Application of Patent Law Damages Analysis to Trade Secret Misappropriation Claims: Apportionment, Alternatives, and Other Common Limitations on Damages

Douglas G. Smith*

TABLE OF CONTENTS

I.	THE INTERSECTION OF PATENT AND TRADE SECRET	
	LAW	824
II.	ANALYSIS OF LOST PROFITS DAMAGES	826
	A. The Panduit Factors	827
	B. Reliable Economic Analysis and Reconstruction of the	
	Market	834
III.	ANALYSIS OF UNJUST ENRICHMENT DAMAGES	836
IV.	ANALYSIS OF ROYALTY DAMAGES	841
V.	DISAGGREGATION AND APPORTIONMENT OF	
	DAMAGES	844
VI.	OTHER COMMON LIMITATIONS BASED ON THE	
	RELATIONSHIP BETWEEN THE PARTIES	858
VII.	LIMITATIONS ON THE DURATION OF THE DAMAGES	
	PERIOD	862
VIII.	CONCLUSION	865

Trade secret misappropriation claims are increasingly utilized as a mechanism for enforcing intellectual property rights.¹ While the law governing patent infringement claims has been developed over the entire length of our nation's history, trade secret law remains comparatively undeveloped. This is particularly true in the area of damages

^{*} Associate, Kirkland & Ellis, Chicago, IL.; J.D., Northwestern University School of Law; M.B.A., The University of Chicago; B.S./B.A., State University of New York at Buffalo. The views expressed in this article are solely those of the author and do not necessarily reflect those of Kirkland & Ellis or its clients.

^{1.} See, e.g., Felix Prandl, Damages for Misappropriation of Trade Secret, 22 TORT & INS. L.J. 447, 456 (1987) ("Trade secret litigation has become an important factor of competition in certain areas of business, such as the high-tech or the chemical industry.").

analysis, where the Supreme Court and the Federal Circuit have laid down bright-line rules in constructing a body of precedent that may be used in applying judicial scrutiny to damages claims in the context of patent infringement. This body of precedent stands in stark contrast to the patchwork of decisions by various courts applying the law of different states in analyzing claims for trade secret misappropriation.² In part because trade secret law is based on state law, there is a greater diversity in the rules that may be applicable in the context of trade secret damages claims despite efforts to provide a basis for uniform rules.³ Moreover, at bottom, the number of cases addressing damages-related issues in the context of trade secret misappropriation is far fewer than those addressing damages in the context of patent infringement claims.

While better-developed patent law rules may not be applicable to trade secret misappropriation claims in every context, application of uniform criteria is particularly appropriate in the context of damages analysis. After all, the rules governing damages ultimately flow from economic principles that should not depend upon jurisdictional idiosyncrasies. Indeed, courts analyzing trade secret claims have intermittently applied frameworks developed in evaluating patent infringement claims. Nonetheless, despite the close parallels, the law regarding trade secret damages remains relatively undeveloped in many respects.⁴

This article attempts to demonstrate how damages principles that have been developed in the context of patent infringement claims can

^{2.} See generally M. Rosenhouse, Annotation, Proper Measure and Elements of Damages for Misappropriation of Trade Secrets, 11 A.L.R. 4th 12 (1982) (summarizing case law).

^{3.} See Telex Corp. v. IBM Corp., 510 F.2d 894, 930 (10th Cir. 1975) ("[U]nfortunately the general law as to the proper measure of damages in a trade secrets case is far from uniform."); Am. Sales Corp. v. Adventure Travel, Inc., 862 F. Supp. 1476, 1479 (E.D. Va. 1994) ("Computing damages in a trade secrets case is not cut and dry."); Litton Sys., Inc. v. Ssangyong Cement Indus. Co., 1993 WL 317266, at *1 (N.D. Ca. 1993); id. at *2 (observing that the principles governing trade secret damages "allow broad latitude in fashioning appropriate remedies"); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 Reporters' Note (1995) ("The cases reflect considerable flexibility in the calculation of appropriate monetary relief in trade secret actions."); ABA MODEL JURY INSTRUCTIONS § 8.06[4], at 400 (3d ed. 1996) (in trade secret cases, "lost profits, unjust enrichment, gains, or other benefits are not consistently applied concepts from jurisdiction to jurisdiction, and may be subject to differing standards under various state laws").

^{4.} There also seems to be a lack of scholarly commentary on this topic. See MELVIN F. JAGER, TRADE SECRET LAW § 7.03 (2001); Craig N. Johnson, Assessing Damages for Misappropriation of Trade Secrets, COLO. LAW., AUG. 1998, at 71 [hereinafter Johnson, Assessing Damages]; Prandl, supra note 1, at 447-48 ("Courts have not yet uniformly decided on the standards applicable to trade secret damages.... To date, courts have not developed a clear and consistent theory of trade secret damages."); Rosenhouse, supra note 2; William F. Johnson, Jr., Remedies in Trade Secret Law, 72 NW. U. L. REV. 1004 (1978).

be adapted and applied in the context of trade secret claims. Courts should look more readily to the well-developed body of patent law in fashioning the rules governing damages in trade secret misappropriation cases. Adoption of such principles, modified where necessary to better fit the trade secret context, is likely to have the salutary effect of increasing the scrutiny given trade secret damages claims—weeding out those claims that are not sufficiently reliable to justify their submission to a jury.⁵

Courts in patent infringement cases have developed rigorous standards for testing and constraining damages claims.⁶ Increasingly, courts exclude methodologically flawed damages theories under traditional damages principles or under the rubric of *Daubert v. Merrell Dow Pharmaceuticals, Inc.*⁷ Arguably, such rigorous standards are even more appropriate in the context of trade secrets, which by their very nature, are often less concrete and intangible in terms of their value than a patent, which by definition must define a complete and workable process or machine.⁸ Trade secrets often relate to some small part of a process or machine and, by their very existence as "secrets," may not be as readily subject to valuation in the marketplace. Because plaintiffs increasingly invoke both trade secret law and these factors inherent in trade secret claims, applying such rigorous standards is both appropriate and desirable. Indeed, recent trade secret cases have increasingly applied either traditional damages principles or

Prandl, supra note 1, at 456.

^{5.} At least one commentator has observed that parties historically have often been free to proffer whatever theory they deemed appropriate and submit that theory to the jury:

A review of recent trade secret cases does not offer a single solution to the damage issue. In many cases, courts have been guided by the parties' arguments and proof at trial. Trial counsel preparing for trade secret litigation is largely free to choose one or more of the standards applicable to trade secret damages. The monetary outcome of the trial will not so much depend on a theory underlying trade secret protection but on the plausibility of the parties' arguments.

^{6.} There has been a fair amount of scholarly commentary in the area of patent damages analysis. See, e.g., JOHN W. SCHLICHER, PATENT LAW: LEGAL AND ECONOMIC PRINCIPLES §§ 9.04, 9.05 (2001); Paul M. Janicke, Contemporary Issues in Patent Damages, 42 AM. U. L. REV. 691 (1993); Karen D. McDaniel & Gregory M. Ansems, Damages in the Post-Rite-Hite Era: Convoyed Sales Illustrate the Dichotomy in Current Damages Law, 78 J. PAT. & TRADEMARK OFF. SOC'Y 461 (1996); Laura B. Pincus, The Computation of Damages in Patent Infringement Actions, 5 HARV. J.L. & TECH. 95 (1991). Other commentators have focused on damages in intellectual property cases more generally. See, e.g., Roger D. Blair & Thomas F. Cotter, An Economic Analysis of Damages Rules in Intellectual Property Law, 39 WM. & MARY L. REV. 1585 (1998).

^{7.} Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579 (1993).

^{8.} See Blair & Cotter, supra note 6, at 1600 ("As Friedman, Landes, and Posner have noted, trade secret law supplements the patent system by providing limited ownership rights in information that, although socially valuable, may be insufficiently valuable to merit exclusive ownership for the twenty-year period mandated by the Patent Act.").

the standards for determining the reliability of proffered expert testimony under *Daubert* to exclude fundamentally flawed damage claims.⁹

The specific patent law principles that may be adopted and applied to trade secret claims are myriad. For example, the law governing apportionment and disaggregation of damages is particularly welldeveloped in patent cases. Similarly, courts have issued numerous decisions evaluating the existence of acceptable noninfringing alternatives or substitutes and their effect in limiting or completely barring certain categories of damages. Finally, courts in patent cases have identified numerous factors that are relevant in valuing intellectual property. Chief among these are the *Georgia-Pacific* factors, which are applied in determining royalty damages. These same principles may be applied effectively to trade secret damage claims.

Part I of this article discusses the case law acknowledging the applicability of patent law precedents in the context of trade secret damage claims. Part II discusses the application of patent law precedents regarding lost profits as a measure of damages. Part III analyzes the applicability of patent law damages principles in the context of unjust enrichment as a measure of damages. Part IV then proceeds to examine how patent law principles are frequently applied in the context of royalty damages. Part V discusses the case law relating to disaggregation and apportionment of damages in the context of patent and trade secret claims. Part VI discusses certain common limitations on damages based on the relationship between the parties. Part VII analyzes certain limitations relating to the duration of the damages period. Finally, Part VIII offers a brief conclusion.

I. THE INTERSECTION OF PATENT AND TRADE SECRET LAW

The number of cases explicitly addressing the intersection between patent and trade secret damages is surprisingly low. Nonethe-

^{9.} Under the Supreme Court's Daubert and Kumho Tire decisions, trial courts have a "gatekeeping obligation" to ensure that any and all expert testimony "is not only relevant, but reliable." Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 147 (1999); Daubert v. Merrell Dow Pharms., Inc., 509 U.S. 579, 589 (1993). This gatekeeping obligation "applies to all expert testimony, not just testimony based in science." FED. R. EVID. 702 advisory committee's notes ("The trial court's gatekeeping function applies to testimony by any expert."); Kumho Tire, 526 U.S. at 141. The principles outlined by the Supreme Court in Daubert have been incorporated into FRE 702, which states that proffered expert testimony is admissible only if: "(1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case." FED. R. EVID. 702; see also id. advisory committee's notes ("[W]hether the testimony concerns economic principles, accounting standards, property valuation or other non-scientific subjects, it should be evaluated by reference to the 'knowledge and experience' of that particular field."") (quoting American College of Trial Lawyers, Standards and Procedures for Determining the Admissibility of Expert Testimony After Daubert, 157 F.R.D. 571, 579 (1994)).

less, certain often-cited cases analyzing trade secret damages do address the obvious parallels. The most prominent among these is University Computing Co. v. Lykes-Youngstown Corp.¹⁰ In University Computing, the Fifth Circuit broadly stated that "[i]t seems generally accepted that 'the proper measure of damages in the case of a trade secret appropriation is to be determined by reference to the analogous line of cases involving patent infringement, just as patent infringement cases are used by analogy to determine the damages for copy-right infringement."¹¹

The University Computing decision is particularly comprehensive, addressing various measures of damages for trade secret misappropriation, including lost profits, unjust enrichment and royalty damages. In support of its assertion that courts should look to patent infringement cases when evaluating damages claims for trade secret misappropriation, the court cited the Third Circuit's decision in International Industries v. Warren Petroleum Corp.¹² In that case, the court applied patent law principles in evaluating a claim for trade secret damages based on an unjust enrichment theory.¹³ Taken together, University Computing and International Industries are perhaps the two cases most frequently cited for the proposition that patent law damages analysis should be applied in evaluating trade secret damages claims. Nonetheless, subsequent decisions have also occasionally recognized that "trade secrets cases are analogous to patent infringement as concerns measure of damages."¹⁴

Patent law precedents provide a wealth of guidance for evaluating trade secret damages claims. While the Federal Circuit has observed that the "determination of a damage award is not an exact science,"¹⁵ that court and other federal courts have developed a fairly robust body of precedent and have outlined a variety of clear legal principles that courts routinely apply in scrutinizing patent damages claims. Application of these patent law precedents to trade secret claims may provide significant guidance in an area of the law that is currently relatively amorphous at best. Nonetheless, despite decisions such as

^{10.} Univ. Computing Co. v. Lykes-Youngstown Corp., 504 F.2d 518 (5th Cir. 1974).

^{11.} Id. at 535 (quoting Int'l Indus., Inc. v. Warren Petroleum Corp., 248 F.2d 696, 699 (3d Cir. 1957)).

^{12.} Int'l Indus, 248 F.2d 696 (3d Cir. 1957). See also JAGER, supra note 4, § 7.03, at 7-82 ("International Industries, Inc. v. Warren Petroleum Corp. is a leading case on trade secret damages... The Third Circuit concluded that the proper measure of damages in a trade secret case is to be determined by reference to the analogous line of cases involving damages for patent infringement.").

^{13. 248} F.2d at 699.

^{14.} Telex Corp. v. IBM Corp., 510 F.2d 894, 930 (10th Cir. 1975).

^{15.} King Instrument Corp. v. Otari Corp., 767 F.2d 853, 863 (Fed. Cir. 1985).

University Computing and International Industries, courts evaluating trade secret claims have not relied upon such precedents as frequently as one might expect.

II. ANALYSIS OF LOST PROFITS DAMAGES

Under the Uniform Trade Secrets Act and other trade secret law, plaintiffs are permitted to recover damages measured by the plaintiff's alleged lost profits, the defendant's unjust enrichment, or a reasonable royalty.¹⁶ Plaintiffs may recover both lost profits and unjust enrichment, but only to the extent that these two awards are not duplicative.¹⁷ In the alternative, they may receive a reasonable royalty for the defendant's use of their trade secrets.¹⁸

The first measure, based on the plaintiff's lost profits, is a common means of assessing damages in both patent and trade secret cases.

18. Some courts and commentators have concluded that reasonable royalty damages are particularly appropriate where other damages measures, such as lost profits or unjust enrichment, are difficult to compute. See, e.g., Pioneer Hi-Bred Int'l v. Holden Found. Seeds, Inc., 35 F.3d 1226, 1243 (8th Cir. 1994) (a reasonable royalty "is most appropriate when the other theories would result in no recovery or when the parties actually had or contemplated a royalty"); Jet Spray, 385 N.E.2d at 1357 n.10 ("[T]he 'reasonable royalty' measure of damages is only appropriate where the defendant has made no actual profits and the plaintiff is unable to prove a specific loss."); Johnson, Assessing Damages, supra note 4, at 72 ("An award of a 'reasonable royalty' is an alternative to other, more traditional measures of damages under the Uniform Trade Secrets Act. This measure of damages is most often applied where there is difficulty in determining the plaintiff's actual loss or the defendant's actual gain from the misappropriation."); Prandl, supra note 1, at 451 ("From a policy standpoint the least attractive method of measuring the plaintiff's damages is the reasonable royalty standard."). Cf. Pincus, supra note 6, at 119 ("The Federal Circuit has directed that courts should attempt to determine actual damages—lost profits—prior to resorting to a royalty award.").

While this approach was taken under the *Restatement*, it has not been adopted under the Uniform Trade Secrets Act:

It is important to keep in mind that unlike the UTSA, the *Restatement* takes an either/or approach to measuring damages-either plaintiff's lost profits, or defendant's gains. The *Restatement* treats royalty damages as an alternative to both measures, available only if neither plaintiff's lost profits nor defendant's gain can be shown. By contrast, the UTSA allows the plaintiff to choose royalty damages regardless of what else can be proved.

ABA MODEL JURY INSTRUCTIONS § 8.06[4], at 399 (3d ed. 1996).

