INDECISION: THE NEED TO REFORM THE REASONABLE SECRECY PRECAUTIONS REQUIREMENT UNDER TRADE SECRET LAW

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I. INTRODUCTION

"Indecision is the graveyard of good intentions."¹ Unfortunately, this sentiment represents the result of the current application of trade secret protection in the United States, particularly the "reasonable secrecy precautions" requirement, which is inconsistently applied across multiple jurisdictions and even within the same jurisdiction. While the drafters of the Uniform Trade Secrets Act (USTA) and the reporters of the Restatement (First) of Torts (Restatement) sought to craft a system that would allow businesses to protect their valuable intellectual property, their good intentions have been buried in the cemetery of inconsistent application by the courts. Without reform, trade secret law will continue to serve as a poor second-best to patent and other forms of intellectual property protection.

A. An Illustrative Hypothetical

Imagine that SuperTech Co., a company located in Carbondale, Illinois, is run by senior computer engineering students who study at Southern Illinois University. They are developing a new way to encode the firmware² for touch screens on smartphones that allow manufacturers and users to control the screens' sensitivity to a greater degree than the firmware currently permits. SuperTech is a small-time start-up; it has a great idea, but only the capital the students can come up with through investments from acquaintances.³ SuperTech may not be able to afford to

^{1.} WILLIAM HARDCASTLE BROWNE, ODD DERIVATIONS OF WORDS, PHRASES, SLANG, SYNONYMS AND PROVERBS 122 (1901) (original author unknown).

Firmware is computer code that controls how the software interacts with the hardware; in the SuperTech example, it is how the operating system of the phone interprets the touch of the user's finger. See Or. Judicial Dep't, The Oregon eCourt Glossary, courts.oregon.gov/ oregonecourt/OReCourtGlossary.page (last visited June 6, 2013).

This is particularly likely in the current economic climate, when credit is restricted and investment is difficult to obtain. See Craig Torres, Bernanke Says Credit Still 'Too Tight' for Housing, Economy, BLOOMBERG (Feb. 10, 2012, 12:41 PM), http://www.bloomberg.com/news/2012-02-10/bernankee-says-credit-still-too-tight-for-housing-economy.html.

engage in the patent protection process to ensure that its intellectual property is safe from its competitors and from entering the public domain.⁴

SuperTech chooses to attempt to keep its intellectual property a secret by asking all of its employs to keep the code a secret from everyone outside the company and asking them to sign non-disclosure agreements. It contracts with a cloud server to store the data and maintain its secrecy. Like most customers who contract with cloud servers, it agrees not to hold the proprietor of the service liable in case of an unexpected secrecy breach.

Two months later, the cloud server on which it stored the data is attacked and the students' idea has been stolen. Because the students and SuperTech chose not to engage in the patent process to legally prevent the data from being made publicly available, SuperTech must seek an injunction from a local court under a trade secret theory.

In the impending litigation, the people who made the data public—the defendants-would almost certainly respond to SuperTech's request for an injunction by claiming the SuperTech's data fails to satisfy the requirements of a trade secret because it failed to take reasonable secrecy As this Comment will demonstrate infra, currently, no precautions. plaintiff can be sure whether anything it does to protect their intellectual property would be considered a reasonable secrecy measure. Additionally, there is no consistently applied standard that an attorney can use as a benchmark when advising clients. Should SuperTech lose its injunction because it failed to take reasonable secrecy measures, not only will it have lost potentially lucrative intellectual property, but the money that it spent preparing non-disclosure forms and hiring information secrecy firms will also have been a loss for them, at least from a legal standpoint. This double hit could prove deadly to a small business like SuperTech, and regardless of whether it does, it represents a staggering economic inefficiency.⁵

On the other hand, with the law in its current unsettled state, if SuperTech had filed their suit in a more friendly forum, it might have been successful in obtaining the critical injunction it needed to protect its property. This inequality among forums encourages SuperTech to choose forum-shopping of the worst kind because it might need to engage in that forum shopping in order to keep its business alive. Additionally, these

Going through the patent protection process can be very expensive and thus difficult to access for a business like SuperTech. For an informal look at the costs of patent protection written by a patent attorney, see Gene Quinn, *The Cost of Obtaining a Patent in the US*, IPWATCHDOG (Jan. 28, 2011, 1:14 PM), http://www.ipwatchdog.com/2011/01/28/the-cost-of-obtainingpatent/id=14668/.

^{5.} Because the money SuperTech spent on the secrecy protections would then be "deadweight loss," an investment where the marginal cost outweighs the marginal benefit. See generally N. GREGORY MANKIW, PRINCIPLES OF ECONOMICS (3d ed. 2003). Here, the marginal benefit to SuperTech was zero or arbitrarily low: it did not achieve any return on its investment, so its marginal cost outweighed its marginal benefit. *Id*.

policies allow the judicial system to arbitrarily crown winners and punish losers by protecting some businesses' property, but not others'. The judiciary therefore may unintentionally undermine the free market competition that underlies competition in America, at least in a small way.

B. Why Trade Secrets, but Not Patents?

The skeptical reader will have wondered why SuperTech did not choose to protect its intellectual property with a patent, which does not rest on such shaky ground, even if doing so would have stretched its limits resources. Perhaps SuperTech should not have invested in the technology at all if it could not afford to protect it properly.

One scholar has identified seventeen separate factors that businesses must consider when choosing to use patent or trade secret protection,⁶ including the duration of the protection,⁷ the exclusivity of the intellectual property rights,⁸ and the likelihood that the subject matter of the intellectual property will be reverse engineered by a third party.⁹ For example, if there is little risk that the information would be reverse engineered,¹⁰ trade secret protection as the less expensive option is more desirable because although patent protection prevents reverse engineering, that greater degree of protection is unnecessary and therefore likely to be inefficient for the hypothetical business owner.¹¹ Likewise, trade secret law does not require one to fully disclose the contours of the protected information to the world at large, including one's competitors, as patent protection does—in fact, such a disclosure would ruin the secret entirely.¹²

As this Comment will demonstrate *infra*, preserving trade secret law and making it more responsive to the needs of consumers by tightening some loose standards would make it a more attractive alternative to patent law and help small businesses who might find patent protection to be the lesser of two evils, rather than a desirable business end.

As Professor Beckerman-Rodau points out, ultimately the decision will be an individualized economic choice for each business, and that is no

See Andrew Beckerman-Rodau, The Choice Between Patent Protection and Trade Secret Protection: A Legal and Business Decision, 84 J. PAT. & TRADEMARK OFF. SOC'Y 371, 388-406 (2002).

^{7.} Id. at 389.

^{8.} Id. at 394.

^{9.} *Id.* at 401.

^{10.} Reverse engineering is a process in which a competitor to the original inventor is able to determine the process for manufacturing a product simply by observing it. ELDAD EILAM & ELLIOT J. CHIKOFSKY, REVERSING: SECRETS OF REVERSE ENGINEERING 3 (1st ed. 2007). While patented products are legally protected from reverse engineering, those protected by trade secrets are not. Beckerman-Rodau, *supra* note 6, at 401.

