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The General Knowledge, Skill, and Experience Paradox

Camilla A. Hrdy

University of Akron School of Law, chrdy@uakron.edu

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CAMILLA A. HRDY

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THE GENERAL KNOWLEDGE, SKILL, AND EXPERIENCE PARADOX

CAMILLA A. HRDY*

Abstract: Can employers use trade secret law to prevent employees from using knowledge and skills they acquired on the job? Courts in all fifty states say no—an employee’s general knowledge, skill, and experience cannot be protected as a trade secret. Yet a benchmark principle of trade secret law is that employers can share trade secrets with employees so long as they take reasonable measures to preserve the information’s secrecy. The result is a paradox that runs to the heart of trade secret law: employers are encouraged to communicate trade secrets to employees, but this information loses protection if it becomes part of those employees’ unprotectable general knowledge, skill, and experience. This Article traces the roots of this doctrine in the common law and shows how it has been incorporated, though never actually codified, in statutes, including the Defend Trade Secrets Act of 2016. As originally construed, the general knowledge, skill and experience exclusion was intended to preserve an employee’s right to improve her skills on the job and thereafter transfer those skills to a different job or business endeavor. Trade secret law was thus interpreted not to encompass information that an employee needed in order to continue working in her profession. This Article reveals that, despite longstanding recognition of the doctrine, courts today misapply and misunderstand it. Rather than separately assessing whether claimed trade secrets constitute an employee’s unprotectable general knowledge, skill, and experience, many courts simply assess whether the information is generally known to others outside the company or was previously known to the employee before she took the job—and stop there. Courts therefore miss the category of information that, while technically secret to a company, is nonetheless unprotectable. Such oversights stymie the development of trade secret law and have potentially devastating effects for employee-defendants, who may be prevented from taking a new job even when they have not signed a non-competition agreement.

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* Associate Professor of Law, University of Akron School of Law; Affiliated Fellow, Yale Law School Information Society Project. With thanks to David Almeling, Daniel Brean, Kenneth Corsello, Brian Lee, Rebecca Eisenberg, Charles Tait Graves, Orly Lobel, Robert Merges, James Pooley, Sharon Sandeen, Jake Sherkow, and Rebecca Wexler, and thanks to all participants in the Junior IP Scholars Association (JIPSA) workshop at William & Mary, each of whom is (foot)noteworthy: Tabres Ebrahim, Cathay Smith, Nicholson Price, Roger Ford, Sarah Rajec, Dmitry Karshtedt, Ana Rutschman, Sarah Burstein, Andres Sawicki, and Bryan Whipkey. With thanks for valuable research assistance by Matthew Gehring and tremendous editing from Janine Hanrahan and Eric Sherman and the *Boston College Law Review*. Thanks most especially to Victoria Cundiff, whose support throughout this project has been invaluable.

INTRODUCTION

The story has entered trade secret canon. In 2007, when Google’s self-driving car project (now known as Waymo) was getting underway, the company hired a roboticist and engineer named Anthony Levandowski.¹ Levandowski’s job was to help Google develop Light Detection and Ranging (LiDAR) for Waymo cars.² LiDAR are the laser scanners placed on the tops of the cars.³ They are essential because they enable autonomous vehicles to “see” objects in the road.⁴ In 2016, after nearly ten years on Google’s payroll learning from Google’s experts, Levandowski left Google, launched a new start-up, and sold it for \$680 million to Uber Technologies, Waymo’s major competitor in the self-driving car space.⁵ Uber then hired Levandowski as the head of Uber’s self-driving car team.⁶ A number of other Waymo driverless car team employees resigned to join Uber as well.⁷ Levandowski’s goal, in his own words, was to “replicate” Waymo’s technology on behalf of Uber—that is why he secretly downloaded 14,000 pages of Waymo files when he left.⁸ Due to a misdirected e-mail, however, Waymo learned what was happening, and immediately sued Uber in federal district court in the Northern District of California for misappropriation of trade secrets, seeking an injunction forcing Uber to stop using Waymo secrets and return all Waymo property.⁹

It was, it seemed, the most egregious case of trade secret theft in Silicon Valley. As Judge William Alsup put it in an early hearing: “You don’t get many cases where there is pretty direct proof that somebody downloaded 14,000 documents, and then left the next day.”¹⁰ Judge Alsup granted, in short order, Waymo’s request that Uber “immediately . . . remove [Levandowski] from any role or responsibility pertaining to LiDAR” and “take all steps in their power

¹ See First Amended Complaint ¶ 4, Waymo LLC v. Uber Techs., Inc., No. 3:17-cv-00939 (N.D. Cal. Mar. 10, 2017) [hereinafter Am. Compl.] (describing Levandowski as a leader of Waymo’s efforts to create a self-driving car); Mark Harris, *God Is a Bot and Anthony Levandowski Is His Messenger*, WIRED (Sept. 27, 2017), <https://www.wired.com/story/god-is-a-bot-and-anthony-levandowski-is-his-messenger/> [<https://perma.cc/W6D5-SMP3>] (discussing Levandowski’s 2007 hire as part of a team of engineers).

² Harris, *supra* note 1.

³ Am. Compl., *supra* note 1, ¶ 2.

⁴ *Id.*

⁵ *Id.* ¶¶ 5, 7, 55.

⁶ *Id.* ¶ 56.

⁷ *Id.* ¶¶ 6, 50–54.

⁸ *Id.* ¶ 42. These allegations are laid out in detail in Waymo’s complaint. See *id.* ¶¶ 42–49.

⁹ *Id.* ¶¶ 3 (discussing the inadvertent email), 66–148 (bringing causes of action under state and federal trade secret law as well as patent infringement and unfair competition).

¹⁰ Transcript of Proceedings at 20:5–7, Waymo LLC v. Uber Techs., Inc., No. 3:17-cv-00393 (N.D. Cal. Mar 17, 2017).

to prevent him from having any communication on the subject of LiDAR” with others at Uber.¹¹

Yet, as trial approached, Waymo’s case began to break down. For one thing, Waymo was having trouble proving that the 14,000 files or any other Google files ever made it to Uber.¹² Since Levandowski had invoked the Fifth Amendment and refused to explain what happened, this was a big problem for Waymo’s case.¹³ For another thing, it was becoming increasingly unclear whether any of the information Levandowski took actually constituted a trade secret. Uber contended that the information was well-known in the field of optics and had been disclosed to the public in patents and publicly available literature.¹⁴ Even assuming some information in the files was unknown outside Waymo’s walls, and economically valuable to others in the industry, Uber argued this was part of Levandowski’s “[g]eneralized knowledge and skill,” which he had “learned on the job,” and which Waymo could not legally protect as trade secrets.¹⁵ Indeed, in Uber’s telling, Levandowski’s tale was quite different from that sketched out above. Since 2004, Levandowski worked in the self-driving car industry.¹⁶ He was a named inventor on several of Waymo’s self-driving car patents—one of which Waymo was asserting against Uber in this very case.¹⁷ He was the founder of several companies.¹⁸ Maybe Levandowski was the guy who taught Google everything it knew about LiDAR. Maybe the law should not stop him from leaving to continue developing solu-

¹¹ Waymo LLC v. Uber Techs., Inc., No. C 17-00939 WHA, 2017 WL 2123560, at *13 (N.D. Cal. May 15, 2017).

¹² See generally Defendant’s Reply in Support of Motion for Summary Judgment, Waymo LLC v. Uber Techs., Inc., No. 3:17-cv-00393 (N.D. Cal. Sept. 18, 2017).

¹³ See Darrell Etherington & Kate Conger, *Uber’s Anthony Levandowski Invokes Fifth Amendment Rights in Waymo Suit*, TECHCRUNCH (Apr. 7, 2017), <https://techcrunch.com/2017/03/30/ubers-anthony-levandowski-invokes-fifth-amendment-rights-in-waymo-suit/> [<https://perma.cc/APU9-JQSQ>] (discussing Levandowski’s invocation of the Fifth Amendment and defense counsel’s assertion that Uber did not have the stolen documents).

¹⁴ Defendant’s Reply in Support of Motion for Summary Judgment, *supra* note 12, at 1–3.

¹⁵ See Defendants’ Memoranda of Law in Support of Disputed Jury Instructions at 24, Waymo LLC v. Uber Techs., Inc., No. 3:17-cv-00939 (N.D. Cal. Sept. 21, 2017) (“Generalized knowledge and skill that an employee learned on the job is not a trade secret.”); see also *id.* at 2 (“Some aspects of those systems are undeniably not trade secrets—instead, they may be ‘general engineering principles in the public domain and part of the intellectual equipment of technical employees.’” (quoting *Winston Research Corp. v. Minn. Mining & Mfg. Co.*, 350 F.2d 134, 139 (9th Cir. 1965))).

¹⁶ Harris, *supra* note 1.

¹⁷ Devices and Methods for a Rotating LiDAR Platform with a Shared Transmit/Receive Path, U.S. Patent No. 8,836,922; see also Am. Compl., *supra* note 1, ¶¶ 89–101 (alleging infringement of the ‘922 Patent).

¹⁸ Harris, *supra* note 1. Levandowski has founded yet another self-driving car company. See Anthony Levandowski, *Pronto Means Ready*, MEDIUM: PRONTO AI (Dec. 18, 2018), <https://medium.com/pronto-ai/pronto-means-ready-e885bc8ec9e9> [perma.cc/WPB5-ADLW]. He now asserts, however, that LiDAR is not the wave of the future and that progress to fully autonomous vehicles will be far slower than some had envisioned. *Id.*

tions for making self-driving cars work. In the end, Uber's lawyers were successful in urging the court to include a jury instruction explaining the rule that trade secrets "do not cover skills, talents, or abilities developed by employees in their employment even though they may be developed at the expense of the employer."¹⁹

We will never know what the jury would have decided, since the parties settled four days into the trial.²⁰ But Uber's defense highlights a foundational, yet largely misunderstood doctrine in trade secret law. It holds that trade secret law cannot be used to prevent employees who have not signed a non-competition agreement from using general skills, knowledge, training, and experience they acquired during the course of their employment for the benefit of a competing employer.²¹ Although the doctrine lacks a clear statutory hook in the language of either the Uniform Trade Secrets Act (UTSA),²² or the Defend Trade Secrets Act (DTSA),²³ courts,²⁴ restatements of law,²⁵ major treatises,²⁶ and academics all recognize its existence.²⁷

¹⁹ See Penultimate Jury Instructions on Trade Secret Misappropriation at 4, *Waymo LLC v. Uber Techs., Inc.*, No. 3:17-cv-00393 (N.D. Cal. Jan. 3, 2018).

²⁰ Alexandria Sage et al., *Waymo Accepts \$245 Million and Uber's 'Regret' to Settle Self-Driving Car Dispute*, REUTERS (Feb. 9, 2018), <https://www.reuters.com/article/us-alphabet-uber-trial/waymo-accepts-245-million-and-ubers-regret-to-settle-self-driving-car-dispute-idUSKBN1FT2BA> [perma.cc/ZX2P-YLFFJ]. Levandowski is now facing criminal charges of trade secret theft and attempted trade secret theft. See Camilla A. Hrdy, *Anthony Levandowski: Is Being a Jerk a Crime?*, WRITTEN DESCRIPTION (Sept. 8, 2019), <https://writtendescription.blogspot.com/2019/09/anthony-levandowski-is-being-jerk-crime.html> [https://perma.cc/47WD-EN4Q].

²¹ See *Van Prods. Co. v. Gen. Welding & Fabricating Co.*, 213 A.2d 769, 776 (Pa. 1965); *infra* notes 68–85 and accompanying text.

²² See UNIF. TRADE SECRETS ACT §§ 1–12 (UNIF. LAW COMM'N 1985). Nearly all states adopted some version of the Uniform Trade Secrets Act (UTSA). After the Defend Trade Secrets Act (DTSA) passed on May 11, 2016, plaintiffs obtained the opportunity to bring both state and federal claims. See DTSA, 18 U.S.C. § 1838 (2018) (excluding preemption of federal or state remedies).

²³ See *id.* §§ 1836–1839 (codifying the DTSA).

²⁴ See, e.g., *SI Handling Sys., Inc. v. Heisley*, 753 F.2d 1244, 1262 (3d Cir. 1985).

²⁵ See, e.g., RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 42 cmt. d (AM. LAW INST. 1995).

²⁶ See, e.g., 3 CALLMANN ON UNFAIR COMPETITION, TRADEMARKS & MONOPOLIES § 14:35 (4th ed. 2019).

²⁷ See ELIZABETH A. ROWE & SHARON K. SANDEEN, CASES AND MATERIALS ON TRADE SECRET LAW 108 (1st ed. 2012) [hereinafter ROWE, TRADE SECRET LAW] ("The general rule is that a former employee may use the general knowledge, skills, and experience acquired during his or her employment, even in competition with his or her former employer."); see also Joseph P. Fishman & Deepa Varadarajan, *Similar Secrets*, 167 U. PENN. L. REV. 1051, 1086–87 (2019) ("Trade secret subject matter . . . excludes information that is described in prior publications, generally known within an industry, readily ascertainable from commercialized products, or attributable to an employee's prior skill and expertise.") (emphasis added); Charles Tait Graves, *The Law of Negative Knowledge: A Critique*, 15 TEX. INTELL. PROP. L.J. 387, 392 (2007) [hereinafter Graves, *The Law of Negative Knowledge*] ("Where information is on the margin between secrecy and non-secrecy, the former employee's guiding principle, long established in trade secret law, is that he can use information that falls within his general skills, knowledge, training, and experience."); Douglas S. Liebafsky, *Industrial*

The rule appears to generate a simple dichotomy. It distinguishes between an employee's general knowledge, skill, and experience, which cannot be protected using trade secret law, and her employer's trade secrets, which can be protected using trade secret law. As one academic put it, general skills, knowledge, training, and experience serve as "a sort of loose shorthand for the corpus of information every employee may take from job to job," notwithstanding the strictures of trade secret law.²⁸

Yet upon closer reflection, it becomes clear that this limitation on trade secret protection contains a paradox. On the one hand, trade secret law permits employers to disclose trade secrets to employees in order to allow them to be productive in their tasks.²⁹ Thus, courts often cavalierly state the rule that "disclosure [of trade secrets] to employees involved in the use of the subject matter does not ordinarily destroy the protection afforded the employer."³⁰ On the other hand, information that would otherwise constitute a trade secret loses protection once it becomes integrated with the employee's general skill, knowledge, training, and experience.³¹ So can employers really share with em-

Secrets and the Skilled Employee, 38 N.Y.U. L. REV. 324, 325 (1963) ("The subject matter of a claimed trade secret cannot be: (1) a matter of common knowledge or of general knowledge in a trade . . . or (2) a part of the 'personal skills, knowledge and experience' of another, typically an employee . . ."); Laura G. Pedraza-Fariña, *Spill Your (Trade) Secrets: Knowledge Networks as Innovation Drivers*, 92 NOTRE DAME L. REV. 1561, 1595 (2017) ("A fundamental set of countervailing public policies guides state law in establishing the dividing line between general skill and knowledge and trade secrets: the protection of business interests from unfair competition, on the one hand, and the public interest in labor mobility leading to 'competition and the dissemination of ideas, which in turn benefit the consumer' on the other."); Elizabeth A. Rowe, *When Trade Secrets Become Shackles: Fairness and the Inevitable Disclosure Doctrine*, 7 TUL. J. TECH. & INTELL. PROP. 167, 184 (2005) ("It has long been established that a former employee may take general knowledge with him to a new employer."); Sharon K. Sandeen & Elizabeth A. Rowe, *Debating Employee Non-Competes and Trade Secrets*, 33 SANTA CLARA COMPUTER & HIGH TECH. L.J. 438, 465 (2017) [hereinafter Sandeen, *Debating Non-Competes*] ("Consistent with common law limitations on the scope of protectable information, the information to be protected cannot include the general skill and knowledge that is part of the employee's toolkit."); Deepa Varadarajan, *The Trade Secret-Contract Interface*, 103 IOWA L. REV. 1543, 1561 n.95 (2018) [hereinafter Varadarajan, *The Trade Secret-Contract Interface*] ("While an employee cannot divulge protected trade secrets, she is free to take her 'general skills and knowledge,' as well as her industry-specific knowledge from one employer to another."); Laura Wheeler, *Trade Secrets and the Skilled Employee in the Computer Industry*, 61 WASH. U. L.Q. 823, 834 (1983) ("The employee does not incur liability . . . when the former employer merely alleges that the employee's general skill and knowledge 'belonged' to the employer as a trade secret.") Jack F. Kuhlman, Comment, *Trade Regulation—Trade Secrets—Ex-Employee's Use of Former Employer's Trade Secret May Be Enjoined*, 42 CHI.-KENT L. REV. 87, 89 (1965) ("[T]he employee is entitled to take with him and use the general knowledge, experience, and skill which he has acquired during the employment relationship, even if such knowledge is used in competition with the former employer.").

²⁸ Charles Tait Graves, *Trade Secrets as Property: Theory and Consequences*, 15 J. INTELL. PROP. L. 39, 52 (2007).

²⁹ See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 475 (1974) (finding secrecy is not lost when a trade secret is disclosed to employees for its intended use); see also *infra* notes 154–163.

³⁰ See, e.g., *Midland-Ross Corp. v. Yokana*, 185 F. Supp. 594, 599 (D.N.J. 1960).

³¹ See *infra* notes 68–85 and accompanying text.

ployees? How much? If they share more, if they *train* more, aren't they risking their secrets being sucked away by the employee, whom the law says is free to use and take the general skill-set he or she has acquired to a new job?

Despite scattered attempts to clarify the scope of the doctrine,³² courts struggle to apply and even to articulate it.³³ Some courts,³⁴ as well as some academics, simply ignore it.³⁵ Others assert, somewhat nihilistically, that finding information constitutes general knowledge, skill, and experience simply denotes the fact-finder's overall conclusion that the information is not a trade secret.³⁶ On this account, there is no separate doctrine at all. This view admittedly gains support from courts' ambiguous statements, such as this typical example from an appellate court: "[A] former employee may use general knowledge, skill, and experience acquired in his or her former employment in competition with a former employer, . . . [but] may not use confidential information or trade secrets in doing so."³⁷

³² Several of these attempts result in lengthy lists of "factors to consider" without developing an overarching explanation of the Exclusion's purpose and doctrinal scope. *See, e.g.,* Letty J. Friesen, Update, *Distinguishing Between an Employee's General Knowledge & Trade Secrets*, 23 COLO. LAW. 2123, 2123 (1994) (outlining seven factors that courts consider "important in distinguishing between general knowledge of the employee and the trade secrets of the former employer"); Miles J. Feldman, Comment, *Toward a Clearer Standard of Protectable Information: Trade Secrets & the Employment Relationship*, 9 HIGH TECH. L.J. 151, 175–77 (1994) (providing five factors that courts should weigh to "determine whether information is a protectable trade secret or part of the employee's general knowledge and skill").

³³ *See, e.g.,* CALLMANN, *supra* note 26 ("[T]his over-simplified principle is much easier to state than to apply."); Varadarajan, *The Trade Secret-Contract Interface*, *supra* note 27, at 1561 n.95 ("However, the line between these categories and an employer's protected trade secrets is blurry."); Feldman, *supra* note 32, at 171 (observing a of lack of clarity in the law).

³⁴ *See infra* notes 233–279 and accompanying text.

³⁵ A leading IP case book does not have a section regarding the exclusion of general knowledge, skill, and experience—though it does have a section devoted to other issues involving departing employees. PETER S. MENELL, MARK A. LEMLEY, & ROBERT P. MERGES, *INTELLECTUAL PROPERTY IN THE NEW TECHNOLOGICAL AGE*: 2018, at 106–31 (2018); *see also* Jonathan M. Barnett & Ted M. Sichelman, *Revisiting Labor Mobility in Innovation Markets* 16 (U.S.C.L. Sch., Working Paper No. 207, 2016), <https://pdfs.semanticscholar.org/df2e/ca68c18dfcde41c754697de86e00f1f822c7.pdf> [<https://perma.cc/WJA4-VN5X>] ("[S]ome states with purportedly weak, legislatively driven enforcement of noncompetes may have compensated via stronger judicial enforcement of legal substitutes for noncompetes, such as trade secret law.").

³⁶ *See, e.g.,* Robert Unikel, *Bridging the "Trade Secret" Gap: Protecting "Confidential Information" Not Rising to The Level of Trade Secrets*, 29 LOY. U. CHI. L.J. 841, 842–43 (1998) (critiquing "the current two-tiered protective scheme," in which information is "either protectable 'trade secrets' or unprotectable 'general skill and knowledge'"); *see also* Andrea Weiss Jeffries, *A Key Distinction: Knowledge, Skills, and Training vs. Trade Secrets*, in *TRADE SECRETS 2018: WHAT EVERY LAWYER SHOULD KNOW* 351, 355 (2018) (concluding that "the vast majority state the principle as part of a broad set of trade secret principles, and then focus their discussion on other aspects of trade secret law").

³⁷ *Morlife, Inc. v. Perry*, 66 Cal. Rptr. 2d 731, 734 (Cal. Ct. App. 1997). The court held that the roofing company possessed trade secrets in a customer list and enjoined former employees from soliciting the customers. *Id.* at 731.

Indeterminacy about the scope of this doctrine generates uncertainty around what information employers can protect and how much information employers can safely disclose to employees.³⁸ If employers do not understand what constitutes unprotectable knowledge, skill, and experience, they may be forced to take costly measures to shield trade secrets from their own employees, or decline to share at all.³⁹ This would seem to risk undermining one of the major justifications for trade secret law: increasing the productive sharing of information between employers and employees.⁴⁰

This Article demonstrates that there is a separate limitation on trade secret protection that prohibits employers from protecting an employee's general knowledge, skill, and experience. This limitation—hereafter referred to as the General Knowledge, Skill, and Experience Exclusion, or simply the Exclusion—serves an essential and unique function in trade secret law that is distinct from other doctrines, and more than just a negative statement that a trade secret does not exist. The Exclusion evolved in common law due to courts' recognition that, in fact, trade secret law created a "paradox" for *employees*. As one court put it, "paradoxically," the employee who receives and is improved by his employer's valuable trade secrets is thereafter "restrained, because of his increased expertise, from advancing further in the industry in which he is most productive."⁴¹ Trade secret law still places this imposition on employees today.⁴² The big question for an engineer like Levandowski is, "how does someone take his or her accumulated experience to a competitor without getting sued?"⁴³ The purpose of the General Knowledge, Skill, and Experience Exclusion is to address precisely this dilemma. Forged in equity, the Exclusion is based on a public policy of preserving employees' ability to improve on the job and transfer their skills to other work.⁴⁴ It is an "extraneous legal principle"⁴⁵ that applies even to information the employer imparted to the employee in confidence that would otherwise qualify as a trade secret, but that has be-

³⁸ See, e.g., Feldman, *supra* note 32, at 171 ("The uncertain status of what constitutes unprotectable employee knowledge and skill is inefficient because it results in both over-deterrence and under-deterrence.").