^{16.} See UNIF. TRADE SECRETS ACT § 3(a) (1985) (plaintiffs may recover "both the actual loss caused by misappropriation and the unjust enrichment caused by misappropriation that is not taken into account in computing actual loss"). For a listing of those states that have adopted the Uniform Trade Secrets Act and those that instead look to the common law of trade secrets under the Restatement, see ABA MODEL JURY INSTRUCTIONS § 8.01, at 363–65 (3d ed. 1996).

^{17.} Telex Corp., 510 F.2d at 930 (observing that "a plaintiff may recover either, but not both [unjust enrichment and lost profits damages], because to allow both would permit double recovery"); Sperry Rand Corp. v. ATO, Inc., 447 F.2d 1387 (4th Cir. 1971) (same); Jet Spray Cooler, Inc. v. Crampton, 385 N.E.2d 1349, 1356 (Mass. 1979) ("Of course, a plaintiff is not entitled to both the profits made by the defendant and his own lost profits."); Rosenhouse, *supra* note 2, § 2[a] ("a particular measure of damages [is] inappropriate . . . where application would have resulted in double recovery").

Trade Secret Damages

Case law analyzing the parallels between trade secret and patent law damages in the context of lost profits is fairly sparse. Nonetheless, a well-developed body of case law in the context of patent law damages provides a source of legal rules that may be utilized in assessing trade secret damages claims. Chief among these are the numerous precedents addressing the effects of acceptable alternatives on the plaintiff's ability to recover lost profits, the threshold for proving lost profits that are not speculative, and the elements that must be met in proving a lost profits claim.

A. The Panduit Factors

The cases addressing lost profits in the context of patent infringement recognize the core principle governing lost profits awards in general—that a plaintiff seeking lost profits must demonstrate "but for" causation. In the patent infringement context, a plaintiff must show that "but for' the infringing activity," it "would have made the infringer's sales."¹⁹ In order "[t]o show 'but for' causation and entitlement to lost profits," a plaintiff "must reconstruct the market to show, hypothetically, 'likely outcomes with infringement factored out of the economic picture."²⁰ Such market reconstruction requires

The 'but for' analysis is the most difficult element of the *Panduit* test for the patent holder to demonstrate.... Lower courts in most recent cases have held that in order to recover lost profits, the patent holder must prove that 'but for' the infringement, it would have made the sales of the infringers.

20. Crystal Semiconductor Corp. v. Tritech Microelectronics, 246 F.3d 1336, 1355 (Fed. Cir. 2001) (citing *Grain Processing*, 185 F.3d at 1350).

^{19.} Shockley v. Arcan, Inc., 248 F.3d 1349, 1362 (Fed. Cir. 2001); see also Electro Scientific Indus., Inc. v. Gen. Scanning Inc., 247 F.3d 1341, 1353 (Fed. Cir. 2001); Grain Processing Corp. v. Am. Maize-Prods., 185 F.3d 1341, 1349 (Fed. Cir. 1999) ("To recover lost profits, the patent owner must show 'causation in fact,' establishing that 'but for' the infringement, he would have made additional profits."); Oiness v. Walgreen Co., 88 F.3d 1025, 1029 (Fed. Cir. 1996) ("To recover lost profits as actual damages, a patent holder must demonstrate that there was a reasonable probability that, but for the infringement, it would have made the infringer's sales." (quoting Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1577 (Fed. Cir. 1992)); Pall Corp. v. Micron Separations, Inc., 66 F.3d 1211, 1222 (Fed. Cir. 1995); Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1545 (Fed. Cir. 1995); Kearns v. Chrysler Corp., 32 F.3d 1541, 1551 (Fed. Cir. 1994) (affirming summary judgment on issue of lost profits); BIC Leisure Prods., Inc. v. Windsurfing Int'l, Inc., 1 F.3d 1214, 1218 (Fed. Cir. 1993) ("'To recover lost profits as opposed to royalties, a patent owner must prove a causal relation between the infringement and its loss of profits. The patent owner must show that 'but for' the infringement, it would have made the infringer's sales.""); SmithKline Diagnostics, Inc. v. Helena Labs. Corp., 926 F.2d 1161, 1165 (Fed. Cir. 1991); King Instrument, 767 F.2d at 863 (lost profits award "requires (1) a showing that the patent owner would have made the sale but for the infringement, i.e., causation existed, and (2) proper evidence of the computation on lost profits"); SCHLICHER, supra note 6, § 9.04[1][a], at 9-23 ("The patent owner may recover the profits it would have made on lost sales by showing a reasonable probability that it would have made increased sales but for the infringement."); Pincus, supra note 6, at 102.

Id.

"sound economic proof of the nature of the market."²¹ Under this framework, courts "permit patentees to present market reconstruction theories showing all of the ways in which they would have been better off in the 'but for world,' and accordingly to recover lost profits in a wide variety of forms."²²

Courts considering patent infringement claims often apply the so-called *Panduit* factors, which outline certain elements that a plaintiff must establish to recover lost profits damages. Under the Sixth Circuit's decision in *Panduit*, a plaintiff must establish (1) demand for the infringed product, (2) the absence of non-infringing substitutes, (3) ability to exploit the demand, and (4) the amount of profit it would have received absent the alleged infringement.²³ The Federal Circuit has reiterated that the *Panduit* test is "an acceptable, though not an exclusive test for determining 'but for' causation."²⁴

Under *Panduit* and its progeny, it is well established that, in order to recover lost profits, a plaintiff must demonstrate the "absence of non-infringing substitutes."²⁵ In order to qualify as "acceptable" alternatives, the proffered substitutes or alternatives must be sufficiently similar and may "not have a disparately higher price or possess characteristics significantly different from the patented product."²⁶ As

24. BIC Leisure Prods., 1 F.3d at 1218 (citing State Indus., Inc. v. Mor-Flo Indus., Inc., 883 F.2d 1573, at 1577 (Fed. Cir. 1989)); see also Kearns, 32 F.3d at 1551 (citing Panduit factors); Standard Haven Prods., Inc. v. Gencor Indus., Inc., 953 F.2d 1360, 1372 (Fed. Cir. 1992) ("One way to establish causation is the four-part test applied in Panduit"); SCHLICHER, supra note 6, § 9.04[1][a], at 9-23 (observing that although Panduit "is the most frequently applied test, . . . [t]he courts say it is not the only test"); Janicke, supra note 6, at 709 ("While Panduit is undoubtedly the most cited analysis for determining a patentee's right to recover lost profits in an infringement suit, it is now well established that Panduit is not the only proper route to that end."); Pincus, supra note 6, at 100 ("The Sixth Circuit's analysis in Panduit Corp. v. Stahlin Brothers Fibre Works, Inc., is used by the Federal Circuit and other districts as a guide in 'lost profit' decisions.").

25. Panduit, 575 F.2d at 1156; see also SmithKline Diagnostics, 926 F.2d at 1165-66 ("but for' test is not met" where "others would likely have captured sales made by the infringer"); Janicke, supra note 6, at 701 ("The second prong of Panduit, the absence of acceptable noninfringing substitutes, has proven the most troublesome prong by far for plaintiffs to prove.").

26. Crystal Semiconductor Corp. v. Tritech Microelectronics, 246 F.3d 1336, 1356 (Fed. Cir. 2001) ("[T]he patent owner and the infringer [must] sell products sufficiently similar to compete against each other in the same market segment." (quoting *BIC Leisure Prods.*, 1 F.3d at

^{21.} Grain Processing, 185 F.3d at 1350.

^{22.} Id. (observing that "courts have given patentees significant latitude to prove and recover lost profits for a wide variety of foreseeable economic effects of the infringement").

^{23.} Panduit Corp. v. Stahlin Bros. Fibre Works, 575 F.2d 1152, 1156 (6th Cir. 1978); see also Pall Corp., 66 F.3d at 1222 ("To establish lost profits by applying the evidentiary guideline of *Panduit* the patentee must show (1) that there was a demand for the patented product, (2) the absence of acceptable noninfringing substitutes, (3) that the patentee was capable of meeting the demand, and (4) the amount of profits lost."); SmithKline Diagnostics, 926 F.2d at 1165 (citing Panduit factors); King Instrument, 767 F.2d at 863.

commentators have noted, consideration of acceptable alternatives or substitutes is necessary "[u]nless the law wishes to systematically over-reward patented inventions."²⁷

In Grain Processing Corp. v. American Maize-Products Co.²⁸ the Federal Circuit engaged in an extensive discussion of the rationale behind the prohibition against recovery of lost profits damages where there are acceptable substitutes.²⁹ At bottom, this principle flows from the fundamental requirement that a plaintiff demonstrate "causation in fact," establishing that 'but for' the infringement, he would have made additional profits."³⁰ As court observed,

[A] fair and accurate reconstruction of the "but for" market . . . must take into account, where relevant, alternative actions that the infringer foreseeably would have undertaken had he not infringed. Without the infringing product, a rational would-be infringer is likely to offer an acceptable noninfringing alternative, if available, to compete with the patent owner rather than leave the market altogether.³¹

Thus, the court held that the availability of acceptable alternative processes "precluded any lost profits."³²

Id.; Standard Haven Prods., 953 F.2d at 1373 ("[T]o prove there are no acceptable noninfringing substitutes, the patent owner must show either that (1) the purchasers in the marketplace generally were willing to buy the patented product for its advantages, or (2) the specific purchasers of the infringing product purchased on that basis."); Panduit, 575 F.2d at 1162 ("A product lacking the advantages of that patented can hardly be termed a substitute 'acceptable' to the customer who wants those advantages.").

27. SCHLICHER, supra note 6, § 9.05[2][1], at 9-95. As Schlicher observes:

Grain Processing means that, for purposes of determining lost profits, the market value of any patent invention is the difference between the profits that would be made by a patent owner from use of that invention in the manner determined by the patent owner in the absence of any infringement, and the profits that would be made by the patent owner if others (including the infringer) used the next most valuable available substitute technology that would not infringe any patents of that patent owner.

Id. § 9.05[2][0], at 9-112.

28. Grain Processing Corp. v. Am. Maize-Prods. Co., 185 F.3d 1341 (Fed. Cir. 1999).

29. Id. at 1349-56.

30. Id. at 1349; id. at 1351 ("The competitor in the 'but for' marketplace is hardly likely to surrender its complete market share when faced with a patent, if it can compete with it in some lawful manner.").

31. Id. at 1350-51.

32. Id. at 1356.

^{1218–19) (}alteration in original)); Kaufman Co. v. Lantech, Inc., 926 F.2d 1136, 1142 (Fed. Cir. 1991); SmithKline Diagnostics, 926 F.2d at 1166.

If purchasers are motivated to purchase because of particular features of a product available only from the patent owner and infringers, products without such features would obviously not be *acceptable* non-infringing substitutes.... On the other hand, if the realities of the market are that others would likely have captured sales made by the infringer, despite a difference in the products, it follows that the 'but for' test is not met.

Indeed, in *Grain Processing*, the court went beyond prior precedent in holding that even "an available technology not on the market during the infringement can constitute a noninfringing alternative" that mandated a "denial of lost profits."³³ However, where alternative processes were actually being used to supply product to the market throughout the damages period, the court observed that "market sales of an acceptable noninfringing substitute often suffice alone to defeat a case for lost profits."³⁴

The court emphasized that it was critical that acceptable alternatives be compared to determine whether the intellectual property at issue had any economic value and, moreover, indicated that alternatives that were not perfect substitutes could be used to obtain an estimate of damages through comparison with the infringed technology:

[O]nly by comparing the patented invention to its next-best available alternative(s)—regardless of whether the alternative(s) were actually produced and sold during the infringement—can the court discern the market value of the patent owner's exclusive right, and therefore his expected profit or reward, had the infringer's activities not prevented him from taking full economic advantage of this right.³⁵

Thus, as the court observed, "an accurate reconstruction of the hypothetical 'but for' market takes into account any alternatives available to the infringer."³⁶

The court's recognition that the existence of acceptable alternatives barred recovery of lost profits did not automatically preclude recovery of damages entirely. Rather, the district court ruled that the plaintiff was still entitled to a royalty because the next-best alternative process, while equivalent in terms of customer demand, was slightly higher in cost. Accordingly, the court awarded a royalty based on the

^{33.} Id. at 1351.

^{34.} Id. at 1352 ("Several opinions of this court have noted that 'market sales' provide significant evidence of availability as a substitute."). Similarly, products produced by a third-party licensee of the patentee can also be acceptable non-infringing substitutes. See, e.g., Aptargroup, Inc. v. Summit Packaging Sys., Inc., 1996 WL 114781, at 5 (N.D. Ill. Mar. 14, 1996) ("Devices produced by a third party licensee of the patentee, such as those produced by Cap & Seal, are considered to be acceptable non-infringing substitutes."), aff'd, 178 F.3d 1306 (Fed. Cir. 1998).

^{35.} Grain Processing, 185 F.3d at 1351 (citing Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co., 225 U.S. 604, 614–15 (1912)); Mowry v. Whitney, 81 U.S. (14 Wall.) 620, 651 (1871); King Instrument Corp. v. Otari Corp., 767 F.2d 853, 865 (Fed. Cir. 1985).

^{36.} Grain Processing, 185 F.3d at 1351, 1356 ("In summary, this court requires reliable economic proof of the market that establishes an accurate context to project the likely results 'but for' the infringement. The availability of substitutes invariably will influence the market forces defining this 'but for' marketplace, as it did in this case.").

cost savings attributable to the plaintiff's patent.³⁷ Presumably, were there no cost savings attributable to the plaintiff's patent, the royalty, and therefore the plaintiff's damages, would have been zero.³⁸

Indeed, long-established Supreme Court precedent suggests just such a result. In *Black v. Thorne*, the Court indicated that only "nominal" damages could be recovered where other, nonpatented methods produced the same results in terms of costs and advantages:

It does not always follow that because a party may have made an improvement in a machine and obtained a patent for it, another using the improvement and infringing upon the patentee's rights will be mulcted in more than nominal damages for the infringement. If other methods in common use produce the same results, with equal facility and cost, the use of the patented invention cannot add to the gains of the infringer, or impair the just rewards of the inventor. The inventor may indeed prohibit the use, or exact a license fee for it, and if such license fee has been generally paid, its amount may be taken as the criterion of damage to him when his rights are infringed. In the absence of such criterion, the damages must necessarily be nominal.³⁹

Thus, the existence of alternatives can drive a plaintiff's damages to zero. Consequently, the analysis of alternatives or substitutes constitutes a powerful limitation on the plaintiff's ability to recover damages.

Another element under *Panduit* that often has significant practical effect is the requirement that a plaintiff prove that it had the manufacturing and marketing capacity necessary to meet the demand for the product incorporating the patented technology in the "but for" world. For example, in *Kearns v. Chrysler Corp.*, the Federal Circuit upheld the district court's ruling denying lost profits on the grounds that the plaintiff had failed to prove that it "possessed the capability to manufacture and market" the infringed product.⁴⁰ Indeed, the plaintiff in that case had not even shown that it had ever made any sales of the infringed product in the past.⁴¹ Thus, the court concluded that

^{37.} Id. at 1347 (describing royalty based on "the cost difference between Processes I-III and Process IV, while also taking into account possible cost fluctuations (due to fluctuating enzyme prices) and the elimination of American Maize's risk of producing an infringing product, despite its best efforts").

^{38.} See Pincus, supra note 6, at 131 ("the infringer may show that there are completely acceptable alternatives the use of which would have precluded any payment of a royalty").

^{39.} Black v. Thorne, 111 U.S. 122, 124 (1884).