^{11.} Beckerman-Rodau, supra note 6, at 402.

^{12.} Id. at 406.

less true for the hypothetical SuperTech than for a real business.¹³ However, for some types of information, patent protection is not available, and thus, trade secret law is the only way to protect it.¹⁴ Pure information that derives its value entirely from being a secret is one such form of property.¹⁵ Other forms include customer lists and proprietary distribution schemes.¹⁶ For consumers relying on the legal system to protect their pure data—rather than inventions—the trade secret system will be their only option.¹⁷

The litigation pitfall that befell SuperTech in the example *supra*, therefore, is doubly important to those intellectual property owners who have no other option to protect valuable business assets.¹⁸ That example shows why it is critically important for courts who decide trade secret cases to make the standard as clear as possible to avoid detrimentally affecting intellectual property owners who can use only trade secret law to protect their property.

C. If the Reasonable Secrecy Precautions Standard Has Been a Problem for Years, Why Does It Particularly Matter Now?

The protection of intellectual property in the United States has drawn a great deal of attention recently.¹⁹ Although they ultimately failed to pass, the debate about the Stop Online Privacy Act²⁰ (SOPA) and the PROTECT IP Act²¹ (PIPA) engaged the attention of the American public and

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^{13.} See id. passim.

^{14.} UNIF. TRADE SECRETS ACT § 1(4)(ii) (1985).

^{15.} Id.

^{16.} Id. A proprietary distribution scheme is a way of distributing software from the producer to the consumer in such a way that it maintains its secrecy and cannot be distributed to unauthorized users. See generally Categories of Free and Non-Free Software, GNU PROJECT, http://www.gnu.org/philosophy/categories.html#ProprietarySoftware (last visited Apr. 28, 2013).

Copyright is not available to protect that data, even though it is fixed in a tangible expression, because copyright attaches only to works of creativity. 17 U.S.C. § 101 (2012).

^{18.} And these business assets can be quite valuable, especially to non-manufacturing companies. For example, "the fair value of a customer list is the present value of the after-tax cash flow projected over the remaining useful life of the acquired customer list." *Frequently Asked Questions—Valuing Intangible Assets*, CAMBRIDGE PARTNERS & ASSOCS., http://www.cambridge-partners.com/intangible-asset-valuation-faq.htm#5 (last visited Apr. 28, 2013).

For example, CNN, a mainstream news organization, now devotes a section of their Internet content entirely to intellectual property topics in the news. *See Intellectual Property*, CNN.COM, http://topics.cnn.com/topics/intellectual_property (last visited Apr. 28, 2013).

To Promote Prosperity, Creativity, Entrepreneurship, and Innovation By Combating the Theft of U.S. Property, and for Other Purposes., H.R. 3261, 112th Cong. (2011).

Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act of 2011, S. 968, 112th Cong. (2011). A full discussion of these extraordinarily controversial laws and their effect on American intellectual property is unfortunately beyond the scope of this Comment.

especially the internet community in late 2011. In September 2011, Congress passed the Leahy-Smith America Invents Act²² (AIA), significantly reforming the patent protection process for American entrepreneurs.

Despite these well-publicized reforms in the areas of copyright and patent protection for intellectual property, trade secrets have received comparatively little public attention, although it is experiencing something of a renaissance in recent years in the legal academy.²³ What has received a great deal of public attention, however, is the need to provide incentives for small business growth and technological advancement in order to spur economic growth and maintain America's edge in an increasingly economically competitive world.²⁴ Greater protection for trade secrets can fall neatly under this umbrella because they are nearly costless, as compared to patents.²⁵ Trade secrets are sometimes also available to small businesses that have not retained the services of an attorney because no legal documents are necessary to protect the secret; merely holding information that derives value from being a secret and taking "reasonable secrecy precautions" to maintain its secrecy will suffice.²⁶

Trade secret protection, therefore, is particularly useful to small businesses that have little capital to invest in other areas.²⁷ It is also particularly useful to small businesses in fields where there are few current competitors,²⁸ meaning that it is most useful in areas of new discovery and innovation that the federal government seeks to incentivize through

^{22.} America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011). Again, a full discussion of the effects of this patent reform measure lies beyond the scope of this Comment.

^{23.} For example, Professor Sharon Sandeen of Hamline University described trade secret law as the "Cinderella" of intellectual property. *See* Sharon K. Sandeen, *Trade Secret Law: The Cinderella of Intellectual Property Law, in* INTELLECTUAL PROPERTY AND INFORMATION WEALTH 399 (Peter K. Yu ed., 2006).

^{24.} Examples include the recent reauthorization of the Small Business Innovation Research and Small Business Technology Transfer programs until Fiscal Year 2017. See Sean Greene, Implementing the SBIR and STTR Reauthorization: Our Plan of Attack, SBIR.GOV (Feb. 21, 2012), http://www.sbir.gov/news/implementing-sbir-and-sttr-reauthorization-our-plan-attack. In Illinois, examples include the state-sanctioned network of Small Business development centers. See, e.g., Entrepreneurship, Innovation & Technology, ILL. DEP'T OF COMMERCE & ECON. OPPORTUNITY, http://www.ildceo.net/dceo/Bureaus/Entrepreneurship+and+Small+Business/sbdc.htm (last visited Apr. 28, 2013).

^{25.} Some cost is involved, however, typically to an attorney to draft the necessary documents, although a business owner could theoretically accomplish that on their own with a \$50 form from Nolo. See Cost of a Non-Disclosure Agreement, COSTHELPER.COM, http:// smallbusiness.costhelper.com/non-disclosure-agreement-nda.html (last visited Apr. 28, 2013). Patent protection, however, is very expensive comparatively. See supra note 4.

^{26.} UNIF. TRADE SECRETS ACT § 1(4) (1985).

^{27.} See Cost of a Non-Disclosure Agreement, supra note 25.

^{28.} See id.

protections granted in intellectual property law.²⁹ But currently, the unsettled nature of the judicial application of the reasonable secrecy precautions requirement is actually contrary to the general policies that underlie intellectual property law because it can punish innovation and discourage people from investing in intellectual property. This is true because it can cause a double hit and deadweight loss to the small business owners who rely on it.³⁰ Given the greater attention in recent years toward the unique requirements of small businesses, now is an ideal time to take a second look at the unintentional harm that the judiciary can cause to entrepreneurs without the capital to pursue patent protection.

D. What Should Be Done?

The rest of this Comment will begin by outlining the legal basis of the minimum secrecy precautions requirement and surveying its applications in a variety of cases and its treatment in secondary sources. It will then use tools from law and economics, including Landes and Posner's economic model, to analyze the reasonable secrecy precautions requirements and identify areas of improvement, including a "reasonable industry actor" standard based on other areas of tort law. It will then conclude by revisiting the SuperTech hypothetical and examining how it would come out different were the solution outlined in this Comment adopted by the courts.