³⁹ See Victoria A. Cundiff, *Maximum Security: How to Prevent Departing Employees from Putting Your Trade Secrets to Work for Your Competitors*, 8 SANTA CLARA COMPUT. & HIGH TECH. L.J. 301, 302–03, 304–06 (1992) [hereinafter Cundiff, *Maximum Security*] (describing potential consequences of failing to protect trade secrets and defining trade secrets).

⁴⁰ See *infra* notes 164–184 and accompanying text.

⁴¹ *Wexler v. Greenberg*, 160 A.2d 430, 435 (Pa. 1960); see *infra* notes 86–121, 185–206 and accompanying text.

⁴² See generally ORLY LOBEL, *TALENT WANTS TO BE FREE* (2013) (characterizing trade secret law as one of several legal mechanisms companies use to restrain movement of talent).

⁴³ James Pooley, *How to Change Jobs and Embrace Inefficiency*, IP WATCHDOG (May 23, 2018), <https://www.ipwatchdog.com/2018/05/23/how-to-change-jobs-embrace-inefficiency/id=97568/> [<https://perma.cc/DNK9-A4VDJ>].

⁴⁴ See *infra* notes 91–95 and accompanying text.

⁴⁵ See AMÉDÉE TURNER, *THE LAW OF TRADE SECRETS* 115–72 (1962).

come inextricably “merged” with the employee’s unprotectable general knowledge, skill, and experience.⁴⁶

The consequence for trade secret plaintiffs like Waymo is that they must expect some leakage of trade secrets to result when they share trade secrets with employees.⁴⁷ In an article written for employers, Victoria Cundiff, a partner at a large global law firm, stated, “[t]he fact that at the end of the job an employee is a better engineer, has learned more computer languages, has made more sales presentations or has met more customers does not mean he or she cannot put this improved self to work for a competitor.”⁴⁸ While employers might argue that employees’ receipt of sensitive secrets provides a reason to prevent employees from leaving, the General Knowledge, Skill, and Experience Exclusion serves as a crucial limitation on their ability to use trade secret law to stop such departures. The over-all effect of the Exclusion is to limit the scope of trade secrets in order to shield affected employees’ ability to find suitable work.⁴⁹

The Article shows, unfortunately, that courts currently misunderstand and regularly misapply the doctrine. In practice, most courts appear to conflate the Exclusion with the requirement that a trade secret not be “generally known” or “readily ascertainable” to others in the industry.⁵⁰ On this view, the Exclusion is simply a part of the law’s “secrecy” requirement, rather than a distinct limitation.⁵¹ Another approach, similar in effect, is to assume the Exclusion applies only to information the employee already had in her possession prior to coming to work for the plaintiff-employer.⁵² These erroneous approaches to the Exclusion obscure its true function and have potentially devastating effects for employees, who may be wrongly prevented from using knowledge, skills, or experience that they acquired on the job when they leave, even when they have

⁴⁶ See *infra* notes 279–329 and accompanying text.

⁴⁷ See *infra* notes 185–206 and accompanying text.

⁴⁸ Victoria Cundiff, *How to Hire Your Competitor’s Employee: A Trade Secrets Perspective*, 3 N.Y. BUS. L.J., Fall 1999, at 13; see also, e.g., *Great Am. Opportunities, Inc. v. Cherry Bros., LLC*, No. 3:17-cv-1022, 2018 WL 418567, at *5 (M.D. Tenn. Jan. 16, 2018) (“[I]nsofar as any of the Individual Defendants were simply better salespeople on the day they left Great American than they had been on the day they started, their acquisition of general sales skills, valuable though it may have been, is not an asset covered by trade secret law.”).

⁴⁹ As discussed in Part I, contract law is a separate legal mechanism that may be used; the extent to which employers can use contracts to protect more than trade secret law varies among jurisdictions. See *infra* notes 68–85 and accompanying text.

⁵⁰ See UTSA § 1(4)(i) (defining trade secret the same as the DTSA). Compare 18 U.S.C. § 1839(3)(B) (defining trade secrets as excluding “generally known” and “readily ascertainable information”), with *Static Control Components, Inc. v. Darkprint Imaging, Inc.*, 240 F. Supp. 2d 465, 482 (M.D.N.C. 2002) (upholding a jury instruction that did not specifically exclude general knowledge, skill, and experience, because it defined a trade secret as “not being generally known or readily ascertainable”).

⁵¹ See *infra* notes 233–278 and accompanying text.

⁵² See *infra* notes 279–329 and accompanying text.

not signed a non-competition agreement.⁵³ If courts were to recognize this inconsistency, and return to the original conception of the Exclusion, this would likely expand the rights of defendants in cases where information is secret within a company but has nonetheless become unprotectable against the company's former employees or their would-be employers for reasons of public policy.

Part I provides a background to the General Knowledge, Skill, and Experience Exclusion as originally conceived at common law.⁵⁴ It then details the odd manner in which the doctrine has been incorporated, but never actually codified, in modern trade secret statutes, most recently in the federal Defend Trade Secrets Act of 2016.⁵⁵

Part II identifies the major policy justifications for the Exclusion and how it fits into the rest of trade secret law.⁵⁶ There are, in short, two distinct but related policy justifications: protecting individuals' rights to pursue satisfying work and to improve within their area of expertise; and promoting the public's interest in free employee mobility.⁵⁷

Part III reviews and closely engages with the General Knowledge, Skill, and Experience Exclusion case law.⁵⁸ More than any other area of intellectual property law, trade secret cases turn on the facts.⁵⁹ Therefore, truly understanding how the Exclusion works, both normatively and in practice, requires a deep dive into specific cases in which courts apply it. Using the case law, but guided by policy, this Part extracts the core principles of the Exclusion, and explains how the Exclusion should, ideally, be conceptualized and applied.⁶⁰ It also reveals where courts currently err—particularly, by conflating the Exclusion with the UTSA's (and the now the DTSA's) requirement that a trade secret not be “generally known” or “readily ascertainable” to others in the industry. Part III explains why these approaches are wrong and potentially harmful to the employees involved in the cases.

⁵³ The effect is somewhat similar to the controversial so-called “inevitable disclosure” doctrine. *See infra* notes 187–201 and accompanying text.

⁵⁴ *See infra* notes 63–150 and accompanying text.

⁵⁵ *See infra* notes 141–150 and accompanying text.

⁵⁶ *See infra* notes 151–206 and accompanying text.

⁵⁷ As discussed *infra*, notes 202–206 and accompanying text, there is significant debate over the economic impacts of employee mobility.

⁵⁸ *See infra* notes 207–373 and accompanying text.

⁵⁹ As Victoria Cundiff puts it, “[t]rade secrets disputes are highly fact-intensive. Those considering litigating trade secrets issues must focus on the *facts* of leading cases just as much as on the language of the holdings.” Victoria A. Cundiff, *Thinking About What You Want Can Help You Get What You Need: How Advocates Can Work with Courts to Tailor Case-Specific Procedures and Remedies to Trade Secret Disputes*, in *TRADE SECRETS 2014: WHAT EVERY IP ATTORNEY SHOULD KNOW* 45, 59 (PRACTICING L. INST. ed., 2014).

⁶⁰ *See infra* notes 330–374 and accompanying text.

The Article concludes by urging courts to more accurately identify, state, and apply the General Knowledge, Skill, and Experience Exclusion. Even if courts do not use the Exclusion to deny trade secret protection,⁶¹ they should take it into account at the remedial stage when considering affected employees' interests in pursuing satisfying work, as compared to employers' interest in protecting trade secrets. Courts cannot simply ignore this analysis.⁶²

I. THE ORIGINS OF THE GENERAL KNOWLEDGE, SKILL AND EXPERIENCE EXCLUSION

Trade secret law does not protect information that is generally known to people in the industry; that does not derive sufficient economic value from being a secret; or that is not subject to the trade secret holder's "reasonable" efforts to preserve its secrecy. These limitations are expressly codified in the text of the relevant statutes.⁶³ In contrast, as this Part will show, the General Knowledge, Skill, and Experience Exclusion is not directly mentioned in the statutory text; but it nonetheless exists and has a long pedigree.⁶⁴

Section A explains the general rule, stated by courts across the country, that trade secret law does not protect information that has become part of an employee's "general knowledge, skill, and experience."⁶⁵ Section B traces the common law origins of this doctrine.⁶⁶ Section C explains its somewhat awkward fit within statutory trade secret law.⁶⁷

A. Basic Doctrine

The principle behind the General Knowledge, Skill, and Experience Exclusion is that trade secret law does not protect the "general knowledge, skill, and experience" that an employee acquires during the course of employment.⁶⁸

⁶¹ As discussed *infra*, notes 207–232 and accompanying text, the Exclusion is already a uniquely "relative" form of subject matter exclusion, operating only against certain individuals.

⁶² See 18 U.S.C. § 1836(b)(3)(A)(i)(I) (prohibiting courts from granting an injunction where an individual's employment opportunities are curtailed by general knowledge); *Bimbo Bakeries USA, Inc. v. Botticella*, 613 F.3d 102, 119 (3d Cir. 2010) (directing the district court to create a remedy that protected trade secrets without curtailing the employee's right to pursue employment); see also *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 394 (2006) (holding courts in patent cases must weigh the equitable factors before granting an injunction).

⁶³ 18 U.S.C. § 1839(3); UTSA § 1(4).

⁶⁴ See 18 U.S.C. § 1839(3); UTSA § 1(4).

⁶⁵ See *infra* notes 68–85 and accompanying text.

⁶⁶ See *infra* notes 86–122 and accompanying text.

⁶⁷ See *infra* notes 123–150 and accompanying text.

⁶⁸ See, e.g., *SI Handling Sys.*, 753 F.2d at 1267 (Adams, J., concurring) ("[A]n employee's general knowledge, skill, and experience are not trade secrets. Thus in theory an employer generally may not inhibit the manner in which an employee uses his or her knowledge, skill, and experience—even if these were acquired during employment." (citations omitted)); *Van Prods. Co.*, 213 A.2d at 776 (holding that an employee "is entitled to take with him 'the experience, knowledge, memory, and skill,

The Exclusion potentially applies even to information the employee acquired directly from a former employer and that might otherwise be a trade secret.⁶⁹ Courts within virtually every state and federal circuit have purported to recognize this general rule.⁷⁰ Contracts—usually but not always⁷¹ in the form of a

which he gained while . . . employed”). Generally, some iteration of the phrase “general knowledge, skills, and experience” is used although the terminology differs. TURNER, *supra* note 45, at 161. Other common terms include “intelligence,” “training,” and the term “personal” as a descriptor. *See, e.g.*, Official Aviation Guide Co. v. Am. Aviation Assocs., Inc., 150 F.2d 173, 178 (7th Cir. 1945) (“[A]n employer cannot prevent his employee from using the skill and *intelligence* acquired through experience received in the course of the employment.” (emphasis added)); Midwest Micro Media, Inc. v. Machotka, 395 N.E.2d 188, 192 (Ill. App. Ct. 1979) (describing the employee’s knowledge as “closely akin to his *personal* skills and abilities,” and therefore not the plaintiff’s trade secret (emphasis added)); Instrumentation Servs., Inc. v. Gen. Res. Corp., 283 N.W.2d 902, 906 (Minn. 1979) (finding that trade secret plaintiff failed to prove defendants “had material assistance other than their own *training*, skill, knowledge, and experience in developing” a product (emphasis added)).

⁶⁹ CALLMANN, *supra* note 26 (“An employee, upon the termination of his employment, is free to draw upon his general knowledge, experience, and skill, *howsoever gained*, provided he does not use or disclose any of the specific technological or business secrets of his former employer.” (emphasis added)); *see also* 1 MILGRIM ON TRADE SECRETS § 5.02[3][A] (2018) (describing the Exclusion); MELVIN F. JAGER, 1984 TRADE SECRETS LAW HANDBOOK § 5.05[5], at 133 (1984) (explaining trade secrets as distinct from information known to people in the industry); HENRY H. PERRITT, JR., TRADE SECRETS: A PRACTITIONER’S GUIDE 144–45 (1994) (describing the Exclusion).

⁷⁰ *See* Capital Asset Research Corp. v. Finnegan, 160 F.3d 683, 688 (11th Cir. 1998) (finding employee did not misappropriate a trade secret because anyone experienced in the industry could use the information); Hogan Sys., Inc. v. Cybresource Int’l, Inc., 158 F.3d 319 (5th Cir. 1998) (affirming district court’s finding that the Exclusion applied), *abrogated by* Kirtsaeung v. John Wiley & Sons, Inc., 136 S. Ct. 1979 (2016); AMP Inc. v. Fleischhacker, 823 F.2d 1199, 1202 (7th Cir. 1987) (recognizing the Exclusion), *superseded by statute* Illinois Trade Secrets Act, 765 ILL. COMP. STAT. ANN. 1065/1–9 (West 1988), *as recognized in* PepsiCo, Inc. v. Redmond, 54 F.3d 1262 (2011); Am. Can Co. v. Mansukhani, 742 F.2d 314, 329 (7th Cir. 1984); Automated Sys., Inc. v. Serv. Bureau Corp., 401 F.2d 619, 625 (10th Cir. 1968) (declining to extend trade secret protection to general knowledge acquired by the employee); *Midland-Ross Corp.*, 293 F.2d at 412 (“Necessarily the former employee may use what he learned in the former employer’s business while engaged in business for himself or some business competing with the former employer.”); Utah Med. Prods., Inc. v. Clinical Innovations Assocs., Inc., 79 F. Supp. 2d 1290, 1312–14 (D. Utah 1999) (holding employer failed to distinguish alleged trade secret from employees general knowledge, skill, and experience), *aff’d*, 251 F.3d 171 (Fed. Cir. 2000); Merck & Co. Inc. v. Lyon, 941 F. Supp. 1443, 1462 (M.D.N.C. 1996) (recognizing the Exclusion); Pressure Sci., Inc. v. Kramer, 413 F. Supp. 618, 629 (D. Conn. 1976) (holding that an employee cannot be barred from using his general skill and experience in the industry), *aff’d*, 551 F.2d 301 (2d Cir. 1976); George O’Day Assocs., Inc. v. Talman Corp., 206 F. Supp. 297, 300 (D.R.I. 1962) (“[A]n employee after leaving the service of an employer may carry on the same business on his own and use for his own benefits the things he has learned while in the earlier employment.” (quoting *Midland-Ross Corp.*, 293 F.2d at 412)), *aff’d*, 310 F.2d 623 (1st Cir. 1962); Sarkes Tarzian, Inc. v. Audio Devices, Inc., 166 F. Supp. 250, 266 (S.D. Cal. 1958) (“[E]quity has no power to compel a man who changes employers to wipe clean the slate of his memory.”), *aff’d*, 283 F.2d 695 (9th Cir. 1960); Bickley v. Frutchey Bean Co., 173 F. Supp. 516, 524 (E.D. Mich. 1959) (recognizing the Exclusion), *aff’d*, 279 F.2d 685 (6th Cir. 1960); Thiberg v. Bach, 107 F. Supp. 639, 643 (D.N.J. 1952) (providing defendant “may use . . . the mechanical skill which he has acquired by virtue of his employment”).

⁷¹ *See* Orly Lobel, *Enforceability TBD: From Status to Contract in Intellectual Property Law*, 96 B.U.L. REV. 869, 874 (2016) (revealing a much broader range of contracts used as post-employment restrictions, “such as non-solicitation, non-dealing, and non-disclosure clauses”).

non-competition agreement⁷²—can be used in most states⁷³ and in most professions⁷⁴ to place restrictions on employees’ ability to use their “general knowledge, skill, and experience” following employment, at least so long as those restrictions are reasonable in scope and duration, and necessary to protect the employer’s legitimate business interests.⁷⁵ Contracts can also be used to protect merely confidential information, depending on which state one is in.⁷⁶ But trade secret law itself cannot be used to protect employee’s “general

⁷² A non-competition agreement is a contract entered between an employer and an employee that provides that the employee cannot compete with the employer for a certain period after her departure. ROWE, TRADE SECRET LAW, *supra* note 27, at 298. They can be used to protect trade secret or non-trade secret information. *See generally* Viva R. Moffat, *Making Non-Competes Unenforceable*, 54 ARIZ. L. REV. 939 (2013) [hereinafter Moffat, *Non-Competes*]; Sandeen, *Debating Non-Competes*, *supra* note 27, at 443–44.

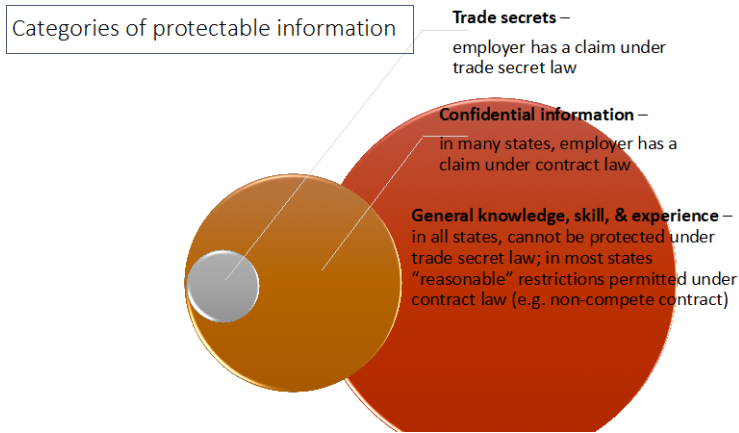
⁷³ Some states, such as California, do not enforce non-competition agreements by statute. Moffat, *Non-Competes*, *supra* note 72, at 941. California’s Business & Professions Code states: “[e]xcept as provided in this chapter, every contract by which anyone is restrained from engaging in a lawful profession, trade, or business of any kind is to that extent void.” CAL. BUS. & PROF. CODE § 16600 (West 2019).

⁷⁴ Certain professions, including the legal profession, do not permit non-competition agreements. *See* MODEL RULES OF PROF’L CONDUCT r. 5.6(a) (AM. BAR ASS’N 2018) (prohibiting lawyers from “offering or making . . . [an] agreement that restricts the right of a lawyer to practice after termination of the relationship”).

⁷⁵ ROWE, TRADE SECRET LAW, *supra* note 27, at 298; *see also* Barnett & Sichelman, *supra* note 35, at 3 (“Historically, the common law of almost all states (subject to the long-standing California exception) has adopted the same balancing-test approach—known as the ‘reasonableness’ standard—toward noncompetes.”).

⁷⁶ *See* UTSA § 7(b)(1) (“This [Act] does not affect contractual remedies, whether or not based upon misappropriation of a trade secret.”). States differ significantly in the degree to which they enforce contracts protecting non-trade secret information. *See* Charles Tait Graves, *Trade Secrecy and Common Law Confidentiality: The Problem of Multiple Regimes*, in THE LAW AND THEORY OF TRADE SECRECY: A HANDBOOK OF CONTEMPORARY RESEARCH 77, 88–91 (Rochelle C. Dreyfuss & Katherine J. Strandburg eds., 2011) [hereinafter Graves, *Common Law Confidentiality*] (discussing the difficult question of whether employment contracts can be used to prevent employees from using information not amounting to a trade secret); Orly Lobel, *The New Cognitive Property: Human Capital Law and the Reach of Intellectual Property*, 93 TEX. L. REV. 789, 810 (2015) [hereinafter Lobel, *New Cognitive Property*] (“Some courts regularly accept the theory that under an employee’s duty of loyalty, information can be ‘confidential’ or ‘proprietary’ even if not a trade secret.”); Varadarajan, *The Trade Secret-Contract Interface*, *supra* note 27, at 1578–91 (noting with concern the degree to which contracts can be used to expand the scope of protection for information not rising to the level of a trade secret and proposing various doctrines, such as preemption, misuse, and contract non-enforcement doctrines, that courts may use “to scrutinize trade-secret evasive uses of contract, particularly in the employee and consumer contexts”). *Compare* HCC Ins. Holdings, Inc. v. Flowers, 237 F. Supp. 3d 1341, 1355 (N.D. Ga. 2017) (finding nondisclosure agreements containing restrictions exceeding two years unenforceable for information that is not a trade secret), *with* Orthofix, Inc. v. Hunter, 630 F. App’x 566, 568 (6th Cir. 2015) (holding employee breached employment agreement under Ohio law by “using and disclosing ‘confidential information’ that, while not necessarily qualifying as trade secrets, did not constitute his general skills or knowledge”). There are other claims besides contract that may be brought alongside trade secret claims—though they are often preempted by the UTSA. *See generally* Robert Denicola, *The Restatements, the Uniform Act, and the Status of American Trade Secret Law*, in THE LAW AND THEORY OF TRADE SECRECY, *supra*, at 18, 34–44 (discussing other claims based on misappropriation of information not rising to the level of a trade

knowledge, skill, and experience.” The graphic below depicts this spectrum of protection.⁷⁷



The Exclusion’s purpose, explored in depth in Part II, is to preserve employees’ ability to work within a profession and to transfer their skills from one job to another, despite exposure to the trade secrets of a former employer.⁷⁸ One oft-cited case, *Tempo Instrument, Inc. v. Logitek, Inc.*, a 1964 decision by the U.S. District Court for the Eastern District of New York, illustrates the Exclusion’s effect on the relative rights of a plaintiff and defendant in a trade secret dispute.⁷⁹ In *Tempo Instrument*, plaintiff Tempo Instrument, Inc. (Tempo), the maker of patented time delay relay devices, tried to use New York unfair

secret); Charles Tait Graves & Elizabeth Tippet, *UTSA Preemption and the Public Domain: How Courts Have Overlooked Patent Preemption of State Law Claims Alleging Employee Wrongdoing*, 65 RUTGERS L. REV. 59, 65–66 (2012).

⁷⁷ The Sixth Circuit Court of Appeals provides an example of this three-tiered categorization in the 2016 case *Orthofix, Inc. v. Hunter*, 630 F. App’x at 567 (“This case is about the relationship of three separate categories of business information: (1) trade secrets, (2) contractually protected confidential information, and (3) general skills and knowledge.” (internal quotations omitted)).

⁷⁸ As Charles Tait Graves puts it:

[A] standard rule courts sometimes apply to define a permissible body of knowledge that a mobile employee can use is his or her general skills, knowledge, training, and experience. This rule helps protect employee mobility by preventing a trade secret plaintiff from declaring that everything the employee learned during his or her employment can be classified as a trade secret. If employees could not safely transfer their training and skills from job to job, or change jobs without repeating the mistakes that constituted their general learning process, they would be unable to change jobs within the same field or start new, competing businesses. To protect employee mobility and the benefits that flow from it, it makes sense to go as far up to the line as possible to allow employees to apply their skills and training at a new job.”

Graves, *The Law of Negative Knowledge*, *supra* note 27, at 408–09.

