.3d 1341, 1355 (Fed. Cir. 2001).

<sup>&</sup>lt;sup>57</sup> Brief for Bank of Am. Corp. Coverity, Inc. & Intel Corp. et al. as Amici Curiae in Support of Appellant at 3, Lucent Techs. v. Gateway, Inc., 580 F.3d 1301 (Fed. Cir. 2009) (No. 07-CV-2000); Janicke, *supra* note 54, at 63.

at issue.<sup>58</sup> For example, in *Lucent Techs., Inc. v. Gateway, Inc.*, the plaintiff relied on portfolio licenses, each covering numerous patents issued to IBM, to establish both the royalty base and royalty rate.<sup>59</sup> There was no attempt to establish that such portfolio licenses provided similar licensing rights to similar patented inventions, as compared to a hypothetical license for the patents in suit.<sup>60</sup>

### 2. The Problem with Calculating a Reasonable Royalty Amount Using the EMVR

Just like the *Georgia-Pacific* method, the EMVR requires that the royalty rate be multiplied by a royalty base.<sup>61</sup> Under the EMVR, however, a patentee can determine the royalty base by using the entire market value of the infringing product rather than the value of the patented feature infringed.<sup>62</sup> The entire market value of the infringing product can be used only where the patented feature creates the basis for customer demand or substantially creates the value of the component parts.<sup>63</sup>

This rule is derived from Supreme Court precedent requiring evidence apportioning the infringer's profits between the patented and unpatented features.<sup>64</sup> This evidence must be reliable and tangible, not conjectural or speculative.<sup>65</sup> Moreover, such evidence must show that the entire market value of the whole infringing product is properly attributable to the patented feature.<sup>66</sup>

<sup>&</sup>lt;sup>58</sup> Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1330 (Fed. Cir. 2009) (finding that either type of agreement can be relevant as long as there is "some basis for comparison" between the past licenses and the hypothetical license); ResQNet.com v. Lansa, Inc., 594 F.3d 860, 870 (Fed. Cir. 2010) (finding that "[N]one of these licenses even mentioned the patents in suit or showed any other discernible link to the claimed technology"); Wordtech Sys. v. Integrated Network Solutions, 609 F.3d 1308, 1319 (Fed. Cir. 2010) (finding that the past licenses "provide[d] no basis for comparison with [the] infringing sales" and did not describe the method for calculating the lump sum, the licensees' intended products, or the expected sales); Ricoh Co. Ltd. v. Quanta Computer, Inc., 2010 U.S. Dist. LEXIS 27301, at \*25 (W.D. Wis. Mar. 23, 2010) (finding that a proponent must show how the multiple-patent license is comparable).

<sup>&</sup>lt;sup>59</sup> Lucent, 580 F.3d at 1328.

<sup>&</sup>lt;sup>60</sup> *Id*.

<sup>&</sup>lt;sup>61</sup> Lucent, 580 F.3d at 1324 ("Litigants routinely adopt several approaches for calculating a reasonable royalty."); see TWM Mfg. Co. v. Dura Corp., 789 F.2d 895, 899 (Fed. Cir. 1986) (describing the analytical method as "[subtracting] the infringer's usual or acceptable net profit from its anticipated net profit realized from sales of infringing devices"); Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970); see Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1554 n.13 (Fed. Cir. 1995); Radio Steel & Mfg. Co. v. MTD Prods., Inc., 788 F.2d 1554, 1557 (Fed. Cir. 1986) ("The determination of a reasonable royalty, however, is based not on the infringer's profit, but on the royalty to which a willing licensor and a willing licensee would have agreed at the time the infringement began.").

<sup>62</sup> Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1318 (Fed. Cir. 2011).

<sup>&</sup>lt;sup>63</sup> Georgia-Pacific, 318 F. Supp. at 1120–21 ("[T]here is a basic distinction between a patent which is only part of a machine or structure and which creates only a part of the profits and a patented article or a patent which gives the entire value to the combination or an article patented as an entirety."); CAULEY, supra note 11, at 7; Uniloc II, 632 F.3d at 1318; Lucent, 580 F.3d at 1336; Rite-Hite, 56 F.3d at 1549–50.

<sup>64</sup> Uniloc II, 632 F.3d at 1318; Garretson v. Clark, 111 U.S. 120, 121 (1884).

<sup>65</sup> Uniloc II, 632 F.3d at 1318.

 $<sup>^{66}</sup>$  Id.

The EMVR adds additional confusion to the reasonable royalty analyses.<sup>67</sup> Historically, the EMVR was developed in actions seeking disgorgement of an infringer's profits.<sup>68</sup> The EMVR was always applied in conjunction with apportionment instructions.<sup>69</sup> The use of the EMVR in reasonable royalty cases, without a charge of apportionment, creates perplexing jury instructions and erroneous results.<sup>70</sup> This is the case, even with a final instruction that the jury may not award damages based on the entire revenue from all the accused products.<sup>71</sup> Such a disclosure can only skew the damages calculation for the jury, regardless of the contribution of the patented component.<sup>72</sup>

The EMVR originated in Supreme Court case law involving claims to an equitable accounting of an infringer's profits.<sup>73</sup> In *Garretson v. Clark*,<sup>74</sup> the patentee sought to recover the defendant's profits on sales of an improved method for clamping a mop to a mop head.<sup>75</sup> The Supreme Court held that such profits could not be recovered because the patentee failed to produce any evidence apportioning the profits between the patented feature and the patented invention.<sup>76</sup> Further, the Court held that a patentee must provide proper evidence.<sup>77</sup> The patentee had to apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features.<sup>78</sup> Alternatively, the patentee could show that

The patentee...must in every case give evidence tending to separate or apportion the defendant's profits and the patentee's damages between the patented feature and the unpatented features, and such evidence must be reliable and tangible, and not conjectural or speculative; or he must show, by equally reliable and satisfactory evidence, that the profits and damages are to be calculated on the whole machine, for the reason that the entire value of the whole machine, as a marketable article, is properly and legally attributable to the patented feature.

Id.; Brian J. Love, Patentee Overcompensation and the Entire Market Value Rule, 60 STAN. L. REV. 263, 270 (2007); Christopher B. Seaman, Reconsidering the Georgia-Pacific Standard for Reasonable Royalty Patent Damages, 2010 B.Y.U.L. REV. 1661, 1697 (2010).
 Id.

<sup>70</sup> THE NATIONAL JURY INSTRUCTION PROJECT, MODEL PATENT JURY INSTRUCTIONS 1, 65–66 (2009) [hereinafter NATIONAL JURY INSTRUCTION PROJECT], available at http://www.nationaljuryinstructions.org/documents/NationalPatentJuryInstructions.pdf ("This framework based on the fifteen Georgia-Pacific factors, is both wide-ranging and non-exclusive, and is thus subject to widely differing interpretation and, sometimes, misuse or abuse by parties and their experts."); Uniloc II, 632 F.3d at 1320 (stating that there is a "danger of admitting consideration of the entire market value of the accused [device] where the patented component does not create the basis for customer demand").