^{40.} Kearns v. Chrysler Corp., 32 F.3d 1541, 1551 (Fed. Cir. 1994).

^{41.} Id.

there was "no alternative but to have damages determined on the basis of a reasonable royalty." $^{\prime\prime 42}$

Surprisingly, there appear to be few cases analyzing lost profits claims for trade secret misappropriation in such detail. Courts sometimes recognize the general principle applicable to all lost profits claims, whether in the context of intellectual property cases or not, that a plaintiff must demonstrate "but for" causation, observing that the plaintiff's "actual loss would be the profit it would have made on the product it would have sold but for the defendants' misappropriation."⁴³ Thus, there is at least some recognition of the fundamental principle underlying the *Panduit* factors. Nonetheless, there is a dearth of published decisions applying such factors in the context of trade secret misappropriation claims.

One exception appears to be the Eighth Circuit's decision in Pioneer Hi-Bred International v. Holden Foundation Seeds, Inc.⁴⁴ In Pioneer, the court upheld the district court's application of a "but for" analysis that "considered each of the factual concerns discussed in Panduit," including "(1) demand for product, (2) no non-infringing substitutes, (3) ability to exploit the demand, and (4) amount of profit it would receive."⁴⁵ Citing patent precedents such as King Instrument,⁴⁶ the court observed that such a "'but for' rationale... appears to be a straightforward and not uncommon approach to determining lost profits."⁴⁷ Accordingly, the court made no distinction between the patent and trade secret contexts.

Other courts have cited certain of the *Panduit* factors (without specifically referencing the case) in rejecting proffered lost profit opinions. In KW Plastics v. United States Can Co., for example, the court rejected an expert's opinion as to lost profits under *Daubert* where the expert failed to demonstrate that the plaintiff had the capacity to make the sales it claims it would have made absent the alleged misappropriation, thereby applying the third Panduit factor.⁴⁸ The

is understood, however, not as requiring the patent owner to have immediate plant capacity. Rather, patentees may satisfy this prong by showing that they could have subcontracted the production work or that their facilities were adequate or could have been made adequate to meet demand for the patented product.

Janicke, supra note 6, at 706.

43. Mangren Research & Dev. Corp. v. Nat'l Chem. Co., 87 F.3d 937, 945 (7th Cir. 1996); see also Pioneer Hi-Bred Int'l v. Holden Found. Seeds, Inc., 35 F.3d 1226, 1245 (8th Cir. 1994).

- 44. 35 F.3d 1226 (8th Cir. 1994).
- 45. Id. at 1245 & n.56.
- 46. King Instrument Corp. v. Otari Corp., 767 F.2d 853 (Fed. Cir. 1985).
- 47. Pioneer Hi-Bred Int'l, 35 F.3d at 1245.

^{42.} Id. In describing this aspect of the Panduit test one commentator has observed: The third prong of Panduit's four-prong proof pattern for lost profits recovery, the patentee's ability to meet the demand for his or her patented product, is and remains a requirement for lost profits to be recovered. The patentee's "ability to meet demand"

priation, thereby applying the third *Panduit* factor.⁴⁸ The court barred the expert's lost profits testimony on the grounds that the expert "[i]mplicitly acknowledg[ed] that his 'guess' about [the plaintiff's] actual capacity was erroneous."⁴⁹ Moreover, the court noted that the expert's conclusions regarding capacity were based upon "insufficient facts and data," and that "the cumulative effect of [the] methodological errors render[ed] the lost profits calculation speculative, without foundation, and with an unknown error rate."⁵⁰ Thus, while not expressly acknowledging *Panduit*, the court recognized the requirement that a plaintiff demonstrate sufficient capacity as a critical element of any lost profits claim.

Despite the lack of reliance by courts addressing lost profits claims in the context of trade secret misappropriation cases upon the numerous patent infringement precedents, there are many reasons supporting application of this well-developed body of case law in the context of trade secret damages. First, the award of lost profits in the context of trade secret misappropriation is completely analogous to recovery of lost profits for patent infringement, given that patents and trade secrets merely represent two species of intellectual property. There is no principled distinction between the two cases.

Second, the parallels are evidenced by those trade secret cases that recognize that in order to recover lost profits a plaintiff must establish "but for" causation. All of the Panduit factors essentially flow from this requirement. In order to establish that it would have made certain profits absent the alleged infringement or misappropriation, a plaintiff must demonstrate that there would have been demand for its product in a "but for" world. A related requirement is that in the "but for" world there is an absence of acceptable substitutes a would-be infringer or misappropriator could use as an alternative to utilizing the plaintiff's technology. The third requirement under Panduit is related to the first two: in order to recover lost profits, a plaintiff must show that it had the ability to exploit the demonstrated demand in the "but for" world by showing, for example, that it had sufficient capacity to make any alleged lost sales. The final element under Panduit merely requires that a plaintiff be able to establish the amount of any alleged profits that it would have made in the "but for" world absent the alleged misappropriation or infringement with reasonable certainty. Thus, each of the Panduit factors merely elaborates upon the more fundamental requirement that a plaintiff demonstrate "but for" causa-

^{48.} KW Plastics v. U.S. Can Co., 131 F. Supp. 2d 1289, 1292 (M.D. Ala. 2001).

^{49.} Id.

^{50.} Id. at 1293.

tion of its damages, which has been recognized as being equally applicable to trade secret misappropriation claims.

Application of the *Panduit* factors in trade secret cases can provide a rational framework for judicial scrutiny of plaintiffs' alleged damages that is likely to have the salient effect of preventing weak or unsupported damages claims from reaching the jury. More specifically, application of *Grain Processing* and other cases addressing acceptable alternatives or substitutes is likely to be particularly beneficial. Where there are readily available alternatives to the plaintiff's alleged trade secrets, a plaintiff should not be allowed to recover lost profits as a measure of trade secret damages. Rather, as in *Grain Processing*, the plaintiff should be limited to reasonable royalty (or some limited measure of unjust enrichment) damages.

In Grain Processing, the plaintiff was able to demonstrate that because of cost savings that were associated with the defendant's use of the patented technology, a reasonable royalty may have been appropriate.⁵¹ However, where there is no such cost savings or other basis for awarding a non-zero royalty, a trade secret plaintiff should be barred from recovering damages at all. Under such circumstances, the existence of readily available, equivalent alternatives dictates that the plaintiff should not be able to recover damages given that it has suffered no real injury and the defendant has received no real benefit.

B. Reliable Economic Analysis and Reconstruction of the Market

Another corollary of the "but for" causation requirement for lost profits is the principle that plaintiffs may not recover lost profits damages that are in some way speculative or which depend upon untenable assumptions.⁵² In the context of patent infringement claims, a number of courts have readily barred lost profits claims that are based on un-

^{51.} Grain Processing Corp. v. Am. Maize-Prods., 185 F.3d 1341, 1347–48 (Fed. Cir. 1999).

^{52.} See DSC Communications Corp. v. Next Level Communications, 107 F.3d 322, 329 (5th Cir. 1997) (in trade secret cases, "[w]e examine the challenge that damages for lost profits are speculative to determine whether a reasonable person could find the profits were established with reasonable certainty, considering all evidence in the light most favorable to the plaintiffs"); Michel Cosmetics, Inc. v. Tsirkas, 26 N.E.2d 16 (N.Y. 1940).

[[]I]f the plaintiff would otherwise have made the sales of lipsticks which in fact the defendants made by the use of plaintiff's formulas, then the plaintiff is entitled to recover from the defendants the amount of the profits which the plaintiff would have acquired upon such sales but for the defendants' wrong.

Id. at 17-18; JAGER, supra note 4, § 7.03, at 7-79 ("The damages cannot be purely speculative, nor is an estimate of the damages resulting from the plaintiff's loss of the trade secret sufficient.").

supported constant volume or profit assumptions.⁵³ While plaintiffs often attempt to "assume" a certain level of profit or sales, courts reviewing patent infringement claims have required something more: a reliable economic analysis and reconstruction of the market in the "but for" world.

For example, in Oiness v. Walgreen Co., the Federal Circuit rejected an extrapolated lost profit calculation where the expert's analysis relied on unsupported assumptions that were "fraught with speculation."⁵⁴ The court concluded that the expert "offered no sound economic reasoning to support his assumption" and that his "projections lacked evidentiary support."⁵⁵ Consequently, the court overturned the jury's lost profits award because the expert's analysis "invite[d] the jury to engage in rapt speculation."⁵⁶ At bottom, the plaintiff's lost profits claim was deemed insufficient because it was not based on "actual sales combined with reliable economic analysis of demand, supply, and price over time."⁵⁷

Similarly, in Shockley v. Arcan, Inc., the Federal Circuit rejected a lost profits analysis that "assume[d] continued . . . profit margins."⁵⁸ The plaintiff's damage expert assumed that the plaintiff would sell 80,000 units per year, a number that was "without factual underpinnings," but rather was based on the plaintiff's representation concerning sales "it would have made."⁵⁹ Relying upon prior decisions such as *Oiness*, the court concluded that this analysis was flawed given that the expert had based his calculation on "a benchmark without any basis in economic reality."⁶⁰ Thus, the court ruled that plaintiffs could not prevail on a lost profits claim that merely "assumes continued demand and growth rates, profit margins and other market factors against the clear weight of the evidence."⁶¹

Such rigorous scrutiny of the assumptions underlying plaintiffs' lost profits analyses in the context of trade secret misappropriation similarly would be appropriate. Again, the principles applied in cases such as *Shockley* and *Oiness* flow from the more fundamental require-

- 59. Id.
- 60. Id.
- 61. Id.

^{53.} Courts have similarly rejected lost profits claims for copyright infringement where there is an "absence of convincing evidence as to the volume of sales that plaintiff would have obtained." Hamil Am., Inc. v. GFI, 193 F.3d 92, 108 (2d Cir. 1999) (lost profits "too speculative").

^{54.} Oiness v. Walgreen Co., 88 F.3d 1025, 1029-30 (Fed. Cir. 1996).

^{55.} Id. at 1032.

^{56.} Id. at 1029.

^{57.} Id.

^{58.} Shockley v. Arcan, Inc., 248 F.3d 1349, 1363 (Fed. Cir. 2001).

ment that a plaintiff must demonstrate "but for" causation in order to recover lost profits. Where a plaintiff merely assumes that it would make certain sales or profits absent the alleged infringement or misappropriation rather than providing both a factual foundation and reliable economic analysis to support its claims, its attempt to recover lost profits must fail.

III. ANALYSIS OF UNJUST ENRICHMENT DAMAGES

Patent law precedents may similarly provide guidance in evaluating claims in trade secret cases for damages based on alleged unjust enrichment. On its face, modern patent law may appear inapplicable in determining unjust enrichment awards. Under the patent statutes, plaintiffs may recover only lost profits or royalty damages for infringement of their patents.⁶² In contrast, trade secret plaintiffs may attempt to measure their damages not only based on alleged lost profits or a reasonable royalty, but also by the benefit or unjust enrichment received by the defendant as a result of the alleged misappropriation.⁶³ Thus, trade secret law provides for a remedy that, on its face, appears to be absent under the patent statutes.

Nonetheless, at one time plaintiffs in patent infringement cases were permitted to recover damages based on the benefit received by the defendant as a result of the alleged infringement. Indeed, this was the case from at least 1870 to 1946, when the patent statutes were amended.⁶⁴ Therefore, cases decided before this change in the law

^{62.} The patent statutes provide for lost profits and reasonable royalty damages: "Upon finding for 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." 35 U.S.C. § 284; see also Blair & Cotter, supra note 6, at 1595–96 (observing that "courts have interpreted [Section 284] as preventing them from awarding the plaintiff a restitutionary recovery consisting of the defendant's profits attributable to the infringement").

^{63.} See, e.g., UNIF. TRADE SECRETS ACT § 3(a) (1985). The court in University Computing indicated that the unjust enrichment measure "is usually the accepted approach where the secret has not been destroyed and where the plaintiff is unable to prove specific injury." Univ. Computing v. Lykes-Youngstown Corp., 504 F.2d 518, 518 (5th Cir. 1974).

^{64.} See SCHLICHER, supra note 6, § 9.04[2][a], at 9-24.10 ("From at least 1870 to 1946, a patent owner could recover by an action in equity the infringer's gains or profits, and any damages the patent owner sustained in excess of those gains or profits.... The owner could also recover in an action in equity the infringer's profits attributable to the infringement as determined in an accounting before a master, and the owner's lost profits.").

As Schlicher observes in his treatise, "in 1964 the Supreme Court declared that the infringer's profits could never be the measure of damages" for patent infringement and that the "infringer's profits as a measure of damages was eliminated in 1946." $Id. \P 9.04[2][b]$, at 9–31. Ironically as Schlicher notes, Congress made the change in the patent statute because it "wished to eliminate the problems created by the need to apportion the part of profits that would be attributable to an invention from those attributable to other factors." Id.; see also Ellipse Corp. v. Ford Motor Co., 461 F. Supp. 1354, 1380 (N.D. Ill. 1978) ("Congress amended the patent statute in 1946 to

may provide guidance. Moreover, even now, a number of commentators have observed that courts often use a royalty to measure the "benefit" received by the defendant as a result of the alleged infringement, thereby making the royalty award nothing more than a proxy for the defendant's unjust enrichment.⁶⁵

Some early trade secret cases expressly rely upon this patent law precedent as authority in analyzing trade secret damages measured by the defendant's alleged unjust enrichment. For example, in *International Industries*, the Third Circuit cited patent law precedent in analyzing the benefit to the defendant from cost savings it received as a result of the alleged misappropriation under the "standard of comparison" method.⁶⁶ The court described the analysis as follows:

The advantage enjoyed by defendant is to be measured by the standard of comparison method. This method contemplates a comparison of the cost of transportation by means of the use of the trade secret with a method of accomplishing the same result which would have been open to defendant had he not appropriated the trade secret.⁶⁷

65. See, e.g., Blair & Cotter, supra note 6, at 1650 ("The good news is that the formal prohibition on restitutionary awards may have little impact upon the courts' actual behavior. Although it is usually considered erroneous to award the prevailing plaintiff 100% of the profit attributable to the infringement, commentators sometimes accuse courts of doing so nonetheless sub silentio." (citing Ned L. Conley, An Economic Approach to Patent Damages, 15 AIPLA Q.J. 354 (1987)); cf. SCHLICHER, supra note 6, § 9.04[6], at 9-55.

When the Supreme Court declared that an infringer's profits was not a proper measure of damages, patent owners unable to prove their lost profits were forced to prove them under the royalty theory. The problem was that it is, in many cases, impossible to apply the royalty theory without considering the infringer's profits.

Id.

66. Int'l Indus. v. Warren Petroleum Corp., 248 F.2d 696, 699 (3d Cir. 1957).

67. Id.; see also Telex Corp. v. IBM Corp., 510 F.2d 894 (10th Cir. 1975).

[T]he so-called "standard of comparison" test . . . contemplates a comparison of the costs incurred by the defendant using the stolen trade secret, and the costs that would have been incurred had he not used the trade secret. The difference between the two is the "benefit" accruing to the defendant, and is the measure of plaintiff's damages.

Id. at 930. As one commentator has observed, in *International Industries*,
[t]he court held that the advantage gained by a trade secret misappropriator . . . is to be measured by a "standard of comparison" method. Under this test, the cost to the defendant of using the trade secret is compared to the cost of "accomplishing the same result" by other means open to the defendant at the time of the misappropriation.