⁷⁹ 229 F. Supp. 1 (E.D.N.Y. 1964). *Tempo Instrument* is featured in Rowe and Sandeen’s case book in their chapter on employee’s “general knowledge, skill, and experience.” ROWE, TRADE SECRET LAW, *supra* note 27, at 110–13.

competition law to enjoin its former employee, Herbert Fischer, from starting his own company (Logitek) making similar time relays.⁸⁰ Tempo argued that Fischer left with trade secrets he acquired during the course of his employment at Tempo, including technical “know-how” related to Tempo’s patented technology used in manufacturing time delay relays and business information.⁸¹

Ultimately, the court denied Tempo’s requested preliminary injunction, holding that even if Tempo possessed trade secrets related to the patented technology, Fischer’s generalized “know-how . . . constitute[d] nothing more than the general knowledge and experience gained by an employee in any business and is, therefore, not actionable.”⁸² In reaching this conclusion, the court observed that Fischer had worked on similar technology for various employers prior to joining Tempo.⁸³ These experiences “provided him with knowledge which made his services desirable to the plaintiff.”⁸⁴ The fact that Fischer had improved his skills and knowledge even further while working at Tempo did not make his newly acquired skills, knowledge, and experience any more protectable. “[H]aving drawn upon Fischer’s prior experiences,” Tempo could “hardly now complain that he has added his Tempo experiences to the sum total of his knowledge and is utilizing this knowledge at Logitek.”⁸⁵

B. Common Law Origins of the Exclusion

The roots of the doctrine that saved Mr. Fischer’s ability to leave his old employer and start a new company after learning his old employer’s secrets date far back in time. It is as old as trade secret law itself.

Trade secret law’s origin story is often traced to the Industrial Revolution of the eighteenth to nineteenth centuries. Before this time, production generally took place on a small artisanal scale and was “governed principally through social norms and restrictions on apprentice mobility through mandatory periods of service.”⁸⁶ As a result of industrialization, however, large numbers of employees, who were often strangers to their employers and to one another, were crammed together on factory floors and necessarily entrusted with valuable production secrets.⁸⁷ New technologies, such as the spinning loom, necessi-

⁸⁰ *Tempo Instrument*, 229 F. Supp. at 2.

⁸¹ *Id.* at 2, 4. Although Tempo owned a patent on the technology, known as the “Gate circuit,” it claimed Fischer possessed tacit knowledge undisclosed in the patent. *Id.* at 3.

⁸² *Id.* at 3–4.

⁸³ *Id.*

⁸⁴ *Id.* at 4.

⁸⁵ *Id.*

⁸⁶ MENELL, LEMLEY, & MERGES, *supra* note 35, at 42.

⁸⁷ *Id.*; see also Catherine L. Fisk, *Working Knowledge: Trade Secrets, Restrictive Covenants in Employment, and the Rise of Corporate Intellectual Property, 1800–1920*, 52 HASTINGS L.J. 441, 450–52 (2001) (discussing the shift from artisanal guilds to factory production and the subsequent development of the trade secret legal regime).

tated significant skills training, and forced employers to share technical secrets with workers.⁸⁸

Trade secret law evolved in large part in order to permit employers in this setting to engage in legally protected sharing of secrets with their own people.⁸⁹ The law did so by giving employers new rights to obtain injunctions from courts of law, ordering workers or others who received trade secrets in confidence to immediately stop using or disclosing them outside the firm.⁹⁰

However, courts did not always give trade secret holders exactly what they wanted. Instead, courts developed the “general knowledge, skill, and experience” doctrine as a counterforce to employers’ new rights under trade secret law.

1. English Common Law

The General Knowledge, Skill, and Experience Exclusion first appeared in English common law with respect to enforceability of non-competition agreements, which courts reformed or declined to enforce on the basis that a worker should not be allowed to “deprive himself” through contract of the right to use “his labour, skill or talent.”⁹¹ Courts viewed the Exclusion as stemming from their power in “equity” to decline to give a remedy for reasons of public policy.⁹² Courts apparently perceived the Exclusion as arising from

⁸⁸ See JAMES BESSEN, *LEARNING BY DOING: THE REAL CONNECTION BETWEEN INNOVATION, WAGES, AND WEALTH* 27 (2015) (discussing weaving workers’ increased productivity as they learned more about how the machines worked).

⁸⁹ See *infra* notes 164–184 and accompanying text.

⁹⁰ See *Cincinnati Bell Foundry Co. v. Dodds*, 10 Ohio Dec. Reprint 154, 154 (Ohio Super. Ct. 1887) (discussing the “clearly established” principle that courts may use their equitable power to prevent disclosure of confidential information).

⁹¹ See, e.g., *Leather Cloth Co. v. Lorsont*, 9 L.R. Eq. 345, 354 (1869) (“Public policy requires that every man shall be at liberty to work for himself, and shall not be at liberty to deprive himself or the State of his labour, skill, or talent, by any contract that he enters into.”); see also TURNER, *supra* note 45, at 120–26 (discussing various cases). Some scholars have asserted that restrictions on enforcing non-competition agreements stemmed from antitrust law. See ROWE, *TRADE SECRET LAW*, *supra* note 27, at 444–45 (discussing line of cases that viewed injunctive enforcement as granting a “monopoly” to trade secret owners). It is true that English common law sometimes treated non-competes as a “restraint of trade.” See, e.g., *Mitchel v. Reynolds*, 1 P. Wms. 181, 182, 24 Eng. Rep. 347 (K.B.1711); see also Harlan M. Blake, *Employee Agreements Not to Compete*, 73 HARV. L. REV. 625, 629–37 (1960) (detailing cases at early English common law regarding non-competes); William L. Letwin, *The English Common Law Concerning Monopolies*, 21 U. CHI. L. REV. 355, 373–79 (1954) (same). But the antitrust objection to non-competes has been significantly undermined. See, e.g., *Outsource Int’l, Inc. v. Barton*, 192 F.3d 662, 669 (7th Cir. 1999) (Posner, C.J., dissenting) (“The original rationale [for hostility against non-competition agreements] had nothing to do with restraint of trade in its modern, antitrust sense.”).

⁹² Very generally, “equity” refers to the highly discretionary power of courts to order a remedy other than damages, such as an injunction. Courts’ equitable authority initially developed in the English Court of Chancery. Samuel Bray, *The System of Equitable Remedies*, 63 UCLA L. REV. 530, 537

their “residual equitable discretion *not* to give an equitable remedy,”⁹³ or to at least reform a remedy to make it less burdensome on affected employees,⁹⁴ “even when the plaintiff has made out all the other elements of his case.”⁹⁵

2. American Common Law

When courts began to protect trade secrets under American common law, they retained their solicitude for employees’ right to work notwithstanding employers’ emerging rights under trade secret law.⁹⁶ Operating under their powers in equity, American courts were willing to grant injunctions to protect trade secrets.⁹⁷

In doing so, however, courts retained their equitable discretion to deny injunctions that would unduly interfere with a former employee’s ability to use knowledge and skill that he acquired on the job.⁹⁸ For instance, in the 1902 case of *National Tube Co. v. Eastern Tube Co.*, the Circuit Court of Ohio denied an injunction to restrain the defendant-company that had hired a former

(2016). In the United States, most courts of equity have merged with courts of law. *See id.* at 538–41 (providing background information on the merger).

⁹³ *See* Bray, *supra* note 92, at 582 (discussing equitable constraints, generally) (emphasis added).

⁹⁴ *See id.* at 583 (discussing ex post revision of a remedy that has become “unwise or outmoded”).

⁹⁵ *See id.* (quoting Henry J. Friendly, *Indiscretion About Discretion*, 31 EMORY L.J. 747, 778 n.116 (1982)); *see also* TURNER, *supra* note 45, at 11–59 (discussing English cases).

⁹⁶ Sharon K. Sandeen, *The Evolution of Trade Secret Law & Why Courts Commit Error When They Do Not Follow the Uniform Trade Secrets Act*, 33 HAMLIN L. REV. 493, 499–500 (2010) [hereinafter Sandeen, *The Evolution of Trade Secret Law*]. Sandeen briefly mentions courts’ continuing solicitude for “general skill, and knowledge.” *See id.* at 499 (noting a decision where the court “was careful to distinguish between secret information on one hand and public information, general skill, and knowledge on the other” (citing *Hamilton Mfg. Co. v. Tubbs Mfg. Co.*, 216 F. 401 (W.D. Mich. 1908))). On the development of American trade secret law in this period, generally, *see id.* at 498–502; *see also* Michael Risch, *An Empirical Look at Trade Secret Law’s Shift from Common to Statutory Law*, in INTELLECTUAL PROPERTY AND THE COMMON LAW 151, 153–55 (Shyamkrishna Balganeshe ed., 2013) (providing an abbreviated history of the development of U.S. trade secret law).

⁹⁷ HARRY D. NIMS, *THE LAW OF UNFAIR COMPETITION AND TRADE-MARKS* §§ 143, 149, at 297–98, 303–04 (2d ed. 1917) (“Courts of equity will restrain a party from making a disclosure of . . . secrets of trade or secrets of title or any other secrets of the party important to his interests.”). Courts sometimes operated under the theory that developing and retaining the secrecy of economically valuable subject matter created a qualified property right. *See, e.g., Peabody v. Norfolk*, 98 Mass. 452, 458 (1868). *But see* *E.I. Du Pont De Nemours Powder Co. v. Masland*, 244 U.S. 100, 102 (1917) (questioning whether trade secrets should be protected as property or based merely on a breach of a duty of confidence).

⁹⁸ *See, e.g., Hamilton Mfg. Co.*, 216 F. at 407 (“It would be a violation of every right of an employe [sic] of a manufacturer to prevent the former from using, in a business of his own, knowledge which he acquired in the employ of the latter when he might have acquired such knowledge in the employ of other manufacturers.” (quoting *Cincinnati Bell*, 10 Ohio Dec. Reprint at 155)); *see also, e.g., Cal. Intelligence Bureau v. Cunningham*, 188 P.2d 303, 306 (Cal. Dist. Ct. App. 1948) (“Some knowledge gained by an employee is of such a general character that equity will not restrict its later use.”); *cf. Peabody*, 98 Mass. at 455 (rejecting employee’s argument that an injunction would leave him “unfitted for other business,” because he could only do it at the former employer’s pleasure, thereby denying his “general skill as a machinist”).

employee of the plaintiff-company, Harry Nuttall. Plaintiff was a company that operated a tube works. While employed there, Nuttall secretly took with him patterns of the plaintiff's machines and had castings of new machines made from them for the defendant, a competing company.⁹⁹ The court denied the injunction on the basis that the patterns "were the result of the combined knowledge of men in the employ of the master."¹⁰⁰ Although the plaintiff may have paid for some of the "skill, knowledge, and experience" of employees' like Nuttall, it "did not buy the brain" of these men.¹⁰¹ The Ohio Supreme Court unanimously affirmed the decision on appeal.¹⁰²

3. The Restatement (First) of Torts (1939)

Trade secret protection remained a creature of common law until the 1980s, but there were some steps towards codification along the way. As Professor Sharon Sandeen recounts, around the same time that the U.S. Supreme Court's decision in *Erie v. Tompkins* put an end to federal courts' role in crafting most common law, the American Law Institute set about collecting and "restating" state common law decisions on trade secrets to promote uniformity and certainty in the law.¹⁰³ The result was the Restatement (First) of Torts (1939) (First Restatement).¹⁰⁴

Surprisingly, since its goal was to restate the common law, the First Restatement does not provide an explicit statement of the General Knowledge, Skill, and Experience Exclusion. The First Restatement provides six factors to be considered in determining whether information is a trade secret.¹⁰⁵ Among

⁹⁹ Nat'l Tube Co. v. E. Tube Co., 13 Ohio C.D. 468, 468 (1902).

¹⁰⁰ *Id.* at 473–74.

¹⁰¹ *Id.* at 473.

¹⁰² Nat'l Tube Co. v. E. Tube Co., 70 N.E. 1127 (Ohio 1903) (mem) (per curiam).

¹⁰³ Sandeen, *The Evolution of Trade Secret Law*, *supra* note 96, at 500–01, 503–04. In a later article, Sandeen discusses the American Law Institute's efforts to capture all post-*Erie* developments in the Restatement (Third) of Unfair Competition. See Sharon K. Sandeen, *The Erie/Sears/Compco Squeeze: Erie's Effects on Unfair Competition and Trade Secret Law*, 52 AKRON L. REV. 423, 450 (2018).

¹⁰⁴ New York still uses the Restatement (First) of Torts (First Restatement). See, e.g., Verizon N.Y. Inc. v. N.Y. State Pub. Serv. Comm'n, 991 N.Y.S.2d 841, 853–54 (N.Y. Sup. Ct. 2014) (noting "courts applying New York law generally follow" the First Restatement and applying the First Restatement).

¹⁰⁵ See generally RESTATEMENT (FIRST) OF TORTS § 757 (AM. LAW INST. 1939) (providing when liability attaches for disclosure of trade secrets). The six factors are:

- (1) [T]he 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 developing the information;
- (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

Id. § 757 cmt. b.

the factors is “the extent to which [the information] is known by employees and others involved in his business.”¹⁰⁶ But trying to find the Exclusion in these factors leads to highly unsatisfying and even somewhat contradictory results.¹⁰⁷ Indeed, the Restatement emphasizes that revealing a trade secret to employees does not necessarily destroy secrecy, stating that the employer “may, without losing his protection, communicate it to employees involved in its use.”¹⁰⁸ Instead, courts that utilize this source of law have viewed the Exclusion as a separate common law doctrine not encapsulated in the text of the First Restatement.¹⁰⁹

4. Turner’s Treatise (1962)

When British lawyer and politician A. Edward Turner wrote his treatise on the law of trade secrets in 1962, case law addressing the General Knowledge, Skill, and Experience Exclusion in both England and America was extensive enough to warrant an independent section in Turner’s treatise.¹¹⁰ Because trade secret law at this time was still addressed exclusively by the common law in a multiplicity of states and because the First Restatement did not explicitly discuss the Exclusion, Turner’s extensive chapter on the Exclusion is an effective way to obtain a clear depiction of courts’ understanding of the Exclusion circa 1962.¹¹¹

Three things are particularly important. First, Turner characterized the Exclusion as based on a public policy of protecting people’s right to pursue an

¹⁰⁶ *Id.*

¹⁰⁷ The First Restatement makes clear that neither “[m]atters of public knowledge” nor matters “of general knowledge in an industry” can be protected as a trade secret. *Id.* Rather, a trade secret must “substantially” be known only within the “particular business in which it is used.” *Id.* The First Restatement’s second factor also specifically requires assessing “the extent to which [the alleged trade secret] is known by employees . . . involved in his business.” *Id.* Unsurprisingly, courts have not interpreted the second factor as meaning information disclosed to employees may become excluded as “general knowledge, skill, and experience.” Rather, they see it as a direction to assess general secrecy and the trade secret holder’s security precautions with respect to employees. *See, e.g., In re TXCO Res., Inc.*, 475 B.R. 781, 806 (Bankr. W.D. Tex. 2012) (applying the First Restatement and finding, with respect to factors two and three, that “(2) only four people had access to the data and all were . . . agents or employees; (3) employees needed a security card to enter the work area and the data were kept in a vault accessible only to those who were given the combination”); *see also, e.g., N. Atl. Instruments, Inc. v. Haber*, 188 F.3d 38, 44–46 (2d Cir. 1999) (applying the First Restatement under New York law and engaging in similar analysis).

¹⁰⁸ RESTATEMENT (FIRST) OF TORTS § 757 cmt. b.

¹⁰⁹ *See, e.g., In re TXCO*, 475 B.R. at 818 (discussing the exclusion separate from the First Restatement analysis).

¹¹⁰ *See* TURNER, *supra* note 45, at 115–72 (citing English and American cases holding general skill, knowledge, and experience cannot be protected).

¹¹¹ There were other treatises at the time as well, but this has the best discussion of the Exclusion I have found. *See, e.g., NIMS, supra* note 97, §§ 141–161, at 402–44.

occupation even at the potential expense of protectable trade secrets.¹¹² Second, Turner saw the Exclusion as affecting *contracts* as well as trade secret protection.¹¹³ Third, and most significant in light of modern courts' application of the Exclusion, Turner believed the Exclusion barred a trade secret from protection by way of what Turner called an "extraneous legal principle,"¹¹⁴ or a "third factor," in the trade secret analysis that applies "when *employee* recipients of disclosures are concerned."¹¹⁵

Turner's "extraneous legal principle" or "third factor" is what this Article calls the General Knowledge, Skill, and Experience Exclusion. Turner's treatise clearly shows that, at least under the common law as of 1962, the Exclusion was seen as separate from, but also equivalent in legal importance to, the other elements of plaintiff's *prima facie* case: proof of protectable subject matter and proof of misappropriation.¹¹⁶

5. Restatement (Third) of Unfair Competition (1995)

Another trade secret source of law is the Restatement (Third) of Unfair Competition (Third Restatement). Drafted in 1995, the Third Restatement has not been as influential as other sources, with many courts instead continuing to reference the First Restatement even when not applying a trade secret statute. Unlike the First Restatement, however, the Third Restatement expressly identifies the General Knowledge, Skill, and Experience Exclusion, explains the policy behind the doctrine, and depicts its full scope.¹¹⁷ The Third Restatement echoes much of Turner's analysis, indicating that the Exclusion remained intact despite the changes in trade secret law that occurred between 1962 and 1995.

The Third Restatement makes several key points. First, it sets up a dichotomy between protectable trade secrets and unprotectable general knowledge, skill, and experience. This creates the impression—which as discussed further in the next Part is only partially accurate—that the Exclusion is

¹¹² See TURNER, *supra* note 45, at 160 (describing at length the limitation on protection for "personal skill, knowledge and experience," and asserting in the first heading: "Public Policy Protects a Person's Livelihood at the Expense of Secrets Protectable per se").

¹¹³ *Id.* at 120 ("It is submitted that there is no apparent difference in a court's consideration of an employee's covenant not to use or disclose knowledge, skill or experience, from its consideration of the limits to which the court by injunction will restrain such use and disclosure independently of covenant.").

¹¹⁴ *Id.* at 115 ("The purpose of this Chapter is to define what knowledge, information, skill and know-how which would *otherwise* be capable of protection because it is sufficiently secret . . . is unprotectable because of an extraneous legal principle.").

¹¹⁵ *Id.* at 160 (even once a trade secret is proven to exist and misappropriation is shown, "[h]owever, there is imposed on this two-fold requirement a third factor when *employee* recipients of disclosures are concerned") (discussing American cases).

¹¹⁶ See *id.*

¹¹⁷ See generally RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 42.

a subject matter bar.¹¹⁸ Second, it clarifies that information can be considered “general skill, knowledge, training, and experience of an employee” even if the information is “directly attributable to an investment of resources by the employer in the employee.”¹¹⁹ This means the Exclusion can potentially encompass information that is otherwise entirely unknown to others in the industry¹²⁰ as well as information the employer, rather than the individual employee, generated.¹²¹ Third, the Third Restatement introduces the idea that information that might otherwise be a trade secret can lose its status once it becomes “so closely integrated” with an employee’s “overall employment experience that protection would deprive the employee of the ability to obtain employment commensurate with the employee’s general qualifications.”¹²²

C. Adoption of the Exclusion in Statutory Law

Despite the Exclusion’s long roots in the common law, the Exclusion has not been explicitly codified in the Uniform Trade Secrets Act of 1979, its state law analogues, or in the Defend Trade Secrets Act (DTSA) of 2016.¹²³ This does not mean it is dead letter. To the contrary, the assumption has been that—because the drafters of the UTSA unambiguously intended to codify the common law, and the drafters of the DTSA unambiguously intended to mimic the UTSA—the Exclusion is part of the modern trade secret law regime.¹²⁴ The discussion below largely confirms this conception, but it also identifies several

¹¹⁸ *Id.* § 42 cmt. d (“The distinction between trade secrets and general skill, knowledge, training, and experience is intended to achieve a reasonable balance between the protection of confidential information and the mobility of employees.”).

¹¹⁹ *Id.*

¹²⁰ *Id.* (noting only that “[t]rade secret rights are *more likely* to be recognized in specialized information unique to the employer’s business than in information more widely known in the industry or derived from skills generally possessed by persons employed in the industry”) (emphasis added).

¹²¹ *See id.* (“The relative contribution of the employer and employee to the development of the information *can also be relevant.*”) (emphasis added).

¹²² *Id.* This idea also appeared in some prior cases, such as the Third Circuit Court of Appeals 1985 decision in *SI Handling Systems, Inc. v. Heisley*. *See* 753 F.2d at 1262.

¹²³ *See* UTSA §§ 1–12; 18 U.S.C. §§ 1836–1839. The South Carolina Trade Secrets Act—which is one of few acts that makes somewhat significant alterations to the UTSA—is the only state act I saw that potentially even alludes to the Exclusion. The code states that “[t]he collective effect of the items and procedures [claimed as trade secrets] must be considered in any analysis of whether a trade secret exists *and not the general knowledge of each individual item or procedure.*” S.C. CODE ANN. § 39-8-20(5)(b) (2019) (emphasis added). This reference to “general knowledge,” however, almost certainly refers to only the secrecy requirement, not to any employee’s general knowledge. At least one court interpreted this language to mean that a “trade secret may exist in a unique combination or compilation of information otherwise publicly available.” *UHLIG LLC v. Shirley*, No. 6:08-cv-01208-JMC, 2012 WL 2923242, at *5 (D.S.C. July 17, 2012). This simply codifies the standard rule that a secret “combination” of publicly known elements can be protected. *ROWE, TRADE SECRET LAW*, *supra* note 27, at 78.

¹²⁴ Indeed, the Third Restatement’s extensive treatment of the Exclusion in 1995 itself confirms this.

possible sources of confusion in the statutory text. As will be shown in the next Part, this may well be affecting the way courts apply the Exclusion in the case law today.¹²⁵

1. Uniform Trade Secrets Act of 1979

In 1979, the Uniform Law Commission went further towards codification of trade secret law than ever before by drafting the UTSA, which was gradually adopted by all states except New York.¹²⁶ Some commentators locate the source of the General Knowledge, Skill, and Experience Exclusion in the UTSA and its commentary.¹²⁷ But the drafters do not actually mention the Exclusion, so where is it?¹²⁸ It turns out that finding the Exclusion in the UTSA takes a bit of imagination and a lot of reliance on the UTSA's purported fidelity to common law.

As an initial matter, the Prefatory Note to the UTSA states that it “codifies the basic principles of common law trade secret protection, preserving its essential distinctions from patent law.”¹²⁹ Yet, the structure is quite different from the First Restatement.¹³⁰ The UTSA eschews the factor-based analysis and removes old reference points. Instead, the UTSA provides certain criteria that a trade secret must meet to be protectable. The UTSA defines a trade secret as:

[I]nformation, 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

¹²⁵ See *infra* notes 207–373 and accompanying text.

¹²⁶ See *Trade Secrets Act*, UNIFORM LAW COMM'N, <https://www.uniformlaws.org/committees/community-home?communitykey=3a2538fb-e030-4e2d-a9e2-90373dc05792&tab=groupdetails> [https://perma.cc/C4JS-8A82] (listing all states except New York as passing the UTSA).