<sup>67</sup> Brief for Bank of Am. Corp. Coverity, supra note 57, at 3.

<sup>&</sup>lt;sup>68</sup> Garretson, 111 U.S. at 121.

<sup>71</sup> Uniloc II, 632 F.3d at 1320.

<sup>72</sup> Id.

<sup>&</sup>lt;sup>73</sup> Garretson, 111 U.S. at 121.

 $<sup>^{74}</sup>$  Id.

 $<sup>^{75}</sup>$  *Id*.

 $<sup>^{76}</sup>$  *Id*.

<sup>77</sup> *Id*.

<sup>&</sup>lt;sup>78</sup> *Id*.

the profits and damages were to be calculated on the whole machine if the entire value was attributable to the patented feature.<sup>79</sup>

Under Supreme Court precedent, the EMVR and "apportionment" were integral parts of the Court's jurisprudence concerning the disgorgement remedy.<sup>80</sup> Modern reasonable royalty cases, however, are currently not applying apportionment.<sup>81</sup> Jurors receive instruction containing the EMVR, but are given no instruction on apportionment.<sup>82</sup>

### 3. The Problem with Calculating a Reasonable Royalty Amount Using the Former 25 Percent Rule

The Federal Circuit recently held that the 25 percent rule is a fundamentally flawed tool for determining a baseline royalty rate in a hypothetical negotiation.<sup>83</sup> Despite being overturned, the 25 percent rule is still useful to illustrate the difficulty in calculating a reasonable royalty. The 25 percent rule especially created complexity when combined with the *Georgia-Pacific* factors. The 25 percent rule was used to approximate the reasonable royalty rate that the manufacturer of a patented product would be willing to offer to pay to the patentee during a hypothetical negotiation.<sup>84</sup> The 25 percent rule suggested that a patentee receives a royalty rate, often between one quarter and one third, of the infringer's profits for the patent at issue.<sup>85</sup> The rule did not utilize the hypothetical negotiation or a reasonable royalty rate involving any particular technology, industry, or party.<sup>86</sup>

A common approach for a plaintiff's damages experts was to apply the 25 percent rule to reach a starting point royalty.<sup>87</sup> The experts would next consider the *Georgia Pacific* factors without making significant changes to the starting point

<sup>&</sup>lt;sup>79</sup> *Id.* ("Because requiring infringers to disgorge profits was a harsh remedy if the infringed patent covered only a small component in a larger machine the Court required plaintiffs to apportion the profits between components or show "the entire value of the whole machine . . . is attributable to the patented feature.").

<sup>&</sup>lt;sup>80</sup> *Id.* at 121.

<sup>81</sup> Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1339 (Fed. Cir. 2009).

 $<sup>^{32}</sup>$  Id.

 $<sup>^{83}</sup>$  Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1315 (Fed. Cir. 2011) (finding that evidence relying on the 25 percent rule of thumb is inadmissible under *Daubert* and the Federal Rules of Evidence because it fails to tie a reasonable royalty base to the facts of the case at issue).

<sup>&</sup>lt;sup>84</sup> *Id*.

 $<sup>^{85}</sup>$  Goldscheider et al., Use of the 25 Percent Rule in Valuing IP, 37 LES NOUVELLES 123, 123 (Dec. 2002); Kyl, supra note 12, at S9982–83 ("[A]n infringed patent is presumptively entitled to 40 percent or some other standard portion of all of the profits on a product."); Uniloc USA, Inc. v. Microsoft Corp., 632 F. Supp. 2d 147, 150 (D.R.I. 2009), rev'd, 632 F.3d 1292 (Fed. Cir. 2011) ("Uniloc I"); Robert P. Merges, The Trouble with Trolls: Innovation, Rent-Seeking, and Patent Law Reform, 24 BERKELEY TECH. L.J. 1583, 1612 (2009) ("[I]f there are five patents relevant to a complex product, all the profit would go to patent licensors applying this 'rule of thumb.").

<sup>86</sup> Goldscheider et al., supra note 85, at 123; Uniloc I, 632 F. Supp. 2d at 150.

<sup>&</sup>lt;sup>87</sup> ERIC E. BENSEN, BENSEN ON PATENT DAMAGES LANDMARK RULING: *UNILOC USA, LTD. v. MICROSOFT CORP.* 1 (Jan. 24, 2011) [hereinafter BENSEN ON *UNILOC*], available at 2011 Emerging Issues 5500.

royalty.<sup>88</sup> The expert would then compare the contemplated royalty to total revenues or the entire market value for the accused product as a check of its reasonableness.<sup>89</sup>

Utilizing the 25 percent rule as a starting point before applying the *Georgia-Pacific* method, or even the EMVR, ensures that damages determinations begin and end in an erroneous damages determination.<sup>90</sup> To begin with an arbitrary method like the 25 percent royalty rate and combine it with an accurate calculation for the royalty base will nevertheless result in a faulty award.<sup>91</sup>

### C. Congressional Patent Reform

The reasonable royalty damages provision in the amended version of The Patent Reform Act of 2009 retained the gatekeeper role of the court.<sup>92</sup> Under this amendment, a court was required to identify and consider only the methodologies and factors that were relevant to the damages determination.<sup>93</sup> Also, those more clear methodologies and factors must be included in the parties' proposed jury instructions.<sup>94</sup> Furthermore, a court was required to consider only factors having a legally sufficient evidentiary basis.<sup>95</sup>

Judges have the inherent role as gatekeepers in the courts.<sup>96</sup> This gatekeeper role requires district courts to closely scrutinize the evidence that is relied upon to prove patent damages.<sup>97</sup> Under Federal Rule of Evidence 702 a judge can hold a *Daubert* hearing to limit or exclude expert testimony that does not meet the standards of scientific, technical, or other specialized knowledge.<sup>98</sup>

The Patent Reform Act of 2011 supported the requirements outlined by the 2009 Act. 99 The Patent Reform Act of 2011 required additional procedural control by the courts. 100 The 2011 Act required a court to identify and consider methodologies and

 $<sup>^{88}</sup>$  Id.

<sup>89</sup> Id.

 $<sup>^{90}</sup>$  *Id*.

<sup>&</sup>lt;sup>91</sup> Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1315 (Fed. Cir. 2011).

 $<sup>^{92}</sup>$  Patent Reform Act of 2009, S. 515, 111th Cong. (as reported by Mr. Leahy, S. Comm. on the Judiciary, Apr. 2, 2009).

 $<sup>93 \</sup> Id.$ 

<sup>&</sup>lt;sup>94</sup> *Id*.