JAGER, supra note 4, § 7.03, at 7-82.

eliminate the recovery of profits precisely because of the impossibility of apportioning profits to a piece or a part of a larger entity."), *aff'd*, 614 F.2d 775 (7th Cir. 1979). However, as Schlicher observes and as is clear from the discussion of apportionment below, "[t]he apportionment problem did not go away after 1946." SCHLICHER, *supra* note 6, § 9.04[2][b], at 9-31. Rather, plaintiffs must still properly apportion damages under the remaining lost profits and royalty measures.

The court observed that the standard of comparison method is particularly appropriate where a defendant is alleged to have misappropriated trade secrets relating to a process rather than a product.⁶⁸

The Restatement (Third) of Unfair Competition summarizes the law governing the standard of comparison method.⁶⁹ The Restatement indicates that this method may be the preferred method for calculating damages where the benefit to the defendant consists primarily in cost savings realized through misappropriation:

If the benefit derived by the defendant consists primarily of cost savings, such as when the trade secret is a more efficient method of product, the "standard of comparison" measure that determines relief based on the savings achieved through the use of the trade secret may be the most appropriate measure of relief. The standard of comparison measure determines the defendant's gain by comparing the defendant's actual costs with the costs that the defendant would have incurred to achieve the same result without the use of the appropriated trade secret.⁷⁰

As the *Restatement* discussion observes, and as is reflected in the cases that have addressed the issue,⁷¹ the "cost savings" received by the defendant will often be development costs that are avoided through misappropriating another party's alleged trade secrets:

JAGER, supra note 4, at § 3.03[6][b][i], at 3-61.

^{68.} Int'l Indus., 248 F.2d at 702 ("Where the thing appropriated or infringed is a process rather than a manufactured article, the profits are simply measured by the savings determined by the standard of comparison computation."). Commentators have also noted that the standard of comparison method may be a particularly appropriate method for measuring damages where the alleged trade secrets relate to a process:

The third method of measuring damages derives from patent cases and uses a "standard of comparison" method to assess the savings to the defendant resulting from the use of the trade secret. This approach is most appropriate in cases where the savings to the defendant are the major benefit of the misappropriation. One typical situation where this condition arises is where the trade secret resulted in a more efficient production process for the defendant.

^{69.} RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmt. f (modified) (1995).

^{70.} Id. § 45 cmt. d.

^{71.} See, e.g., Salsbury Labs., Inc. v. Merieux Labs., Inc., 908 F.2d 706, 714 (11th Cir. 1990) (in awarding trade secret misappropriation damages, "court arrived at an amount that fairly reflects only the savings inuring to [the defendant]"); Telex Corp., 510 F.2d at 930 (awarding savings in development costs); Servo Corp. v. Gen. Elec. Co., 393 F.2d 551 (4th Cir. 1968); see also Prandl, supra note 1, at 451 (observing that "courts have awarded damages for the defendant's savings resulting from reduced research and development costs"); Univ. Computing v. Lykes-Youngstown Corp., 504 F.2d 518, 538 (5th Cir. 1974) (observing that the standard of comparison method "[o]cassionally... has been taken to mean the difference in costs to the defendant of developing the trade secret on his own, using the actual development costs of the plaintiff as the complete measure of damages").

When it would have been possible for the defendant to acquire the trade secret by proper means such as reverse engineering or independent development, the appropriate comparison may be between the costs of such acquisition and the cost of using the appropriated information. In determining the costs of proper acquisition, the court may consider the actual development costs of the plaintiff and, if available, the development or reverse engineering costs of third persons.⁷²

However, the *Restatement* also observes that cost savings may be calculated by comparing the costs of the infringed technology and the costs of acceptable alternatives as follows: "When acquisition of the trade secret by proper means is unlikely, the appropriate comparison may be between the costs of using the trade secret and the costs of alternative methods available to the defendant to achieve the same result."⁷³ In describing all of these various permutations of the standard of comparison method, the *Restatement* expressly acknowledges that "the 'standard of comparison' measure ... is derived from patent infringement cases and measures the savings to the defendant that are attributable to the use of the trade secret."⁷⁴ Thus, this approach to measuring unjust enrichment is expressly acknowledged to have its origins in patent law precedents.⁷⁵

- 73. Id.
- 74. Id.

The University Computing court's comments, however, were directed at using development costs as a particular measure of damages (and not necessarily the standard of comparison measure more generally). Moreover, the court indicated that there were particular circumstances where development costs would be an appropriate remedy:

In certain cases, where the trade secret was used by the defendant in a limited number of situations, where the plaintiff was not in direct competition with the defendant, where the development of the secret did not require substantial improvements in existing trade practices but rather merely refined the existing practices, and where the defendant's use of the plaintiff's trade secret was ceased, such a limited measure might be appropriate. In the type of case which we now consider, when the parties were potentially in direct competition and the course of conduct of the defendant extended over a period of time and included a number of different uses of the plaintiff's trade secret, and where the process of developing a computer system was very difficult and required substantial technical and theoretical advances, we believe a broader measure of damages is needed.

504 F.2d at 538.

^{72.} RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmt. d (1995).

^{75.} Despite the numerous decisions basing unjust enrichment awards on some measure of cost savings, some commentators have read the Fifth Circuit's decision in University Computing as evidencing some doubt about using this approach to measuring damages under certain circumstances. See, e.g., Prandl, supra note 1, at 451 ("[M]any courts have refused to award the defendant's savings. University Computing Co. v. Lykes Youngstown Corp. held that the standard of comparison test is frequently inadequate because it fails to take into account the commercial setting in which the misappropriation took place.").

Another common measure of unjust enrichment damages is based on the defendant's profits.⁷⁶ However, in order to utilize this measure of purported damages, the plaintiff must provide reliable proof of the defendant's profits—they cannot be speculative.⁷⁷ Accordingly, as stated by the court in *University Computing*, "[n]ormally only the defendant's actual profits can be used as a measure of damages in cases where profits can be proved, and the defendant is normally not assessed damages on wholly speculative expectations of profits."⁷⁸

Here, again, patent law precedents are instructive. In particular, as catalogued below, there are numerous decisions in the patent context addressing the proper apportionment of damages based on the defendant's profits. Similarly, the numerous decisions regarding alternatives and substitutes that courts have rendered in the context of patent infringement claims may also be applicable in trade secret cases. As noted above, the *Restatement* suggests that alternatives are properly considered in determining unjust enrichment damages for trade secret misappropriation. Recent decisions seem to adopt this approach not only in determining the cost savings associated with an alleged trade secret, but also in determining whether the plaintiff may recover some portion of the defendant's profits, given that the existence of acceptable alternatives arguably diminishes (or even eliminates) the "benefit" to the defendant resulting from the alleged misappropriation.

The Federal Circuit's decision in C & F Packing Co. v. IBP, Inc., for example, may be read as tacitly approving this approach.⁷⁹ C & FPacking involved alleged misappropriation of purported trade secrets relating to a process for making precooked Italian sausage pizza topping.⁸⁰ The plaintiff, C&F, had obtained a patent that disclosed its

Id. (quoting Forest Labs., Inc. v. Pillsbury Co., 452 F.2d 621, 628 (7th Cir. 1971)).

77. Univ. Computing, 504 F.2d at 536.

79. C&F Packing Co. v. IBP, Inc., 224 F.3d 1296, 1304 (Fed. Cir. 2000).

Finally, the court also observed that even where some "broader measure" of damages would be more appropriate, development costs should still be considered:

This broader measure should take into consideration development costs, but as only one of a number of different factors. We believe this type of measure is appropriate despite the fact that the inclusion of other factors means the final damage figure "need not be as precise as if the actual development costs for the trade secret were itself the measure of damages."

^{76.} RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmt. c (1995) ("In some situations the defendant's enrichment is represented by profits from sales made possible by the appropriation; in others, by savings achieved through the use of the trade secret in the defendant's business.").

^{78.} Id.

^{80.} Id. at 1302.

process which was subsequently invalidated.⁸¹ Nonetheless, C&F also claimed that it later developed certain trade secrets relating to that process.⁸²

In attacking C&F's damages evidence, the defendant argued that it "could have used' the process publicly disclosed in C&F's '094 patent, instead of the secret process, to make its product."⁸³ However, on appeal, the Federal Circuit concluded that "the record does not show that [the defendant] was able to, and did, produce precooked sausage topping of the quality required by its customer without use of C&F's trade secrets."⁸⁴ Thus, the court did not appear to question the relevance of alternative processes (such as C&F's patented process) in determining whether the plaintiff could recover unjust enrichment damages. Rather, the court merely concluded that the evidence did not sufficiently establish the existence of such alternatives.

IV. ANALYSIS OF ROYALTY DAMAGES

Perhaps, the area in which courts have most fully applied patent law damages principles to trade secret damages claims is in the area of royalty damages.⁸⁵ Under both patent and trade secret law, plaintiffs may recover a "reasonable royalty" that "attempts to measure a hypothetically agreed value of what the defendant wrongfully obtained from the plaintiff. By means of a 'suppositious meeting' between the parties, the court calculates what the parties would have agreed to as a fair licensing price at the time that the misappropriation occurred."⁸⁶

The seminal case applying patent law royalty principles in the context of trade secret misappropriation claims is the Fifth Circuit's decision in *University Computing*. In analyzing the royalty award, the court applied the *Georgia-Pacific* factors that had been developed in the context of patent infringement claims,⁸⁷ adapting those factors to

86. Vt. Microsystems, Inc. v. Autodesk, Inc., 88 F.3d 142, 151 (2d Cir. 1996) (citing Ga.-Pac. Corp. v. U.S. Plywood-Champion Papers Inc., 446 F.2d 295, 296–97 (2d Cir. 1971)); see also Pincus, supra note 6, at 121–22 (discussing "hypothetical license' approach" to computing royalty for patent infringement).

87. As one commentator has noted, "[t]he most widely accepted list of facts pertinent to the determination of a reasonable royalty is the list compiled by the United States District Court for the Southern District of New York in *Georgia Pacific v. United States Plywood Corp.*" SCHLICHER, supra note 6, § 9.04[3], at 9-34 (listing the *Georgia-Pacific* factors).

^{81.} Id. at 1299–1300.

^{82.} Id. at 1299.

^{83.} Id. at 1304.

^{84.} Id.

^{85. &}quot;A reasonable royalty is a particularly useful measure of damages if the trade secret owner derives a certain royalty for its use of the trade secret. Under those circumstances, the same royalty should be used against the defendant who misappropriates the trade secret." JAGER, *supra* note 4, at 7-92 (citing Kamin v. Kuhnau, 374 P.2d 912 (1962)).

the trade secret claims before it. The court summarized the relevant factors as follows:

In calculating what a fair licensing price would have been had the parties agreed, the trier of fact should consider such factors as the resulting and foreseeable changes in the parties' competitive posture; the prices past purchasers or licensees may have paid; the total value of the secret to the plaintiff, including the plaintiff's development costs and the importance of the secret to the plaintiff's business; the nature and extent of the use the defendant intended for the secret; and finally whatever other unique factors in the particular case which might have affected the parties' agreement, such as the ready availability of alternative processes.⁸⁸

While the court cited *Georgia-Pacific* as the source of these factors, it did not cite each of the factors identified in that case. For example, the *Georgia-Pacific* court identified certain additional factors such as the portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements or significant features or improvements added by the infringer.⁸⁹ Nonetheless, there is no indication that the court in *University Computing* believed that such factors were inapplicable in the context of trade secret claims, and indeed there is no principled reason to exclude them from such an analysis. Rather, the court's failure to list each and every one of the fifteen *Georgia-Pacific* factors more likely stems from the lengthy (and duplicative) nature of that list rather than any conclusion regarding the applicability of the factors the court did not cite.

For example, the fact-finder in the context of a trade secret case could consider as a factor in determining a reasonable royalty the elements of a particular process or machine that did not utilize the alleged trade secrets—one of the *Georgia-Pacific* factors not expressly enumerated in *University Computing*—and exclude any value attributable to such elements. Thus, certain of the enumerated *Georgia*-

^{88.} Univ. Computing v. Lykes-Youngstown Corp., 504 F.2d 518, 539 (5th Cir. 1974) (citing Hughes Tool Co. v. G.W. Murphy Indus., Inc., 491 F.2d 923, 931 (5th Cir. 1973)). Commentators frequently cite the *University Computing* factors in discussing the proper determination of reasonable royalties. See, e.g., Johnson, Assessing Damages, supra note 4, at 72.

^{89.} Ga.-Pac. Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970), modified, 446 F.2d 295 (2d Cir. 1971). The Georgia-Pacific court, observing that "[a] comprehensive list of evidentiary factors 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," proceeded to identify fifteen of the "more pertinent" factors to be considered. Id. However, the court also noted that "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." Id. at 1120-21.

Pacific factors are clearly applicable to trade secret claims. This is not to say, however, that certain aspects of these factors may be applied without modification. For example, one factor identified by the *Georgia-Pacific* court is "[t]he duration of the patent and the term of the license."⁹⁰ While the term of any relevant license regarding alleged trade secrets may be directly applicable, the "duration of the patent" is not. Nonetheless, the general idea concerning the longevity of the intellectual property at issue may be applied by looking to the ease with which others in the marketplace may be able to obtain the alleged trade secrets through reverse engineering or the time at which alleged trade secrets may have been made public through publication in a patent, for example. Thus, the general durational notion found within this *Georgia-Pacific* factor can be modified for application in the context of trade secret claims.

Indeed, other courts that have followed University Computing have applied certain additional factors found in Georgia-Pacific when evaluating reasonable royalty claims. For example, the Second Circuit in Vermont Microsystems, Inc. v. Autodesk, Inc. followed the University Computing analysis of royalty damages, but added an additional factor present in the much more comprehensive Georgia-Pacific listing. Specifically, the court noted the following:

If the trade secret accounts for only a portion of the profits earned on the defendant's sales, such as when the trade secret relates to a single component of a product marketable without the secret, an award to the plaintiff of defendant's entire profit may be unjust. The royalty that the plaintiff and defendant would have agreed to for the use of the trade secret made by the defendant may be one measure of the approximate portion of the defendant's profits attributable to the use.⁹¹

^{90.} Id. at 1120.

^{91.} Vt. Microsystems, 138 F.3d at 450. The Vermont Microsystems court also recited the factors identified by the court in University Computing:

To approximate the parties' agreement, had they bargained in good faith at the time of the misappropriation,

the trier of fact should consider such factors as the resulting and foreseeable changes in the parties' competitive posture; the prices past purchasers or licensees may have paid; the total value of the secret to the plaintiff, including the plaintiff's development costs and the importance of the secret to the plaintiff's business; the nature and extent of the use the defendant intended for the secret; and finally whatever other unique factors in the particular case which might have affected the parties' agreement such as the ready availability of alternative processes.

Id. at 151-52 (quoting Univ. Computing, 504 F.2d at 539).

Accordingly, the applicability of the University Computing and other factors derived from Georgia-Pacific in determining reasonable royalties for alleged trade secret misappropriation cases is widely recognized.⁹²

Moreover, these factors can often have a significant effect on the plaintiff's ability to recover damages. For example, as in the case of lost profits and unjust enrichment damages, the existence of acceptable alternatives must be considered in evaluating royalty damages. The "ready availability of alternative processes" is one of the factors specifically identified in *University Computing* and reiterated in cases such as *Vermont Microsystems*.⁹³ If acceptable alternatives are readily available in the marketplace, then the value of the intellectual property will be diminished or even reduced to zero.⁹⁴ Accordingly, application of the factors identified in *University Computing* in light of patent law precedents often can have a significant effect on a plaintiff's damages case.