II. BACKGROUND

A. Statutory Foundation and Definition of "Trade Secret"

Like most law that originated in tort, trade secret law is primarily governed by state law, leading the National Conference of Commissioners on Uniform State Laws (NCCUSL) to propose a uniform state law to govern its application.³¹ Nearly all jurisdictions have adopted the Uniform Trade Secrets Act (UTSA).³² Jurisdictions that have not adopted the UTSA

^{29.} Under the Constitution, Congress has the power to grant copyrights and patents to authors and inventors, respectively, in order to "promote the progress of science and the useful arts" or in order to promote innovation and technological and cultural advancement. *See* U.S. CONST. art. I, § 8, cl. 8. Congress' intellectual property laws should prop up any technological field.

^{30.} See generally MANKIW, supra note 5.

^{31.} See generally UNIF. TRADE SECRETS ACT §§ 1-12.

^{32.} The jurisdictions that have adopted the UTSA are Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, U.S. Virgin Islands, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. See, Legislative Fact Sheet—Trade

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generally use common law to govern trade secret.³³ Except for North Carolina, which has adopted an individual statute to protect trade secrets with language very similar to that found in the UTSA,³⁴ the states that do not use the UTSA have adopted the definition of "trade secret" found in the Restatement (First) of Torts Section 57, including its comment b.³⁵ Comment *b* sets out the factors courts use to determine whether particular information qualifies as a trade secret and can thus be protected by injunction or damage awards.³⁶

The UTSA defines a trade secret as:

information, including a formula, pattern, compilation, program, device, method, technique, or process that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.³⁷

The Restatement (First) of Torts Section 757, comment b, does not give an explicit definition of a trade secret, but instead gives six factors for courts to consider when determining whether a piece of information is a trade secret:

(1) the extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and to his competitors; (5) the amount of effort or money expended by him in

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Secrets Act, UNIF. LAW COMM'N, http://uniformlaws.org/LegislativeFactSheet.aspx?title=Trade Secrets Act (last visited June 7, 2013).

^{33.} The jurisdictions that have not adopted the UTSA are New York, North Carolina, and Massachusetts. *Id.* Massachusetts has introduced a version of the UTSA in its most recent legislative session. H.B. No. 23, 187th Gen. Ct. (Mass. 2011). North Carolina has adopted a statute that closely reflects the language found in the UTSA. *See* N.C. GEN. STAT. ANN. § 66-152 (West 1981).

^{34.} See N.C. GEN. STAT. ANN. § 66-152.

^{35.} See, e.g., Ashland Mgmt. Inc. v. Janien, 624 N.E.2d 1007, 1012 (N.Y. 1993) ("There is no generally accepted definition of a trade secret but that found in section 757 of Restatement of Torts, comment b has been cited with approval by this and other courts."); Jet Spray Cooler, Inc. v. Crampton, 385 N.E.2d 1349, 1354 (Mass. 1979) ("The essence of an action for the wrongful use of trade secrets is the breach of the duty not to disclose or to use without permission confidential information acquired from another.").

^{36.} Jet Spray Cooler, 385 N.E.2d at 1355 n.9.

^{37.} UNIF. TRADE SECRETS ACT § 1(4) (1985).

developing the information; [and] (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.³⁸

Section 1 of the UTSA and the third factor of comment *b* to Section 757 of the Restatement both describe one element of trade secrecy as whether the plaintiff in the trade secret litigation has taken measures to protect the secret.³⁹ Unfortunately, the language that each section uses is circumstantial and does not allow for a consistent standard to be established across all trade secret cases or even cases that are similar but not identical to each other.⁴⁰ Perhaps because of this haziness, courts have undertaken an extremely individualized and subjective analysis to trade secret protection, rather than adopting a universal standard that would enable future courts to decide litigation in a uniform manner.

As this Comment will demonstrate *infra*, the practical application of the reasonable secrecy precautions requirement does not differ between the jurisdictions that have adopted the USTA and those that still rely on the common law approach embodied in the Restatement. Both interpret the language very loosely, relying on a facts-and-circumstances approach to allow the fact finder in the case to determine whether the plaintiff acted reasonably under the circumstances.⁴¹

As this Comment will further demonstrate *infra*, the practical effect of this inconsistency when it is applied to real plaintiffs and real defendants in real cases is to render the state of the law too confusing to be useful to a planning businessperson or attorney.

B. The Inconsistent Application of the Reasonable Secrecy Precautions Requirement in Case Law

Courts have applied the reasonable secrecy precautions requirement inconsistently, even when facts are similar, which has led observers to the inescapable conclusion that no consistent standard has been applied.⁴² Some courts have elucidated four requirements that must be met: (1) the existence or absence of an express agreement restricting disclosure; (2) the nature and extent of security precautions taken by the trade secret possessor to prevent acquisition of the information by unauthorized parties; (3) the circumstances under which the information was disclosed and the extent to which they give rise to a reasonable inference that further disclosure

^{38.} RESTATEMENT (FIRST) OF TORTS § 757 cmt. b (1939).

^{39.} Id.; UNIF. TRADE SECRETS ACT § 1(4)(ii).

^{40.} It refers to actions that are reasonable "under the circumstances." UNIF. TRADE SECRETS ACT 1(4).

^{41.} See id.; RESTATEMENT (FIRST) OF TORTS § 757.

^{42.} See generally 2 CALLMANN ON UNFAIR COMPETITION, TRADEMARKS, AND MONOPOLIES § 14:26 (4th ed.).

without the consent of the possessor is prohibited; and (4) the degree to which the information has been placed in the public domain or rendered readily ascertainable.⁴³ However, these conditions have never been held to be sufficient to protect a trade secret; they could all be present in a cause of action and yet the trade secret would not be protected as long as the court determined that the trade secret had not been adequately protected for some other reason.⁴⁴ Additionally, some courts have even gone so far as to note that "ordinary business procedures" are not sufficient to protect a trade secret.⁴⁵ Perhaps this inconsistency is the reason that that standard has not been adopted in many jurisdictions.⁴⁶

A good example of the inconsistency of courts on this point is the way that employee confidentiality agreements are treated. In Shamrock Technologies, Inc. v. Medical Sterilization, Inc., a trade secret was protected even though confidentiality agreements were not required of some employees that regularly viewed the trade secrets, including support staff and maintenance personnel.⁴⁷ In another case, One Stop Deli, Inc. v. Franco's, Inc., the court allowed the plaintiff to presume that their employees knew that the trade secret was to be protected even though no confidentiality agreements were required or signed at all by any party to the case.48 Similarly, while some courts interpret the requirement of a confidentiality agreement very strictly,⁴⁹ the court in *Flotec*, *Inc. v.* Southern Research, Inc. held that no explicit promise is necessary as long as "the recipient of the information knew or should have known that the information was a trade secret and the owner expected the recipient to keep the information secret."⁵⁰ In another dizzyingly inconsistent holding, the court in TouchPoint Solutions, Inc. v. Eastman Kodak Co. held that "the standard is reasonableness, not perfection"-that a failure to mark some documents "confidential," as required by the parties' agreement, did not destroy trade secrecy.⁵¹

Additionally, in some cases, courts have found occasion to note that not all confidentiality agreements are created equal. In *Motor City Bagels, L.L.C. v. American Bagel Co.*, the court examined a confidentiality agreement contained in a larger investment document that appeared at the

^{43.} E.g., Web Commc'ns Grp., Inc. v. Gateway 2000, Inc., 889 F. Supp. 316, 320 (N.D. Ill. 1995).