 $<sup>^{95}</sup>$  Id.; Michael J. Kasdan & Joseph Casino,  $Update\ to\ Recent\ Patent\ Damages\ Article,$  PATENTLYO BLOG (Mar. 31, 2010 7:56 AM), http://www.patentlyo.com/patent/2010/03/guest-post-update-to-recent-patent-damages-article.html.

<sup>&</sup>lt;sup>96</sup> S. 515.

 $<sup>97 \</sup> Id.$ 

 $<sup>^{98}</sup>$  John M. Mintz & John A. Squires, Federal Circuit Kills the "25% Rule" for Reasonable Royalty Damages Calculations, Chadbourne & Parke L.L.P. (Jan. 5, 2011), http://www.chadbourne.com/files/Publication/441c65f1-8531-4bc9-96b0-06a358ff4901/Presentation/PublicationAttachment/8e123231-2508-4c0d-aea9-

<sup>06</sup>a358ff4901/Presentation/PublicationAttachment/8e123231-2508-4c0d-aea9 09b74429eabf/IP%20Client%20Alert.pdf.

<sup>&</sup>lt;sup>99</sup> The Patent Reform Act of 2011, S. 23, 112th Cong. (as reported by Mr. Leahy, S. Comm. on the Judiciary, Feb. 3, 2011); see Patent Reform Act of 2011: An Overview, PATENTLYO BLOG (Feb. 10, 2011 2:06PM), http://www.patentlyo.com/patent/2011/02/patent-reform-act-of-2011-an-overview.html.

<sup>100</sup> S. 23.

factors that were relevant to the determination of damages, just as in the 2009 Act. <sup>101</sup> The 2011 Act also required courts to consider whether a party's damages contentions had a legally sufficient evidentiary basis before introduction into evidence. <sup>102</sup> This gatekeeping function is consistent with the Federal Circuit's recent holdings requiring substantial evidence to calculate a reasonable royalty amount where the patented feature creates the "basis for customer demand" or "substantially creates the value of the component parts." <sup>103</sup>

The recent passage of the AIA is an indication that patent reform is possible. <sup>104</sup> The AIA, however, does not sufficiently address the issue of damages or the method of calculating a reasonable royalty amount in patent infringement cases. <sup>105</sup> What's "missing from the [AIA] is... an initiative to replace the system of determining damages and, in so doing, reduce the amount of huge jury awards." <sup>106</sup>

### D. The Current Trend in the Courts for Determining a Reasonable Royalty Amount

Although Congress believes that it can effect patent damages reform, the courts have a differing opinion. The Federal Circuit's recent decisions reflect that the judiciary can self-regulate without Congressional involvement as noted in its statement that there is no "one size fits all" statute that would be effective in every patent infringement case. 107 Several recent cases hold that to determine a reasonable royalty amount, the parties "must carefully tie proof of damages to the claimed invention's footprint in the marketplace." 108 Judges should use their already existing, yet underutilized, gatekeeper powers to ensure that only reliable evidence based in sound economic and factual predicates will be allowed into evidence. 109

<sup>&</sup>lt;sup>101</sup> *Id*.

 $<sup>^{102}</sup>$  Id.; America Invents Act, No. 112-29 (Sept. 16, 2011).

<sup>&</sup>lt;sup>103</sup> Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1325 (Fed. Cir. 2009).

<sup>&</sup>lt;sup>104</sup> See America Invents Act, No. 112-29; see also Press Release, The White House Office of the Press Sec'y, President Obama Signs America Invents Act, Overhauling the Patent System to Stimulate Economic Growth, and Announces New Steps to Help Entrepreneurs Create Jobs (Sept. 16, 2011) (stating the America Invents Act will help businesses, inventors, and entrepreneurs because the USPTO will offer new ways to avoid litigation regarding patent validity, at costs significantly less expensive than going to court), available at http://www.whitehouse.gov/the-press-office/2011/09/16/president-obama-signs-america-invents-act-overhauling-patent-system-stim.

<sup>105</sup> America Invents Act, No. 112-29; see Scott M. Fulton III, Patent Reform Passes the Senate with Teeth, Heart Missing, READWRITEWEB (Sept. 9, 2011 7:16 AM), http://www.readwriteweb.com/enterprise/2011/09/patent-reform-passes-the-senat.php (stating "missing from the [AIA] is . . . an initiative to replace the system of determining damages and, in so doing, reduce the amount of huge jury awards").

 $<sup>^{106}</sup>$  Id.

<sup>107</sup> *Id*.

<sup>&</sup>lt;sup>108</sup> ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 869 (Fed. Cir. 2010); see, e.g., Grain Processing Corp. v. Am. Maize-Prods. Co., 185 F.3d 1341, 1350 (Fed. Cir. 1999) ("To prevent the hypothetical from lapsing into pure speculation, this court requires sound economic proof of the nature of the market and likely outcomes with infringement factored out of the economic picture.").

<sup>109</sup> Daralyn J. Durie & Mark A. Lemley, Business Law Forum: Intellectual Property Remedies: A Structured Approach to Calculating Reasonable Royalties, 14 LEWIS & CLARK L. REV. 627, 635 (2010) ("Despite the existence of the Daubert framework that permits judges to serve as gatekeepers

Judges can control this evidence through existing *Daubert*<sup>110</sup> court procedures. The courts have explained that damages awards should be based only on "sound economic and factual predicates."<sup>111</sup>

In *IP Innovation, L.L.C. v. Red Hat, Inc.*, <sup>112</sup> Judge Rader of the Federal Circuit, sitting by designation in the Eastern District of Texas, similarly held that the reasonable royalty analysis must consider licenses that are tied to the economic value of the infringed product. <sup>113</sup> The court applied the principles established in both *Lucent* and *ResQNet.com, Inc. v. Lansa*, in excluding the opinion of an expert witness for improperly relying on general royalty rates in the software industry and improperly applying the EMVR. <sup>114</sup> The court held that expert testimony on damages will not be allowed without "a firm basis in accepted economic principles with an eye to the facts." <sup>115</sup>

Among the methods that can potentially confuse a jury are the *Georgia-Pacific* analysis, the EMVR, and the former 25 percent rule. Where there is confusion among the jury, the greater the potential to see exorbitant jury awards. The trend in runaway damage awards doled out by juries will cease only when a clear framework to analyze a reasonable royalty is provided to juries.

### II. ANALYSIS

Congress, through Patent Reform, should continue to develop an appropriate damages analysis that will provide clearer guidance for juries when determining damages awards.<sup>118</sup> The judiciary, through recent case law, has also attempted to provide a clearer framework for juries when calculating damages awards.<sup>119</sup>

in evaluating expert testimony, thirty-six actual exclusions of testimony on patent damages are rare.").