V. DISAGGREGATION AND APPORTIONMENT OF DAMAGES

Beyond the specific rules governing each of the three damages measures discussed above, there are other, more fundamental principles that apply to any damages analysis and which are therefore common to both patent and trade secret claims. One such principle is that

^{92.} Courts often cite the University Computing factors in evaluating trade secret royalty claims. See, e.g., Am. Sales Corp. v. Adventure Travel, Inc., 862 F. Supp. 1476, 1479 (E.D. Va. 1994) ("University Computing... is especially helpful with damages in determining when to consider certain factors and in defining what a 'reasonable royalty' is. There, the court analogized these cases to the determination of damages in patent infringement cases, where there is much more precedent."); Litton Sys., 1993 WL 317266, at *2 (reciting the University Computing factors and observing that "courts have considerable leeway in calculating a damage award for trade secrets theft").

Similarly, the Restatement (Third) of Unfair Competition identifies the University Computing factors in describing the factors courts routinely employ in "determining the amount of a reasonable royalty." RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 reporters' note (1995). The ABA model jury instructions reiterate the factors applied in University Computing, although they do not list all of the factors identified in that case. See ABA MODEL JURY INSTRUCTIONS § 8.06[3] (3d ed. 1996).

^{93.} See University Computing, 504 F.2d at 539; Vt. Microsystems, 138 F.3d at 450.

^{94.} See Hughes Tool Co. v. G.W. Murphy Indus., Inc., 491 F.2d 923, 930-31 (5th Cir. 1974) ("The existence of a non-infringing alternative reduces the value of the patent and thus the damages from infringement."). As one commentator as observed:

A final factor to be considered [in determining a reasonable royalty for patent infringement] is the availability of noninfringing substitutes. The theory follows that a licensee would have been less disposed to agree to a high royalty if he had available noninfringing alternatives that were equal or nearly equal in terms of cost and performance. If the patent holder can present no evidence from which a court may derive a reasonable royalty, the court has the discretion to award no damages.

Pincus, supra note 6, at 126.

there must be some causal nexus between a plaintiff's injury and the claimed damages.

This principle has been reaffirmed in a variety of contexts. In antitrust cases, for example, courts have consistently ruled that plaintiffs may recover damages only for the defendant's unlawful acts.⁹⁵ Any damages attributable to lawful conduct cannot be recovered. Accordingly, "the courts have been consistent in requiring plaintiffs to prove in a reasonable manner the link between the injury suffered and the *illegal* practices of the defendant."⁹⁶ In order for an award of damages to be proper, "there must be some nexus between the damages claimed and the injury incurred."⁹⁷ Thus, "[w]hen a plaintiff improperly attributes all losses to a defendant's illegal acts, despite the presence of significant other factors, the evidence does not permit a jury to make a reasonable and principled estimate of the amount of damage."⁹⁸ "If injury is shown to be attributable to factors for which the

96. MCI Communications Corp. v. AT&T Co., 708 F.2d 1081, 1161 (7th Cir. 1983).

97. Tronzo v. Biomet, Inc., 156 F.3d 1154, 1161 (Fed. Cir. 1998); see also Associated Gen. Contractors of Cal., Inc. v. Cal. State Council of Carpenters, 459 U.S. 519 (1983).

The common law [of tort] required the plaintiff to prove, with certainty, both the existence of damages and the causal connection between the wrong and the injury. No damages could be recovered for uncertain, conjectural, or speculative losses. Even if the injury was easily provable, there would be no recovery if the plaintiff could not sufficiently establish the causal connection.

Id. at 533 n.26; Fleet Nat'l Bank v. Anchor Media Television, Inc., 45 F.3d 546, 560 (1st Cir. 1995) (concluding that there was "an absence of proof of damages" where there was a failure to show "the existence of a causal nexus between the damages sought and the breach or tort"); Doe v. United States, 976 F.2d 1071, 1085–86 (7th Cir. 1993) ("damages awards may not be based on mere intuition or speculation alone, and the trial court did not abuse its discretion in finding that a causal relationship was insufficiently established"); Van Dyk Research Corp. v. Xerox Corp., 478 F. Supp. 1268, 1326 (D.N.J. 1979), aff'd, 631 F.2d 251 (3d Cir. 1980); Argus Inc. v. Eastman Kodak Co., 612 F. Supp. 904, 918 (S.D.N.Y. 1985) ("In order to recover for antitrust injuries, a plaintiff in an antitrust case must establish a causal link between the alleged loss and the unlawful conduct."), aff'd, 801 F.2d 38 (2d Cir. 1986).

98. Va. Panel Corp. v. MAC Panel Co., 133 F.3d 860, 873 (Fed. Cir. 1997); see also Farley Transp. Co. v. Santa Fe Trail Transp. Co., 786 F.2d 1342, 1351 (9th Cir. 1985) (holding damages opinion inadmissible where plaintiff failed "to present any evidence permitting the jury to parse out which damages were attributable to the unlawful competition"); City of Vernon v. S. Cal. Edison Co., 955 F.2d 1361, 1373 (9th Cir. 1992) (concluding that there was "no proper

^{95.} See generally Maxwell M. Blecher & James Robert Noblin, The Confluence of Muddied Waters: Antitrust Consequential Damages and the Interplay of Proximate Cause, Antitrust Injury, Standing and Disaggregation, 13 ST. JOHN'S J. LEGAL COMMENT. 145 (1998); Charles N. Charnas, Segregation of Antitrust Damages: An Excessive Burden on Private Plaintiffs, 72 CAL. L. REV. 403 (1984); James R. McCall, The Disaggregation of Damages Requirement in Private Monopolization Actions, 62 NOTRE DAME L. REV. 643 (1987); M. Sean Royall, Disaggregation of Antitrust Damages, 65 ANTITRUST L.J. 311, 311 (1997) (discussing disaggregation rule, which "holds that where an antitrust plaintiff challenges multiple discrete acts or practices as unlawful, damages cannot be proved in the aggregate"); id. at 343 ("Depending upon the circumstances of the case and the point in the proceedings at which the issue is raised, the unjustified failure of an antitrust plaintiff to disaggregate its damage proof can have a variety of consequences, ranging from the requirement of a new trial to dismissal of the plaintiff's claims as a matter of law.").

defendant cannot be held liable, then a damage case that ignores these factors must fail."⁹⁹

For example, in MCI Communications Corp. v. AT&T Co., the Seventh Circuit reversed a jury verdict on the grounds that the plaintiff's purported damages included sums attributable to claims of unlawful competition that had been dismissed.¹⁰⁰ The court observed that the plaintiff's damages study had been conducted based on twenty-two alleged unlawful acts.¹⁰¹ By the time the case was tried, however, the district court had dismissed seven of the twenty-two counts.¹⁰² Thus, the plaintiff proffered a damages theory that would allow it to recover for claims that had been dismissed. The court concluded that because the verdict awarded "damages for both *lawful* and *unlawful* conduct, the damage award must be set aside."¹⁰³ In so ruling, the court observed that "[i]t is essential... that damages reflect only the losses directly attributable to *unlawful* competition."¹⁰⁴

99. In re IBP Peripheral EDP Devices Antitrust Litig., 481 F. Supp. 965, 1013 (N.D. Cal. 1979), aff'd, 698 F.2d 1377 (9th Cir. 1983). Commentators have summarized the rationale behind this rule as follows:

Where an antitrust plaintiff challenges multiple business practices of the defendant yet fails to disaggregate its proof of damages, two related problems arise: First, an aggregated damage study renders it impossible for the trier of fact to be satisfied that the harm complained of flows from the defendant's unlawful acts as opposed to wholly independent factors including the defendant's lawful procompetitive conduct. Second, an aggregated damage model leaves the jury without a reasonable basis for determining the amount by which the plaintiff's damage model figure should be reduced in the event that one or more of the challenged business practices are not found to be exclusionary.

Royall, supra note 95, at 316-17.

100. MCI Communications, 708 F.2d at 1166-67.

101. Id. at 1163.

- 102. Id. at 1162.
- 103. Id. at 1160.

104. Id. at 1161. Courts have, however, sometimes indicated that disaggregation is only required where it is practicable. See, e.g., Spray-Right Serv. Corp. v. Monsanto Co., 684 F.2d 1226, 1242-43 (7th Cir. 1982) ("A plaintiff claiming injury caused by more than one of the defendant's unlawful practices need not prove the amount of damage caused by each illegal practice if the plaintiff shows that disaggregation is impracticable."), aff'd, 465 U.S. 752 (1984); Litton Sys., Inc. v. Honeywell, Inc., 1996 WL 634213, at *2 (C.D. Cal. July 24, 1996) ("Except in cir-

proof of damages at all" and upholding summary judgment against plaintiff for failure to prove damages where study failed to disaggregate damages); Amerinet, Inc. v. Xerox Corp., 972 F.2d 1483, 1504 (8th Cir. 1992) (ruling that plaintiff failed to establish damages on the grounds that "[i]n its proof of tort damages, as in its proof of antitrust damages, [plaintiff] made no effort to distinguish the effect of other probable causes of its business decline from the effects of [defendant's] alleged tortious behavior"); Litton Sys., Inc. v. AT&T Co., 700 F.2d 785, 825 (2d Cir. 1983) ("damage studies are inadequate when only some of the conduct complained of is found to be wrongful and the damage study cannot be disaggregated"); First Sav. Bank, F.S.B. v. U.S. Bancorp, 117 F. Supp. 2d 1078, 1084 (D. Kan. 2000) (excluding expert report and testimony as "inherently unreliable and purely speculative" where expert "improperly attributed all losses to the defendants' allegedly illegal acts, despite the presence of other factors that could be significant to his analysis").

An analogous principle has long been applied in the context of patent infringement claims.¹⁰⁵ For example, over one hundred years ago in *Garretson v. Clark*,¹⁰⁶ the Supreme Court addressed the necessity of apportioning damages between that which has been patented and that which has not. The case involved a patent for "an improvement in the method of moving and securing in place the movable jam

[A]s a general matter, antitrust plaintiffs must be cautious in relying upon the impracticability exception to the disaggregation rule. In most situations it will not be enough for a plaintiff to present expert testimony to the effect that disaggregation would have been impracticable. If the expert did not in fact attempt disaggregation (e.g., Vernon, Litton v. Honeywell, Southern Pacific Communications), such testimony will likely be rejected. Moreover, if the expert concedes (or the defendant shows) that disaggregation, though perhaps difficult, would have been possible, this in most instances will be enough to defeat the plaintiff's impracticability claim.

Royall, supra note 95, at 351.

The question raised here is whether, assuming an antitrust plaintiff shows that disaggregation in fact was impracticable, this automatically excuses the plaintiff from the requirement of providing segregated damage proof. In most cases it will not.... The *Spray-Rite* decision clearly should not be read to suggest that any time an antitrust plaintiff's damage expert testifies that it would have been impracticable to disaggregate, this testimony will carry the day.

Id. at 337-38.

105. See, e.g., Crystal Semiconductor Corp. v. Tritech Microelectronics, 246 F.3d 1336, 1353 (Fed. Cir. 2001) ("To recover lost profits, 'a patent owner must prove a causal relation between the infringement and its loss of profits."" (quoting BIC Leisure Prods. v. Windsurfing Int'l, Inc., 1 F.3d 1214, 1218 (Fed. Cir. 1993)); Computing Scale Co. v. Toledo Computing Scale Co., 279 F. 648, 670 (7th Cir. 1921) ("It is a cardinal rule of patent law that, where a patent produces but a part of the profits, the plaintiff may recover only such part of the profits as the patent produces, and the defendant may have credit for the remainder"); Ga.-Pac. Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116 (S.D.N.Y. 1970).

There is a basic distinction between a patent which is only a part of a machine or structure and which creates only a part of the profits and, on the other hand, a patented article or a patent which gives the entire value to the combination or an article patented as an entirety. Consequently, it is necessary to determine where the invention extends to and affects the whole article, giving it its essential marketability, or whether it is only for an improvement.

Id. at 1131; SCHLICHER, supra note 6, § 9.05[2][k], at 9-82 ("Since at least the 1850s, patent law required that a patent owner separate or apportion some part of the profits from the production and sale of a product containing a patented 'improvement.'").

The courts insisted that the value of the invention must be distinguished from the value the entire product or process would have had without it. They typically framed that inquiry by instructing patent owners to prove the difference between the value of a product using the invention and the value that product would have had if the next best substitute invention were employed.

Id.

cumstances where disaggregation is shown to be impossible or impractical, an antitrust plaintiff challenging a variety of conduct is required to segregate damages attributable to particular business practices.").

Nonetheless, plaintiffs must provide some showing that disaggregation is impossible, and, even then, it is not guaranteed that the plaintiff will prevail:

^{106.} Garretson v. Clark, 111 U.S. 120 (1884).

or clamp of a mop-head."¹⁰⁷ As the Court observed, "[w]ith the exception of this mode of clamping, mop-heads like the plaintiff's had been in use time out of mind."¹⁰⁸

Despite the fact that its patent related to only one feature of the mop head, the plaintiff had attempted to recover all of the profits on sales of mop heads. In rejecting this approach, the Court ruled that the plaintiff could not recover all of the profits:

When a patent is for an improvement, and not for an entirely new machine or contrivance, the patentee must show in what particulars his improvement has added to the usefulness of the machine or contrivance. He must separate its results distinctly from those of the other parts, so that the benefits derived from it may be distinctly seen and appreciated.¹⁰⁹

As a result, 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."¹¹⁰

However, the Court also articulated a principle that became known as the "entire market value rule."¹¹¹ Under this rule, a plaintiff

If the measure of damages be the same whether a patent be for an entire machine or for some improvement in some part of it, then it follows that each one who has patented an improvement in any portion of a steam engine or other complex machines may recover the whole profits arising from the skill, labor, material, and capital employed in making the whole machine, and the unfortunate mechanic may be compelled to pay treble his whole profits to each of a dozen or more several inventors of some small improvement in the engine he has built. By this doctrine even the smallest part is made equal to the whole, and "actual damages" to the plaintiff may be converted into an unlimited series of penalties on the defendant.

111. See, e.g., Del Mar Avionics, Inc. v. Quinton Instrument Co., 836 F.2d 1320, 1327 (Fed. Cir. 1987) (discussing entire market value rule); TWM Mfg. Co. v. Dura Corp., 789 F.2d 895, 901 (Fed. Cir. 1986) ("The entire market value rule allows for the recovery of damages based on the value of an entire apparatus containing several features, when the feature patented constitutes the basis for customer demand."); Kori Corp. v. Wilco Marsh Buggies & Draglines, Inc., 761 F.2d 649, 656 (Fed. Cir. 1985) (the "financial and marketing dependence on the patented item under standard marketing procedures' . . . determines whether the non-patented features of a machine should be included in calculating compensation for infringement"); Paper Converting Machine Co. v. Magna-Graphics Corp., 745 F.2d 11, 22–23 (Fed. Cir. 1984); Leesona Corp. v. United States, 599 F.2d 958, 974–75 (Fed. Cir. 1979).

^{107.} Id. at 121.

^{108.} Id.

^{109.} Id.

^{110.} Id. In an earlier decision, Seymour v. McCormick, the Supreme Court noted the absurd results that would follow if courts failed to apportion the damages attributable to patent infringement:

⁵⁷ U.S. 480, 490-91 (1853).