^{44.} Global Water Grp., Inc. v. Atchley, 244 S.W.3d 924, 928 (Tex. App. 2008).

^{45.} See, e.g., Harvey Barnett, Inc. v. Shidler, 143 F. Supp. 2d 1247, 1252 (D. Colo. 2001).

^{46.} As far as the research for this Comment has indicated, only the Seventh Circuit has looked at a cost-benefit analysis as a potential standard.

^{47. 808} F. Supp. 932, 937 n.1 (E.D.N.Y. 1992).

^{48.} Civ. A. No. 93-090-H, 1993 WL 513298, at *4 (W.D. Va. Dec. 7, 1993).

^{49.} See, e.g., Learning Curve Toys, Inc. v. PlayWood Toys, Inc., 342 F.3d 714, 722-23 (7th Cir. 2003).

^{50. 16} F. Supp. 2d 992, 1006 (S.D. Ind. 1998).

^{51. 345} F. Supp. 2d 23, 30 (D. Mass. 2004).

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end and was not set off or distinguished from the other text in any particular way.⁵² The court concluded that the agreement did not satisfy the reasonable secrecy precautions requirement, but did not elucidate a standard that could be used to determine whether other confidentiality agreements were sufficient.⁵³

Similarly, the treatment of information stored on computer media is inconsistent and difficult to predict. In Servomation Mathias, Inc. v. Englert, the court held that lapses in the company's security program-through no direct fault of its own-would have made it very difficult for the company to prevail on the ultimate merits of its claim and, therefore, denied a request for a preliminary injunction.⁵⁴ On the other hand, computer systems that are password protected are sometimes, but not always, held to be reasonable secrecy precautions sufficient to protect the trade secret.⁵⁵ For example, in Superchips Inc. v. Street & Performance Electronics Inc., both password protection and encryption of the key data were required for the court to find that reasonable secrecy precautions had been taken.⁵⁶ And in A.M. Skier Agency, Inc. v. Gold, the court concluded that merely password protecting data in a computer was strong evidence that the plaintiff had taken reasonable secrecy precautions in order to protect the trade secret.⁵⁷ In contrast, in Softchoice Corp. v. MacKenzie, information that was held under lock and key and password protected when stored on computers was not held to be the subject of reasonable secrecy precautions.⁵⁸ And in Southwest Stainless, LP v. Sappington, even though the employer did password protect its trade secret among other secrecy precautions, other conduct by the employer was sufficient to defeat its trade secret protection.59

Similarly, sometimes courts will distinguish between information on a computer disclosed to some parties but not others—that is to say, between members of a joint venture, but not other outside parties. In *General Universal Systems, Inc. v. Lee*, the court did distinguish between information disclosed to third parties to the lawsuit and information disclosed to the defendant, leading to its decision to reverse the trial court.⁶⁰

Courts also apply the trade secrecy standards inconsistently in cases that examine what structural precautions in their manufacturing process the

^{52. 50} F. Supp. 2d 460, 480 (D. Md. 1999).

^{53.} Id.

^{54. 333} F. Supp. 9, 15 (M.D. Pa. 1971).

^{55.} See, e.g., Movie Gallery US, L.L.C. v. Greenshields, 648 F. Supp. 2d 1252, 1264 (M.D. Ala. 2009).

^{56.} No. 6:00-CV-896-ORL31KRS, 2001 WL 1795939, at *5 (M.D. Fla. Dec. 6, 2001).

^{57. 747} A.2d 936, 941 (Pa. Super. Ct. 2000).

^{58. 636} F. Supp. 2d 927, 939-40 (D. Neb. 2009).

^{59. 582} F.3d 1176, 1189-90 (10th Cir. 2009).

^{60. 379} F.3d 131, 151 (5th Cir. 2004).

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plaintiff had taken. In Pressure Science, Inc. v. Kramer, the plaintiff took numerous security precautions, including installing an alarm system that rang in the local police station in case of a break-in or other unauthorized entry.⁶¹ However, the court denied the plaintiff's request for an injunction, in part due to large sliding glass windows that would have allowed people already inside the building to see the manufacturing process, even though the defendant accessed the trade secret through unauthorized entry.⁶² Similarly, in another case, the plaintiff built high walls and fences to keep out all individuals who might become interested in knowing how it manufactured its product, employed watchmen, instructed all of its foremen to exclude all persons from the premises who might be of an inquiring nature, had general rules that no one should be admitted to its plant or grounds unless they had a pass expressly given by the company for admission, and had its chemists and the former employee under contract not to disclose its supposed secrets.⁶³ Nevertheless, due to extrinsic factors like accidental third party disclosure incidental to the events of the lawsuit, their cause of action for damages was dismissed.⁶⁴

Conversely, in *Plant Industries, Inc. v. Coleman*, the court held that the reasonable security precautions requirement was met because there was testimony that there were several signs on entrances to the plant and properties denying admittance thereto and because an employee of the manufacturer testified that he had had difficulty in getting into the subsidiary's plant to speak with an employee there.⁶⁵ And in another case, even the fact that the plaintiff had considered the way that its plant might be constructed to maintain a trade secret at all was sufficient evidence that they had taken reasonable security precautions.⁶⁶

The wild disparity between what courts have considered to be and not to be reasonable secrecy precautions with regard to trade secrets has found a partial answer, however, in one Illinois case whose correct reasoning was subsequently overruled. In *Rockwell Graphic System, Inc. v. DEV Industries Inc.*, the court undertook a significant analysis of the costs and benefits of the trade secret protection engaged in by the plaintiff.⁶⁷ The Seventh Circuit, however, declined to follow the reasoning undertaken by Judge Ann Williams of the Northern District of Illinois and reversed the grant of summary judgment, in part because of the brevity of the trial court opinion, noting that "[i]f trade secrets are protected only if their owners

^{61. 413} F. Supp. 618, 627 (D. Conn. 1976).

^{62.} Id. at 627, 629.

^{63.} Victor Chemical Works v. Iliff, 132 N.E. 806, 812 (Ill. 1921).

^{64.} Id. at 813.

^{65. 287} F. Supp. 636, 642-43 (C.D. Cal. 1968).

^{66.} Julius Hyman & Co. v. Velsicol Corp., 233 P.2d 977, 999 (Colo. 1951).