<sup>&</sup>lt;sup>110</sup> Daubert v. Merrell Dow Pharms., 509 U.S. 579 (1993).

III Integra Lifesciences I, Ltd. v. Merck KGaA, 331 F.3d 860, 870–72 (Fed. Cir. 2003); Letter from Hon. Paul R. Michel, Chief Judge, U.S. Court of Appeals for the Federal Circuit, to Hon. Patrick Leahy, U.S. Senate, and Hon. Orrin Hatch, U.S. Senate (May 3, 2007), available at http://www.fr.com/files/uploads/attachments/patentdamages/05-03-07Michelletter.pdf; Letter from Hon. Paul R. Michel, Chief Judge, U.S. Court of Appeals for the Federal Circuit, to Shanna Winters, Chief Counsel, Subcomm. on Courts, The Internet, and Intellectual Prop. (June 7, 2007), available at http://www.patentsmatter.com/issue/pdfs/Winters.ltr.pdf.

<sup>&</sup>lt;sup>112</sup> IP Innovation L.L.C. v. Red Hat, Inc., 705 F. Supp. 2d 687, 691 (E.D. Tex. 2010).

 $<sup>^{113}</sup>$  Id.

<sup>114</sup> Id. at 689-691.

<sup>115</sup> Id. at 691.

<sup>&</sup>lt;sup>116</sup> Georgia-Pacific Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120–21 (S.D.N.Y. 1970); Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1318 (Fed. Cir. 2011).

<sup>117</sup> CAULEY, supra note 11, at xiii; Kesan & Ball, supra note 11, at 278-79.

<sup>&</sup>lt;sup>118</sup> Patent Reform Act of 2009, S. 515, 111th Cong. (as reported by Mr. Leahy, S. Comm. on the Judiciary, Apr. 2, 2009); Patent Reform Act of 2011, S. 23, 112th Cong. (as reported by Mr. Leahy, S. Comm. on the Judiciary, Feb. 3, 2011); see Patent Reform Act of 2011: An Overview, PATENTLYO BLOG (Feb. 10, 2011 2:06PM), http://www.patentlyo.com/patent/2011/02/patent-reform-act-of-2011-an-overview.html; America Invents Act, No. 112-29 (Sept. 16, 2011).

<sup>&</sup>lt;sup>119</sup> Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1327 (Fed. Cir. 2009); ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 868 (Fed. Cir. 2010); IP Innovation L.L.C., 705 F. Supp. 2d at 691; Cornell Univ., 609 F.Supp.2d at 283.

Notwithstanding the efforts of Congress and the Judiciary, no clear framework has emerged. Part II.A discusses the problems with the *Georgia-Pacific* analysis. Part II.B analyzes why the EMVR is an inappropriate method for calculating a reasonable royalty amount.

### A. The Georgia-Pacific Factors Provide No Clear Guidance to Juries

The reasonable royalty analysis has been largely popular since the landmark Georgia-Pacific decision, yet it has often been misapplied for nearly the past forty years. <sup>120</sup> Damages are often calculated with little relation to economics and are often imposed using arbitrary or confusing methods such as the EMVR and the former 25 percent rule, which have no reasonable relationship to the parties, the patent, the technology, or the marketplace. <sup>121</sup> Misapplication of the Georgia-Pacific factors can produce a royalty rate unsupported by economic proof that the patented invention drove demand for the infringing product. <sup>122</sup> Licensing experts merely identify and utilize the factors that support high or low royalty rates, depending on which ones benefit their side most. <sup>123</sup> When experts intentionally utilize factors that weigh in their favor, a faulty calculation under the Georgia-Pacific factors can occur. <sup>124</sup> In Gasser Chair Co. v. Infanti Chair Mfg. Corp., <sup>125</sup> the court explained that "it would be an affectation of research to cite the countless cases which simply reiterate the Georgia-Pacific factors to be considered in determining a reasonable royalty." <sup>126</sup> This difficult Georgia-Pacific analysis is illustrated by Lucent. <sup>127</sup>

In *Lucent*, <sup>128</sup> the Federal Circuit overturned a lump-sum royalty award of \$358 million because the original verdict was unsupported by substantial evidence. <sup>129</sup> The

<sup>120</sup> CAULEY, supra note 11, at 4-6.

<sup>&</sup>lt;sup>121</sup> Id.; Riles v. Shell Exploration & Prod. Co., 298 F.3d 1302, 1311 (Fed. Cir. 2002) (finding that courts should allow damage awards based only on "sound economic and factual predicates"); NATIONAL JURY INSTRUCTION PROJECT, supra note 70, at 65–66.

<sup>&</sup>lt;sup>122</sup> NATIONAL JURY INSTRUCTION PROJECT, supra note 70, at 65–66 ("Common mistakes include mischaracterization of the Georgia-Pacific factors, use of an incorrect (or unarticulated) hypothetical negotiation date, and inappropriate use of facts that post-date the hypothetical negotiation."); Roy J. Epstein, & Alan J. Marcus, Economic Analysis of the Reasonable Royalty: Simplification and Extension of the Georgia-Pacific Factors, 85 J. PAT. & TRADEMARK OFF. SOC'Y 555, 572–73 (2003), available at http://www.royepstein.com/epstein-marcus\_jptos.pdf (stating that "[t]he Georgia-Pacific factors do not prescribe any particular method for quantifying the appropriate royalty").

<sup>&</sup>lt;sup>123</sup> William Choi & Roy Weinstein, An Analytical Solution to Reasonable Royalty Rate Calculations, 41 IDEA 49, 50 (2001).

 $<sup>^{124}</sup> Id$ 

<sup>&</sup>lt;sup>125</sup> Gasser Chair Co. v. Infanti Chair Mfg. Corp., 943 F. Supp. 201, 215 (E.D.N.Y. 1996).

 $<sup>^{126}</sup>$  Id. (implying that it was unnecessary to list the well-known Georgia-Pacific factors in the opinion even though they were being applied by the court); Wordtech Systems, Inc v. Integrated Networks Solutions, Inc., 609 F.3d 1308, 1319 (Fed. Cir. 2010); Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1324 (Fed. Cir. 2009); ResQNet.com, Inc. v. Lansa, Inc., 594 F.3d 860, 869 (Fed. Cir. 2010).

 $<sup>^{127}</sup> Id$ 

 $<sup>^{128}</sup>$  Lucent, 580 F.3d at 1327 (holding that "speculation" and "superficial testimony" were insufficient to support the amount of damages awarded).