¹²⁷ Sharon K. Sandeen & Christopher B. Seaman, *Toward a Federal Jurisprudence of Trade Secret Law*, 32 BERKELEY TECH. L.J. 829, 867–68 (2017) (“Much of this common law is . . . reflected in both the text and commentary to the UTSA, including the common law rules that trade secrets do not include the general skill and knowledge of an employee . . .”) (emphasis added).

¹²⁸ UTSA, *Prefatory Note* (“Under both the Act and common law principles, for example, more than one person can be entitled to trade secret protection with respect to the same information, and analysis involving the ‘reverse engineering’ of a lawfully obtained product in order to discover a trade secret is permissible.”).

¹²⁹ *Id.*; see also Risch, *supra* note 96, at 156. There were some differences, such as the UTSA's abandonment of the First Restatement's requirement that a trade secret be used in a business and the UTSA's introduction of the concept of “threatened” misappropriation. Risch, *supra* note 96, at 156. But none of these differences bear directly on protectability of employee skill, knowledge, and experience.

¹³⁰ Compare RESTATEMENT (FIRST) OF TORTS § 757 cmt. b (defining the six factors for determining if something is a trade secret), with UTSA § 1(4) (defining a trade secret).

(ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.¹³¹

The italicized portion is the only statement with any bearing on the Exclusion.¹³² This provision requires a trade secret to be “not generally known” or not “readily ascertainable” to “other persons” who could obtain economic value from it.

In deciding whether this requirement implicitly directs courts to exclude an employee’s General Knowledge, Skill, and Experience from protection, the key question is whether the “other persons” includes the employer’s own employees. Obviously, employees can be, and indeed in many cases are, “other persons who can obtain economic value from [a secret’s] disclosure or use.”¹³³ This is why the employees in many trade secret cases are leaving to start their own company or to take a job with another employer, sometimes for better pay.¹³⁴ It is unlikely, however, that the UTSA completely ignored the principle expressed in common law and in the First Restatement that an employer can carefully communicate secrets to employees without losing protection.¹³⁵ Interpreting the “other persons” as referring to employees would effectively do this, implying that whenever a secret becomes “generally known” or “readily ascertainable” to one’s own employees, it is no longer a trade secret.

“Other persons” must, instead, refer only to people outside of the trade secret owner’s company. It would, in other words, comport with prior common law decisions interpreting “secrecy” as meaning neither publicly disclosed in patents, publications, or products nor “common knowledge in the trade.”¹³⁶ The UTSA commentary also supports this view, explaining that the “not generally known” language is intended to exclude information that “may be un-

¹³¹ UTSA § 1(4) (emphasis added).

¹³² The reasonable efforts requirement is for the most part a separate issue, addressing whether the plaintiff took sufficient steps to keep the information secret. See the discussion of the connection to the Exclusion in Part II. See *infra* notes 151–206 and accompanying text.

¹³³ See UTSA § 1(4)(i).

¹³⁴ Levandowski, for instance, got a job at Uber and a promised earn out payment of nearly \$680 million for his start-up. Am. Compl., *supra* note 1, ¶¶ 5, 7, 55.

¹³⁵ See *Nat’l Tube Co.*, 13 Ohio C.D. at 472 (defining a trade secret as necessarily being shared with an employee for the employer’s use); RESTATEMENT (FIRST) OF TORTS § 757 cmt. b (explaining trade secrets do not lose protection when shared with employees).

¹³⁶ See, e.g., *A.F. Holden Co. v. O’Brien*, No. 6263, 1947 WL 3545, at *1 (E.D. Pa. May 20, 1947) (“The plaintiff’s formulae for the heat treating salts . . . are not exactly secret, because their physical and chemical composition can be and no doubt has been ascertained by competent and analytical chemists, though I do not think it can be said that they are common knowledge in the trade.”); *Gate-Way, Inc. v. Wilson*, 94 Cal. App. 2d 706, 710 (1949) (“All the individual parts installed in plaintiff’s plant were combined to accomplish the process of coating door knob sets and the combination is the subject of common knowledge, is in the public domain, and is disclosed in detail in patents, trade publications, catalogues and photographs.”); see also *Gabriel Co. v. Talley Indus.*, No. 3248-PHX, 1963 WL 8129, at *5 (D. Ariz. Mar. 4, 1963) (finding no trade secrets); *Cornell-Dubilier Elec. Corp. v. Aerovox Corp.*, Eq. No. 3043, 1946 WL 3275, at *1 (Mass. Super. Ct. Apr. 4, 1946) (same).

known to the general public” but is “readily known within the [relevant] industry.”¹³⁷

This raises a very important point. The UTSA’s broadening of the secrecy requirement to include situations where the secret becomes known to others in the industry cannot be viewed as comprehensive of the Exclusion. It is possible that information can be completely secret to the plaintiff employer, not known to others within the industry, but nonetheless unprotectable based on the Exclusion.¹³⁸ Given that the UTSA “codifies the basic principles of common law trade secret protection” and says nothing to the contrary, it stands to reason the Exclusion came along with the rest of the common law.¹³⁹ This is what courts have assumed in continuing to cite and apply it with frequency.¹⁴⁰

Nonetheless, the UTSA’s (and the First Restatement’s) ambiguity may nonetheless have done lasting damage to the integrity of the Exclusion. Many courts now conflate the General Knowledge, Skill, and Experience Exclusion with the UTSA’s requirement that information be “not generally known” or “readily ascertainable” to others in the industry, even though this is almost certainly not what the drafters of the UTSA intended.

2. Defend Trade Secrets Act of 2016

The major source of law for trade secrets in the United States is a federal statute, the DTSA, codified in Title 18 of the U.S. Code.¹⁴¹ The DTSA amended the Economic Espionage Act of 1996 to create a new federal civil (as opposed to only criminal) remedy for trade secret misappropriation.¹⁴² The DTSA, by its own terms, adopts the UTSA’s definition of a “trade secret” and the UTSA’s definition of “misappropriation” and “improper means.”¹⁴³ The

¹³⁷ UTSA § 1 cmt. The comments state that “[i]f the principal persons who can obtain economic benefit from information are aware of it, there is no trade secret. A method of casting metal, for example, may be unknown to the general public but readily known within the foundry industry.” *Id.* Under the amended UTSA of 1985, the comments modified “principal person” to “principal persons.” *Id.* (emphasis added). This suggests one person (e.g., one single defendant employee) knowing the information would be insufficient. In addition, the example provided in the comments is of a method for casting metal that is well known by people “within the foundry industry.” *Id.* (emphasis added). These points suggest that the UTSA meant information loses status as a trade secret once it becomes generally known to other persons in the industry outside the company, not just employees within the company.

¹³⁸ See, e.g., TURNER, *supra* note 45, at 115 (describing the Exclusion as an “extraneous legal principle”).

¹³⁹ See UTSA, *Prefatory Note*.

¹⁴⁰ See *supra* note 70 (summarizing relevant case law).

¹⁴¹ 18 U.S.C. §§ 1836–1839; see also David S. Levine & Christopher B. Seaman, *The DTSA at One: An Empirical Study of the First Year of Litigation Under the Defend Trade Secrets Act*, 53 WAKE FOREST L. REV. 105, 133, 153 & n.290 (2018).

¹⁴² H.R. REP. NO. 114–529, at 1–2 (2016).

¹⁴³ See *id.* at 2 (explaining that the DTSA models “misappropriation” off the UTSA definition); see also 18 U.S.C. §§ 1839(3), (5), (6) (defining “misappropriation,” “trade secret,” and “improper

DTSA does not preempt state law claims, meaning both can be brought together.¹⁴⁴ It also does not confer jurisdiction exclusively to the federal courts so trade secret plaintiffs can choose between state and federal court.¹⁴⁵

Although it would have been desirable for the DTSA to expressly address the General Knowledge, Skill, and Experience Exclusion, like its predecessors, the DTSA does so only obliquely. The most relevant provision affecting the Exclusion appears in the remedy provision. Like the UTSA, the DTSA provides that a court may grant an injunction “to prevent any actual or threatened misappropriation . . . on such terms as the court deems reasonable.”¹⁴⁶ DTSA § 1836(b)(3) states that the order may not “prevent a person from entering into an employment relationship, and that conditions placed on such employment shall be based on evidence of threatened misappropriation and not merely on the information the person knows.”¹⁴⁷ This statutory provision means courts hearing DTSA claims may not grant an injunction that would prevent someone from taking a new job. If courts do grant an injunction affecting an employment relationship, any “conditions” placed on that employment need to be based on “evidence of threatened misappropriation,” such as actions in preparation to use or disclose trade secrets.

The legislative history confirms the provision was based on the perceived “importance of employment mobility.”¹⁴⁸ This limitation on remedies thus invokes a similar public policy principle as the Exclusion, both seeking not to interfere with peoples’ right to take on new work. More specifically, the change was made in response to concerns that the DTSA, as initially written, “implicitly recognize[d] the so-called inevitable disclosure doctrine.”¹⁴⁹ The connection to the Exclusion is obvious. An “inevitable disclosure” injunction allows a trade secret owner to enjoin a departing employee based on the possibility that the employee might “inevitably rely on” trade secrets at a new job that entails similar duties.¹⁵⁰ Meanwhile, the Exclusion seeks to protect employees from such after-the-fact restraints, by mandating that certain kinds of information known to an employee cannot be protected as a trade secret at all.

means”). The definition of improper means expressly excludes proper means like independent development and reverse engineering. 18 U.S.C. § 1839(6).

¹⁴⁴ *Id.* § 1838.

¹⁴⁵ *Id.* § 1836(c).

¹⁴⁶ *Id.* § 1836(b)(3)(A)(i).

¹⁴⁷ *Id.* § 1836(b)(3)(A)(i)(I).

¹⁴⁸ See S. REP. NO. 114-220, at 9 (2016) (“Section (3)(A)(i)(1)(I) reinforces the importance of employment mobility and contains some limitations on injunctive relief that may be ordered.”).

¹⁴⁹ Sandeen & Seaman, *supra* note 127, at 857 (quoting Letter from Eric Goldman et al., Professors of Law, to Charles E. Grassley, Chairperson, U.S. Senate Judiciary Comm. (Nov. 17, 2015)), <https://cyberlaw.stanford.edu/files/blogs/2015%20Professors%20Letter%20in%20Opposition%20to%20DTSA%20FINAL.pdf> [<https://perma.cc/DK3D-WVDF>].

¹⁵⁰ See *generally* PepsiCo, Inc. v. Redmond, 54 F.3d 1262, 1271 (7th Cir. 1995).

Clearly, the DTSA's limitation on the remedial measures is closely related to the policy goals behind the exclusion. At the very least, DTSA defendants can rely on § 1836(b)(3)'s limitations to argue for a more limited injunction when their new job is implicated. This is not the same as an express recognition of the General Skill, Knowledge, and Experience Exclusion. But, when combined with the DTSA's intentional duplication of the UTSA, which in turn intentionally codified the common law, the DTSA's expression of such similar public policy concerns indicates the Exclusion has indeed been imported into the DTSA. Defendants can continue to invoke it under federal law and the law of the relevant state.

II. THE GENERAL KNOWLEDGE, SKILL, AND EXPERIENCE EXCLUSION'S NORMATIVE ROLE IN TRADE SECRET LAW

This Part provides a much-needed normative account of the Exclusion by explaining what the Exclusion should do based on historical practice and sound policy. This Part is a necessary prelude to Part III, which utilizes this normative framework to derive the legal doctrine that courts should apply in actual cases where the Exclusion arises. Section A details the policy rationales that drive trade secret law.¹⁵¹ Section B discusses trade secret law's goal of facilitating communication between employers and their employees.¹⁵² Section C explains how the Exclusion mitigates the costs trade secret law imposes on workers who receive trade secrets in the course of their employment.¹⁵³

A. *The Policy Rationales for Trade Secret Law*

The policy rationales for the General Knowledge, Skill, and Experience Exclusion can only be understood as a counterpoint to the policy rationales for trade secret protection itself. There are several reasons courts and legislatures have come, over time, to protect trade secrets. The U.S. Supreme Court's 1974 decision in *Kewanee Oil Co. v. Bicron Corp.* includes all of the standard trade secret justifications.¹⁵⁴

¹⁵¹ See *infra* notes 154–163 and accompanying text.

¹⁵² See *infra* notes 164–184 and accompanying text.

¹⁵³ See *infra* notes 185–206 and accompanying text.

¹⁵⁴ 416 U.S. 470, 491–92 (1974). Specifically, the Court held that Ohio's trade secret law of the time was not preempted by patent law. *Id.*; see also Robert G. Bone, *A New Look at Trade Secret Law: Doctrine in Search of Justification*, 86 CALIF. L. REV. 241, 260–96 (1998) (reviewing justifications based on “efficiency,” “rights and fairness,” and “industry norms”); Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61 STAN. L. REV. 311, 335–36 (2008) [hereinafter Lemley, *The Surprising Virtues*]; Michael Risch, *Why Do We Have Trade Secrets?*, 11 MARQ. INTELL. PROP. L. REV. 1, 26–35 (2007) (detailing trade secret justifications).

First, trade secret law is thought, by most accounts, to safeguard standards of commercial morality and to deter breaches of a duty of confidence.¹⁵⁵ Second, trade secret protection is thought to reward and encourage investments in developing a wide variety of information, such as technical information, business processes, marketing data, and detailed customer lists.¹⁵⁶ This incentive to invest argument is often linked with patent law,¹⁵⁷ but it protects much more than potentially patentable inventions.¹⁵⁸ Third, trade secret law is said, ironically, to facilitate “disclosure” of information.¹⁵⁹ Whereas patent law is thought to encourage public disclosure in patent specifications, trade secret law is thought to encourage disclosures between firms and within firms.¹⁶⁰

Lastly, underlying all of these rationales, is an efficiency argument. The efficiency argument states that trade secret law reduces the costs of “self-help” that companies would otherwise incur if trade secret protections were abolished.¹⁶¹ The efficiency argument, which is often invoked to bolster the incen-

¹⁵⁵ *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 485 (1974) (“The maintenance of standards of commercial ethics and the encouragement of invention are the broadly stated policies behind trade secret law.”); *see also* *E.I. Du Pont De Nemours Powder Co. v. Masland*, 244 U.S. 100, 102 (1917) (“The word ‘property’ as applied to . . . trade secrets is an unanalyzed expression of certain secondary consequences of the primary fact that the law makes some rudimentary requirements of good faith. . . . Therefore the starting point . . . is not property . . . but that the defendant stood in confidential relations with the [employer].”); *E.I. Du Pont De Nemours & Co. v. Christopher*, 431 F.2d 1012, 1015 (5th Cir. 1970) (applying Texas law and holding aerial photography of a plant under construction violated “recognize[d] . . . standards of commercial morality in the business world” (quoting *Hyde Corp. v. Huffines*, 314 S.W.2d 763, 773 (Tex. 1958))). *But see* Bone, *supra* note 154, at 294–96 (critiquing the argument that a major purpose of trade secret law is to enforce industry norms).

¹⁵⁶ William M. Landes & Richard A. Posner, *The Economics of Trade Secrecy Law*, in *THE ECONOMIC STRUCTURE OF INTELLECTUAL PROPERTY LAW* 354–71 (William M. Landes & Richard A. Posner eds., 2003). *But see* Bone, *supra* note 154, at 262 & n.94 (asserting that although the “incentive-based argument is one of the most frequently invoked” today, it is relatively new and “had little explicit impact on the development of trade secret doctrine in the nineteenth and early twentieth century”).

¹⁵⁷ *See, e.g.*, Landes & Posner, *supra* note 156, at 356–63 (discussing the choice between trade secrets and patents).

¹⁵⁸ “Trade secret law,” the Supreme Court stated, “encourages the development and exploitation of those items of lesser or different invention than might be accorded protection under the patent laws, but which items still have an important part to play in the technological and scientific advancement of the Nation.” *Kewanee Oil*, 416 U.S. at 493.

¹⁵⁹ Lemley, *The Surprising Virtues*, *supra* note 154, at 313 (“I argue that, paradoxically, trade secret law actually encourages disclosure, not secrecy.”).

¹⁶⁰ *Id.* at 333–36 (arguing trade secret laws can “encourage disclosure” and facilitate efficient market exchanges of information); *see also* *Kewanee Oil*, 416 U.S. at 486 (holding without trade secret protection “[t]he result would be to hoard rather than disseminate knowledge”).

¹⁶¹ *See* *Kewanee Oil*, 416 U.S. at 485–86 (“Even if trade secret protection against the faithless employee were abolished, inventive and exploitive effort in the area of patentable subject matter that did not meet the standards of patentability would continue, although at a reduced level. Alternatively with the effort that remained, however, would come an increase in the amount of self-help that innovative companies would employ.”); *e.g.*, Risch, *Why Do We Have Trade Secrets?*, *supra* note 154, at 43–44 (arguing that without trade secret protections, owners would be forced to resort to “self-help” measures).

tive to innovate and incentive to disclose rationales, goes as follows. Surely, one might argue, investments in innovation and exchanges of information are possible even without trade secret law, especially since companies could still rely on use of robust contractual restrictions.¹⁶² But commentators assert these activities would be more expensive, necessitating more physical and contractual precautions and would introduce significant inefficiencies into business activity, without the chance for a trade secret injunction.¹⁶³

B. Trade Secret Law's Special Focus on Facilitating Sharing with Employees

The “incentive to disclose” argument, just stated, is often linked to the so-called Arrow Information Paradox (Paradox).¹⁶⁴ The Paradox observes that parties cannot efficiently buy and sell information without valuing it, but the parties cannot value it without the seller having to disclose it to the buyer, thereby risking it being acquired without cost.¹⁶⁵ The argument encompasses far more than the usual buyer-seller context, however, and it implicates all kinds of productive exchanges that theoretically could not occur without legal protection.

One of the most important type of exchanges that trade secret law is believed to facilitate is productive sharing of information between employers and employees. Indeed, this is arguably the most important type of sharing exchange that trade secret law facilitates because a significant majority of trade secret disputes involve departing employees who are accused of taking information they lawfully obtained in the course of employment—not putative buyers, business partners, licensors, or hackers.¹⁶⁶

¹⁶² Bone, *supra* note 154, at 247 (arguing “most” of trade secret law’s “benefits are better achieved through contract”); *cf. Kewanee Oil*, 416 U.S. at 485–86 (discussing the disadvantages that would follow abolishment of trade secret laws).

¹⁶³ See, e.g., Risch, *Why Do We Have Trade Secrets?*, *supra* note 154, at 44 (“Contract law alone does not allow for a solution to maximize efficiency.”).

¹⁶⁴ See, e.g., Michael J. Burstein, *Exchanging Information Without Intellectual Property*, 91 TEX. L. REV. 227, 228–29 (2012) (introducing Arrow’s information paradox); Camilla A. Hrды, *Commercialization Awards*, 2015 WIS. L. REV. 13, 30 (discussing Arrow’s information paradox’s relevance to patent and trade secret theory); Lemley, *The Surprising Virtues*, *supra* note 154, at 336 (“Trade secret laws . . . serve as a partial solution to Arrow’s Information Paradox.”).

¹⁶⁵ Kenneth J. Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609, 615 (Nat’l Bureau of Econ. Research ed., 1962).

¹⁶⁶ Fishman & Varadarajan, *supra* note 27, at 15. In the DTSA’s first year, “two-thirds of all cases filed . . . involve[d] a current or former employee.” *Id.* (citing Levine & Seaman, *supra* note 141, at 146).

1. Employer-Employee Disclosures

Facilitating informational exchanges between employers and employees is a crucial justification for trade secret law's existence. This is implicit in the historical trajectory of the law, with trade secret protection arising in the Industrial Revolution. At this time the workplace was shifting from the master-apprentice context to large-scale production in which many employees outside of one's family or circle of acquaintances were exposed to trade secrets.¹⁶⁷ Employer-employee disclosures implicate more than concrete secrets that employers must, by necessity, share with employees, like production processes, technical blue-prints, and major client lists.¹⁶⁸ Additionally, such disclosures include those necessary for employers to effectively train their employees who need to learn how to operate new equipment and internal software, and how to carry out any number of specialized tasks and procedures that are part of what makes a company more productive than its peers.¹⁶⁹ The "training" in this context is not any different from other forms of sharing—it is just the delivery vehicle for imparting trade secrets.¹⁷⁰

The Supreme Court in *Kewanee* explained why disclosures of trade secrets to employees must be sacrosanct, specifically invoking the cost-reduction theory described above.¹⁷¹ If employer-employee disclosures meant sacrificing trade secret protection, the Court wrote, "inventive and exploitive effort . . .

¹⁶⁷ See *supra* notes 63–150 and accompanying text; see also *SI Handling Sys., Inc. v. Heisley*, 753 F.2d 1244, 1265 (3d Cir. 1985) ("[M]odern economic growth and development has pushed the business venture beyond the size of the one-man firm, forcing the businessman to a much greater degree to entrust confidential business information relating to technological development to appropriate employees.").

¹⁶⁸ See, e.g., *Rockwell Graphic Sys., Inc. v. DEV Indus., Inc.*, 925 F.2d 174, 175 (7th Cir. 1991) (discussing employer's need to share technical information related to manufacturing); *Rohm & Haas Co. v. Adco Chem. Co.*, 689 F.2d 424, 427 (3d Cir. 1982) (examining the need to share details of the production process); *Dicks v. Jensen*, 768 A.2d 1279, 1282–83 (Vt. 2001) (holding a customer list, even when shared, can be a trade secret).

¹⁶⁹ The incentive to train argument is usually discussed with respect to non-competes, but it applies equally here. See, e.g., *Barnett & Sichelman*, *supra* note 35, at 3 ("[N]oncompetes induce a firm to finance training that the employee cannot self-finance in the form of reduced wages."); Evan P. Starr, *Consider This: Training Wages, and the Enforceability of Covenants Not to Compete*, 72 CORNELL INDUS. LAB. REL. REV. 783, 785 (2019) (formerly titled *Training the Enemy? Firm-Sponsored Training and the Enforceability of Covenants Not to Compete*) (finding that employers invest more in training employees in states that enforce covenants not to compete); see also *Orkin Exterminating Co. v. Foti*, 302 So.2d 593, 595 (La. 1974) (discussing Louisiana's exception to ban on non-competes "where the employer incurs an expense in the training of an employee" (citing LA. STAT. ANN. § 23:921 (1962))).

¹⁷⁰ *Morgan's Home Equip. Corp. v. Martucci*, 136 A.2d 838, 846 (Pa. 1957) ("An employe [sic] may receive specialized training and skills, and learn the carefully guarded methods of doing business which are the trade secrets of a particular enterprise."); see also *Graves, Common Law Confidentiality*, *supra* note 76, at 86–87 (discussing situations where "training" of employees is used as a justification for post-employment restrictions).