^{67.} See 730 F. Supp. 171, 179 (N.D. Ill. 1990), rev'd, 925 F.2d 174 (7th Cir. 1991).

take extravagant, productivity-impairing measures to maintain their secrecy, the incentive to invest resources in discovering more efficient methods of production will be reduced, and with it the amount of invention."⁶⁸ Although the Illinois bar subsequently praised the trial court's decision in *Rockwell*,⁶⁹ nothing much seems to have come of it since 1992; courts are still applying vertiginously divergent approaches to the reasonable secrecy precautions requirement.⁷⁰

C. The Law and Economics Approach to Trade Secret Law

The most authoritative essay on the subject of the law and economics approach to trade secret law is *The Economics of Trade Secrecy Law* by William Landes and Judge Richard Posner in their larger book, *The Economic Structure of Intellectual Property Law*.⁷¹ This Comment will draw heavily on their model for trade secret law, which is reproduced *infra*. Their model assumes that a trade secret can be lost through the firm either inadvertently disclosing it or by one of its competitors taking steps to misappropriate the secret.⁷² While this Comment is primarily focused on the litigation that ensues if a competitor or other third party misappropriates the trade secret, the model holds true nevertheless.⁷³

Let *L* be the cost to the firm of losing the trade secret either through inadvertent disclosure or to misappropriation.⁷⁴ Let *p* be the probability that the firm will lose the trade secret to a competitor or third party who misappropriates it, given the firm's current measures to preserve the secrecy.⁷⁵ Let *x* be the amount of money that the firm spends to prevent loss to a third party misappropriating its secret.⁷⁶ Let *q* be the probability that the firm will accidentally disclose the trade secret to a third party without an actionable common law wrong given its current expenditures to prevent that occurrence.⁷⁷ Finally, let *y* equal the amount of money the firm

^{68.} *Rockwell*, 925 F.2d at 180.

^{69.} See, e.g., David R. Ganfield II, Protecting Trade Secrets: A Cost-Benefit Approach, 80 ILL. B. J. 604, 634 (1992).

^{70.} For a comprehensive consideration of what have and have not been considered to be reasonable secrecy precautions in the past, see Alois Valerian Gross, Annotation, *What Is "Trade Secret" so as To Render Actionable Under State Law Its Use or Disclosure by Former Employee*, 59 A.L.R.4TH 641 (1988).

^{71.} WILLIAM M. LANDES & RICHARD A. POSNER, THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW 354-71 (2003).

^{72.} Id. at 365.

^{73.} *Id*.

^{74.} *Id.* at 366.

^{75.} *Id*.

^{76.} *Id*.

^{77.} Id.

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spends to prevent accidental disclosure.⁷⁸ The expected loss-denoted L^* —in money to a firm that wants to minimize the financial loss it takes can therefore be represented:

 $L^{*} = [p^{*}x^{*}(1-q^{*}y) + q^{*}y^{*}(1-(p^{*}x)) + q^{*}y^{*}p^{*}x]^{*}L + x + y^{.79}$

If the firm wants to minimize its expected loss, the firm will want to chose an x and a y—the total amount of money that it spends to prevent its trade secret from being disclosed to a third party—such that:

 $P_x(1-q)L + 1 = 0^{80}$ and such that $q_y(1-p)L + 1 = 0^{.81}$

The upshot of all of this is that if a firm were able to exactly predict the probability of the loss of its trade secret, it would be able to choose with exact certainty the minimum amount of money that they should spend in order to protect its trade secret.⁸² This certainty, in turn, would allow it to invest its money the most efficiently; not a penny would be wasted, and it could in turn reinvest that money in other areas like further innovation.⁸³

This model is fairly idealized: this Comment will demonstrate infra that the current law makes it impossible with its interpretation of the "reasonable secrecy precautions" requirement for at least two reasons. The first problem is that courts currently do not apply the reasonable secrecy precautions requirement uniformly. In the model supra, the precautions should be represented by x and y, which are modified by the probability variables in p and q^{84} . Under the current law, it is impossible to say what x and y should be, regardless of what is the most efficient—the relationships between p and x and y and q are basically arbitrary.⁸⁵ The court will—or will not-give a legal remedy to the injured party based on how it subjectively interprets the requirement.⁸⁶ In fact, it may even err on the other side: the court may actually unfairly reward a party that does not take the most efficient steps to protect its trade secret by nevertheless granting that party a remedy. Thus, a court can distort the market by rewarding inefficient behavior or by punishing efficient behavior. It can choose winners and losers arbitrarily.

The second problem is that courts generally do not distinguish between money spent to keep the trade secret safe from accidental disclosure and money spent to keep the trade secret safe from misappropriation by third parties.⁸⁷ Therefore, a firm can spend an

^{78.} Id.

^{79.} Id. 80. Id. at 367.

^{81.} Id.

^{82.} See generally id.

^{83.}

See generally ROBERT C. APPLEBY, MODERN BUSINESS ADMINISTRATION (6th ed. 1994).

^{84.} LANDES & POSNER, supra note 71, at 365.

^{85.} See id. at 360.

^{86.} See supra Part II.B.

^{87.} LANDES & POSNER, supra note 71, at 365.

arbitrarily high amount of money to protect itself from accidental disclosure but very little to protect itself from misappropriation and still lose the right to a remedy from misappropriation of its secret.⁸⁸ This failure to distinguish between two separate forms of disclosure that would be protected against in distinct ways does not reflect the reality of trade secret law and thus can be unfair in application.

As this Comment will demonstrate *infra*, the point of these proposed reforms is to stabilize the system and thus make trade secrecy protection more efficient and more in line with the policies that underlie intellectual property law generally. If courts allow firms and entrepreneurs to make decisions in the most rational economic way while still granting protection to their valuable trade secrecy rights, they could eliminate unfair results and market-distorting verdicts that impede entrepreneurship.

III. ANALYSIS

The remainder of this Comment will examine what should be done to the trade secret model in order to make it a more equitable way of resolving these disputes. It will begin by examining the policies behind intellectual property and tort law in American jurisprudence and attempting to synthesize them. Because trade secret law is a hybrid between both fields, developing a solution that embraces the policies that underlie both fields is a necessary step in evaluating whether any proposed solution would be a helpful change in the law. This Comment will then turn to examining how the current statutory language deviates from the ideal model espoused by Landes and Posner in The Economics of Trade Secret Law. Next, this Comment will propose two alternative solutions to the current model and examine their strengths and weaknesses as replacements for the current paradigm. It will then consider ways that those changes could be implemented into the UTSA or into common law in the states that have not enacted the UTSA.

A. Policies Behind Intellectual Property and Tort Law in America: Against What Standard Should a Proposed Solution Be Evaluated?

As noted *supra*, trade secret law is a synthesis of intellectual property law and tort law.⁸⁹ Although it grew out of the tort law that governs competition between businesses, as intellectual property law became more developed and trade secrets began to be viewed as valuable business assets

^{88.} See supra notes 61-64 and accompanying text.