<sup>&</sup>lt;sup>129</sup> *Id*. at 1329.

court determined that Lucent's expert erred in several ways in the lower court. 130 First, Lucent's expert relied on license agreements for different products, unrelated to the one at issue in comparison to the infringed product. 131 Second, Lucent's expert failed to identify documentary evidence or testimony showing the parties' expectations as to usage of the claimed method. 132 Finally, Lucent's expert did not explain to the jury why he relied on eight varied license agreements unrelated to the hypothetical agreement. 133

A dangerous misapplication of the *Georgia-Pacific* factors occurs when experts are allowed to select the factors that benefit them most or use evidence of licenses that have no basis in economics or factual predicates. The Federal Circuit noted that it could not understand how the jury could have adequately evaluated the probative value of eight varied licenses, where some of the licenses were radically different from the hypothetical agreement at issue.<sup>134</sup> This is precisely how arbitrary and enormous reasonable royalty amounts can be awarded.

### B. The Entire Market Value Rule Is an Inappropriate Method for Calculating a Reasonable Royalty Base

Under Supreme Court precedent, the EMVR and "apportionment" were integral parts of the Court's jurisprudence concerning the disgorgement remedy. Modern reasonable royalty cases, however, are currently not applying apportionment. Jurors today are given an EMVR instruction, but are not given an apportionment charge. Marge 137

In *Rite-Hite Corp. v. Kelley Co.*, <sup>138</sup> the Federal Circuit created a "functional unit test." Under the functional unit test, the EMVR may be invoked to award

[A] jury award cannot stand solely on evidence which amounts to little more than a recitation of royalty numbers, one of which is arguably in the ballpark of the jury's award, particularly when it is doubtful that the technology of those license agreements is in any way similar to the technology being litigated.

Id.

 $^{130}$  Id.

 $^{131}$  Id.

<sup>132</sup> *Id.* at 1331.

Lucent did not explain how the fact that the Acer agreement involved eight patents affects how probative it is of the Microsoft Click for Enhanced Coverage Linking Searches-Lucent hypothetical negotiation over one patent. Nor is there any document or testimony upon which a jury could have considered how similar or dissimilar the patented technology of the Acer agreement is to the invention of using the date-picker. Nor is there any evidence or testimony about how the \$2.50 per unit rate corresponds to a percentage of the cost of the personal computers sold under the license agreement.

Id.

 $^{133}$  Id. at 1327.

 $^{134}$  Id.

135 *Id*. at 121.

<sup>136</sup> Lucent, 580 F.3d at 1339.

 $^{137}$  Id.

 $^{138}$  Rite-Hite, 56 F.3d at 1550.

damages based on any components of an accused device. <sup>140</sup> Damages may even be based on components not physically connected to the infringing component, so long as they "function together" with the patented invention. <sup>141</sup> Since *Rite-Hite*, courts have frequently applied the EMVR to award damages for components that are unconnected to, yet function with the infringing element of the accused device. <sup>142</sup>

Even if the court were to restrict the boundaries of the royalty base, the jury still has the ability to grant exorbitant damages awards by use of arbitrary methods for calculating a royalty rate. By permitting evidence of the total sales of a complex, multi-component product, the EMVR allows juries to start their damages calculation with a very large amount, which may bias juries toward over-compensatory damages awards. 44

Using any one of the aforementioned methods could cause confusion, especially where the three methods are combined to determine a reasonable royalty amount. Imagine beginning with the *Georgia-Pacific* factors to help determine a royalty rate. Courts will look to those factors and consider each with respect to the case. Courts typically begin with the parties' suggested royalty rates and determine whether the factors point to a rate above or below the parties' calculations. The courts have no obvious starting point because parties tend to select only the factors that help their respective sides. Two scholars, Atanu Saha, Senior Vice President of Compass Lexecon, and Roy Weinstein, President of Micronomics, Inc., analyzed ten cases where a court utilized the *Georgia-Pacific* factors. They found that:

Plaintiffs and defendants typically suggested widely divergent rates. Across these ten cases, the difference between plaintiff and defendant proposals of reasonable royalties ranged from 4.5 percent to 36.6 percent. In eight of the ten cases, the court selected a royalty rate falling between defendant's and plaintiffs suggested rates, sometimes employing what would appear to be a subjective rationale for arriving at a particular rate. Courts rarely accept the rate put forward by either side, and therefore must find their own starting point before adjusting up or down according to the weight of the evidence. 148

Previously, judges would also use other arbitrary analyses like the 25 percent rule to determine a reasonable royalty rate. Under the former 25 percent rule, for

 $<sup>^{139}</sup>$  Id.

 $<sup>^{140}</sup>$  Id.

<sup>&</sup>lt;sup>141</sup> *Id*.

<sup>&</sup>lt;sup>142</sup> See Juicy Whip, Inc. v. Orange Bang, Inc., 382 F.3d 1367, 1372–73 (Fed. Cir. 2004) (allowing damages award for lost profits on sale of syrup used in patented juice dispenser); *Rite-Hite*, 56 F.3d at 1550.

<sup>&</sup>lt;sup>143</sup> See COALITION FOR PATENT FAIRNESS, supra note 22, at 2.

<sup>&</sup>lt;sup>144</sup> Brief for Bank of Am. Corp. Coverity, *supra* note 57, at 18.

 $<sup>^{145}</sup>$  Id.

<sup>&</sup>lt;sup>146</sup> Atanu Saha & Roy Weinstein, Beyond Georgia-Pacific: The Use of Industry Norms as a Starting Point for Calculating Reasonable Royalties, MICRONOMICS.COM, at 1–2, available at http://www.micronomics.com/articles/intellectualproperty\_2.pdf.

<sup>147</sup> Id.

 $<sup>^{148}</sup>$  Id.

example, "[a]n estimate is made of a [hypothetical] licensee's expected profits for the [patented invention] at issue" in a patent infringement case. 149

Those profits are divided by the expected net sales over that same period to arrive at a profit rate. [Assuming a resulting profit rate of] 16 per[cent], [that rate would be] multiplied by 25 per[cent] to arrive at a running royalty rate [under the 25 percent rule]. [T]he resulting royalty rate [in this case] would be 4 per[cent]. The 4 per[cent] royalty rate is applied to [the royalty base or] the net sales to arrive at royalty payments due to the [patentee]. 150

In addition to these two arbitrary analyses, if the EMVR is utilized to determine the value of the royalty base, then the reasonable royalty amount could be exorbitant, even where a smaller royalty rate is applied. Thus, it is critical that courts utilize their gatekeeper powers to ensure that only reliable evidence showing that the patented invention is the basis for customer demand is admitted in making these reasonable royalty determinations.