¹⁷¹ See 416 U.S. at 486.

would continue,” but “at a reduced level,” and with inefficiencies introduced in the form of “self-help” and unproductive restructuring of the research process.¹⁷² The Court speculated that even employee compensation might be affected, with companies favoring only those employees whose commitment to the company they could ensure through salaries and benefits.¹⁷³ Indeed, a major trade secret treatise goes so far as to suggest that, without the ability to protect trade secrets disclosed to employees, employers might not feel safe hiring employees at all, thereby reducing the job opportunities available for workers.¹⁷⁴

2. How Trade Secret Doctrines Shield Employer-Employee Disclosures

Trade secret law’s goal to facilitate employer-employee disclosures is crystallized in the law’s secrecy rules, discussed in Part I, which do not count “controlled disclosures” to employees as a secrecy-destroying event.¹⁷⁵ As the Supreme Court put it in *Kewanee*, discussing Ohio’s trade secret law at the time:

[S]ecrecy is not lost . . . if the holder of the trade secret reveals the trade secret to another “in confidence, and under an implied obligation not to use or disclose it.”¹⁷⁶ These others may include those of

¹⁷² *Id.* The Court further observed, “As a result, organized scientific and technological research could become fragmented, and society, as a whole, would suffer.” *Id.*

¹⁷³ *Id.* The Court speculated about several adverse consequences that could ensue:

Knowledge would be widely dispersed among the employees of those still active in research. Security precautions necessarily would be increased, and salaries and fringe benefits of those few officers or employees who had to know the whole of the secret invention would be fixed in an amount thought sufficient to assure their loyalty. Smaller companies would be placed at a distinct economic disadvantage, since the costs of this kind of self-help could be great, and the cost to the public of the use of this invention would be increased. The innovative entrepreneur with limited resources would tend to confine his research efforts to himself and those few he felt he could trust without the ultimate assurance of legal protection against breaches of confidence.

Id.

¹⁷⁴ 1 MILGRIM ON TRADE SECRETS, *supra* note 69, at § 5.02[2] (asserting that an “employer-owner’s claim to protection of proprietary trade secrets disclosed to or learned by an employee in the course of employment can be justified,” *inter alia*, because it “permits job opportunities and employment stability”).

¹⁷⁵ *See supra* notes 63–150 and accompanying text; *see also* UTSA § 1, cmt (UNIF. LAW COMM’N 1985) (“[R]easonable use of a trade secret including controlled disclosure to employees and licensees is consistent with the requirement of relative secrecy.”); *see also* RESTATEMENT (FIRST) OF TORTS § 757 cmt. b (AM. LAW INST. 1939) (providing trade secret protection is not destroyed when secrets are shared with employees).

¹⁷⁶ *Kewanee Oil*, 416 U.S. at 475 (quoting *Cincinnati Bell Foundry Co v. Dodds*, 10 Ohio Dec. Reprint 154, 156 (Ohio Super. Ct. 1887)).

the holder's "employees to whom it is necessary to confide it, in order to apply it to the uses for which it is intended."¹⁷⁷

Employer-employee sharing is further supported at a more granular level by the law's "reasonable efforts" requirement, which requires a trade secret owner to take reasonable secrecy precautions to preserve the secrecy of claimed trade secrets, but does not, as a general matter, prevent employers from sharing information with employees.¹⁷⁸ Indeed, in Judge Posner's view, employers should be encouraged to share with employees where it is efficient to do so.¹⁷⁹ A caveat is that employees are supposed to receive sufficient "notice" that information is a trade secret that is intended to be kept confidential.¹⁸⁰ Providing notice is not necessarily difficult to do as "employees can be notified by the simple act of delivering a piece of paper."¹⁸¹

More broadly, the reasonable efforts and duty of confidentiality requirements are inherently limited in their ability to protect employees from overprotection. The problem is that so long as employers do take legally sufficient efforts to protect their trade secrets as against their own employees, the law permits them to do so.¹⁸² In many real-world situations, employers provide extensive notice to employees—constantly telling them through confidentiality ledgers, security guards, exit interviews, and use of "clean rooms" to partition off sensitive hires—that the information they are receiving is confidential, proprietary, and protected trade secrets.¹⁸³ Can all of this information be protected, so

¹⁷⁷ *Id.* (quoting *Nat'l Tube Co. v. E. Tube Co.*, 13 Ohio C.D. 468, 470 (1902)).

¹⁷⁸ UTSA § 1; 18 U.S.C. § 1839(3)(A) (2018); *see also Rockwell Graphic Sys.*, 925 F.2d at 179 ("[W]hat is a 'reasonable' precaution . . . depends on a balancing of costs and benefits that will vary from case to case . . .").

¹⁷⁹ *Rockwell Graphic Sys.*, 925 F.2d at 180 ("[R]econfigurations of patterns of work and production are far from costless; and therefore perfect security is not optimum security.").

¹⁸⁰ *See* Robert G. Bone, *Trade Secrecy, Innovation, and the Requirement of Reasonable Secrecy Precautions*, in *THE LAW AND THEORY OF TRADE SECRECY*, *supra* note 76, at 46, 49–50, 59–60 [hereinafter Bone, *Reasonable Secrecy Precautions*] (discussing the argument that reasonable secrecy precautions provide "notice" to employees that information is meant to be kept secret); *see also* Elizabeth A. Rowe, *Contributory Negligence, Technology, and Trade Secrets*, 17 *GEO. MASON L. REV.* 1, 11–12 (2009) [hereinafter Rowe, *Contributory Negligence*] (discussing various ways courts consider providing proper notice to employees in assessing reasonable efforts).

¹⁸¹ Bone, *Reasonable Secrecy Precautions*, *supra* note 180, at 59.

¹⁸² The best example is the blanket non-disclosure agreement providing that essentially everything learned on the job is a trade secret. *See Varadarajan, Trade Secret-Contract Interface*, *supra* note 27, at 1560–63 (observing the role of a generalized non-disclosure agreement in satisfying the reasonable efforts requirement); *see also* David S. Almeling et al., *A Statistical Analysis of Trade Secret Litigation in State Courts*, 46 *GONZ. L. REV.* 57, 80–83 (2011) (showing courts almost always assess whether plaintiff used a confidentiality contract).

¹⁸³ Cundiff, *Maximum Security*, *supra* note 39, at 307–11 (advising employers to utilize an array of protective measures).

long as it is generally unknown outside the company and has been the subject of sufficient effort on the employer's part to keep in secret?¹⁸⁴

The answer must be no. Even though multiple facets of trade secret doctrine preserve employers' ability to mindfully disclose trade secrets to employees without losing protection, there needs to be an additional layer of protection for employees on the receiving side of these exchanges.

C. The Need for an Outlet: Trade Secret Law's Exclusion of Employees' General Knowledge, Skill, and Experience

The General Knowledge, Skill, and Experience Exclusion is an equitable doctrine that has evolved precisely to mitigate the costs trade secret law imposes on workers who receive trade secrets in the course of employment. This is where the paradox discussed in the Article's title enters. Employers are told that they can disclose trade secrets to employees without losing protection, but that doing so will potentially destroy their ability to protect that information if it becomes a part of their employees' general knowledge, skill, and experience. This Part argues that the paradox is necessary for trade secret law to work.¹⁸⁵ Some spillage of trade secrets to employees is justified based on two related but distinct policy concerns.¹⁸⁶

1. The Individual Employee's Right to Work, Improve, and Move

First, and most importantly, the Exclusion exists to protect individual workers from the harsh circumstance that because they were exposed to their employer's trade secrets, they may later be restricted in their ability to work elsewhere. When the trade secret plaintiff seeks an "activity injunction"¹⁸⁷ to restrict an employee's ability to assume new employment responsibilities elsewhere, trade secret law becomes like "any form of post-employment restraint."¹⁸⁸ It "reduces the economic mobility of employees and limits their

¹⁸⁴ See 18 U.S.C. § 1839(3) (defining a trade secret as requiring "reasonable measures" to keep it secret and "not being generally known").

¹⁸⁵ See *infra* notes 186–206 and accompanying text.

¹⁸⁶ Cf. Pedraza-Farina, *supra* note 27, at 1599 (arguing that "employee migration" to other firms "generates important knowledge spillovers as employees transfer ideas and crucial know-how to other local firms").

¹⁸⁷ Victoria Cundiff et al., *Getting the Remedy Just Right: Making Sure That "Equitable" Relief Really Is*, 13–15, THE SEDONA CONFERENCE (Dec. 2017), https://thesedonaconference.org/sites/default/files/conference_papers/5B2.2%5D%20V.%20Cundiff%20et%20al_Getting%20the%20Remedy%20Just%20Right%20Making%20Sure%20that%20Equitable%20Relief%20Really%20Is_2017.pdf [<https://perma.cc/CCY9-TAPP>] (discussing key issues in granting "activity injunctions" especially as regards employees).

¹⁸⁸ *SI Handling Sys.*, 753 F.2d at 1265 (quoting *Wexler v. Greenberg*, 160 A.2d 430, 435 (Pa. 1960)).

personal freedom to pursue a preferred course of livelihood.”¹⁸⁹ This situation is caused precisely by the sharing exchange that trade law is designed to facilitate. While employers can certainly complain the Exclusion creates a paradox for them, the employee is subjected to a paradox first. As the Pennsylvania Supreme Court put it in the 1960 case of *Wexler v. Greenburg*, “paradoxically,” the employee who receives his employer’s trade secrets “is restrained, because of his increased expertise, from advancing further in the industry in which he is most productive.”¹⁹⁰

The General Knowledge Skill, and Experience Exclusion mitigates this imposition on the employee by creating a counter-imposition on the employer, thereby denying the employer protection in situations where doing so would deprive the employee of the ability to use his or her newly enhanced skills and knowledge in new pursuits.¹⁹¹ The Exclusion thus mandates that courts balance the two parties’ interests: the employer’s need to protect trade secrets, on the one hand, and the employee’s need to pursue fruitful occupation, on the other.¹⁹²

The Exclusion is also supported by contract theory. As a general matter, people are supposed to be free to enter into mutually beneficial contracts.¹⁹³

¹⁸⁹*Id.*; see, e.g., *Morgan’s Home Equip.*, 136 A.2d at 846 (“[Covenants not to compete impose hardships on a]n employe [sic] [who] is prevented from practicing his trade or skill, or from utilizing his experience in the particular type of work with which he is familiar. He may encounter difficulty in transferring his particular experience and training to another line of work, and hence his ability to earn a livelihood is seriously impaired.”); see also Lobel, *New Cognitive Property*, *supra* note 76, at 848 (discussing the “deadweight loss” that human capital laws can place on workers who “risk their very liberty to move through their careers”); cf. Viva R. Moffat, *Human Capital as Intellectual Property? Non-Competes and the Limits of IP Protection*, 50 AKRON L. REV. 903, 926 (2016) [hereinafter Moffat, *Human Capital*] (“[T]he affected employee may be unable to work in her chosen field or in the location where she resides for some significant period of time.”).

¹⁹⁰ *Wexler*, 160 A.2d at 435; see also *SI Handling Sys.*, 753 F.2d at 1265 (quoting the same language).

¹⁹¹ *SI Handling Sys.*, 735 F.2d at 1267–68 (Adams, J., concurring); see, e.g., *AMP Inc. v. Fleischacker*, 823 F.2d 1199, 1205 (7th Cir. 1987) (holding “general skills and knowledge . . . are things an employee is free to take and to use in later pursuits” (quoting *Fleming Sales Co. v. Bailey*, 611 F. Supp. 507, 514 (N.D. Ill. 1985))); *Midland-Ross Corp. v. Yokana*, 293 F.2d 411, 412 (3d Cir. 1961) (“[A]n employee after leaving the service of an employer may carry on the same business on his own and use for his own benefits the things he has learned while in the earlier employment.”); see also Graves, *The Law of Negative Knowledge*, *supra* note 27, at 408 (“If employees could not safely transfer their training and skills from job to job . . . they would be unable to change jobs within the same field or start new, competing businesses.”).

¹⁹² CALLMANN, *supra* note 26 (asserting that distinguishing a trade secret from general knowledge, skill, and experience “is an issue which can only be resolved by a balancing of the conflicting social and economic interests which are associated with two desirable goals”—employee mobility and protection against unfair business practices); see, e.g., *Basic Am., Inc. v. Shatila*, 992 P.2d 175, 187 (Idaho 1999) (“Trade secret misappropriation law inherently involves balancing between the competing interests of employers and employees.”).

¹⁹³ See, e.g., *Watertown Thermometer Co. v. Pool*, 4 N.Y.S. 861, 862–63 (Gen. Term 1889) (holding “public policy and the interests of society favor the utmost freedom of contract”); see also TURNER, *supra* note 45, at 115 (“Where contracts are concerned, two principles of law conflict: the

This is exactly what occurs when an employee enters an employment relationship. The employee agrees to provide the employer with certain services by applying existing skills, knowledge, and experience to specified tasks on behalf of the employer.¹⁹⁴ In exchange, the employee receives a salary, benefits, and the opportunity to learn from the employer further skills, knowledge, and experiences. The exchange is by necessity a two-way street. The employee, especially if already exceptionally skilled, can be expected to impart information to the employer. Meanwhile, the employer can be expected to impart knowledge, skill, and training to the employee that he or she did not have before.

Indeed, this proviso is sometimes stated explicitly in employment contracts, and is referred to as a “residual knowledge clause.” For example, in *Hogan Systems, Inc. v. Cybresource International, Inc.*, a 1997 case before the U.S. District Court for the Northern District of Texas, the employee had signed a confidentiality agreement that stated the employee would not use or disclose the employer’s trade secrets.¹⁹⁵ But the agreement expressly included a caveat that the “[e]mployee will accrue general knowledge, skill and experience during the course of his or her employment which may be of benefit to, and used by, Employee in other employment situations following separation from [plaintiff employer].”¹⁹⁶ Even when there is no such clause, the General Knowledge, Skill, and Experience Exclusion imposes this same obligation as a default by holding that trade secret law cannot be used to protect this type of “residual knowledge,” or at least not unless the employee waives it in an otherwise enforceable contract.

If the employee does not contractually waive the right to obtain new knowledge, skill, and experience on the job, however, trade secret law may not be used to effectively force the employee into such an agreement after the

principle of freedom of trade and the principle of freedom of contract.”); Varadarajan, *Trade Secret-Contract Interface*, *supra* note 27, at 1576 (discussing freedom of contract argument).

¹⁹⁴ This is sometimes called “human capital.” CHRISTINE GREENHALGH & MARK ROGERS, INNOVATION, INTELLECTUAL PROPERTY, AND ECONOMIC GROWTH 229 (2010) (“The term human capital is defined as all the knowledge, education, training, and experience that is embodied in workers.”); *see also* Edmund Kitch, *The Law and Economics of Rights in Valuable Information*, 9 J. LEGAL STUD. 683, 684 (1980) (discussing forms of human capital); Lobel, *New Cognitive Property*, *supra* note 76, at 794 (discussing definitions of “knowledge” as they relate to “human capital law”).

¹⁹⁵ No. 3:96-CV-2083-H, 1997 WL 311526, at *5 (N.D. Tex. June 2, 1997), *aff’d*, 158 F.3d 319 (5th Cir. 1998).

¹⁹⁶ *Id.* On appeal, the Fifth Circuit Court of Appeals affirmed the district court’s holding, finding that the claimed secrets constituted “general knowledge, skill, and experience” which the defendants “garnered as a result of their former employment with [plaintiff], and which their Confidentiality Agreements . . . recognized as not being a trade secret.” *Hogan Sys., Inc. v. Cybresource Int’l, Inc.*, 158 F.3d 319, 324 (5th Cir. 1998), *abrogated by* *Kirtsang v. John Wiley & Sons, Inc.*, 136 S. Ct. 1979 (2016).

fact.¹⁹⁷ So, for example, commentators like Edmund Kitch have argued that employees should be free to negotiate employment contracts in which they agree not to compete for a certain period after departure, because this enables employers to “finance” the employee’s training, secure in the knowledge the employee cannot simply leave to work for a competitor without repaying the “loan.”¹⁹⁸ This may be well and good—at least in states that enforce such non-compete agreements.¹⁹⁹ But the freedom of contract argument does not work if the employee has not signed a non-compete contract and negotiated a mutually beneficial agreement with the employer.²⁰⁰ The Exclusion thus prevents employers from using trade secret law to force employees into non-compete obligations to which they never agreed. In this sense, the Exclusion parallels the reluctance of courts in some states to grant injunctions based on the argument that an employee will inevitably disclose a former employer’s trade secrets.²⁰¹

2. Economic Justifications for Employee Mobility

Second, the Exclusion is sometimes said to serve a public interest in employee mobility and to contribute, on aggregate, to productivity, innovation, and economic growth. While the first rationale centers around preserving individuals’ rights to work and improve in productive employment exchanges, this second rationale centers around sound economic policy. As one oft-cited Massachusetts opinion puts it, the right of an employee to use his or her “‘general knowledge, experience, memory and skill’ . . . promotes the public interest in labor mobility and the employee’s freedom to practice his profession and in mitigating monopoly. The law thus maximizes the benefit of the national store of skill and knowledge.”²⁰²

¹⁹⁷ RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 42 cmt. d (AM. LAW INST. 1995) (“[A]bsent an enforceable covenant not to compete, a former employee may utilize in competition with the former employer the general skills, knowledge, training, and experience acquired during the employment . . .”).

¹⁹⁸ Kitch, *supra* note 194, at 685.

¹⁹⁹ See *supra* notes 73, 76 (discussing California’s ban of non-compete agreements).

²⁰⁰ See, e.g., *SI Handling Sys.*, 753 F.2d at 1258–59 (“SI did not require such covenants from its employees, and cannot now through the medium of trade secrets law prevent them from exploiting their . . . contacts.”).

²⁰¹ This is sometimes called the “inevitable disclosure” doctrine. Compare *PepsiCo, Inc. v. Redmond*, 54 F.3d 1262, 1269 (7th Cir. 1995) (recognizing that the doctrine exists in Illinois law), with *Whyte v. Schlage Lock Co.*, 125 Cal. Rptr. 2d 277, 281 (Ct. App. 2002) (holding that the inevitable disclosure doctrine is “contrary to California law and policy because it creates an after-the-fact covenant not to compete restricting employee mobility”).

²⁰² *Dynamics Research Corp. v. Analytic Scis. Corp.*, 400 N.E.2d 1274, 1282 (Mass. App. Ct. 1980) (quoting *J. T. Healy & Son v. James A. Murphy & Son*, 260 N.E.2d 723, 731 (Mass. 1970)); see also *Wexler*, 160 A.2d at 435 (“[S]ociety suffers because competition is diminished by slackening the dissemination of ideas, processes and methods.”).

The idea behind such assertions is that the workforce will be more productive if employers are not able to prevent employees from transferring improved skills from one job to another, and the market is less vulnerable to monopolies.²⁰³ It is also important to note that the economic benefits of keeping employees free to move between firms is a subject of controversy, with commentators diverging markedly in their assessment of the implications of legal restraints on employees for innovation and economic growth.²⁰⁴ These economic debates frequently take center-stage in discussions regarding non-competition contracts.²⁰⁵ But they have not been central to discussions of the General Knowledge, Skill, and Experience Exclusion. Rather, courts seem far more concerned in this context with the welfare of the individual employee whose right to work in a particular context is threatened.²⁰⁶

III. APPLYING THE EXCLUSION

Deciding what information constitutes general knowledge, skill, and experience requires courts to have a sophisticated understanding of how to apply the Exclusion in a given trade secrets dispute. At present, courts lack this understanding. Whereas Part II explained the policy goals behind the Exclusion, this Part uses that normative framework to develop the Exclusion at a doctrinal level. This Part also identifies where courts are currently getting the application wrong and recommends ways to improve their analysis.

²⁰³ *SI Handling Sys.*, 753 F.2d at 1268 (Adams, J., concurring) (“Reasonable movement promotes competition and the dissemination of ideas, which in turn benefit the consumer. Important values are served when the resources of skill and information are allocated in such a manner that they are utilized most efficiently to produce goods and services.”) (citation omitted).

²⁰⁴ See Michael Risch, *Do Non-Compete Agreements Really Impede Innovation?*, WRITTEN DESCRIPTION (Apr. 12, 2016, 8:16 AM), <https://writtendescription.blogspot.com/2016/04/do-non-compete-agreements-really-impede.html> [<https://perma.cc/B8RL-A9U8>] (discussing Barnett and Sichelman’s critique of the argument that legal restraints on employee mobility harm innovation). Compare Orly Lobel, *The DTSA and the New Secrecy Ecology*, 1 BUS. ENTREPRENEURSHIP & TAXL. REV. 369, 376 (2017) (noting “empirical studies . . . highlighting the effects of diminishing job mobility on economic growth, entrepreneurship, and the flow of knowledge”), with Barnett & Sichelman, *supra* note 35, at 35–38 (critiquing this argument and the studies that are said to support it).

²⁰⁵ This contrasts with how academic discussions proceed with respect to non-compete agreements, where efficiency is often seen as central. Moffatt, *Human Capital*, *supra* note 189, at 911 (noting that in discussions surrounding non-competes, the main concern seems to be efficiency rather than “personal autonomy and dignity concerns”).

²⁰⁶ While I do not have evidence of this, it could be the fact that in the non-compete context, employees have signed on to the restraint—so the public interest in mobility seems comparatively more significant.

A. Core Attributes of the Exclusion—and Where Courts Get Them Wrong

1. Applies Only When an Individual's Right to Work Is Threatened

The first defining attribute of the Exclusion is that it applies only in cases in which the trade secret plaintiff seeks a remedy that would hinder another person—in particular, a current or former employee—from pursuing his or her livelihood.²⁰⁷ The main example is where the plaintiff seeks an injunction preventing the employee from taking a new job or placing conditions on that job. Accordingly, the Exclusion potentially applies in cases brought directly against departing employees.²⁰⁸ It also potentially applies in cases brought to prevent competitors from selling products allegedly developed through the use of trade secrets from plaintiff-employers.²⁰⁹ Lastly, the Exclusion potentially applies in other similar scenarios, such as where an independent contractor obtains residual knowledge in the course of a business relationship.²¹⁰

In contrast, the Exclusion cannot be raised when there is no individual's livelihood to protect. For instance, the Exclusion would not apply in cases involving third parties who obtain access to secret information through improper means²¹¹ or in cases involving a former employee who never had time to learn the information on the job before the alleged misappropriation occurred.²¹² These circumstances do not implicate the Exclusion's motivating policy con-

²⁰⁷ See, e.g., *Am. Can Co. v. Mansukhani*, 742 F.2d 314, 329 (7th Cir. 1984) (“Particularly in the case of a former employee, whose livelihood may well depend on the scope of the former employer’s trade secret protection, it is important to permit the employee to use his or her skill, training and experience.”).

²⁰⁸ See, e.g., *Wexler v. Greenberg*, 160 A.2d 430, 431–32 (Pa. 1960) (employer sued former employee, a chief chemist, who was allegedly using secret chemical formulas he had developed in his work for plaintiff on behalf of a new employer).

²⁰⁹ See, e.g., *Van Prods. Co. v. Gen. Welding & Fabricating Co.*, 213 A.2d 769, 771 (Pa. 1965) (plaintiff sought an injunction against competitor defendants to bar them from “making, advertising and selling” a product allegedly developed because of the former employee’s knowledge of plaintiff’s trade secrets).