Trade Secret Damages

might recover all of the profits from sales of a machine if it could "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 legally attributable to the patented feature."¹¹² Under the facts in *Garretson*, however, the Court concluded that this rule did not apply given that "it could not be pretended that the entire value of the mop-head was attributable to the feature patented."¹¹³

Later courts and commentators have elaborated upon this rule, noting that "[t]o recover the entire value of the apparatus, the patent holder must demonstrate that the patented feature of the apparatus drove the sale, that is, served as the basis for customer demand of the entire machine."¹¹⁴ Nonetheless:

The "entire market value rule" is a third factor which courts take into consideration in determining profits lost due to patent infringement. Under this rule, if the entire commercial value of the product is dependent upon the patented feature, then the entire profit from the good is utilized in computing the damage award. While this doctrine was first stated in *Goulds Manufacturing Co. v. Cowing*, many later cases have reaffirmed it.

Pincus, supra note 6, at 116.

112. Garretson, 111 U.S. at 121. This was not the first time, however, that the Court applied such a principle. For example, in Manufacturing Co. v. Cowing, the Court stated:

It does not necessarily follow... that where the patent is for one of the constituent parts, not for the whole of a machine, the profits are to be confined to what can be made by the manufacture and sale of the patented part separately.... If the improvement is required to adapt the machine to a particular use, and there is no other way open to the public of supplying the demand for that use, then it is clear the infringer has by his infringement secured the advantage of a market he would not otherwise have had, and that the fruits of this advantage are the entire profits he has made in that market.

Mfg. Co. v. Cowing, 105 U.S. 253, 255 (1881).

113. Garretson, 111 U.S. at 121-22.

114. McDaniel & Ansems, *supra* note 6, at 467. See also Rite-Hite Corp. v. Kelley Co., 56 F.3d 1538, 1549 (Fed. Cir. 1995) ("We have held that the entire market value rule permits recovery of damages based on the value of a patentee's entire apparatus containing several features when the patent-related feature is the 'basis for customer demand.'"); King Instrument Corp. v. Otari Corp., 767 F.2d 853, 865 (Fed. Cir. 1985) ("The 'entire market value' rule allows for the recovery of damages based on the value of an entire apparatus including non-patented parts, even though only one of the features in the apparatus is patented."); W. Elec. Co. v. Stewart-Warner Corp., 631 F.2d 333, 341 (4th Cir. 1980) ("[D]amages . . . are properly calculated on the entire product when 'the entire value of the whole machine, as a marketable article, is properly and le-

For a discussion of this rule, see SCHLICHER, supra note 6, 9.05[2][k], at 9-93. Ansems and McDaniel describe the rule as follows:

The "entire market value rule" often refers to the situation where the patented and unpatented components are somehow connected, or comprise one apparatus. The term generally refers to the situation where, in a suit for patent infringement, a patent holder seeks compensation for the value of an entire apparatus that contains at least one patented feature, and perhaps several unpatented features.

McDaniel & Ansems, *supra* note 6, at 467. Other commentators have noted the lengthy pedigree of the rule:

When the patented component does not serve as the basis of customer demand for the entire machine, but rather represents only a small part of the total value of the machine, the court engages in an "apportionment" analysis. Apportionment requires a court to undertake the difficult task of determining the relative contribution of the patented feature to the value of the entire structure.¹¹⁵

Under this test, "[i]t is the patent holder's burden to establish a sufficient nexus between the infringement and the claimed losses."¹¹⁶

The apportionment requirement similarly has been applied in the context of trade secret misappropriation claims.¹¹⁷ Indeed, the Uniform Trade Secrets Act itself and its embodiments in the laws of the various states recognize that the plaintiff may recover only those damages that are "caused by misappropriation."¹¹⁸ As a result, various courts have applied the apportionment principle when considering trade secret damages claims based on unjust enrichment, royalty, and lost profits calculations.¹¹⁹

One of the most influential cases to apply this principle in the context of a trade secret misappropriation claim is Schiller & Schmidt, Inc. v. Nordisco Corp.¹²⁰ In Schiller, the Seventh Circuit upheld a district court ruling rejecting the plaintiff expert's analysis of damages for theft of a customer list where that analysis included various components not attributable to the defendant's alleged misappropriation.¹²¹ The expert claimed that the plaintiff was entitled to all the profits it

118. See, e.g., UNIF. TRADE SECRETS Act § 3(a) (1985) (plaintiff may recover "actual loss caused by misappropriation" or "unjust enrichment caused by misappropriation").

119. See, e.g., Nilssen v. Motorola, Inc., 1998 WL 851493, at *1-*3 (N.D. Ill. Dec. 1, 1998) (reasonable royalty); KW Plastics v. U.S. Can Co., 131 F. Supp. 2d 1289, 1295 (M.D. Ala. 2001) (expert improperly "assume[d] that each and every penny that KW gained constitutes unjust enrichment"); Schiller & Schmidt, Inc. v. Nordisco Corp., 969 F.2d 410, 415-16 (7th Cir. 1992) (lost profits calculation "made a joke of the concept of expert knowledge"); cf. Softel, Inc. v. Dragon Med. & Scientific Communications Ltd., 891 F. Supp. 935, 943 (S.D.N.Y. 1995) ("In measuring defendants' profits, it is also appropriate to apportion damages based on the role plaintiff's trade secret played in the commercial success of defendants' product." (citing Univ. Computing v. Lykes-Youngstown Corp., 504 F.2d 518, 539 (5th Cir. 1974)), aff'd, 118 F.3d 955 (2d Cir. 1997).

120. 969 F.2d 410 (9th Cir. 1992).

gally attributable to the patented feature."" (citing Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co., 225 U.S. 604 (1912)).

^{115.} McDaniel & Ansems, supra note 6, at 467.

^{116.} Id. at 478.

^{117.} See Runiks v. Peterson, 392 P.2d 590, 590 (Colo. 1964) ("[B]efore damages can be awarded to a claimant he must establish that the damages he seeks are traceable to and are the direct result of the wrong sought to be redressed."); Johnson, Assessing Damages, supra note 4, at 72 ("The amount of R&D damages recoverable may be limited by the scope of the 'secret' (or nonpublic) information comprising the 'trade secret."").

^{121.} Id. at 415-16.

allegedly lost after the theft of its customer list, despite the fact that "95 percent of the names on the list came from mailing lists compiled by product manufacturers and purchasable by any catalog house" and, therefore, were not "secrets."¹²²

The court observed that, at a minimum, the plaintiff's expert "should have tried to separate the damages that resulted from the lawful" conduct of the defendant "from the damages that resulted from particular forms of misconduct allegedly committed by that competitor, of which the theft of the mailing list, however morally reprehensible, was the slightest."¹²³ Because the expert failed to exclude such sums from his calculations, the court concluded that the expert's analysis made "a joke of the concept of expert knowledge."¹²⁴

After the Supreme Court's decision in Daubert requiring that expert evidence meet certain threshold requirements concerning reliability in terms of both methodology and foundation, courts began to apply this principle under the rubric of assessing the reliability of an expert's damages methodology. A recent case, KW Plastics, 125 is instructive. In that case, the court ruled that an expert's testimony concerning purported trade secret damages must be excluded where the expert did "not attempt to determine the value of the specific trade secrets used."¹²⁶ Relying upon the Seventh Circuit's analysis in Schiller, the court observed that an expert must demonstrate a connection between the particular trade secrets misappropriated and the damages claimed, and not simply "assume that each and every penny [the alleged wrongdoer] gained constitutes unjust enrichment."¹²⁷ Thus, the court excluded the expert's opinion regarding unjust enrichment on the grounds that it "fails to meet the reliability and relevancy standards required by Daubert and its progeny."128

Similarly, in Vermont Microsystems, the Second Circuit rejected a damages award that encompassed damages beyond those attributable to the alleged trade secrets.¹²⁹ The court ruled that the damages evidence was flawed in that the damages award was based on "all technologies developed or worked on" by a former employee.¹³⁰ In so doing, the court looked to the *Georgia-Pacific* factors for determining reasonable royalties, which specifically incorporate an apportionment

126. Id. at 1295.

128. Id.

130. Id. at 151-52.

^{122.} Id. at 415.

^{123.} Id. at 415-16.

^{124.} Id. at 415.

^{125.} KW Plastics v. U.S. Can Co., 131 F. Supp. 2d 1289 (M.D. Ala. 2001).

^{127.} Id.

^{129.} Vt. Microsystems, Inc. v. Autodesk, Inc., 88 F.3d 142, 151 (2d Cir. 1996).

analysis by identifying as a factor to consider in determining the amount of any royalty damages "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."¹³¹

This principle has also been applied to disaggregate damages attributable to the use of different forms of intellectual property. In Nilssen v. Motorola. Inc., for example, the court rejected the plaintiff's damage theory, which sought recovery for sums attributable to "all of [the plaintiff's] technology," including both patent and trade secret rights.¹³² The plaintiff sought to introduce as a damage figure a number that had been discussed in negotiations between the parties as a possible value for all of the plaintiff's patent and trade secret rights relating to electronic ballasts.¹³³ However, according to the court, introduction of this figure as a purported measure of the plaintiff's trade secret damages would "create a gross potential for unfair prejudice and jury confusion" and "would be patently misleading."¹³⁴ Accordingly, the court excluded the testimony of plaintiff's damages expert on the grounds that the expert's proffered royalty calculation encompassed intellectual property that was "far more expansive" than the "limited claimed trade secret rights at issue."135 As the court observed, under Rule 702, it was "especially important to keep such uninformed and irrelevant expert testimony from the jury."136 Thus, the court concluded that "the dangers that would be inherent in introducing an unanchored number that would invite sheer speculation on the jury's part are too obvious to be compelled to repeat."137

On appeal, the Seventh Circuit discussed this analysis while reviewing the district court's decision to bifurcate the plaintiff's trade secret and patent claims into two separate lawsuits. In overturning the bifurcation decision, the Seventh Circuit "remand[ed] with instructions to consolidate [the trade secret] proceeding with the patent-law proceeding."¹³⁸ In so ruling, however, the court seemed to endorse the district court's analysis of the plaintiff's proffered damages theory. It observed that the district court's ruling requiring the plaintiff to "cal-

^{131.} Ga.-Pac. Corp. v. U.S. Plywood Corp., 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970).

^{132.} Nilssen v. Motorola, Inc., 1998 WL 513090, at *6 (N.D. Ill. Aug. 14, 1998).

^{133.} Id. at *6-*8.

^{134.} Id. at *6-*7 (granting motion in limine to exclude documents and argument under Rule 403).

^{135.} Nilssen v. Motorola, Inc., 1998 WL 851493, at *2-*3 (N.D. Ill. Dec. 1, 1998) (granting motion in limine excluding expert's damages testimony).

^{136.} Id. at *2 (emphasis added).

^{137.} Nilssen, 1998 WL 513090, at *7 n.13.

^{138.} Nilssen v. Motorola, Inc., 255 F.3d 410, 415 (7th Cir. 2001).

culate trade secret damages independently of patent damages" had been "necessitated by the segregation of legal theories into separate lawsuits."¹³⁹

Because of its decision overturning the bifurcation of the case, the court observed that on remand the district court should not "block [the expert's] testimony solely by invoking the law of the case" based on its prior decision and that it may be "prudent for the district court to take a fresh look at the admissibility of [the expert's] testimony once patent and trade-secret theories are reunited" in a single suit.¹⁴⁰ Thus, the Seventh Circuit implicitly recognized that the plaintiff could not recover damages based on its patent rights when they were excluded from the plaintiff's lawsuit.

Finally, the apportionment principle has also been applied in a different form to require that an expert disaggregate damages where multiple trade secrets are alleged. In Children's Broadcasting Corp. v. Walt Disney Co., the Eighth Circuit affirmed the district court's ruling that an expert's damages testimony was "speculative and based solely on conjecture" where the expert claimed that "any misappropriation of any trade secret caused the exact same amount of damage" to the plaintiff.¹⁴¹ The plaintiff in that case had alleged that the defendant misappropriated seven different trade secrets; the jury found that only two of these were in fact trade secrets.¹⁴² In ordering a new trial, the court reasoned that "[t]he assertion that any or all of the alleged wrongful acts would have caused the same outcome is dubious" and observed that, under Daubert, such expert testimony is properly excluded because there is "simply too great an analytical gap between the data and the opinion proffered.""143 Accordingly, the court remanded for a new trial on damages given that the expert's testimony had been improperly admitted.144

^{139.} Id. at 413-14 (emphasis added). The Seventh Circuit also indicated in passing, however, that

the district judge never explained how it would have been possible (or practical) to calculate trade-secret damages on the assumption that Motorola did not infringe any of Nilssen's patents, or patent damages on the assumption that Motorola did not use any of Nilssen's trade secrets. In the parties' negotiations—and, Nilssen insists, in Motorola's creation of its electronic ballasts—the trade secrets and patents were tied together, if only because the trade secrets concern the use of ideas reflected in the patents.

Id. at 413.

^{140.} Id. at 414.

^{141.} Children's Broad. Corp. v. Walt Disney Co., 245 F.3d 1008, 1018 (8th Cir. 2001).

^{142.} Id. at 1014.

^{143.} Id. at 1018 (quoting Gen. Elec. Co. v. Joiner, 522 U.S. 522, 146 (1997)).

^{144.} Id. at 1013.

This ruling represents an expansion of the apportionment principle in the sense that in cases such as *Nilssen*, where the court ruled that sums that clearly were not attributable to the alleged trade secrets (because they were attributable to patent rights not at issue) must be excluded. In *Children's Broadcasting*, in contrast, the court struck down a damages analysis that failed to disaggregate damages attributable to various alleged trade secrets, which the jury may have found were misappropriated. A similar extension of the disaggregation principle can be found in the antitrust context where "[e]ven in cases in which the full range of conduct challenged by the plaintiff remains in controversy, some courts have held that an antitrust plaintiff's failure to disaggregate renders its proof unduly speculative."¹⁴⁵ Such a rule is justified on the grounds that, if damages are not disaggregated, should the jury find liability on less than all of the alleged unlawful acts, it will have no basis to assess damages.

In addition to the numerous cases addressing this principle, the necessity of apportionment has also been recognized in the *Restatement*. The Restatement (Third) of Unfair Competition observes that "[i]f the secret accounts for only a portion of the profits earned on the defendant's sales, such as when the trade secret relates to a single component of a product marketable without the secret, an award to the plaintiff of defendant's entire profit may be unjust."¹⁴⁶ Further, the *Restatement* states that, under such circumstances, the court may often tailor royalty damages to ensure that the plaintiff only recovers that portion of the damages attributable to the alleged misappropriation.¹⁴⁷ Thus, as the *Restatement* acknowledges, royalty damages often represent an apportionment of the unjust enrichment received by the defendant through profits derived in part from the misappropriated technology.

Indeed, the court in University Computing relied on patent law precedents in coming to this same conclusion. In making this observation, the court cited Egry Register Co. v. Standard Register Co.,¹⁴⁸ a

^{145.} Royall, supra note 95, at 319. See also id. at 325 ("Some courts have held that, regarless of whether the jury (or the court) may find that each of the defendant's challenged actions was unlawful, it remains incumbent upon the plaintiff to disaggregate its damage proof to the fullest extent possible.").

^{146.} RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmt. f (1995).

^{147.} Id. ("The royalty that the plaintiff and defendant would have agreed to for the use of the trade secret made by the defendant may be one measure of the approximate portion of the defendant's profits attributable to the use.").