E. I. DuPont de Nemours Powder Co. v. Masland, 244 U.S. 100, 102 (1917); 1 ROGER M. MILGRIM, MILGRIM ON TRADE SECRETS § 2.01 (2011).

in their own right, trade secret law began to take on aspects of the law concerning other intangible businesses assets like patents, copyrights, and trademarks.⁹⁰ Thus, the policies that underlie trade secret law are something of a hodgepodge of the policies that underlie intellectual property and tort law, and a solution to this problem of vagueness in application of the "reasonable secrecy precautions" requirement should take into account a synthesized policy that accommodates all of those considerations.

To explain fully the policies that underlie intellectual property law in America would be beyond the scope of this Comment, but a summary should suffice to make the point. Generally, intellectual property scholars see three philosophical bases that govern intellectual property.⁹¹ The first of these is the "labor" theory, which is an application of John Locke's theory of property.⁹² John Locke wrote that people begin to own property when they mix their labor (hence the name) with resources found in nature.⁹³ For example, someone could come to own a piece of farmland that no one else already owned—by building a fence around it, tilling the land, and using it to grow crops.⁹⁴ Applying this concept to intellectual property, inventors could come to own a patent by using their natural abilities to create a new, useful invention out of the tools they already have available to them.⁹⁵

A second theory of intellectual property is the "identity" theory, which derives from the writings of continental European philosophers like Immanuel Kant and Georg Hegel.⁹⁶ Under that theory, intellectual property focuses on the personal relationships that develop between the people that create creative works and the works themselves.⁹⁷ Intellectual property scholars who favor the identity theory argue that people should be granted rights to protect their intellectual property because, in some sense, it becomes a part of them, synonymous with their identity.⁹⁸ For example, a scholar applying the identity theory would argue that John Lennon should have unlimited rights to determine how his seminal song *Imagine* is used in

98. Id.

^{90.} MILGRIM, *supra* note 89, § 2.01.

^{91.} See generally Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287 (1988) (discussing the "labor" and "identity" theories of intellectual property).

^{92.} *Id* at 296.

^{93.} Id.

^{94.} Id.

^{95.} *Id.* at 300.

^{96.} Id. at 330. For a more modern summation of Hegelian thought about identity and its application to intellectual property, see generally Margaret Jane Radin, *Property and Personhood*, 34 STAN. L. REV. 957, 957 (1982) (describing the relationship between personhood and property as "a relationship that has been commonly both ignored and taken for granted in legal thought").

^{97.} Hughes, supra note 91, at 330.

because, as his property, they are a part of him. Finally, the third—and simplest—major theory of intellectual property is the utilitarian theory.⁹⁹ This theory is generally the view taken by American courts, which rely on Article I, Section 8 of the Constitution.¹⁰⁰ Under the utilitarian view, the purpose of granting protection to intellectual property holders is to reward their innovation in creating it by giving them a monetary reward in the form of an artificial monopoly.¹⁰¹ Thus, someone who holds a trade secret, under this view, is the only one allowed to use it.¹⁰² This means that that person has a valuable financial resource not available to anyone else, and therefore, they can sell it on the market for whatever it brings them.¹⁰³ This creates a market for intellectual property into which trade secrets can fit because they must be economically valuable even to qualify for trade secret protection in the first place.¹⁰⁴ The more intellectual property that exists in the marketplace, the larger and more profitable the market will be, which in turn creates opportunities for people to create jobs, pay taxes, and generally contribute to commerce.

As with intellectual property law, to fully explain the policies behind tort law is beyond the scope of this Comment, but a summary should suffice. Tort law serves three important functions in our legal system.¹⁰⁵ The first major policy is to deter people from engaging in socially undesirable conduct by giving them monetary penalties to prevent them from doing so again in the future, as well as to preemptively prevent such conduct by raising the possibility of substantial monetary penalties.¹⁰⁶ Under this policy, people are deterred from stealing each other's trade secrets because they may be forced to pay any profit they would have made from selling them, and perhaps substantial additional penalties, to the rightful owner of the secret.¹⁰⁷

Another major policy underlying tort law is to provide compensation to the victims of socially undesirable conduct by making them whole.¹⁰⁸

See generally Peter S. Menell, Intellectual Property: General Theories, in ENCYCLOPEDIA OF 99 LAW AND ECONOMICS 129, 129-56 (Boudewijn Bouckaert & Gerrit De Geest eds., 2000).

^{100.} Id. at 130.

^{101.} Id.

^{102.} Id.

^{103.} Id.

^{104.} Id.

^{105.} See generally Thomas C. Galligan, Jr., Deterrence: The Legitimate Function of the Public Tort, 58 WASH. & LEE L. REV. 1019 (2001) (discussing deterrence as a tort policy specifically in the context of torts of public law).

^{106.} See id. at 1031-32.

^{107.} See id.

^{108.} See generally 1 J.D. LEE & BARRY LINDAHL, MODERN TORT LAW § 1:3 (2d ed. 2011) (discussing the historical origins of tort law in Anglo-Saxon culture as a means of compensating victims of others' violence).

Usually, this policy takes the form of monetary compensation.¹⁰⁹ But particularly in trade secret law, injunctions are issued in equity in order to protect the victim of the tort from further harm.¹¹⁰ The object of the majority of trade secret cases is to secure an injunction.¹¹¹

A third policy underlying tort law is to allocate loss to the party either most responsible for it or best able to bear it.¹¹² In trade secret, this policy underlies the idea that if a party fails to take reasonable secrecy precautions in order to protect their property, the risk of loss is best placed on them.¹¹³ This view has the secondary effect of encouraging trade secret holders not to "sleep on their rights"—not to create a greater risk of loss through their own negligence.¹¹⁴

Therefore, a solution to a problem in trade secret should take into account those policies. It should make it possible to fully compensate the victims of trade secret misappropriation through the legal process, and it should make sure that those who sleep on their rights do not have the opportunity to push the risk of loss that they themselves created onto a third party. However, it should preserve the risk and reward system that underlies all other intellectual property—the ability of those who create valuable intellectual property to profit from their effort—and thus encourage them to continue creating intellectual property. This effect, in turn, will help the overall economy by giving more opportunities to create commerce and employment.

The model proposed by Landes and Posner is a mathematical expression of the ideally efficient amount of money to spend protecting one's trade secret.¹¹⁵ For several reasons, therefore, it is the best way to measure what a trade secret holder should spend to protect their secret.¹¹⁶ Forcing people to spend more money than the ideally efficient amount prevents them from ever being fully compensated for any misappropriation that they suffer, because while they would recover for it, they would still have invested more money than they should have had to in order to reach that recovery. It also forces them away from a pure market system: by forcing them to invest more than the level of efficiency, they have less

^{109.} Id.

^{110.} Id.

^{111.} P. Jerome Ritchey & Pamela A. McCallum, Enforcement of Trade Secret Rights and Non-Competition Agreements, 2002 A.B.A. Reg. Inst. Labor and Employment Law, available at http:// www.americanbar.org/content/dam/aba/events/labor_law/basics_papers/tradesecrets/ritchey.auth checkdam.pdf.

^{112.} Id.

^{113.} See generally Joost Blom, Tort, Contract, and the Allocation of Risk, 17 SUP. CT. L. REV. 289 (2002) (discussing Canadian tort law).