²¹⁰ See, e.g., *Hicklin Eng’g, L.C. v. Bartell*, 439 F.3d 346, 349 (7th Cir. 2006) (noting that in the context of software programming, an independent contractor working for a particular client “may reuse the source code for another client’s project” barring a promise not to or an industry norm to the contrary), *abrogation recognized by RTP LLC v. ORIX Real Estate Capital, Inc.*, 827 F.3d 689 (7th Cir. 2016).

²¹¹ See, e.g., *E.I. Du Pont De Nemours & Co. v. Christopher*, 431 F.2d 1012, 1014 (5th Cir. 1970) (recognizing a cognizable claim for “discovery of a trade secret by any ‘improper’ means”). The Exclusion also presumably would not apply when trade secrets are raised as an evidentiary privilege against the government or a litigant trying to gain access to information. There would be no legal basis for the person seeking access to argue that this constitutes an employee’s general knowledge, skill, and experience. On the trade secret privilege, see Rebecca Wexler, *Life, Liberty, and Trade Secrets: Intellectual Property in the Criminal Justice System*, 70 STAN. L. REV. 1343, 1377–95 (2018) (providing a history of the trade secret privilege in both the civil and criminal contexts).

²¹² Cf. *Peggy Lawton Kitchens, Inc. v. Hogan*, 466 N.E.2d 138, 140 (Mass. App. Ct. 1984) (finding the defendant’s lack of experience in the industry and his use of a “ruse” relevant to the secrecy analysis).

cern to protect individuals' right to acquire new knowledge and skills from their employer.

a. An Equitable Doctrine—Not a Full Subject Matter Bar

A consequence of this principle is that, even though many courts characterize the Exclusion as a subject matter bar, the Exclusion is not a complete bar.²¹³ It does not apply against the world. The owner of a trade secret may be unable to enforce it against its own employee, for whom it constitutes “general skill, knowledge, and experience,” yet be able to enforce it against a third party who never previously encountered the information.²¹⁴

Importantly, there is nothing inherently wrong with characterizing the Exclusion as a subject matter bar, just because it is “relative” in application. As a general matter, trade secret law is different from patent law, where rights necessarily operate against the world.²¹⁵ It is thus not completely inconsistent, as it would be in patent law, to tell a trade secret owner that they do not have a right against everyone.²¹⁶ In fact, trade secret law’s “reasonable efforts” requirement is also relative in application. The plaintiff’s efforts may be deemed sufficient to protect the information as against one defendant—for instance, a photographer flying a plane over plaintiff’s uncovered plant—but not with respect to another defendant, such as an employee who was not given sufficient “notice” that the information was intended to be kept secret.²¹⁷

²¹³ See, e.g., *Razor Tech., LLC v. Hendrickson*, No. 18-654, 2018 WL 2063844, at *10 (E.D. Pa. May 3, 2018) (“[T]he concept of a trade secret does not include an employee’s subjective knowledge obtained while in the course of employment.” (quoting *Select Med. Corp. v. Hardaway*, No. 05-3341, 2006 WL 859741, at *8 (E.D. Pa. Mar. 24, 2006))); *U.S. Gypsum Co. v. LaFarge N. Am., Inc.*, 508 F. Supp. 2d 601, 624 (N.D. Ill. 2007) (“General knowledge, skill, and experience gained by an employee during employment cannot be claimed as a trade secret.”).

²¹⁴ See, e.g., *Bickley v. Frutchey Bean Co.*, 173 F. Supp. 516, 524 (E.D. Mich. 1959) (“[A]n employer cannot prevent *his employee* from using the skill and intelligence acquired through experience received in the course of the employment.” (emphasis added) (quoting *Official Aviation Guide Co. v. Am. Aviation Assocs.*, 150 F.2d 173, 178 (7th Cir. 1945))).

²¹⁵ See RESTATEMENT (FIRST) OF TORTS § 757 cmt. b (AM. LAW INST. 1939) (“The patent monopoly is a reward to the inventor. But such is not the case with a trade secret. . . . The protection is merely against breach of faith and reprehensible means of learning another’s secret.”); see also *Bone, supra* note 154, at 267 n.116 (“[R]elative to patent, trade secret law tolerates more potential competition, which can somewhat mitigate monopoly effects.”).

²¹⁶ See 35 U.S.C. § 154(a)(1) (2018) (“Every patent shall contain . . . a grant to the patentee . . . of the right to exclude others from making, using, offering for sale, or selling the invention . . .”).

²¹⁷ Indeed, it is theoretically possible for an employer to meet the “reasonable efforts” requirement with respect to one employee, but not another employee, since the courts tend to view this requirement partly as circumstantial evidence that the employee obtained the information improperly. Greater notice that information was intended to be kept secret means an employee more likely acted wrongly in obtaining it. See *Rowe, Contributory Negligence, supra* note 180, at 10–11 (“[W]here a plaintiff makes a strong showing of reasonable efforts to protect trade secret information, a court is also more likely to infer that the defendant used improper means to obtain the information.”); see also *Rockwell Graphic Sys., Inc. v. DEV Indus., Inc.*, 925 F.2d 174, 179 (7th Cir. 1991) (noting that the

As a matter of history and logic, however, it is more accurate to view the Exclusion as an equitable doctrine that limits a trade secret owner's ability to enforce its rights against a particular individual for reasons of public policy—not as a subject matter bar. As mentioned in Part I, courts historically viewed the Exclusion as arising from their equitable authority to deny an injunction.²¹⁸ Courts continue to reference “equity” and the need to protect employees' rights to pursue an occupation, even as they state that at least some of the information plaintiff seeks to protect is not “in truth” a trade secret.²¹⁹ In practice, many courts may find certain trade secrets exist, but then go on to order that the court narrow the injunction to protect one or more employees' rights to pursue their livelihood.²²⁰

An example of this approach comes from *T-N-T Motorsports, Inc. v. Hennessey Motorsports, Inc.*, a 1998 decision by the Texas Court of Appeals.²²¹ The defendants, Roy and Joe Terpstra, along with their new employer, T-N-T Motorsports, were sued for common law misappropriation of trade secrets related to high performance upgrades for sports vehicles like the Dodge Viper.²²² For around six years, the Terpstas had worked for the plaintiff, Hennessey Motorsports, Inc. (Hennessey), selling a custom enhancement package called the “Venom” to Dodge Viper owners.²²³ The Terpstas quit their jobs at Hennessey to work full-time for a competing body parts shop, T-N-T Motorsports, Inc., where they began selling identical performance upgrades at a better price.

“greater the precautions” plaintiff took to preserve the secrecy of the information, the greater the “probability that [defendant] obtained them through a wrongful act; the owner has taken pains to prevent them from being obtained otherwise”).

²¹⁸ See *supra* notes 68–122 and accompanying text.

²¹⁹ See, e.g., *Levine v. E.A. Johnson & Co.*, 237 P.2d 309, 327 (Cal. Dist. Ct. App. 1951) (“To grant the relief prayed for by appellants would virtually operate to deprive respondents of their right to pursue a gainful and lawful occupation in the field. . . . This, equity cannot do. . . . Injunction is not available to an employer to restrain a former employee if the alleged secrets are not in truth secrets.”); see also *SI Handling Sys. v. Heisley*, 753 F.2d 1244, 1262 (3d Cir. 1985) (concluding that the district court “erred in finding that the appellants’ ‘know-how’” was the employer’s trade secret based on the rule that “the employee, upon terminating his employment relationship with his employer, is entitled to take with him ‘the experience, knowledge, memory, and skill, which he gained while there employed.” (quoting *Van Prods.*, 213 A.2d at 776)); *Eng’g Assocs., Inc. v. Pankow*, 150 S.E. 2d 56 (N.C. 1966) (“[E]quity has no power to compel a man who changes employers to wipe clean the slate of his memory.” (quoting *Peerless Pattern Co. v. Pictorial Review Co.*, 147 A.D. 715, 717 (N.Y. App. Div. 1911))).

²²⁰ See *SI Handling Sys.*, 753 F.2d at 1266 (ordering injunction be narrowed and exclude generalized activities like “conceiving,” because “[a] court of equity should not issue an order that it cannot enforce”).

²²¹ 965 S.W. 2d 18 (Tex. App. 1998).

²²² *Id.* at 20–21. The court applied trade secret law based on the common law of Texas at the time. The court cited a rule for secrecy that resembles the Uniform Trade Secrets Act’s (UTSA), stating that “[t]he word ‘secret’ implies that the information is not generally known or readily available.” *Id.* at 22; see also UTSA § 1(4) (UNIF. LAW COMM’N 1985) (defining trade secret). Texas adopted a version of the UTSA in 2013. TEX. CIV. PRAC. & REM. CODE ANN. §§ 134A.001–.007 (2013).

²²³ *T-N-T Motorsports*, 965 S.W.2d at 20.

Defendants called their upgrades “Serpent” instead of “Venom.”²²⁴ After a state trial court granted Hennessey’s motion for a preliminary injunction, the defendants appealed on two distinct grounds. First, they argued that the Terpstras were “merely utilizing general knowledge and expertise acquired through years of experience within the automotive industry.” Second, they claimed “that a lack of secrecy prevents [Hennessey’s] alleged confidential information from being trade secrets.”²²⁵

The appeals court held in favor of Hennessey, observing that “the specifics of the Venom upgrades” and certain customer and vendor and pricing information were not generally known to the public and were clearly “confidential and intended to be kept a secret.”²²⁶ The court did not actually address defendants’ additional argument, that the information constituted unprotectable general knowledge and expertise. Instead, in recognition of the Terpstra’s concerns “for their right to earn a livelihood in their area of expertise,” the court narrowed the injunction to allow the Terpstras to continue performing at least some kinds of sports vehicle upgrades at their competing business.²²⁷

The *T-N-T Motorsports* court’s approach—holding the former employer possesses trade secrets but narrowing the injunction to address the employees’ right-to-work concerns—is quite common and appears in many of the cases addressed in this article.²²⁸ The upshot is that, in practice, the Exclusion operates more like an equitable doctrine that preserves a former employee’s right to work rather than like a subject matter bar that fully denies trade secret protection.

b. The Ultimate Burden of Proof Is on the Plaintiff

The major caveat to viewing the General Knowledge, Skill, and Experience Exclusion as an equitable doctrine is that the burden of proof must still

²²⁴ *Id.* at 20–21.

²²⁵ *Id.* at 22.

²²⁶ *Id.* at 23.

²²⁷ *Id.* at 21, 26. Whereas the initial wording prevented Defendants from using “any information” related to Dodge Vipers or offering “any types of services” on Dodge Vipers—which was clearly overbroad—the court held the injunction should be limited to preventing Defendants from doing those activities in a way that used “Hennessey Trade Secret information.” *Id.* at 25–26.

²²⁸ See, e.g., *Am. Can Co.*, 742 F.2d at 333–34 (narrowing the requested injunction to take into account that it was overbroad and prevented the defendants from using their general, knowledge, skill, and experience); *Winston Research Corp. v. Minn. Mining & Mfg. Co.*, 350 F.2d 134, 143–44 (9th Cir. 1965) (narrowing lower court’s injunction to protect former employees’ ability to use their general skill, knowledge, and experience); *L.M. Rabinowitz & Co. v. Dasher*, 82 N.Y.S. 2d 431, 439, 442 (Sup. Ct. 1948) (enjoining a former employee from using the plaintiff’s specific machine, despite employee’s argument that he was using only general skill and experience, but narrowing the injunction to his right to continue working in the business generally); see also *SI Handling Sys.*, 753 F.2d at 1266 (ordering an injunction to be narrowed and exclude generalized activities like “conceiving,” because “[a] court of equity should not issue an order that it cannot enforce.”).

remain with plaintiff. As with other trade secret subject matter requirements, plaintiff bears the ultimate burden to prove that claimed information is not general knowledge, skill, and experience. A leading trade secrets expert appears to endorse this view, maintaining that, “where there is no restrictive covenant, the plaintiff-employer . . . may have the burden of carefully identifying its trade secret and isolating it from the defendant ex-employee’s prior *and* job-enhanced skills.”²²⁹ This indicates, correctly, that the Exclusion is part of plaintiff’s prima facie case and should be treated like other thresholds for protection, such as the requirement that information not be generally known or readily ascertainable.

This comports with the general rule that plaintiffs in trade secrets cases bear the burden to show *both* ownership of trade secrets and that equitable remedial factors support plaintiff’s right to a remedy.²³⁰ This includes, most relevantly, the factor that the balance of harms, between the plaintiff and the defendant or between plaintiff and third parties, weighs in plaintiff’s favor.²³¹ This is also in line with the Exclusion’s policy to protect individual employees’ right to work because it alleviates the pressures on defendant-employees to settle the case early or avoid risky activities like leaving a firm to work elsewhere.²³²

2. Applies to Information That Is Otherwise Completely Secret

A second defining attribute of the Exclusion is that it potentially applies even to information that is otherwise completely secret to the plaintiff and not known at all to others outside the company. As Turner stated in his 1962 treatise:

[E]ven though a matter be of great value and be secret, if a court decides that it is part of the personal skill, knowledge or experience of the disclosee, it will neither enforce a contract fettering the latter’s

²²⁹ 1 MILGRIM ON TRADE SECRETS, *supra* note 69, at § 5.02[3][c].

²³⁰ *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006) (noting that “well-established principles of equity” require “a plaintiff seeking a[n] . . . injunction must satisfy a four-factor test”); *U.S. Gypsum Co.*, 508 F. Supp. 2d at 624 (“The party asserting the trade secret . . . ha[s] the burden of first establishing that the information qualified as a trade secret.”).

²³¹ *eBay Inc.*, 547 U.S. at 391 (requiring a “balance of hardships between the plaintiff and the defendant” to determine whether an equitable remedy shall be granted); *Bimbo Bakeries USA, Inc. v. Botticella*, 613 F.3d 102, 119 (3d Cir. 2010) (engaging in the balancing analysis); *Delta Med. Sys. v. Mid-Am. Med. Sys., Inc.*, 772 N.E.2d 768, 779 (Ill. App. Ct. 2002) (noting the balancing requirement under Illinois law).

²³² *Cf.* *Fishman & Varadarajan*, *supra* note 27, 70–72 (discussing the burden placed on defendants if limitations on trade secret law are assessed in the remedies phase).

use of it, nor will it issue an injunction impinging on those personal attributes of the employee.²³³

This means the Exclusion is not limited to the UTSA's and DTSA's requirement that information not be "generally known" or "readily ascertainable" to others.²³⁴ Put differently, the Exclusion is not the same as the bar for information that is not sufficiently "secret."

And yet, as shown below, many courts today are apparently operating under the incorrect assumption that the General Knowledge, Skill, and Experience Exclusion is largely the same as the not generally known or readily ascertainable requirement.

a. Conflating the Exclusion with the Not Generally Known or Readily Ascertainable Requirement

The reasoning is tempting and goes as follows. Trade secret law, everyone agrees, does not protect information that constitutes "general knowledge, skill, and experience." But, the reasoning goes, this category of excluded information is simply a species of the more general requirement, codified in the UTSA and the DTSA, that a trade secret cannot be "generally known" or "readily ascertainable" to "other persons" to whom it may impart economic value.²³⁵ The question, in either case, is simply whether the putative trade secret is known to workers in the industry.²³⁶ If so, it is unprotectable; if not, it is protectable.

The U.S. District Court for the Middle District of North Carolina provides an example of this erroneous reasoning in its 2002 decision in *Static Control Components, Inc. v. Darkprint Imaging, Inc.* The court plainly conflated the General Knowledge, Skill, and Experience Exclusion with the not generally known requirement in the course of crafting a jury instruction for a case based on the North Carolina Trade Secrets Protection Act.²³⁷ A jury found the defendant liable for hiring away the plaintiff's former employee, Lauren Hulse.²³⁸ Hulse, the jury found, brought with him valuable trade secrets relat-

²³³ TURNER, *supra* note 45, at 160.

²³⁴ DTSA, 18 U.S.C. § 1839(3) (2018); UTSA § 1(4).

²³⁵ See 18 U.S.C. § 1839(3); UTSA § 1(4).

²³⁶ See, e.g., *MicroStrategy, Inc. v. Bus. Objects, S.A.*, 331 F. Supp. 2d 396, 418 (E.D. Va. 2004) ("In the context of trade secret misappropriation, a trade secret is public when it is generally known within the relevant industry, not by laymen incapable of understanding or using a particular trade secret.").

²³⁷ *Static Control Components, Inc. v. Darkprint Imaging, Inc.*, 240 F. Supp. 2d 465, 482 (M.D.N.C. 2002) ("The contested instruction adequately explained the legal definition of a trade secret. Although the instruction did not specifically exclude generalized skill and knowledge, it did state that in order to be a trade secret, the information must 'derive independent economic value from not being generally known or readily ascertainable'").

²³⁸ *Id.* at 470–71.

ing to the chemical and physical properties of toners used in ink cartridges, which the plaintiff had developed through extensive testing.²³⁹ Defendant moved for a new trial based in part on the argument that the jury instruction should have distinguished between the plaintiff's protectable trade secrets and Hulse's unprotectable "generalized skills and knowledge."²⁴⁰

The court rejected the defendant's argument, stating that although defendant "correctly assert[ed] that generalized knowledge and skills cannot be protected as trade secrets under North Carolina law, the jury instruction adequately stated the law."²⁴¹ It reasoned that the jury instruction included a full statement "that in order to be a trade secret, the information must 'derive independent actual or potential commercial value from not being generally known or readily ascertainable through independent development or reverse engineering by persons who can obtain economic value from disclosure or use.'"²⁴² Without further analysis, the court found that instruction sufficiently excluded general knowledge, skill, and experience.²⁴³ Clearly, the court's view was that the Exclusion was implicit in the law's requirement that information not be "generally known or readily ascertainable" to those to whom it may impart value.

In 1999, the U.S. District Court for the District Of Utah also struggled with the same confusion in *Utah Medical Products, Inc. v. Clinical Innovations Associates, Inc.*²⁴⁴ The plaintiff, Utah Medical Products Inc. (Utah Medical), a maker of intrauterine catheter devices, sued several former employees under the Utah Uniform Trade Secrets Act.²⁴⁵ The former employees included a research and design engineer, a vice president of research and development, and the company's former chief executive officer (an inventor named Dr. William Wallace). Utah Medical alleged these former employees took documents containing its trade secrets before leaving to start a new company, co-defendant Clinical Innovations Associates, Inc., a maker of a competing intrauterine catheter device.²⁴⁶ According to Utah Medical, Wallace left the company with three boxes containing 17,000 documents, including technical information on the catheter's design and performance in product testing and Utah Medical's business plan.²⁴⁷

²³⁹ *Id.*

²⁴⁰ *Id.* at 481–82.

²⁴¹ *Id.* at 482.

²⁴² *Id.* (quoting the jury instruction).

²⁴³ *Id.*

²⁴⁴ *Utah Med. Prods., Inc. v. Clinical Innovations Assocs., Inc.*, 79 F. Supp. 2d 1290, 1312 (D. Utah 1999) (holding that the standard for determining a trade secret is "whether the information is generally known and readily ascertainable" to the defendants based on their "knowledge and experience"), *aff'd*, 251 F.3d 171 (Fed. Cir. 2000) (unpublished disposition).

²⁴⁵ *Id.* at 1292–93.

²⁴⁶ *Id.* at 1293.

²⁴⁷ *Id.* at 1311.

The court held for the defendants on the ground that Utah Medical failed to identify the trade secrets with the “particularity necessary to separate it from the general skill and knowledge possessed by Wallace [and the others].”²⁴⁸ Relying on Utah’s version of the UTSA, Utah Medical argued that the Exclusion merely required showing that the information was “not generally known” or “readily ascertainable” to others outside the company. The court rejected this approach, insisting that Utah Medical also had to demonstrate that the information did not fall into the former employees’ general knowledge, skill, and experience.²⁴⁹ The standard, the court wrote, “cannot be viewed as whether the information is generally known and readily ascertainable to the general public, but, based on the *defendants*’ knowledge and experience, whether the information was known or ascertainable to *them*.”²⁵⁰ Utah Medical could not satisfy this standard. Even though at least some of the information Utah Medical claimed as trade secrets was entirely unknown outside the company,²⁵¹ the information was excluded because it was “known or ascertainable” to the defendant-employees who took it with them and for whom it had become part of their unprotectable “expertise and experience with intrauterine catheters.”²⁵²

Although this court may have reached the right outcome, its attempt to insert the Exclusion for general knowledge, skill, and experience into the UTSA’s “not generally known” or “readily ascertainable” language is a bit bizarre.²⁵³ It is also not accurate because, as shown in Part I, Section C, this language was clearly referencing the requirement that information not be known within the industry—not the Exclusion.²⁵⁴ The Federal Circuit Court of Appeals appeared to note this oddity, but unfortunately did not take the opportunity to clarify. In an unpublished opinion, the Federal Circuit affirmed for the

²⁴⁸ *Id.* at 1313.

²⁴⁹ *Id.*

²⁵⁰ *Id.* at 1312 (emphases added).

²⁵¹ For example, the court conceded that some of the information in the documents, such as “preliminary market research” and “the idea of placing a membrane in the tip of the [competing intrauterine device]” was funded by Utah Medical and imparted to the defendants in the course of their employment. *Id.* at 1313.

²⁵² *Id.*

²⁵³ Other Utah courts have quoted *Utah Medical*’s understanding of the “not generally known” requirement as indicating not generally known based on the *defendant*’s knowledge and experience. *See, e.g., USA Power, LLC v. PacifiCorp*, 235 P.3d 749, 759–60 (Utah 2010) (“The ‘generally known or readily ascertainable’ standard ‘cannot be viewed as whether the information is generally known and readily ascertainable to the general public, but, based on the defendant[’s] knowledge and experience, whether the information was known or ascertainable to [the defendant].’” (quoting *Utah Medical*, 79 F. Supp. 2d at 1312)); *Brigham Young Univ. v. Pfizer, Inc.*, 861 F. Supp. 2d 1320, 1326 (D. Utah 2012) (same).