^{148.} Egry Register Co. v. Standard Register Co., 23 F.2d 438 (6th Cir. 1928). Commentators have also observed that in the patent context:

The apportionment problem is also addressed in the reasonable royalty measure. The Supreme Court said that the goal of the reasonable royalty award was to identify an

patent infringement case in which the court was charged with determining damages attributable to the infringement of a patent on a device that was incorporated into cash registers. As the University Computing court observed, the Sixth Circuit in Egry concluded that it was inequitable to award damages based on "the total profits the defendant had made on all sales of the machines using this device."¹⁴⁹ Accordingly, the court ruled that the proper measure of damages was a reasonable royalty that apportioned the profits on sales of the cash registers:

Because no actual apportionment of profits based on what percentage of the success of the marketing of the machines was due to the plaintiff's device could be shown, the court held the proper measure of damages would be a reasonable royalty on defendant's sales, thereby creating an apportionment of profits based on an approximation of the actual value of the infringed device of the defendant.¹⁵⁰

Nonetheless, the decisions regarding apportionment are not always uniform. One area in which there seems to be some disagreement is the proper placement of the burden of proof in assessing what portion of a defendant's profit is attributable to the alleged trade secrets. One view is that expressed in a footnote in *Jet Spray Cooler, Inc. v. Crampton.*¹⁵¹ The court in *Jet Spray* indicated that once a plaintiff

JAGER, supra note 4, at § 3.03[6][b][i], at 3-61.

amount that represents the value of the invention, given "the nature of the invention, its utility and advantages." This meant that the royalty should be based on the utility and advantages this invention provided beyond those available from use of the next best alternative. In other words, the Court was requiring that the royalty measure be set based on the marginal value of the invention The Court was insisting that the apportionment issue be addressed in setting the reasonable royalty.

SCHLICHER, supra note 6, § 9.05[2][k], at 9-91 to 9-92 (quoting Dowagiac Mfg. Co. v. Minn. Moline Plow Co., 235 U.S. 641, 648 (1915)).

^{149.} Univ. Computing v. Lykes-Youngstown Corp., 504 F.2d 518, 537 (5th Cir. 1974).

^{150.} Id. at 536.

^{151.} Jet Spray Cooler, Inc. v. Crampton, 385 N.E.2d 1349, 1358 n.14 (Mass. 1979). The court in University Computing also cited Westinghouse, claiming that in that case, "the Court put the burden of proving factors other than the infringed patent caused the profits on the infringer once the plaintiff patentee proved profits were made." Univ. Computing, 504 F.2d at 536 n.28. See also Carter Prods., Inc. v. Colgate-Palmolive Co., 214 F. Supp. 383, 397 (D. Md. 1963) (under Westinghouse, "the defendant infringer assumes the burden of showing that part of the profit is attributable to features other than those covered by the patent."); Curtis Mfg. Co. v. Plasti-Clip Corp., 933 F. Supp. 94, 104 (D.N.H. 1995). Jager describes the burden of proof as follows:

The second method of assessing damages is to measure the defendant's gain. This approach typically calls for an account of defendant's net profits from sales attributed to the trade secret. In this situation, the plaintiff has the burden to establish the defendant's sales related to the trade secret. The burden of proof then switches to the defendant to show which sales are unrelated and what expenses should be deducted to establish net profit.

demonstrates that the defendant made profits on sales of a product that was made using the plaintiff's alleged trade secrets, the burden shifts to the defendant to conduct an apportionment and to show what portion of the profits is not attributable to the alleged trade secrets.¹⁵²

In coming to this conclusion, the court in *Iet Spray* relied upon patent infringement precedents such as Westinghouse Electric & Manufacturing Co. v. Wagner Electric & Manufacturing Co.¹⁵³ Arguably, however, the court misread these cases. In Westinghouse, the Supreme Court reaffirmed the principle established in Garretson that "if plaintiff's patent only created a part of the profits, he is only entitled to recover that part of the net gains."¹⁵⁴ The Court recognized that under this principle the plaintiff "[m]ust ... '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."155 Specifically, the Court ruled that "[w]here profits are made by the use of an article patented as an entirety, the infringer is liable for all the profits 'unless he can show-and the burden is on him to show—that a portion of them is the result of some other thing used by him."¹⁵⁶ This is the exact opposite of the interpretation offered in Jet Spray. In Westinghouse, the Supreme Court merely indicated that where the plaintiff "has proved the existence of profits attributable to his invention, and demonstrated that they are impossible of accurate or approximate apportionment," the burden shifts to the defendant to present contrary evidence showing that apportionment is impossible.157

157. Westinghouse, 225 U.S. at 621.

^{152.} See, e.g., Prandl, supra note 1, at 453 ("Once the plaintiff has shown the existence of the defendant's profits, the burden shifts to the defendant to demonstrate the portions of his profits which are not attributable to the trade secret."); cf. RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmt. f (1995) ("The plaintiff is entitled to recover the defendant's net profits. The plaintiff has the burden of establishing the defendant's sales; the defendant has the burden of establishing any portion of the sales not attributable to the trade secret and any expenses to be deducted in determining net profits.").

^{153.} Jet Spray Cooler, 385 N.E.2d at 1358 n.14.

^{154.} Westinghouse Elec. & Mfg. Co. v. Wagner Elec. & Mfg. Co., 225 U.S. 604, 615 (1912).

^{155.} Id.

^{156.} Id. at 614. See also Dowagiac Mfg. Co. v. Minn. Moline Plow Co., 235 U.S. 641, 643–44 (1915) (noting that "the plaintiff failed to carry the burden, rightly resting upon it, of submitting evidence whereby the profits from the sale of the infringing drills could be apportioned between the patented improvements and the unpatented parts"); Rockwood v. Gen. Fire Extinguisher Co., 37 F.2d 62, 65 (2d Cir. 1930) ("The burden of apportionment was on the plaintiffs, for it was only entitled to recover such part of the commingling profits as was attributable to the use of its invention.").

Thus, while the effect of these rules governing the burden of proof is hard to discern, the "burden shifting" discussed in Westinghouse comes into play only after the plaintiff has demonstrated the impossibility of apportionment and not before, as the court in Jet Spray seemed to suggest.¹⁵⁸ Indeed, implicit in cases such as KW Plastics and, indeed, in the entire Daubert approach to scrutinizing proffered expert testimony, is that it is the plaintiff's burden to present reliable and methodologically sound expert testimony regarding damages. Accordingly, a damages expert may not proffer a damages theory that is obviously flawed. The better approach (and that established in Westinghouse) would exclude those damages theories that fail to properly apportion damages unless the plaintiff's expert offers some affirmative analysis demonstrating the impossibility of apportionment.¹⁵⁹

Finally, it is interesting to note the intersection between the apportionment rules and the consideration of alternatives or substitutes. As noted above, where alternatives are not perfect substitutes, damages may be computed by comparing differences in cost or profit associated with the alternative product or process and the technology at issue. In conducting an apportionment analysis, courts may similarly compare the prior product or process, or even alternative or substitute products or processes, with that product or process incorporating the technology at issue to determine the portion of the value of the entire product or process that is attributable to the infringed technology.¹⁶⁰

^{158.} See SCHLICHER, supra note 6, § 9.05[2][k], at 9.85 ("A patent owner was able to receive an award of the infringer's entire profits only if it proved that the infringer would have made no profits had it not used the particular invention for which damages were being assessed."). As Schlicher observes, in Westinghouse,

[[]t]he Court seemed content that the burden of proof in this action should have rested on the patent owner. However, the Court was not content that the burden of proof should operate in the normal way. The burden on the patent owner was to try to prove apportionment. If he could not, this burden essentially shifted to the infringer. The Court did not say how hard the patent owner had to try. The consequence of such a "burden of proof" is difficult to assess.

Id. § 9.05[2][k], at 9-90 to 9-91.

A similar rule has been applied in the antitrust context. See, e.g., Spray-Right Serv. Corp. v. Monsanto Co., 684 F.2d 1226 (7th Cir. 1982).

A plaintiff claiming injury caused by more than one of the defendant's unlawful practices need not prove the amount of damage caused by each illegal practice if the plaintiff shows that disaggregation is impracticable. If the plaintiff shows that such proof is impracticable, the burden shifts to the defendant to demonstrate the contrary. *Id.* at 1243.

^{159.} Arguably, this should include an analysis demonstrating that apportionment cannot be accomplished through a reasonable royalty. See, e.g., Univ. Computing v. Lykes-Youngstown Corp., 504 F.2d 518, 536 (5th Cir. 1974).

^{160.} As Schlicher explains:

Thus, the numerous patent cases evaluating alternatives in the context of patent infringement claims may provide valuable precedent in determining the proper apportionment of damages in trade secret cases.

VI. OTHER COMMON LIMITATIONS BASED ON THE RELATIONSHIP BETWEEN THE PARTIES

In addition to the rules governing apportionment, other common limitations on damages may flow from the nature of the relationship between the parties. One instance in which the relationship between the parties may be particularly significant is where the defendant and the plaintiff are not in direct competition. For example, where the defendant is the plaintiff's customer, awarding lost profits may be inappropriate, given that the defendant may have a veto on any alleged "lost sales" independent of the alleged misappropriation. In other words, in the "but for" world, had the defendant not misappropriated, it may never have purchased any of the plaintiff's product at all.

Such potential limitations have been addressed only rarely in the case law. However, the analysis found in those cases that do address such limitations demonstrates that they make abundant sense. For example, in *Stickle v. Heublein, Inc.*, the Federal Circuit rejected a lost profits claim brought against a company that purchased and used—but did not manufacture—a product that allegedly infringed the plain-tiff's patent. The court observed that "the possibility of [the plain-tiffs] proving lost profits" based on such a claim was "highly speculative."¹⁶¹

Similarly, in Trans-World Manufacturing v. Al Nyman & Sons, Inc., the court rejected a lost profits claim for patent infringement, where the defendant was the plaintiff's customer and, therefore, could refuse to buy the plaintiff's product.¹⁶² The case involved some displays that allegedly infringed upon the plaintiff's patent rights.¹⁶³ In denying the plaintiff's claim for lost profits, the court observed that

SCHLICHER, supra note 6, § 9.05[2][1], at 9-95.

The value of the invention is not necessarily equal to the difference between the demand for the product actually sold and its production cost. If there was a substitute invention available that would have permitted the patent owner or infringer to generate 99 percent of those profits, then only 1 percent of them are logically attributable to use of the invention. In order to gauge the derived demand for the invention, it is necessary to assess the availability of substitute inventions. For that purpose, it is necessary to inquire about the nature and value of the product that the infringer could have made had he not infringed.

^{161.} Stickle v. Heublein, Inc., 716 F.2d 1550, 1560 (Fed. Cir. 1983).

^{162.} Trans-World Mfg. v. Al Nyman & Sons, Inc., 633 F. Supp. 1047, 1054-55 (D. Del. 1986).

^{163.} Id. at 1049.

the defendant "used, rather than sold, the displays."¹⁶⁴ The court reasoned that, given "the unique bargaining position" enjoyed by a customer that can refuse to buy the plaintiff's product as "compared to the average infringer," there is not "a reasonable probability that [the plaintiff] would have made the sales but for [the defendant's] infringing activity."¹⁶⁵ Accordingly, to award lost profits "would involve the court in improper speculation."¹⁶⁶

Finally, in GNB Battery Techs., Inc. v. Exide Corp., the court rejected lost profits damages for alleged patent infringement, where the plaintiff's customer "had become dissatisfied with the quality of GNB's batteries."¹⁶⁷ Here, again, while the defendant in GNB was not the actual customer of the plaintiff, the court concluded that the plaintiff could not recover lost profits damages where there was evidence that the plaintiff's customers would not have made the purchases absent the alleged infringement.

Such analysis appears to be even more rare in the context of trade secret misappropriation claims.¹⁶⁸ Nonetheless, a few courts seem to have recognized a similar principle. In *Trans-Rim Enterprises (USA), Ltd. v. Adolph Coors Co.,* for example, the Tenth Circuit reviewed an unpublished district court ruling rejecting a lost profits claim flowing from the defendant's alleged trade secret misappropriation and failure to enter into a joint venture with the plaintiff.¹⁶⁹ The plaintiff maintained that because the defendant misappropriated its trade secrets and then refused to enter into the joint venture, it was entitled to recover all of the profits it allegedly lost as a result of the defendant's failure to enter into the proposed measure of damages as too speculative given that the defendant "was not contractually obligated to participate" in the proposed joint venture and thus the plaintiff

170. Id. at *1.

^{164.} Id. at 1054.

^{165.} Id. at 1053-55.

^{166.} Id.

^{167.} GNB Battery Techs., Inc. v. Exide Corp., 886 F. Supp. 420, 437–38 (D. Del. 1995), aff'd, 78 F.3d 605 (Fed. Cir. 1996).

^{168.} However, some commentators have observed that lost profits damages for alleged trade secret misappropriation are generally most appropriate where the parties are competitors. See, e.g., Johnson, Assessing Damages, supra note 4, at 72 ("A party also may recover damages for its lost sales and profits resulting from the misappropriation of its trade secrets. This measure of damages is generally applied where the defendant is a direct competitor of the plaintiff and uses the misappropriated trade secrets to sell a competing product.").

^{169.} Trans-Rim Enters. (USA), Ltd. v. Adolph Coors Co., 1995 WL 231381, at *1-*3 (10th Cir. Apr. 7, 1995). While the Tenth Circuit in *Trans-Rim* discussed the district court's damages ruling at length, it did not reach the merits of that ruling, but rather decided the case on other grounds.

could not "prove . . . that 'but for' [the defendant's] wrongdoing the project would have come to fruition."¹⁷¹ Thus, as in *Transworld*, where the profits in the "but for" world could only be realized after some action by the defendant, the plaintiff's recovery of such damages on the assumption that the defendant would have taken such action was ruled to be too speculative.

Similarly, the court in Web Communications Group, Inc. v. Gateway 2000, Inc. ruled that where the defendant was not the plaintiff's competitor, but rather a customer, unjust enrichment based upon the defendant's profits should be barred.¹⁷² The plaintiff in Gateway was an advertising firm that alleged that Gateway had misappropriated its trade secrets in collusion with one of the plaintiff's competitors by purchasing advertising brochures from the competitor, which were manufactured according to an advertising format the plaintiff claimed as its trade secret.¹⁷³ The court ruled that, while the competing advertising firm may have been unjustly enriched through profits it received on the advertising brochures it sold to Gateway, Gateway's profits on its computer sales were "not the correct measure of damages."¹⁷⁴ In coming to this conclusion, the court observed that Gateway was "not a competitor" and therefore had "not wrested a competitive advantage from [the plaintiff] in a manner normally associated with a trade secrets case involving a claim for unjust enrichment."¹⁷⁵ Consequently, the court held that "Gateway's savings . . . would represent the unjust enrichment, if any, that occurred in this case."176

Other courts have similarly observed that lost profits may not be an appropriate measure of damages where the plaintiff and defendant are not competitors. In *Pioneer Hi-Bred*, for example, the Eighth Circuit noted in passing that "[t]he selection of lost profits as the appropriate [damages] measure in this case . . . presented formidable problems stemming from the fact that [the defendant] does not directly compete with [the plaintiff]."¹⁷⁷ In University Computing, the court

^{171.} Id. at *2.

^{172.} Web Communications Group, Inc. v. Gateway 2000, Inc., 1994 WL 171448, at *2 (N.D. Ill. May 3, 1994).

^{173.} Id. at *1.

^{174.} Id. at *2.

^{175.} Id.