^{114.} See general id.

^{115.} LANDES & POSNER, supra note 71, at 360.

^{116.} Id.

money to spend on further innovation or other necessary steps in order to achieve the reward they earn by innovating.

Conversely, allowing market participants to spend less than the ideally efficient amount allows them to artificially create a risk of loss of their trade secret.¹¹⁷ Under the policies that govern tort law, the system should not allow them to "sleep on their rights" in that manner and push that risk of loss off onto another actor in the system. For those reasons, the standard elucidated by Landes and Posner remains the ideal standard to adopt for trade secret protection.

B. The Current Standard of Intellectual Property Law Fails To Differentiate Between Loss Suffered Through Accidental Misappropriation and Loss Suffered Due to Deliberate Misappropriation

Currently, the standard to recover in trade secret law does not differentiate between reasonable secrecy precautions that seek to prevent loss from accidental disclosure of the trade secret and loss suffered because of a deliberate misappropriation by the third party. This failure to differentiate is a notable departure from the Landes and Posner model, which gives separate terms for each sort of misappropriation and treats them separately.¹¹⁸

Failing to distinguish between losing trade secrets in those ways is unrealistic in terms of how businesses make decisions, although some actions to prevent disclosure of trade secrets can overlap with those needed to protect from deliberate misappropriation. As it stands, however, the UTSA and the Restatement merely refer to actions that are "reasonable under the circumstances," without regard to what the circumstances might be.¹¹⁹ "Reasonable under the circumstances" could easily lead to an interpretation in which an actor takes steps to prevent accidental disclosure but fails to take steps to prevent deliberate misappropriation and is precluded from recovery at all.

Under the policy of not allowing plaintiffs to shift the risk of loss for their own negligence, such a result is probably valid because, arguably, someone who fails to prevent a foreseeable deliberate misappropriation should not recover. However, tort law usually distinguishes between people who are the victims of intentional misconduct and those who are the victims of simple negligence.¹²⁰ Victims of intentional misconduct are

^{117.} Id.

^{118.} See id. at 366.

^{119.} UNIF. TRADE SECRETS ACT § 1(4)(ii) (1985); RESTATEMENT (FIRST) OF TORTS § 757 (1939).

^{120.} See 1 LEE & LINDAHL, supra note 108, § 3:1 ("Society has long recognized that restitution must be made even for conduct with unintended consequences and for wrongs not intentionally inflicted").

usually not precluded from recovery simply because they failed to prevent it. $^{121}\,$

Splitting the categories into "taking reasonable secrecy precautions to prevent accidental disclosure" and "taking reasonable secrecy precautions to prevent foreseeable deliberate misappropriation," therefore, would be a welcome and helpful change that would bring trade secret law more in line with other forms of tort. It would also make it generally easier for plaintiffs to recover in trade secret actions, which would also serve the general intellectual property theory of providing a return for invention. Finally, it would prevent skewed results in cases where the parties do not consider that their secret might be the subject of deliberate misappropriation.

C. The Current Model of Trade Secret Jurisprudence Is Skewed Because It Creates an Arbitrary Relationship Between Money Invested and the Result of Litigation

The fundamental problem from the law and economics perspective with the current system of trade secret jurisprudence is that it prevents the creation of a natural relationship between investment of resources and return on the investment—that is to say, it does not matter how much money a firm invests in trade secret protection because the court could, without warning, simply conclude that that investment was not of the correct kind.¹²²

Experiencing a result of that kind creates economic loss for the firm that suffers it. For example, if SuperTech spends \$5000 protecting a trade secret worth \$100,000 to it, but only had to spend \$3000 to achieve the result it would have desired in the trade secret litigation, SuperTech has wasted \$2000 on protection. That \$2000 is money that SuperTech might otherwise have invested in its products or in other administrative necessities. It might also have chosen to expand its business or began new product lines, which might have involved it creating greater technological innovation. Of course, had it lost its case because the court determined that it should have taken measures that cost \$10,000, not only would it have lost its \$100,000 trade secret, but it also spent \$5000 on measures that ultimately proved fruitless. It would therefore have lost \$105,000. While it would certainly prefer to lose only the \$2000 from overspending, SuperTech has no way to know which situation it will fall into ahead of time. Similarly, any attorney advising SuperTech will be unable to come up with a plan to address its needs with full confidence.

^{121.} Id.

^{122.} See supra notes 54-59 and accompanying text.

Current trade secret law, therefore, is inconsistent with the policies that underlie intellectual property law, especially the utilitarian theory,¹²³ because it can actually decrease the incentives to invest in new technology. SuperTech would have lost over \$100,000 in the worst case of that situation—hardly an incentive to develop trade secrets and new technologies.

D. The Problems with the Reasonable Secrecy Precautions Requirement Can Be Fixed by Adopting a Standard Based on the Landes and Posner Model

Until now, this Comment has outlined the ways modern trade secret law has strayed from the ideal version set out in the Landes and Posner model.¹²⁴ The remainder of this Comment will seek to develop a way that the current model could be adjusted to take its effect into account.

One way to do so would be to take the mathematically derived ideal quantities that the model yields when it is solved for $P_x(1-q)L + 1 = 0^{125}$ and $q_y(1-p)L + 1 = 0$.¹²⁶ Again, solving for those quantities gives the minimum amount that a firm should spend to protect its secrets from accidental disclosure and from deliberate misappropriation, respectively, based on the probability the secret will be disclosed and the amount of money that the secret is worth.¹²⁷ For example, if SuperTech had a secret that would cost the firm \$100,000 if lost and the probability that it would be disclosed from each source is 5%, the amount that it should spend on trade secret protection is 9502-(5%*95%*100,000) + 1 + 1 + (5%*95%*100,000).

Perhaps the most obvious benefit of this method is that it yields an exact and unequivocal amount of money that SuperTech or any other firm should spend to protect its secret. This answer is exact, and it should be the definition of what would be "reasonable under the circumstances," in the language of the UTSA section that defines what level of protection is required to protect a trade secret.¹²⁸ On the court's end, it requires no consideration of where the sliding glass doors were placed in the manufacturing facility¹²⁹ or whether the firm spent enough on cloud servers in order to keep its data secure.

^{123.} See Menell, supra note 99 at 160.

^{124.} LANDES & POSNER, supra note 71, at 360.

^{125.} Id. at 367.

^{126.} Id.

^{127.} Id.

^{128.} UNIF. TRADE SECRETS ACT § 1(4)(ii) (1985).

^{129.} See Pressure Sci., Inc. v. Kramer, 413 F. Supp. 618, 627 (D. Conn. 1976).