²⁵⁴ *See supra* notes 123–150 and accompanying text.

defendants *based only on lack of secrecy*.²⁵⁵ The Federal Circuit did not even mention the lower court's discussion of the exclusion for general knowledge, skill, and experience. It also did not discuss the lower court's concession that at least some of the information was likely unknown outside Utah Medical. The Federal Circuit—simply ignored these portions of the lower court's opinion.²⁵⁶

The Seventh Circuit Court of Appeals' 1984 decision in *American Can Co. v. Mansukhani* provides a subtler example of conflation, and shows that the problem goes beyond confusion regarding the UTSA's "not generally known" language. The plaintiff, American Can Company (American), developed, made, and sold commercial jet inks, which could be sprayed onto a printing surface without direct contact.²⁵⁷ The defendants, a husband, Ishwar Mansukhani, and wife, Ruth Brand, were both chemists.²⁵⁸ Mansukhani, though not Brand, was a former employee of American and its corporate predecessors.²⁵⁹ Mansukhani was experienced in ink chemistry when hired but had no experience with jet inks. While working in American's laboratory, he developed sophisticated knowledge of the company's ink formulas under a strict confidentiality agreement.²⁶⁰ After around four years, Mansukhani left to start his own company with Brand, and together they began to market and sell their inks to several of American's customers at "substantially lower" prices.²⁶¹

American sued for misappropriation of trade secrets. The district court—applying Wisconsin law, which was based at the time on the First Restatement²⁶²—found Mansukhani took "patent applications, ink formulas and other documents" when he left the company, and had been selling "precisely identical" jet inks to American's customers.²⁶³ The district court issued a permanent injunction that enjoined the defendants from using the commercial jet ink formulas that Mansukhani had developed for specific customers while employed by American or its corporate predecessors.²⁶⁴ Over a year later, Mansukhani allegedly violated the injunction by continuing to sell competing jet inks, and American sought a new, even broader injunction to stop them from selling "jet

²⁵⁵ *Utah Med. Prods., Inc. v. Clinical Innovations Assocs., Inc.*, 251 F.3d 171 (Table), 2000 WL 1838586, at *5 (Fed. Cir. Dec. 13, 2000) ("[T]he district court held that it was undisputed that the allegedly copied information was generally known or readily ascertainable to those in the industry.").

²⁵⁶ *Id.*

²⁵⁷ *Am. Can Co.*, 742 F.2d at 317.

²⁵⁸ *Id.*

²⁵⁹ *Id.*

²⁶⁰ *Id.*

²⁶¹ *Id.*

²⁶² *Id.* at 317 & n.1. Wisconsin adopted the UTSA in 1985. WIS. STAT. § 134.90 (2019).

²⁶³ *Id.* at 317.

²⁶⁴ *Id.*

inks of any type to any of plaintiff's customers."²⁶⁵ Overriding the defendants' objections, the district court complied.²⁶⁶

Defendants immediately appealed the new injunction to the Seventh Circuit, which the court agreed to hear given its "serious and perhaps irreparable consequences for defendants' business."²⁶⁷ The Seventh Circuit invalidated the new injunction as overbroad and vague in its definition of what constituted a trade secret, but it kept the original injunction in place.²⁶⁸ The Seventh Circuit was ostensibly concerned that the new injunction, in reaching additional types of jet inks not mentioned in the district court opinion, threatened Mansukhani's ability to use his "skill, training and experience."²⁶⁹

In its analysis, however, the Seventh Circuit repeatedly conflated this issue with whether the information had been disclosed to the public. The court conflated the secrecy requirement and the General Knowledge, Skill, and Experience Exclusion in its opinion five times.²⁷⁰ This is too many to suggest this was just an inadvertent choice of phrasing. Rather, it seems the Seventh Circuit did not know the difference between the two legal doctrines or how to articulate the difference. This uncertainty leaves litigants to ponder the basis for the Seventh Circuit's holding. Was the problem that the inks were common knowledge in the industry? Or was the problem that the inks, while secret and developed internally for the plaintiff, constituted part of Mansukhani's own "general knowledge, skill, and experience?" The court never answered this question. It failed to provide future parties with a clear conception of the scope of trade secret protection under the law.

The confusion engendered by such decisions continues to be replicated in trade secret law cases. For example, in the Waymo/Uber/Levandowski dispute, Judge Alsup invoked a similarly conflated understanding of the Exclusion, as encompassed by the requirement of "secrecy." In his order temporarily removing Levandoski from his position at Uber, Judge Alsup briefly voiced his uncertainty over whether Waymo would actually be able to prove Levandowski

²⁶⁵ *Id.* at 318 (emphasis added).

²⁶⁶ *Id.* at 318–19.

²⁶⁷ *Id.* at 319.

²⁶⁸ *Id.* at 333–34. The court also found that the lower court improperly issued an ex parte restraining order without following "the strict procedural requirements of Fed.R.Civ.P. 65(b)." *Id.* at 321.

²⁶⁹ *See id.* at 329.

²⁷⁰ *Id.* at 316 ("At the heart of the case is the problem that courts face in framing orders to prevent defendants from competing unfairly by using another's trade secrets while still permitting defendants to compete fairly using *public information and their own talents and experience.*") (emphasis added); *id.* at 326 ("However the public information about plaintiff's ink formulas (particularly as revealed in patent documents) and Mansukhani's own knowledge and experience had placed very narrow limits on plaintiff's trade secrets in the original trial.") (emphasis added); *id.* ("The district court therefore erred by issuing the new preliminary injunction without finding that defendants' new inks were . . . not from the public information and Mansukhani's own skill, knowledge and experience.") (emphasis added); *see also id.* at 329–31, 333.

was using any protectable Waymo trade secrets relating to LiDAR. Judge Alsup wrote that “[g]eneral approaches dictated by well-known principles of physics . . . are not ‘secret,’ since they consist essentially of general engineering principles that are simply part of the intellectual equipment of technical employees. They are therefore not protectable as trade secrets.”²⁷¹

In crafting this statement, Judge Alsup relied on the Ninth Circuit Court of Appeals’ 1965 decision in *Winston Research Corp. v. Minnesota Mining & Manufacturing Co.*, a leading Exclusion case. In *Winston*, the Ninth Circuit determined that the “general approach” the plaintiff, Minnesota Mining & Manufacturing Co. (Mincom), had utilized in designing a system for use in tape recorders was “not protectable under accepted trade secret doctrine,” because it was “dictated by well known principles of physics.”²⁷² Accordingly, the system “was not ‘secret,’ for it consisted essentially of general engineering principles in the public domain and part of the intellectual equipment of technical employees.”²⁷³ The *Winston* court’s reference to “the intellectual equipment of technical employees” was apparently a reference to the General Knowledge, Skill, and Experience Exclusion.²⁷⁴ But like the Seventh Circuit in *American Can Co.*, the *Winston* court was not being clear. Was the problem that the plaintiff was trying to protect information that was already in the public domain? Or was the problem that the plaintiff was trying to prevent its own former employees from using information that had become part of their unprotectable “intellectual equipment,” and without which they would have trouble pursuing future employment? Judge Alsup and the litigants in *Waymo v. Uber*—not to mention the jury that would ultimately have decided the case—herited the same uncertainties.

b. Why Conflation Is Wrong

These opinions are representative of many modern courts’ understandings of the General Knowledge, Skill, and Experience Exclusion as a species of the requirement that a trade secret must not be “generally known” or “readily ascertainable” to people in the industry.²⁷⁵ To the extent courts view the Exclu-

²⁷¹ *Waymo LLC v. Uber Techs., Inc.*, No. C 17-00939 WHA, 2017 WL 2123560, at *10 (N.D. Cal. May 15, 2017) (citing *Winston*, 350 F.2d at 139).

²⁷² *Winston*, 350 F.2d at 139.

²⁷³ *Id.* (emphasis added).

²⁷⁴ *Id.* at 144. It seems that the court was alluding here to the true Exclusion. Defendant, *Winston*, had expressly argued an injunction that prevented former Mincom employees Johnson and Tobias from using Mincom’s approach to designing a recorder in future would render them “substantially unemployable in the work for which their specialized training and experience [at Mincom had] equipped them.” *Id.* at 143.

²⁷⁵ See, e.g., *Hogan Sys., Inc. v. Cybresource Int’l, Inc.*, No. 3:96-CV-2083-H, 1997 WL 311526, at *6 (N.D. Tex. June 2, 1997) (affirming that information relating to the plaintiff’s software was unprotectable general knowledge, skill, and experience, because “large numbers of people, including

sion as encompassed by the secrecy requirement, this interpretation is wrong. The true Exclusion, as explained in Turner's treatise and the Third Restatement, is a separate, additional, restriction on trade secret protection that constrains enforcement of trade secrets for reasons of public policy.²⁷⁶ Whereas the not generally known requirement, on its own, actually *permits* an employer to protect information so long as it is not known outside the company, the Exclusion prevents this. It mandates that even if the information was developed by the plaintiff-employer, and is completely unknown to others outside the company, it can still fall into the unprotectable skill and knowledge of the employee against whom trade secret law is being used.

The upshot is that information that passes the secrecy requirement can still fall into the General Knowledge, Skill, and Experience Exclusion. This caveat is exceptionally important since, as a practical matter, the evidentiary inquiries required for applying the two doctrines differ. The secrecy analysis asks whether information was generally known or readily ascertainable to average people in the field. In making the secrecy determination, courts must review various information, including patents and other public documents, as well as testimony from experts in the field regarding whether people in the industry already know the information.²⁷⁷ The plaintiff's expert will of course typically say "no," while defendant's expert will say "yes."²⁷⁸

The Exclusion, in part, asks the same thing. Testimony from average workers in the field is clearly relevant to the question of whether the information has become part of the defendant employees' excluded knowledge, skill, and experience. If experts in the field already know certain information, then presumably such information is part of the defendant employees' skill set. But determining whether information falls into the Exclusion also requires asking whether, even if the information is unknown outside the company, it is nonetheless part of the general skill, knowledge, and experience of the employee seeking to use it. Obtaining verification from others in the industry is more credible than just the defendants' testimony on the stand. But this evidence is not enough. If those people in the industry say they do not know certain information, defendants should still have the chance to show that the in-

people who have never worked for [plaintiff], have acquired comparable facility with [its] systems"), *aff'd*, 158 F.3d 319 (5th Cir. 1998).

²⁷⁶ TURNER, *supra* note 45, at 160; *id.* at 115; *see also* RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 42 cmt. d (AM. LAW INST. 1995) (discussing the Exclusion apart from the secrecy requirement).

²⁷⁷ *See, e.g., Metallurgical Indus. Inc. v. Fourtek, Inc.*, 790 F.2d 1195, 1199–1203 (5th Cir. 1986) (reviewing evidence adduced at trial); *see also* RESTATEMENT (FIRST) OF TORTS, § 757 cmt. b (describing six factors used to determine whether something is a trade secret).

²⁷⁸ *See Metallurgical*, 790 F.2d at 1199 (finding trade secrets existed in part because one of plaintiff's main witnesses, "a consultant very influential" in the relevant industry, "testified as to his belief that [plaintiff's] changes were unknown in the . . . industry").

formation has in actuality become part of their general knowledge and experience during their time at the company or even during the period prior to working for the plaintiff.

Unfortunately, courts typically do not understand this principle. Like in *Static Control Components Corp.* and *American Can Co.*, even when courts say they are applying the General Knowledge, Skill, and Experience Exclusion, they end up conflating it with the not generally known or readily ascertainable requirement. They do little more than assess whether the putative trade secret is sufficiently secret to the company—and just stop there.

3. Applies to Information Generated and Otherwise Owned by Plaintiff

The third and most controversial attribute of the Exclusion is that it potentially applies even to information that is generated by the employer and imparted to the employee in complete confidence. In other words, it does not just apply to trade secrets that the defendant employees themselves invented.

Under the common law ownership rules, there are generally three types of information an employee may come across on the job.

The first is information that the employer generated, owns, and has imparted to an employee in a confidential exchange. For example, imagine Waymo provides its employee, Levandowski, with technical blue-prints relating to self-driving cars or shows him how to perform internal safety checks during a training session.

The second is information the employee generated in the course of his or her duties for the employer. Under common law ownership rules, employees do not own information they generate on the job if they have signed an assignment agreement—which is quite typical²⁷⁹—or if they are deemed “hired to invent,” meaning their primary job responsibility is to create inventions and derive technical solutions for the employer.²⁸⁰

The third type of information is generated by the employee, but totally outside the scope of his or her duties. For example, imagine Levandowski comes up with a board game in his spare time. This type of employee output is not owned by the employer at all.²⁸¹

²⁷⁹ Lobel, *New Cognitive Property*, *supra* note 76, at 814 (“[B]usinesses routinely require pre-innovation assignment contracts in which employees cede all rights to future inventions.”). For a sample of Google’s assignment agreement, see <https://opensource.google.com/docs/iarc/> [<https://perma.cc/G5PC-RZ6T>].

²⁸⁰ See Robert P. Merges, *The Law and Economics of Employee Inventions*, 13 HARV. J.L. & TECH. 1, 5 (1999); see also *United States v. Dubilier Condenser Corp.*, 289 U.S. 178, 188–89 (1933) (explaining that under the “shop right,” the employer is entitled to the inventions of the employee made “during his hours of employment,” but not inventions unrelated to the employment).

²⁸¹ Employers may have a “shop right” (non-exclusive license) if the employee used employer resources to develop the invention. Merges, *supra* note 280, at 6.

One might think that the General Knowledge, Skill, and Experience Exclusion is limited to secrets of the second and third types—namely, information the employee has herself invented or developed. But this is not the case. The Exclusion has a merger rule that allows exclusion even of the first type of secrets—information that the employee learned on the job through training or from others in the company.

a. The Merger Rule

The Exclusion's merger rule holds that even employer-generated information or information that would otherwise be owned by the employer ceases to be protectable if it becomes "closely integrated"²⁸² or "merged"²⁸³ with the "skill, knowledge, information or education" that the employee had prior to entering the job.²⁸⁴ As Judge Adams stated in his oft-cited concurrence in *SI Handling Systems, Inc. v. Heisley*:

[A]n employee's general knowledge, skill, and experience are not trade secrets. . . . When these attributes of the employee are *inextricably related* to the information or process that constitutes an employer's competitive advantage . . . the legal questions confronting the court necessarily become bound up with competing public policies.²⁸⁵

These public policies include the desire to protect individual employees from being hindered in their career pursuits and an economic policy of preserving employee mobility.²⁸⁶ In *SI Handling Systems*, this principle motivated the court to find that some of the information the plaintiff sought to protect as trade secrets—such as the general "know-how in systems engineering" that

²⁸² RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 42 cmt. d.

²⁸³ *Microbiological Research Corp. v. Muna*, 625 P.2d 690, 697 (Utah 1981) ("Confidential information of an employer . . . loses any protection to which it may have been entitled after it has been merged into the employee's own faculties, skill and experience.").

²⁸⁴ *See, e.g., Donahue v. Permacel Tape Corp.*, 127 N.E.2d 235, 240 (Ind. 1955) ("Knowledge, skill and information (except trade secrets and confidential information) become a part of the employee's personal equipment. They belong to him as an individual for the transaction of any business in which he may engage, *just the same as any part of the skill, knowledge, information or education that was received by him before entering the employment.*") (emphasis added); *Dynamics Research Corp. v. Analytic Scis. Corp.*, 400 N.E.2d 1274, 1283 (Mass. App. Ct. 1980) ("The employer's interest in the secret must be crystal clear to justify the restraint of the employee, for whom it *may have become part of his general knowledge and experience.*" (emphasis added) (quoting 2 CALLMANN ON UNFAIR COMPETITION, TRADEMARKS, & MONOPOLIES § 53.2(a) (1965))); *see also Herbert Morris, Ltd. v. Saxelby* [1916], 1 AC 688 at 714 (Eng.) ("[A] man's aptitudes, his skill, his dexterity, his manual or mental ability . . . ought not to be relinquished by a servant . . . they are his own property; they are himself.").

²⁸⁵ *SI Handling Sys.*, 753 F.2d at 1267 (Adams, J., concurring) (emphasis added).

²⁸⁶ *Id.*

would be required to make a materials handling system—was actually unprotectable.²⁸⁷ It had become a part of the “experience, knowledge, memory, and skill” which the plaintiff’s former employees had acquired on the job. Therefore, the employees were permitted to take this information with them.²⁸⁸

Under the merger rule, courts have authority to follow competing public policies in order to exclude even information that was generated by the employer itself and imparted confidentially to the employee in the course of the employee’s job. For example, in 1965 in *Van Products Co. v. General Welding & Fabricating Co.*, which is probably the most-cited case on the Exclusion of all time, the Pennsylvania Supreme Court held that the plaintiff, Van Products Company (Van), could not protect the design of its newly invented air drier.²⁸⁹

Many years ago, a Van inventor named O. Clair Norton conceived of a novel idea for an air drier that could be used to prevent rusting and wearing down in metal tools and machinery by using a substance that absorbs moisture to dry them.²⁹⁰ Norton filed for a patent on the drier, which was assigned to Van.²⁹¹ In the same year that the patent was issued, Van hired Vincent Rapp to work in the mailroom.²⁹² Although not previously experienced in the field, Rapp worked hard and eventually became the general manager of the entire company.²⁹³ During this period Rapp worked closely with Van’s air drier business and learned significant amounts of secret information, both on the business side and the technical side, including “blue prints drafting, training and conducting field experiments to overcome customer difficulties.”²⁹⁴

Rapp eventually left to work for a competitor, General Welding and Fabricating Company (General). At General, using a lawfully purchased Van product, Rapp applied the expertise he learned from Van to “reverse engineer” the chemical formula used in the Van drier.²⁹⁵ He then helped General sell a competing air drier, that was “practically identical in function and concept.”²⁹⁶

Van sued for misappropriation of trade secrets and was successful in obtaining an injunction.²⁹⁷ But Van famously lost its case on appeal because the Pennsylvania Supreme Court held that much of the information claimed by Van as a trade secret—in particular, Rapp’s knowledge of a general market

²⁸⁷ *Id.* at 1261–62 (holding that the “employee experience” and “know-how” that “led to these developments” behind the plaintiff’s system “presumably will lead to still further developments” and were not protectable).

²⁸⁸ *Id.* at 1262 (quoting *Van Prods.*, 213 A.2d at 776).

²⁸⁹ *Van Prods.*, 213 A.2d at 777–78.

²⁹⁰ *Id.* at 771, 778.

²⁹¹ *Id.* at 771.

²⁹² *Id.*

²⁹³ *Id.* at 771–72.

²⁹⁴ *Id.* at 772.

²⁹⁵ *Id.*

²⁹⁶ *Id.*

²⁹⁷ *Id.*

demand for an air drier, the sources of materials used to make the drier, costs of materials and labor, and the identities of suppliers, and methods of advertising²⁹⁸—had become part of Rapp’s general knowledge, skill and experience and thus were not “proper subjects for a mental purge.”²⁹⁹ His “right to use and expand” the skills and knowledge he acquired through his employment “remain[ed] his property unless curtailed through some restrictive covenant entered into with the employer.”³⁰⁰

Clearly, Rapp’s employer, and in particular the inventor Norton, was the origin of the information that ultimately allowed Rapp to market a competing drier. Rapp had merely been exposed to his employer’s secret—he was not the progenitor.³⁰¹ Nonetheless, the court held that Rapp was entitled to take what were formerly Van’s trade secrets with him.³⁰²

b. Ignoring the Merger Rule

Unfortunately, not all courts invoke the merger rule. Instead, courts in multiple states appear to view the Exclusion as limited to situations where the employee came on the job with the information already in hand³⁰³ or developed the information herself in the course of the job.³⁰⁴ Although this approach may reach a positive outcome for employees in some cases, it drastically narrows the Exclusion’s scope because it does not exclude information that the employer, or other employees at the company, generated and disclosed to the employee in confidence.

²⁹⁸ *Id.* at 773–74.

²⁹⁹ *Id.* at 776.

³⁰⁰ *Id.*

³⁰¹ *Id.*

³⁰² *Id.* at 780.

³⁰³ *See, e.g.,* Futurecraft Corp. v. Clary Corp., 23 Cal. Rptr. 198, 210 (Dist. Ct. App. 1962) (“To grant plaintiff the relief prayed for would in effect restrain [plaintiff’s former employee] from the pursuit of his profession. He would be deprived of the use of knowledge and skill *which he gained which did not originate with plaintiff.*”) (emphasis added) (citation omitted); New Method Die & Cut-Out Co. v. Milton Bradley Co., 194 N.E. 80, 82 (Mass. 1935) (finding the defendant “did not learn about [the process at issue] from the plaintiff or solely by reason of his employment”).

³⁰⁴ *See, e.g.,* Pressure Sci., Inc. v. Kramer, 413 F. Supp. 618, 629 (D. Conn. 1976); (“To deny [plaintiff’s former employee] ‘the right to practice his trade by attempting to establish the general experience and knowledge of the employer as a trade secret *when actually [the employee’s] knowledge and experience in his trade is a substantial contribution to this general process* is not the type of situation within the contemplation of the law guarding the disclosure of trade secrets.”) (emphasis added) (quoting Cudahy Co. v. Am. Labs., 313 F. Supp. 1339, 1345 (D. Neb. 1970)); Structural Dynamics Research Corp. v. Eng’g Mechs. Research Corp., 401 F. Supp. 1102, 1111 (E.D. Mich. 1975) (“[I]f the subject matter of the trade secret is brought into being because of the initiative of the employee in its creation, innovation or development even though the relationship is one of confidence, no duty arises since the employee may then have an interest in the subject matter at least equal to that of his employer or *in any event, such knowledge is a part of the employee’s skill and experience.*”) (emphasis added).

An example of this narrow interpretation of the Exclusion is demonstrated in the Pennsylvania Supreme Court's 1960 opinion in *Wexler v. Greenberg*, mentioned in Part II, Section C, which is oft-cited for the rule that general knowledge, skill, and experience cannot be a trade secret.³⁰⁵ The opinion has plentiful dicta on the importance of "the economic mobility of employees," and the court insists that an employee must not be "paradoxically . . . restrained, because of his increased expertise, from advancing further in the industry in which he is most productive."³⁰⁶

In reality, *Wexler* represents a very narrow conception of the Exclusion. The plaintiff, Buckingham Wax Company (Buckingham), sought to enjoin its former chief chemist, Alvin Greenberg, from using chemical formulas he had developed at Buckingham on behalf of a new employer.³⁰⁷ The court stated that the information was Greenberg's "technical knowledge and skill," which he "acquired by virtue of his employment with Buckingham and which he has an unqualified privilege to use."³⁰⁸ But in its analysis, the Court did not actually assess whether the information was "excluded general knowledge and skill." Rather, it found that Greenberg himself, and not Buckingham or anyone else working at Buckingham, had developed (and possibly even owned) the formulas.³⁰⁹ The court observed that the typical situation is where trade secret information is "disclosed to [the] employee" by the employer during his service or because of his position.³¹⁰ In contrast, in this case, the alleged trade secret formulas were "developed by Greenberg himself, while in the pursuit of his duties as Buckingham's chief chemist."³¹¹ Further, Greenberg's work was "without any appreciable assistance by way of information or great expense or supervision by Buckingham, outside of the normal expenses of his job."³¹²

The *Wexler* Court's version of the Exclusion is, at best, that an employer cannot restrict a former "highly skilled" employee from using "knowledge of formulas and methods" that the employee created on behalf of the employer.³¹³

This conception of the Exclusion has serious problems. First, it seems to contradict the rule that employees who are "hired to invent" do not own what they develop in the scope of their duties.³¹⁴ A leading intellectual property law

³⁰⁵ See, e.g., Eleanore R. Godfrey, Note, *Inevitable Disclosure of Trade Secrets: Employee Mobility v. Employer's Rights*, 3 J. HIGH TECH. L. 161, 166–67 & n.43 (2004) (citing *Wexler* for the rule that knowledge, skill, and experience is unprotectable).

³⁰⁶ *Wexler*, 160 A.2d at 435.

³⁰⁷ *Id.* at 431.

³⁰⁸ *Id.* at 437.