The Uniloc USA, Inc. v. Microsoft Corp., <sup>151</sup> case is also an example of how confusion can be created in reasonable royalty damages determinations leading to large damages awards. Allowing a consideration of the entire market value of an infringing product, where the patented component does not create the basis for customer demand, adds to this confusion. <sup>152</sup> In Uniloc, the "\$19 billion cat was never put back into the bag even by Microsoft's cross-examination of and re-direct of the expert witnesses, and in spite of a final instruction that the jury may not award damages based on Microsoft's entire revenue from all the accused products in the case." <sup>153</sup> The disclosure that a company has made \$19 billion dollars in revenue from a product that contains an infringing component serves only to encourage the jury to be less careful in its determination. <sup>154</sup> This less cautious review operates to skew the damages analysis for the jury, without regard for the actual contribution value of the

<sup>&</sup>lt;sup>149</sup> Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1312–13 (Fed. Cir. 2011).

 $<sup>^{150}</sup>$  Id. (citing Goldscheider et al., Use of the 25 Percent Rule in Valuing IP, 37 LES NOUVELLES 123, 123 (Dec. 2002)); see also BENSEN ON UNILOC, supra note 87, at 1.

To formulate his opinion, Uniloc's damages expert started with \$10, which he took from an internal Microsoft document suggesting the value of a Product Key was between \$10 and \$10,000, and applied the so-called 25 [percent rule] hypothesizing that the parties would have split the value associated with the product 25 [percent]/75 [percent] with Uniloc getting the smaller share, or \$2.50 per unit. The expert then considered the *Georgia-Pacific* factors, but concluded that they did not warrant any change in the rate that he reached under the 25 [percent rule]. Finally, as a 'check,' the expert compared his opined-to royalty to total sales of the accused product and, as the royalty equated to a 2.9 [percent] royalty on overall sales, concluded that the royalty was reasonable.

Id.

<sup>&</sup>lt;sup>151</sup> *Id.* at 1320.

 $<sup>^{152}</sup>$  Id.; Versata Software Inc. v. SAP Am., Inc., 2011 U.S. Dist. LEXIS 102240 (E.D. Tex. Sept. 9, 2011) (stating that courts "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>&</sup>lt;sup>153</sup> Uniloc II, 632 F.3d at 1312-13.

 $<sup>^{154}</sup>$  Id.

patented component.<sup>155</sup> Almost any damages award would seem small compared to a \$19 billion dollar profit amount.<sup>156</sup> The confusion was exacerbated when the damages expert implied a relationship between the entire market value of the accused products and the patent.<sup>157</sup>

Fortunately, recent rulings emphasize the importance of showing that the patented feature is a basis for demand, as well as other requirements, in order to apply the EMVR.<sup>158</sup> In *Lucent*, a jury found Microsoft liable for patent infringement and awarded \$358 million in damages.<sup>159</sup> The Federal Circuit vacated the damages award, remarking that the claimed invention was not the basis for customer demand.<sup>160</sup> "There is nothing inherently wrong with using the market value of the entire product...so long as the [royalty rate] accounts for the proportion of the [royalty base] represented by the infringing component."<sup>161</sup>

In Lucent,<sup>162</sup> the jury instruction on the EMVR did not explain the relationship between the EMVR and the reasonable royalty analysis.<sup>163</sup> The instruction stated that a party seeking damages "based on the value of an entire product containing multiple features... must show two things: (1) the patented feature is the basis for consumer demand; and (2) the patent and unpatented components are part of a single functioning unit."<sup>164</sup> The jury instruction used in the case implied that the damages award must be based on the product's entire market value.<sup>165</sup> The instruction failed to give a direction on how to apportion damages in the event that there was no need to deny damages based on the product's entire market value.<sup>166</sup>

When juries are given comparable licenses as high as five to eight percent of the licensee's revenues, there is a huge risk that they will combine those rates with a royalty base determined by using the EMVR.<sup>167</sup> Thus, juries reach a reasonable royalty amount that bears no reasonable relationship to the value of the patented feature at issue.<sup>168</sup>

This makes it even more critical for judges to utilize their gatekeeper powers to prohibit damages evidence lacking the proper foundation. Martha K. Gooding and William C. Rooklidge, partners in Jones Day's Irvine, California office, make the following suggestion for parties to take advantage of judges' gatekeeper powers:

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<sup>155</sup> Id. at 1312.
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 $<sup>^{156}</sup>$  Id.

<sup>157</sup> Id.

<sup>&</sup>lt;sup>158</sup> Lucent Techs. v. Gateway, Inc., 580 F.3d 1301, 1339 (Fed. Cir. 2009).

 $<sup>^{159}</sup>$  Id.

 $<sup>^{160}</sup>$  Id. at 1340.

 $<sup>^{161}</sup>$  Id.

<sup>162</sup> *Id*.

<sup>&</sup>lt;sup>163</sup> Brief for Bank of Am. Corp. Coverity, *supra* note 57, at 24; *see also* MODERN FEDERAL JURY INSTRUCTIONS, *supra* note 54, at 86.04 ("[T]ossing a grab-bag of sixteen factors to the jurors in hopes that they can decipher a methodology to calculate a reasonable royalty.").

<sup>&</sup>lt;sup>164</sup> Brief for Bank of Am. Corp. Coverity, supra note 57, at 24 n.6.

 $<sup>^{165}</sup>$  Id.

 $<sup>^{166}</sup>$  Id.

 $<sup>^{167}</sup>$  Id.

 $<sup>^{168}</sup>$  Id.

For any issues that survive summary disposition, scrutinize your opponent's experts and their opinions. An expert's damages analysis 'requires sound economic and factual predicates.' Do not hesitate to challenge experts or their opinions with a *Daubert* motion where the necessary foundation is lacking. Patentees often rely solely on expert testimony, and winning a motion to exclude that testimony can eliminate entire categories of damages or even limit the patentee to nominal damages.<sup>169</sup>

In Cornell Univ. v. Hewlett-Packard, <sup>170</sup> the patented invention was a component of a processor that was one of various parts of a "CPU brick" or server. <sup>171</sup> Cornell University's expert failed to provide economic proof that the patented invention drove demand for the server. <sup>172</sup>

Judge Rader of the Federal Circuit, sitting by designation, stopped mid-trial to conduct a *Daubert* hearing on the proffered opinion of plaintiff's damages expert, which relied on the entire market value of the accused Hewlett-Packard servers as the royalty base. After noting that the claimed invention was only a 'component of a component of a part of the server,' the court excluded the entire market value opinion based on the value of the server, finding that the expert's methodology failed to 'show a sound economic connection between this broad proffered royalty base and the claimed invention.'<sup>173</sup>

Additionally, the court held that: (1) the infringing component must be a basis for customer demand; (2) infringing and non-infringing components must be sold together as a single unit or as parts of a complete machine or assembly; and (3) infringing and non-infringing components must be analogous to a single functioning unit, but not sold together for mere business advantage.<sup>174</sup> Thus, at least in some cases, "a reliable reasonable royalty calculation depends upon trustworthy evidence of the royalty base and [royalty] rate."<sup>175</sup>

### III. Proposal

Given this recent evolution of case law, there exists the potential to create a clear reasonable royalty analysis. The elimination of arbitrary methods like the 25 percent rule is a step in the right direction. Utilization of the EMVR is helpful, but not without a charge of apportionment. In fact, the jury should only be charged with apportionment when jury instructions explaining how to determine a damages award

<sup>&</sup>lt;sup>169</sup> Martha K. Gooding & William C. Rooklidge, *The Real Problem with Patent Infringement Damages*, 91 J. PAT. & TRADEMARK OFF. SOC'Y 484, 492–93 (2009).