^{176.} Id.; see also Web Communications Group, Inc. v. Gateway 2000, Inc., 1995 WL 23535, at *1 (N.D. Ill. Jan. 17, 1995) (granting motion in limine to bar evidence of Gateway's sales and profits because the "[competitor's] profits and Gateway's savings that stemmed from the alleged misappropriation of trade secrets would represent the unjust enrichment that may have occurred in this case").

^{177.} Pioneer Hi-Bred Int'l v. Holden Found. Seeds, Inc., 35 F.3d 1226, 1244 (8th Cir. 1994). Proving that an alleged trade secret confers a competitive advantage is also an element necessary to establish liability for trade secret misappropriation. "A trade secret must be valu-

arguably went even further, contending that lost profits were not an appropriate remedy, given that the plaintiff still retained use of the secret, unless the alleged trade secret had actually been destroyed in some fashion such as through public disclosure:

In some instances courts [in trade secret cases] have attempted to measure the loss suffered by the plaintiff. While as a conceptual matter this seems to be a proper approach, in most cases the defendant has utilized the secret to his advantage with no obvious effect on the plaintiff save for the relative differences in their subsequent competitive positions. Largely as a result of this practical dilemma, normally the value of the secret to the plaintiff is an appropriate measure of damages only when the defendant has in some way destroyed the value of the secret. The most obvious way this is done is through publication, so that no secret remains. Where the plaintiff retains the use of the secret, as here, and where there has been no effective disclosure of the secret through publication the total value of the secret to the plaintiff is an in appropriate measure.¹⁷⁸

Nonetheless, the court acknowledged that damages based on the plaintiff's loss might be appropriate where "some specific injury to the plaintiff can be established—such as lost sales."¹⁷⁹ Otherwise, however, the court maintained that "the loss to the plaintiff is not a particularly helpful approach in assessing damages."¹⁸⁰

Accordingly, while there appears to be only limited precedent specifically addressing constraints on available damages flowing from the nature of the relationship between the parties, such rules may be appropriate nonetheless. Indeed, rather than resulting from any disapproval of such limitations by courts that are asked to consider them, the lack of precedent may result from the fact that the defendant and plaintiff in trade secret or patent cases are usually in direct competition, and such limitations would rarely be relevant.

able either to plaintiff or to its business rivals in the sense that, as long as it is secret, the information provides plaintiff with an actual or potential competitive business advantage over its rivals." ABA MODEL JURY INSTRUCTIONS § 8.03[3], at 380 (3d ed. 1996); cf. Computer Care v. Serv. Sys. Enters., 982 F.2d 1063, 1074 (7th Cir. 1992) (trade secret combination must give rise to a "unified process design and operation of which in unique combination affords a competitive advantage and is a protectable trade secret").

^{178.} Univ. Computing v. Lykes-Youngstown Corp., 504 F.2d 518, 535 (5th Cir. 1974).

^{179.} Id. at 536.

^{180.} Id.

VII. LIMITATIONS ON THE DURATION OF THE DAMAGES PERIOD

Finally, while there are many common limitations on damages available in patent and trade secret cases, certain limitations found in the context of trade secret claims do not exist in the patent context. One significant difference arises in determining the duration of the damages period. Under applicable trade secret law, "[t]he damage period should be gauged by the time the information would have remained unavailable to the defendant in the absence of the misappropriation."¹⁸¹ Unlike a patent, where a party is given a monopoly and the right to exclude others from using its intellectual property,¹⁸² trade secret law only protects intellectual property as long as it remains "secret."

One corollary of this principle is that a plaintiff may not recover damages once its alleged secrets have been publicly disclosed.¹⁸³

183. Pioneer Hi-Bred Int'l v. Holden Found. Seeds, Inc., 35 F.3d 1226, 1235 (8th Cir. 1994) ("By definition, trade secret law does not protect information in the public domain or otherwise readily ascertainable."); Computer Care v. Serv. Sys. Enters., 982 F.2d 1063, 1072 (7th Cir. 1992) (no trade secret existed where plaintiff had failed to "demonstrate that any of its alleged trade secrets are not either 'within the realm of general skills and knowledge' in the car service industry"); Litton Sys., Inc. v. Sundstrand Corp., 750 F.2d 952, 958 (Fed. Cir. 1984) ("Matters of broad public knowledge or of general knowledge in an industry cannot constitute confidential information or trade secrets. ... [A] trade secret cannot consist of information that is common knowledge, even where the information is imparted in the context of a confidential relationship.") (citations omitted); Clark v. Bunker, 453 F.2d 1006, 1009 (9th Cir. 1972) ("Matters of public knowledge or of general knowledge in an industry cannot be appropriated by one as his secret."); Nickelson v. Gen. Motors Corp., 361 F.2d 196, 199 (7th Cir. 1966) ("Matters of public knowledge or of general knowledge in an industry cannot be appropriated by one as his secret."); RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 cmt. f (1995) ("If the information has become readily ascertainable from public sources so that no significant benefit accrues to a person who relies instead on other means of acquisition, the information is in the public domain and no longer protectable under the law of trade secrets."); id. § 45 cmt. c ("[T]he value of a trade secret that has been destroyed through public disclosure is often speculative."); Johnson, Assessing Damages, supra note 4, at 72 ("[B]ecause a trade secret loses its protection when it enters the public domain, damages for lost profits are generally cut off from the point the trade secret is disclosed and, hence, loses its character as a 'secret.""); Prandl, supra note 1, at 452.

The duration of the accounting period may be limited by two factors: 1) the public disclosure of the trade secret, and 2) the application of the so-called "head start" rule,

^{181.} JAGER, supra note 4, § 7.03[4], at 7-109.

^{182.} See Am. Can Co. v. Mansukhani, 742 F.2d 314, 329 (7th Cir. 1984) ("The owner of a trade secret is not entitled to prevent others from using public information to replicate his product, nor may the owner prevent others from making similar products which are not derived from the trade secret."); Droeger v. Welsh Sporting Goods Corp., 541 F.2d 790, 792 (9th Cir. 1976) ("[T]he ownership of a trade secret does not give the owner a monopoly in its use, but merely a proprietary right which equity protects against usurpation by unfair means."); JAGER, *supra* note 4, § 3.02, at 3-25 to 3-26 ("[A] trade secret does not give the owner a monopoly over the idea. Others are free to use precisely the same idea, as long as they obtain their knowledge through their own independent efforts.") (citing Greenberg v. Craydon Plastics Co., 378 F. Supp. 806, 812 (E.D. Pa. 1974)).

Where an alleged trade secret is already a matter of public knowledge, its value is essentially zero. In particular, when a patent discloses information, the information is in the public domain and does not qualify for trade secret protection.¹⁸⁴

A second corollary of this principle is that trade secret damages must be limited to the "head start period." Parties are free to obtain alleged trade secret information by reverse engineering products that are available in the marketplace.¹⁸⁵ If information is readily duplicated without considerable time, energy, or expense, it does not qualify for trade secret protection, and the plaintiff may not recover damages.¹⁸⁶

184. Injection Research Specialists, Inc. v. Polaris Indus., L.P., 1998 WL 536585, at *8 (Fed. Cir. Aug. 13, 1998) ("It is well established that, once a patent is published, the subject matter of that patent is no longer entitled to trade secret protection."); Rototron Corp. v. Lake Shore Burial Vault Co., 712 F.2d 1214, 1215 (7th Cir. 1983) (holding that plaintiff had no trade secrets in the rotational molding process after issuance of patents on process because "the grant of a patent automatically constitutes full disclosure of the patented process"); Scharmer v. Carrollton Mfg. Co., 525 F.2d 95, 99 (6th Cir. 1975) ("The property right in a trade secret ceases to exist after the secret has become public property through general disclosure. If a trade secret is patented there is no further right to secrecy."); Nilssen v. Motorola, Inc., 963 F. Supp. 664, 676 n.14 (N.D. Ill. 1997) ("Trade secret protection is unavailable for information disclosed in a patent, as 'the grant of a patent automatically constitutes full disclosure of the patented process."); Inorganic Coatings, Inc. v. Falberg, 1996 WL 39472, at *4 (E.D. Pa. 1996) ("Because such information was already disclosed as part of a patent application, [plaintiff] has not met its burden of showing that its disclosures regarding the manufacturing process '[were] unique as opposed to unprotected "general secrets of the trade.""); Stutz Motor Car of Am., Inc. v. Reebok, Int'l, Ltd., 909 F. Supp. 1353 (C.D. Cal. 1995), aff'd, 113 F.3d 1258 (Fed. Cir. 1997).

It is well established that disclosure of a trade secret in a patent places the information comprising the secret into the public domain. Once the information is in the public domain and the element of secrecy is gone, the trade secret is extinguished and 'the patentee's only protection is that afforded under the patent law.' This black-letter rule is rooted in principles of the supremacy of federal law.

909 F. Supp. at 1359; cf. Prandl, supra note 1, at 453 ("Courts have sometimes adhered to the view, but not always that the damages terminate on the date of issuance of a patent that embodies the trade secret.").

185. See also Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 154 (1989) ("Trade secret law provides far weaker protection in many respects than the patent law.... The public at large remained free to discover and exploit the trade secret through reverse engineering of products in the public domain or by independent creation."); Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 476 (1974) (trade secret law "does not offer protection against discovery by fair and honest means, such as by independent invention, accidental disclosure, or by so-called reverse engineering, that is by starting with the known product and working backward to divine the process which aided in its development or manufacture"); Flotec, Inc. v. S. Research, Inc., 16 F. Supp. 2d 992, 1000 (S.D. Ind. 1998) ("[T]he process known as 'reverse engineering,' in which a skilled person studies a product and figures out how to produce it, is permissible and even encouraged under trade secret law.").

186. See, e.g., C&F Packing Co. v. IBP, Inc., 224 F.3d 1296, 1302 (Fed. Cir. 2000). ("[I]f the information can be readily duplicated without involving considerable time, effort or expense, then it is not secret."); Computer Care, 982 F.2d at 1072 (the "key" to whether information is a

which limits the accounting period to the time that the defendant would have needed to reproduce the plaintiff's product in a legal manner.

Id.

However, if the time it would take to duplicate the alleged trade secrets is not de minimis, then the head start period comes into play. The head start period is the period of time that it would take a party to independently develop the alleged trade secrets. Because a plaintiff is entitled to recover damages only so long as the information may remain a secret, a number of courts have ruled that a plaintiff cannot recover damages beyond the head start period.¹⁸⁷

The reasoning behind these requirements is discussed in the Restatement (Third) of Unfair Competition:

Monetary remedies, whether measured by the loss to the plaintiff or the gain to the defendant, are appropriate only for the period of time that the information would have remained unavailable to the defendant in the absence of the appropriation. This period may be measured by the time it would have taken the defendant to obtain the information by proper means such as reverse engineering or independent development. Similarly, the issuance of a patent or other public disclosure of the information by the plaintiff or a third person terminates the secrecy necessary to the protection of the trade secret.¹⁸⁸

187. See, e.g., Univ. Computing v. Lykes-Youngstown Corp., 504 F.2d 518, 535 (5th Cir. 1974) ("[T]he protection afforded a trade secret is limited—for it is protected only so long as competitors fail to duplicate it by legitimate, independent research."); Connar Prods. Corp. v. Universal Slide Fastener Co., 172 F.2d 150, 156 (2d Cir. 1949); Schiller & Schmidt, Inc. v. Wallace Computer Servs., Inc., 1991 WL 270170, at *6 (N.D. Ill. 1991) (A plaintiff "is only entitled to protection for the period of time it would take a legitimate competitor to acquire the secret information on his own."), aff'd in part, vacated in part, United States v. Sanchez, 969 F.2d 1410 (7th Cir. 1992); JAGER, supra note 4, § 7.03[2][a], at 7-98 ("[T]he trade secret and the right to an injunction and damages for misappropriation terminate upon public disclosure of the secret. This cutoff can arise from the issuance of a related patent.") (citing Lewis & Co. v. Buddy L Corp., 453 F. Supp. 392 (S.D.N.Y. 1978)); Id., § 7.03[2][a], at 7-107.

The damage period should be gauged by the time the information would have remained unavailable to the defendant in the absence of the misappropriation. Damages for the use of the trade secret after the information is public can be measured by the amount needed to compensate for the head start or other unfair advantage gained by the defendant.

Id. But see Johnson, Assessing Damages, supra note 4, at 72 ("Courts are split as to whether damages for lost profits are limited to the time period that it would have taken the defendant to independently develop the trade secrets without the misappropriation, sometimes referred to as the 'head start' rule.").

188. RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 45 cmt. h (1995); see also Rosenhouse, supra note 2, at § 13[b] ("In general, the duration of an accounting period in a case of trade secret misappropriation may be limited by two factors: the presence of a disclosure

trade secret is "the ease with which information can be developed through other proper means"); id. (plaintiff failed to demonstrate that the alleged trade secrets were not subject to being "'readily duplicated without involving considerable time, effort or expense'"); Nilssen, 963 F. Supp. at 675 (plaintiff "must first prove that his information was sufficiently secret—in the sense of not being duplicable without 'considerable time, effort or expense'—to constitute a 'trade secret.' Only then does the further 'misappropriation' analysis become relevant.").

In this manner, the requirements for demonstrating liability merge with those for establishing damages.

Much like the other limiting principles described above, these rules governing the duration of the damages period are derivative of the requirement that a plaintiff demonstrate "but for" causation of damages. As the court explained in Sokol Crystal Products, Inc. v. DSC Communications Corp., "[t]he point of the 'head start' period is that, once the defendant has discovered, or would have discovered, the trade secret without the misappropriation, any lost profits from that time forward are not caused by the defendant's wrongful act."¹⁸⁹ In contrast, there is no "head start" or "public disclosure" limitation in analyzing patent damages, given that patents are by definition not "secret." Inventors are given a patent in order to induce them to make their inventions public. The "head start" period is replaced by the period of the patent before its expiration. Accordingly, this is one of the few areas in which the analogy between patent and trade secret damages breaks down.

VIII. CONCLUSION

This article has attempted to demonstrate the many ways in which the principles that have been developed in the context of evaluating patent damages claims can be applied with equal effect in the context of trade secret misappropriation claims. As the above analysis shows, the application of such principles has not always been uniform. In some areas, such as the factors used in evaluating royalties (or to a lesser extent apportionment of damages), courts evaluating trade secret claims have readily applied the principles developed in patent cases. In other areas, however, such as the analysis of acceptable alternatives in the context of lost profits claims, courts have remained relatively silent. However, all of these principles may be usefully applied to screen out those claims that are not sufficiently reliable or are methodologically flawed.

Moreover, application of patent law precedents in the context of trade secret damages claims should increase uniformity in the rules that determine damages. There are numerous factors that have led to greater uniformity in the development of patent, as opposed to trade secret, law. Chief among these is a uniform body of statutory law interpreted by federal instead of numerous state courts. Further, with

which may destroy the secrecy, and thus the trade secret status, of the information involved; and the application of the so-called 'head start' rule.").

^{189.} Sokol Crystal Prods., Inc. v. DSC Communications Corp., 15 F.3d 1427, 1433 (7th Cir. 1994).

the establishment of the Federal Circuit, a court designed specifically to address patent law issues, the uniformity and consistency in the rules governing damages in the patent infringement context has increased. By applying the principles that courts have developed in patent cases to trade secret claims, a measure of uniformity may be achieved in the damages context where such uniformity is arguably desirable, given that rules governing damages flow from economic principles of universal applicability.

More importantly, however, by referring to patent law precedents, courts that are charged with analyzing trade secret damages claims will have the advantage of a body of law both that has been built up over the course of decades and that, in most areas relating to damages, is arguably more sophisticated and complete.