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Additionally, this solution would have the benefit of producing a perfectly efficient allocation of SuperTech's resources, which for the reasons discussed *supra*, would have a beneficial effect in the short-term on SuperTech's prospects for success as a start-up¹³⁰ and, in the aggregate, would be good for the economy as a whole because resources would not be wasted on unnecessary protection.¹³¹ SuperTech and its fellow technology start-ups would have the freedom to reinvest their capital into further developing technology, which would further spur economic growth through innovation.¹³² This result would further support the utilitarian theory of intellectual property because more money reinvested in capital would further spur technological innovation.¹³³ This effect is particularly true because the people who have already invested money in technological innovation—here, SuperTech—are more likely to be able to decide how to most effectively further allocate it to produce new technological innovation.¹³⁴

On the other hand, however, this model has downsides when applied to practical trade secret law. One such relatively minor downside is that it would require courts to make a determination of how much it would cost the firm if the trade secret was lost in order to use the model. Most parties should be able to make a good-faith estimation of this valuation—they should have made some sort of calculation in order to determine whether to make the investment in the first place. However, for relatively unsophisticated parties, this valuation may be more of a hurdle.

The major barrier to this solution, however, is the requirement that the court determine the probability of loss both from accidental disclosure of the trade secret and from deliberate misappropriation.¹³⁵ Currently, no empirical studies exist that show the actual probability of disclosure from both sources, and it is probable that each situation would be highly individualized. One way to solve this problem is to make an assumption about what the probability of disclosure amounts to, as this Comment did *supra* in the hypothetical. But the risk that this solution runs is that it would be a return to the arbitrary nature of the system: while it would be closer to the ideal model, it would still be arbitrary. Making an assumption about the risk might again punish plaintiffs who actually did invest enough money or

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^{130.} Beckerman-Rodau, supra note 6, at 404-05.

^{131.} See generally MANKIW, supra note 5.

See generally Growth Through Innovation, BROOKINGS INST., http://www.brookings.edu/topics/ growth-through-innovation.aspx (last visited March 30, 2012).

^{133.} Menell, supra note 99, at 131.

^{134.} *See generally id.* Non-hypothetical examples of this phenomenon include Microsoft and other large technology companies, which were able to reinvest the capital efficiently and thus increase their market share even further.

^{135.} LANDES & POSNER, supra note 71, at 367.

reward plaintiffs who, through their own fault, did not invest enough and thus pushed the risk of their own loss onto third parties.

E. Alternatively, Some of the Problems with the Reasonable Secrecy Precautions Requirement Can Be Fixed by Adopting a "Reasonable Industry Actor" Standard

If the NCCUSL chose not to adopt a standard based on the Landes and Posner model, they could instead adopt a standard that would be more in line with the rest of tort law.

One way to do that would be to adopt a "reasonable industry actor" standard. Instead of being based on what would be "reasonable under the circumstances,"¹³⁶ this model would be based on what a reasonable person in the industry would have done to protect the trade secret against disclosure under the circumstances. It would in that respect be very similar to the duty of care analysis undertaken in a negligence case.¹³⁷

This standard, then, would look very similar to the cost/benefit analysis applied by the Northern District of Illinois and later by the Seventh Circuit in *Rockwell*.¹³⁸ Similarly, this was the standard advocated by David Ganfield in his article for the Illinois Bar Journal.¹³⁹ This standard has a lot of positive points: it most closely mirrors human behavior and—as much as possible—creates economic efficiency.¹⁴⁰ It does not require trade secret plaintiffs to go to extreme lengths to protect their secrets, and conversely, it forces them to take any action whose benefit to the plaintiff would outweigh its costs.¹⁴¹ Additionally, it would be relatively easy to make the calculations involved, similarly to the ease with which Judge Learned Hand was able to make the calculations in *Carroll Towing*.¹⁴²

On the other hand, this model has its own risks. One such risk is that it might increase the cost of trade secret litigation by introducing the need for expert testimony to support a plaintiff's assertion that they had taken the

United States v. Carroll Towing Co., 159 F.2d 169, 173 (2d Cir. 1947).

^{136.} UNIF. TRADE SECRETS ACT § 1(4)(ii) (1985).

^{137.} For an example of this analysis, see Judge Learned Hand's "calculus of negligence" in United States v. Carroll Towing. Hand laid out this analysis as follows:

Since there are occasions when every vessel will break from her moorings, and since, if she does, she becomes a menace to those about her; the owner's duty, as in other similar situations, to provide against resulting injuries is a function of three variables: (1) The probability that she will break away; (2) the gravity of the resulting injury, if she does; (3) the burden of adequate precautions.

^{138.} Rockwell Graphic Sys., Inc. v. DEV Indus., Inc., 730 F. Supp. 171, 178-79 (N.D. Ill. 1990), *rev'd*, 925 F.2d 174 (7th Cir. 1991).

^{139.} Ganfield, *supra* note 69, at 607.

^{140.} Id.; Rockwell, 925 F.2d at 180.

^{141.} Rockwell, 925 F.2d at 180.

^{142.} Carroll Towing, 159 F.2d at 173.

actions a "reasonable industry actor" in their situation would have. Such experts are already necessary in other common torts causes of action, such as medical malpractice cases.¹⁴³ The defense will necessarily wish to introduce expert testimony in response to the plaintiff's expert.¹⁴⁴ The necessity to hire experts to testify in medical malpractice cases is generally agreed to have increased the cost of litigation of those cases.¹⁴⁵

F. Some Sample Language for an Amendment to the UTSA

In order to implement these solutions, the NCCUSL should amend Section 1(4)(ii) of the UTSA to read: "is the subject of efforts to preserve its secrecy from (i) accidental disclosure and (ii) deliberate misappropriation combined that exceed the probability of its loss from each source multiplied by a reasonable approximation of the value of the trade secret."

This language neatly captures the distinction between the two types of loss and sets a very accessible value for businesses to use and planning attorneys to advise their clients against. If necessary, the drafters could supplement the language in the section with a comment establishing any rebuttable presumptions of risk of loss in order to make the calculations and implementation easier. Currently, however, more research is necessary to determine what those presumptions should be.

IV. CONCLUSION

For the forgoing reasons, the current standard against which courts evaluate the "reasonable secrecy precautions" requirement to evaluate trade secrets is flawed and should be changed. Fortunately, because of the prevalence of the UTSA, a large-scale change would be relatively easy to implement through an amendment to the section that defines the reasonable secrecy precautions requirement. Making these changes would produce a trade secret system that functions as a strong alternative to patent protection, more realistically interacts with how actual businesses and attorneys use trade secret protection, and is as economically efficient as is attainable under current predictive capability. These reforms would replace a system that functions as a distant second choice for those who cannot afford patent protection, produces arbitrary results that harm plaintiffs, and

See generally H.H. Henry, Annotation, Necessity of Expert Evidence To Support an Action for Malpractice Against a Physician or Surgeon, 81 A.L.R.2D 597 (1962).

^{144.} See generally id.

^{145.} See Emily Chow, Note, Health Courts: An Extreme Makeover of Medical Malpractice with Potentially Fatal Complications, 7 YALE J. HEALTH POL'Y L. & ETHICS 387 (2007) (discussing the idea of responding to those increased costs using specialty "health courts").

is economically inefficient because it produces deadweight loss from investments that plaintiffs make to protect their property rights and thus improve the economy.