<sup>&</sup>lt;sup>170</sup> Cornell Univ. v. Hewlett-Packard Co., 609 F. Supp. 2d 279, 283 (N.D.N.Y. 2009).

<sup>171</sup> Id.

<sup>172</sup> Id. at 289.

<sup>&</sup>lt;sup>173</sup> Gooding & Rooklidge, supra note 169, 492–93.

<sup>&</sup>lt;sup>174</sup> Cornell Univ., 609 F. Supp. 2d at 286-87.

<sup>&</sup>lt;sup>175</sup> IP Innovation L.L.C. v. Red Hat, Inc., 705 F. Supp. 2d 687, 689 (E.D. Tex. 2010).

are delivered. Requiring substantial evidence tied to the economic value added by the infringed patent to the infringing product will aid in clarifying the analysis. Furthermore, a use of comparable licenses based in economic principles should be used to determine the reasonable royalty rate, thereby reducing the amount of confusing evidence that reaches the jury. Finally, judges should flex their gatekeeper powers to ensure that only reliable evidence is considered by a jury when making its final damages determinations.

This comment proposes a framework for determining reasonable royalty damages amounts in patent infringement cases. The confusion in calculating a reasonable royalty amount can be eliminated with the following changes: Part III.A. explains that the EMVR has no place in the analysis of the royalty base. <sup>176</sup> A charge of apportionment of the economic value added is the only option that should be given to juries. The EMVR is just one of many results of the apportionment analysis. <sup>177</sup> Additionally, the courts should only allow evidence tied to the economic value added by the infringed patent to the infringing product. <sup>178</sup> Next, Part III.B. explains that a use of comparable licenses based in economic principles should be used to determine the reasonable royalty rate. Finally, Part III.C. explains that judges should be required to utilize their gatekeeper powers to prevent unreliable evidence from reaching a jury. <sup>179</sup>

### A. Apportionment Is the Best Instruction for Determining the Reasonable Royalty Base

The EMVR has no role in the analysis of a reasonable royalty.<sup>180</sup> Apportionment of the economic value added is the appropriate calculation and was historically used by the courts.<sup>181</sup> The resulting royalty base from use of the EMVR amounts to nothing more than one among several potential results of the apportionment calculation.<sup>182</sup> If the entire market value of an infringing component truly results in an apportionment base of 100 percent of the value of the infringing product, then there is no need for a separate EMVR rule.<sup>183</sup> There is no need to highlight the EMVR to a jury because it is already accounted for in the apportionment calculation.<sup>184</sup> Although apportionment is "expressly reflected in *Georgia-Pacific's*"

<sup>&</sup>lt;sup>176</sup> Brief for Bank of Am. Corp. Coverity, supra note 57, at 24, n.6.

<sup>&</sup>lt;sup>177</sup> Janicke, supra note 54, at 42.

<sup>178</sup> James Elacqua, Skadden, Arps, Meagher & Flom L.L.P., et al., Conference on Evolving Damages Law Hosted by the Berkely Center for Law & Technology & The Federal Circuit Bar Association, Trial Lawyer Panel 28–30 (Oct. 18, 2010), available at http://www.law.berkeley.edu/files/bclt\_PatentDamages\_Trial\_Attorneys\_Panel.ppt.

<sup>&</sup>lt;sup>179</sup> Kappos, *supra* note 3, at 16.

<sup>&</sup>lt;sup>180</sup> Brief for Bank of Am. Corp. Coverity, supra note 57, at 24 n.6.

<sup>&</sup>lt;sup>181</sup> Janicke, *supra* note 54, at 42 ("[T]ell the jury that some portion of the value added is what they ought to award in light of the Constitutional purpose . . . and I would throw out everything else."); *see* Eric E. Bensen, *Apportionment of Lost Profits in Contemporary Patent Damages Cases*, 10 VA. J.L. & TECH 8, 2 (2005).

<sup>&</sup>lt;sup>182</sup> Brief for Bank of Am. Corp. Coverity, supra note 57, at 24 n.6.

 $<sup>^{183}</sup>$  Id.

<sup>&</sup>lt;sup>184</sup> Janicke, *supra* note 54, at 63 ("[T]he entire market value is really a meaningless cliche that we should get rid of."); *but see, Lucent*, 580 F.3d at 1339 (holding that "[t]here is nothing inherently

thirteenth factor, treating apportionment merely as a factor in the reasonable royalty analysis where it may be given more or less weight or ignored altogether, is insufficient to meet long-standing apportionment requirements." <sup>185</sup> Congress should go further and require that apportionment be a threshold determination in every reasonable royalty analysis. <sup>186</sup>

It is important to encourage judicial application of this evidentiary threshold. The reach of patent protection afforded an invention should not extend beyond the actual invention and onto unrelated components of a product, unless the invention is "the basis for customer demand." When evidence truly shows that an invention is the basis for customer demand, reasonable royalty damages amounts will begin to more accurately reflect legitimate damages awards. 188

### B. Economically Comparable Licenses Must be Used to Determine the Royalty Rate

Even after an appropriate royalty base is calculated, based on a jury instruction of apportionment, the jury still has the ability to use a higher royalty rate. This would nullify any restriction on the base. The way to prevent the use of an arbitrary royalty rate is by use of comparable licenses based in economic principles. The way to prevent the use of an arbitrary royalty rate is by use of comparable licenses based in economic principles.

Furthermore, the royalty determination is often made by a jury, whose deliberations are not public and not subject to meaningful appellate review.<sup>192</sup> This process hinders the development of clear laws concerning the proper application of the various *Georgia-Pacific* factors.<sup>193</sup> Simply giving a list of fifteen *Georgia-Pacific* factors to a jury without supervision by judges gives the jury full authority in determining a reasonable royalty amount, which creates the potential of exorbitant

wrong with using the [EMVR], especially when there is no established market value for the infringing component or feature, so long as the multiplier [i.e., the royalty rate] accounts for the proportion of the base represented by the infringing component or feature."); Elacqua, *supra* note 178. at 28–30.

<sup>&</sup>lt;sup>185</sup> Eric E. Bensen & Danielle M. White, *Using Apportionment to Rein in the* Georgia-Pacific *Factors*, 9 COLUM. SCI. & TECH. L. REV. 1, 46 (2008); *Georgia-Pacific*, 318 F. Supp. at 1121 ("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.").

<sup>&</sup>lt;sup>186</sup> Kappos, *supra* note 3, at 15.

 $<sup>^{187}</sup> Id.$ 

<sup>&</sup>lt;sup>188</sup> Elan Microelectronics Corp. v. Apple, Inc., 2011 U.S. Dist. LEXIS 101761, at \*7 (N.D. Cal. Sept. 9, 2011) (stating that "damages experts must provide evidence tending to separate or apportion the defendant's profits and the patentees damages between the patented feature and the unpatented features").

 $<sup>^{189}</sup>$  Id.

 $<sup>^{190}</sup>$  Elacqua, supra note 178, at 28–30.

 $<sup>^{191}</sup>$  Id.

 $<sup>^{192}</sup>$  Id.

<sup>&</sup>lt;sup>193</sup> See, e.g., Ball Aerosol & Specialty Container, Inc. v. Ltd. Brands, Inc., 514 F. Supp. 2d 1051, 1060 (N.D. Ill. 2007); Bose Corp. v. JBL, Inc., 112 F. Supp. 2d 138, 165 (D. Mass. 2000).

damages awards. 194 Also contributing to the problem is that *Georgia-Pacific* cites little precedent to support the *Georgia-Pacific* analysis. 195

Some of the *Georgia-Pacific* factors are helpful in the calculation, but judges should only allow evidence based on factors that are tied to the economic value added. The courts may realistically consider whether there is "economic proof" with "factual predicates" for the *Georgia-Pacific* factors. 197

Particularly, factors six, eleven, and thirteen respectively deal with the economic value added including: (6) the effect of selling the patented feature in promoting sales of other products; (11) the extent to which the alleged infringer has made use of the patented technology and the value of that use; and (13) the portion of realizable profit that should be credited to the patented technology as opposed to non-patented elements.<sup>198</sup>

Thus, a simplification of the *Georgia-Pacific* factors can be of assistance in the determination of a reasonable royalty.<sup>199</sup> Requiring the use of only comparable licenses should serve to focus a jury's deliberations on reliable and less confusing evidence.

### C. Courts Must Play a Much Larger Gatekeeping Role

Congress should require courts to conduct thorough *Daubert* hearings on patent damages. Requiring strong gatekeeping by the courts will help to encourage innovation. Despite the existence of the *Daubert* framework that permits judges to serve as gatekeepers in evaluating expert testimony, actual exclusions of testimony on patent damages are rare. In a review of Federal Circuit cases since 1993, Atanu Saha and Roy Weinstein, found merely six rulings on *Daubert* motions with respect to reasonable royalties. In only two of those cases did courts exclude testimony about reasonable royalties—"one involving a patentee witness and one involving the accused infringer witness." In district court cases since 2000, they

<sup>&</sup>lt;sup>194</sup> Janicke, *supra* note 54, at 10–11; PATENT DAMAGES HANDBOOK COMMITTEE MEMBERS, COMPENSATORY DAMAGES ISSUES IN PATENT INFRINGEMENT CASES: A HANDBOOK FOR FEDERAL DISTRICT COURT JUDGES 1 (Jan. 21, 2010), *available at* 2010 Emerging Issues 4839 ("There is 'no formula by which these factors can be rated precisely in the order of their relative importance or by which their economic significance can be automatically transduced into their pecuniary equivalent.").

<sup>&</sup>lt;sup>195</sup> Georgia-Pacific, 318 F. Supp. at 1120.

<sup>&</sup>lt;sup>196</sup> Elacqua, supra note 178, at 30; Georgia-Pacific, 318 F. Supp. at 1120.

<sup>&</sup>lt;sup>197</sup> *Id*.

 $<sup>^{198}</sup>$  Id.

 $<sup>^{199}</sup> Id$ 

<sup>&</sup>lt;sup>200</sup> *Id.*; Lucent Techs., Inc. v. Microsoft Corp., 2011 U.S. Dist. LEXIS 75504, at \*14 (S.D. Cal. July 13, 2011) ("Under *Daubert*, the court is charged with a 'gatekeeping function' to ensure expert testimony is both reliable and relevant.").

<sup>&</sup>lt;sup>201</sup> Durie & Lemley, supra note 109, at 635.

 $<sup>^{202}</sup>$  *Id*.

 $<sup>^{203}</sup>$  Id.

found thirty-nine rulings related to reasonable royalty awards—"six excluded the patentee's expert testimony on reasonable royalty, with another three excluding the patentee expert's testimony in part."<sup>204</sup>

Requiring these *Daubert* motions will force judges to allow only reliable evidence in patent damages cases and force parties to more carefully select their evidence, with knowledge that such evidence will be more closely scrutinized.<sup>205</sup> When judges more aggressively utilize their gatekeeper powers in this way, juries are presented with more reliable and less confusing information to be used when determining a reasonable royalty amount.

### IV. CONCLUSION

The reasonable royalty calculation remains confusing because there are numerous methods of calculation including several that appear rather arbitrary. This has the effect of overcompensating patentees and driving up damages awards which goes against the goal of encouraging innovation.<sup>206</sup> Although the courts have had some success in establishing new methods, Congress should create a more rigid and clear test for all.<sup>207</sup> Establishing clear rules for damages experts to calculate a reasonable royalty amount creates certainty and improves the efficiency of intellectual property markets.<sup>208</sup> When juries receive a clear methodology for calculating a reasonable royalty amount, they have the power to render a more fair judgment. This power is enhanced when judges are required to scrutinize the parties' evidence, which results in the jury obtaining access to only reliable evidence that is based in sound economic and factual predicates. The effect will be to reduce the amount of damage awards and provide additional incentive for inventors to "The first step in winning the future is continue to develop new products. encouraging . . . innovation, [which] doesn't just change our lives, [but] determines how we make our living.... Success in this new and changing world will require reform, responsibility, and innovation."209

 $<sup>^{204}</sup>$  Id

 $<sup>^{205}</sup>$  Id.; Allen W. Hinderaker, EXPERT TESTIMONY: HOLY WATER OR VINEGAR? 1 (July 19, 2011), available at 2011 Emerging Issues 5766 ("Factual testimony that masquerades as expert opinion is inadmissible expert testimony. Expert opinion that lacks a reliable basis in fact is also inadmissible.").

<sup>&</sup>lt;sup>206</sup> U.S. CONST. art. I, § 8.

<sup>&</sup>lt;sup>207</sup> Kyl, supra note 12, at S9982-83.

 $<sup>^{208}</sup>$  Id

<sup>&</sup>lt;sup>209</sup> Barack Obama, 44th President, United States of America, Remarks by the President in State of Union Address (Jan. 25, 2011), available at http://www.whitehouse.gov/the-press-office/2011/01/25/remarks-president-state-union-address.