³⁰⁹ *Id.* at 434. Indeed, the court assumed trade secrets existed for the limited purposes of Greenberg's appeal from the lower court's holding enjoining him. *Id.*

³¹⁰ *Id.* at 433.

³¹¹ *Id.*

³¹² *Id.* at 436.

³¹³ *Id.* at 433.

³¹⁴ See Merges, *supra* note 280, at 5.

casebook notes this, observing that *Wexler* is a very unusual example of a situation where an employee was deemed to own the output of his work for an employer.³¹⁵ The casebook also notes that the court's conclusion was highly debatable based on the facts, because not only was Greenberg hired by Buckingham as its chief chemist, but the court expressly found Greenberg developed the formulas in the course of his duties.³¹⁶ Buckingham, not Greenberg, should have owned this work output.

Second, the fact that Greenberg himself developed the information—and may even have owned it, at least in the *Wexler* court's conception—should not have been required to trigger the General Knowledge, Skill, and Experience Exclusion.³¹⁷ This version of the Exclusion is far too narrow. It effectively means that so long as an employee learned information from the employer or another person working at the company, and did not develop it himself like Greenberg did, the Exclusion would not apply. This inquiry would, therefore, not help most defendant-employees, who will usually have acquired the alleged trade secrets on the job, sometimes directly through disclosures from their employer or other employees.

This is why the Exclusion needs a merger rule. The merger rule allows for information to become unprotectable once it becomes connected to an employee's own set of knowledge, skill, and experience—even if the employee learned it directly from their employer, and even if the information otherwise meets the qualifications for a trade secret.³¹⁸ Unfortunately, many courts do the opposite. Indeed, some courts have gone so far as to ask whether the employee could have proceeded independently of the knowledge learned from the plaintiff-employer; if not, then the information must be the employer's trade

³¹⁵ MENELL, LEMLEY, & MERGES, *supra* note 35, at 110.

³¹⁶ *Wexler*, 160 A.2d at 431, 433; *see also* MENELL, LEMLEY, & MERGES, *supra* note 35, at 110 (“The *Wexler* result, while it may seem fair, is not the majority rule.”).

³¹⁷ Turner observed this connection between the issue of whether information is excluded knowledge, skill, and experience, and the ownership assessment while also noting its limitations. *See* TURNER, *supra* note 45, at 160–61. He explains that if an invention of the employee is found to be owned by the employer, “and it is *also* found not to be part of the employee's personal knowledge, skill, and experience,” then “the employee's use or disclosure of it can be restrained.” *Id.* at 161 (emphasis added).

³¹⁸ *SI Handling Sys.*, 753 F.2d at 1267 (Adams, J., concurring). The analogy to copyright's merger doctrine is not lost on me. The merger doctrine in copyright law excludes from copyright protection creative expression that would otherwise qualify for copyright, but courts deem it unprotectable, because doing so would effectively prevent others from using the whole idea or system. *See, e.g.*, *BUC Int'l Corp. v. Int'l Yacht Council Ltd.*, 489 F.3d 1129, 1142 (11th Cir. 2007) (“The merger doctrine provides that expression is not protected in those instances where there is only one or so few ways of expressing an idea that protection of the expression would effectively accord protection to the idea itself.” (internal quotations omitted)). I suspect this is divergent evolution, but the topic might warrant further research.

secret, rather than the employee's skill.³¹⁹ Alternatively, they assess the employee's incoming skill, education, and experience.³²⁰ How long had the employee spent in the field prior to working for the plaintiff? What was the employee's education level when he or she came onto the job? The effect is similar. It makes the Exclusion unavailable to people who come onto the job without much prior knowledge, skill, and experience.

An oft-cited case illustrates the problem with this approach. In 1982, in *Rohm & Haas Co. v. Adco Chemical Co.*, the Third Circuit held that the defendant misappropriated the plaintiff's secret process.³²¹ The court resoundingly rejected defendant-employer's argument that the process had become part of the "knowledge, skill, and experience in the field" of plaintiff's former employee, Joseph Harvey.³²² The court reached this conclusion after making several observations about Harvey's background. For instance, the court noted that Harvey did not graduate college and underwent long periods of joblessness.³²³ Harvey was hired merely as a "laboratory technician," and was supervised by plaintiff's scientists.³²⁴ The facts of "Harvey's background and the testimony of defendants' agent as to Harvey's [limited] grasp of the 'Harvey process' . . . le[ft] little doubt that memory, not ability, was the source of Harvey's revelation."³²⁵

The assumption of such cases is that if an employee was highly educated, skilled, and experienced in the industry when onboarded, it is more likely the information the employer seeks to protect was already a part of the employee's general knowledge, skill, and experience.³²⁶ Meanwhile, if an employee, like Harvey, was not previously educated and skilled, he must have been using his

³¹⁹ See *GTI Corp. v. Calhoon*, 309 F. Supp. 762, 769 (S.D. Ohio 1969) (inquiring whether the defendant-employee could have proceeded as she did "independently" of knowledge gained from plaintiff-employer); see also, e.g., *Thiberg v. Bach*, 107 F. Supp. 639, 643 (D.N.J. 1952) ("[D]efendant's knowledge relating to aerator pumps was nil prior to his association with plaintiff. Certainly, he may use for his own gain the mechanical skill which he has acquired by virtue of his employment. However, he may not produce a pump which, but for negligible differences, corresponds identically with that of plaintiff, where to do so he must violate plaintiff's processes imparted to him in confidence.").

³²⁰ See, e.g., *Dynamics Research Corp. v. Analytic Scis. Corp.*, 400 N.E.2d 1274, 1282 (Mass. App. Ct. 1980) (noting that former employee "came to his job at [plaintiff] with knowledge and skill in the plaintiff's area of operation" and asserting that his case should thus be distinguished from cases involving defendants "who had never seen a machine that in any way resembled the plaintiff's before coming to work for the plaintiff").

³²¹ 689 F.2d 424, 432 (3d Cir. 1982).

³²² *Id.*

³²³ *Id.* at 428 n.3.

³²⁴ *Id.* at 427.

³²⁵ *Id.* at 433.

³²⁶ Some commentators have noted courts' tendency to focus on incoming skill, experience, and education level, apparently condoning it. See, e.g., Cundiff, *Maximum Security*, *supra* note 39, at 321 (encouraging employers to review a departing employee's credentials at the time they were hired to determine what information is encompassed by the Exclusion).

employer's trade secrets, rather than his own knowledge and skill. But this reasoning neglects the possibility that an employee—including a non-college graduate like Harvey—learned new secrets while working for the plaintiff, and that this newly acquired know-how thereafter became part of his own skill.³²⁷ This form of improvement is supposed to be the whole point.³²⁸ The *Van Products* court certainly recognized this, holding that Van could not stop Rapp from using generalized know-how regarding Van's air driers, despite the fact that Rapp had no previous experience in the field and began his career at Van in the mailroom.³²⁹ Therefore, courts need to be sure to assess whether the information an employee newly learned on the job with plaintiff has become something the employee is now free to use, even if it started as plaintiff's trade secrets.

B. How to Apply the General Knowledge, Skill, and Experience Exclusion

In order to revive a more accurate view of the Exclusion that adheres to the original policy justifications, courts need a better understanding of how to disaggregate trade secrets from employee's unprotectable general knowledge, skill, and experience. This section provides a framework for doing so that stays true to the original purpose of the Exclusion, while also providing sufficient protection for trade secrets.

1. The Exclusion as a Scope-Limiting Tool

The Exclusion effectively serves as a limitation on the scope of trade secrets. This limitation is calibrated based on affected employees' need to continue working in the field after departure. Several sources of law posit this line of inquiry.³³⁰ In particular, the Third Restatement provides that information

³²⁷ See *Cataphote Corp. v. Hudson*, 444 F.2d 1313, 1318 (5th Cir. 1971) (finding no trade secret misappropriation where the information was part of the defendant's "native abilities").

³²⁸ See *supra* notes 187–201 and accompanying text.

³²⁹ *Van Prods. Co.*, 213 A.2d at 771, 776.

³³⁰ RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 42, comment (d); see also, e.g., *AMP Inc.*, 823 F.2d at 1202 ("These skills are valuable to such employee in the market place for his services. Restraints cannot be lightly placed upon his right to compete in the area of his greatest worth." (quoting *ILG Indus. V. Scott*, 273 N.E.2d 393, 396 (Ill. 1971))); *SI Handling Sys.*, 753 F.2d at 1267 (Adams, J., concurring) ("The courts have recognized that someone who has worked in a particular field cannot be expected to forego the accumulated skills, knowledge, and experience gained before the employee changes jobs. Such qualifications are obviously very valuable to an employee seeking to sell his services in the marketplace."); *Bickley*, 173 F. Supp. at 524 ("Plaintiff seems to believe that because of his former association with plaintiff, [the former employee] was forever precluded from getting a job with a [similar] company. That is not our understanding of the law. . . . [The employee] was within his legal rights to use his skill, experience and general knowledge, but not trade secrets, to assist anybody—competitor . . . or not."); *Futurecraft Corp.*, 23 Cal. Rptr. at 210 ("To grant plaintiff the relief prayed for would in effect restrain [the employee] from the pursuit of his profession. He would be deprived of the use of knowledge and skill which he gained which did not originate with

that might otherwise be a trade secret can lose its status once it becomes “so closely integrated” with an employee’s “overall employment experience that protection would *deprive the employee of the ability to obtain employment commensurate with the employee’s general qualifications.*”³³¹

This rule directly targets the unique policy goal of the Exclusion—to preserve an employee’s right to acquire new skills, due partly to exposure to trade secrets, without losing the ability to leave and pursue new work within the area of her expertise.

It is true that information that constitutes an employee’s general knowledge, skill, and experience may also have other trade secret problems. It may not be sufficiently secret, for example, because it is “generally known” to people in the industry.³³² When the Exclusion is applied to this type of “generally known” information, it tends to simply duplicate concerns raised by other trade secret doctrines like secrecy.³³³ But when properly construed, the Exclusion places unique limits on trade secrets that are not replicated by these other requirements. The Exclusion can thus help ensure that trade secret law does not make it unreasonably difficult for employees to work in the area of their

plaintiff.”); *Levine*, 237 P.2d at 312 (“To grant the relief prayed for by appellants would virtually operate to deprive respondents of their right to pursue a gainful and lawful occupation in the field for which they are equipped by virtue of Eskil Johnson’s almost half century of service in his field.”).

³³¹ RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 42, comment (d) (emphasis added). This idea also appeared in some prior cases, such as the Third Circuit Court of Appeals 1985 decision in *SI Handling Systems, Inc. v. Heisley*. See 753 F.2d at 1262.

³³² This is particularly true when the plaintiff is asserting trade secret status for information obtained in the “ordinary experience of business” that is likely to be known elsewhere. See, e.g., *AMP Inc.*, 823 F.2d at 1206 (“[A] court will not raise to trade secret status ‘the fruits of ordinary experience in . . . business, thus compelling former employees to reinvent the wheel as the price for entering the competitive market.’” (quoting *Fleming Sales Co. v. Bailey*, 611 F. Supp. 507, 515 (N.D. Ill. 1985))). If the claimed trade secrets consist of a basic marketing strategy or a method of estimating costs, for instance, this is probably just generally known to people in the field. See *Yellowfin Yachts, Inc. v. Barker Boatworks, LLC*, 898 F.3d 1279, 1298 (11th Cir. 2018) (former employee’s knowledge of plaintiff’s production costs considered general knowledge, skill, and experience, because he had learned the costs in the “ordinary course of working” for plaintiff); *First Health Grp. Corp. v. Nat’l Prescription Adm’rs, Inc.*, 155 F. Supp. 2d 194, 220 (M.D. Pa. 2001) (holding the way a health plan “administers [a] manufacturers’ rebate program between two departments” was not a trade secret because “[f]ormer employees are entitled to use the general skills they learn during their employment in future employment”); *Tempo Instrument, Inc. v. Logitek, Inc.*, 229 F. Supp. 1, 4 (E.D.N.Y. 1964) (method of estimating costs); *Serv. Ctrs. of Chi., Inc. v. Minogue*, 535 N.E.2d 1132, 1137 (Ill. App. Ct. 1989) (“[T]he knowledge of estimating costs obtained by [the employee] during the course of his employment with [the plaintiff] came within the realm of general skills and knowledge which he was free to take and use in later pursuits.”).

³³³ See, e.g., *Yellowfin Yachts*, 898 F.3d at 1298–1301 (rejecting plaintiff’s claim to own trade secrets in information regarding costs, customers, and suppliers based on various doctrines, including lack of independent economic value).

expertise after they leave, even if they were improved by their former employer's secrets.³³⁴

2. Factors to Assess

In ascertaining whether trade secret protection would prevent an employee from continuing to pursue employment commensurate with his or her qualifications, courts would logically have to consider two factors. First, how broad (or narrow) is the scope of the information the employer seeks to protect? Second, how specialized is the employee within the subject matter of the trade secrets?

a. Scope of the Information Claimed

With respect to the scope of information claimed, the more generalized the information, the broader the scope claimed; the more specific the information, the narrower the scope claimed. When a broader scope is claimed, this places greater restrictions on what the employee can do upon departure.

For example, returning to the *Waymo v. Uber* case, if Levandowski were told that he cannot use the same general approach he learned from Waymo for designing self-driving cars and light-ranging and detection (LiDAR) technology, this could eliminate future job options in the self-driving car industry.³³⁵ But if he were only enjoined from using “the particular embodiment of these general concepts” in Waymo designs, this would not be as much of a limitation.³³⁶ While the former restraint would interfere with his ability to work at most jobs he might realistically want, the latter would not.

Therefore, whether information is excluded as general knowledge, skill, and experience should depend partly on whether the plaintiff claims highly

³³⁴ A recent use of this analysis in a slightly unusual scenario comes from a multidistrict litigation decided by Judge Jed Rakoff. See *In re Document Techs. Litig.*, 275 F. Supp. 3d 454 (S.D.N.Y. 2017). A large e-discovery services provider accused former sales personnel of conspiring to steal trade secrets by revealing client sales revenue and the employees' own sales revenues during negotiations with a potential new employer. *Id.* at 457–59. Judge Rakoff held that the sales revenue numbers were “not protectable, since labeling this kind of knowledge as proprietary would ‘prevent former employees from ever pursuing clients or customers whom they believe generate substantial business for their former employers.’” *Id.* at 465–66 (quoting *RogersCasey, Inc. v. Nankof*, No. 02 Civ. 2599(JSR), 2003 WL 1964049, at *5 (S.D.N.Y. Apr. 24, 2003)). Moreover, since “it is industry practice for e-discovery providers to ask potential sales hires for their past revenue figures . . . it would be extraordinarily difficult (if not impossible) for the [i]ndividual [d]efendants to get a sales job with another employer if they were not able to disclose such information.” *Id.* at 465 n.11.

³³⁵ This was indeed a major argument Uber made in its defense. See Defendants' Reply in Support of Motion for Summary Judgment, *supra* note 12, at 4–6 (“The issue is whether Waymo can bar a former engineer who applied at Waymo what Waymo's own witnesses have called the ‘fundamentals of optics’ from ever using this general approach again.”).

³³⁶ See *Winston*, 350 F.3d at 139.

generalized or highly specific information.³³⁷ This reflects in part what many courts already do. For example, with respect to business information, courts readily exclude items like “client relationships, general recollections, or sales skills,”³³⁸ when broadly defined, but protect the same items so long as delineated with a high level of specificity.³³⁹ Likewise in cases involving customer lists,³⁴⁰ courts are more likely to protect the list if it is highly specific and significantly whittled down from the general customer pool.³⁴¹

Meanwhile, in the high technology context, courts readily exclude general principles and approaches adopted by a plaintiff, while protecting specific iterations used in a particular process or device. For example, in *Electro-Craft Corp. v. Controlled Motion, Inc.*, the plaintiff sued the defendant alleging that defendant—through its president and founder, plaintiff’s former employee, John Mahoney—had misappropriated plaintiff’s trade secrets relating to “general design principles” used for making various kinds of electric motors and that Mahoney had learned on the job.³⁴² The Minnesota Supreme Court affirmed the lower court’s holding for the plaintiff, but significantly narrowed the scope of the lower court’s injunction to include only the “particular combination of production techniques” that plaintiff used to make certain motors.³⁴³

³³⁷ See TURNER, *supra* note 45, at 162 (“The most usual distinction . . . is between ‘general’ and ‘particular’ skill, knowledge, and experience.”).

³³⁸ Cf. *Great Am. Opportunities, Inc. v. Cherry Bros., LLC*, No. 3:17-cv-1022, 2018 WL 418567, at *5 (M.D. Tenn. Jan. 16, 2018) (“Great American, however, does not claim only that the [i]ndividual [d]efendants have allowed [their new employer] to use their client relationships, general recollections, or sales skills.”).

³³⁹ *Id.*

³⁴⁰ To be protectable, customer lists, like any trade secret, must not be generally known or readily ascertainable to those in the industry. But if the customer list that a plaintiff seeks to protect consists merely of the obvious potential customers in the industry or region, the list would not meet this hurdle. On the other hand, if a customer list is only “discoverable with great effort” it can potentially be protected. See *Morlife, Inc. v. Perry*, 66 Cal. Rptr. 2d 731, 736 (Ct. App. 1997) (“[Plaintiff’s] customers were not readily ascertainable, but only discoverable with great effort . . .”). The list’s trade secret status could, however, still be vulnerable to a charge that protecting the list would interfere with “the right of an employee to leave the employment of his or her employer, open his or her own business and compete against the previous employer.” *Id.* at 734 (internal quotations omitted).

³⁴¹ For example, in 1997 in *Morlife, Inc. v. Perry*, a California appeals court rejected former employees’ argument that in using their former employer’s customer list, they had used only their general knowledge, skills and experience, in part because the employer provided “a relatively unusual” service. 66 Cal. Rptr. 2d at 734, 735; see also *Klamath-Orleans Lumber, Inc. v. Miller*, 151 Cal. Rptr. 118, 121 (Ct. App. 1978) (“‘There can be no doubt that (a) list of preferred customers, ascertained originally by continuous solicitation and investigation, and the specially arranged list of charges and bonuses developed by long experience, (constitutes) a trade secret of value.’ Moreover, where, in order to do business the employer is forced to impart such select information to certain key employees, the information hardly becomes part of the employees’ knowledge which they may freely use at some later time.” (citation omitted) (quoting *Scavengers’ Protective Ass’n v. Serv-U-Garbage Co.*, 24 P.2d 489, 492 (Cal. 1933))).

³⁴² 332 N.W.2d 890, 893, 900 (Minn. 1983).

³⁴³ *Id.* at 899–900.

The court chastised the lower court for allowing the plaintiff to prevent its former employees and the defendant from using industry-wide design principles for a broader array of motors.³⁴⁴ If such a broad scope of information were classified as trade secrets, the court wrote, the plaintiff would be able “to protect, not a specific combination of features, but the design process of trial and error, (including the talent of [plaintiff’s] employees), by which those features are adapted to a given use.”³⁴⁵

In forcing plaintiffs to narrow the scope of the information they claim as trade secrets, the Exclusion reinforces trade secret law’s “particularity” requirement, which generally mandates that plaintiffs “identify a trade secret with sufficient particularity so as to enable a defendant to delineate that which he is accused of misappropriating”³⁴⁶ Indeed, courts frequently state that determining whether claimed information constitutes merely an employee’s general knowledge, skill, and experience requires identifying that information with “precision and particularity.”³⁴⁷ The Exclusion is not, however, the same as the particularity requirement. Whereas the particularity requirement is merely a threshold procedural rule, basically a pleading standard, the Exclusion is a substantive limitation, requiring plaintiffs and courts to narrow the scope of what can be claimed precisely in order to protect affected employees’ ability to find suitable work after they leave.³⁴⁸

³⁴⁴ *Id.* at 898.

³⁴⁵ *Id.* at 900 (“The law of trade secrets will not protect talent or expertise, only secret information.”).

³⁴⁶ See *Analog Devices, Inc. v. Michalski*, 579 S.E.2d 449, 453 (N.C. Ct. App. 2003) (citing *IDX Sys. Corp. v. Epic Sys. Corp.*, 285 F.3d 581, 584 (7th Cir. 2002)); see, e.g., *Del Monte Fresh Produce Co. v. Dole Food Co. Inc.*, 148 F. Supp. 2d 1322, 1325 (S.D. Fla. 2001); *FMC Corp. v. Cyprus Foote Mineral Co.*, 899 F. Supp. 1477, 1484 (W.D.N.C. 1995); *Xerox Corp. v. IBM Corp.*, 64 F.R.D. 367, 371–72 (S.D.N.Y. 1974); see also *Friesen*, *supra* note 32, at 2123 (“[D]efining the trade secret with particularity aids in distinguishing between the secret information and the ex-employee’s general knowledge and skill.”).

³⁴⁷ *Utah Med. Prods.*, 79 F. Supp. 2d at 1313 (holding that plaintiff “must define its claimed trade secret with the precision and particularity necessary to separate it from the general skill and knowledge possessed by [the employee defendants]”); *Merck & Co. Inc. v. Lyon*, 941 F. Supp. 1443, 1462 (M.D.N.C. 1996) (“[I]n order to ensure that [the new employer] is not prohibited from [using the employee-defendant’s] general knowledge and expertise, and that [defendant] is thereby allowed to use that general knowledge and expertise, plaintiffs were required to specifically identify their trade secrets.”).

³⁴⁸ At least one court has noted this distinction, reprimanding the lower court for assuming that the particularity requirement replicated the Exclusion. See *Rohm & Haas Co.*, 689 F.2d at 432 (“[T]he district court used [the particularity requirement] as a surrogate for the inquiry into whether the alleged secret was knowledge, skill and experience in the field (that) is more likely to accompany the employee without protection.” (internal quotations omitted)).

b. Specialization of Employee Within the Subject Matter of the Trade Secrets

A court would also have to consider how specialized the employee is in the subject matter of the claimed trade secrets. While this may seem like an odd consideration, logically, this factor can make all the difference. For example, if the defendant in a trade secrets case is a general-purpose cook, being ordered not to make a very specific recipe for oatmeal raisin cookies would not likely hinder her ability to pursue work in her area of expertise. On the other hand, if the defendant is highly specialized in the subject matter of the secret—for example, she’s a dessert specialist known for her oatmeal raisin cookies—then being ordered not to use an oatmeal raisin cookie recipe she absorbed at her last job would place more of a limit on her future job options than in the former scenario.³⁴⁹ Analogizing again to Levandowski’s case, the fact that his career has been focused on self-driving cars makes a big difference. He is so specialized in self-driving cars, that being ordered not to use a design for a self-driving car that represents the state of art could make it impossible for him to find work “commensurate with [his] general qualifications.”³⁵⁰

The Ninth Circuit observed precisely this problem in *Winston*,³⁵¹ which Uber cited as precedent for protecting Levandowski’s ability to use his expertise in the self-driving car field.³⁵² The “burdens [that post-employment restraints] impose upon the employee and society,” the court wrote, “increase in proportion to the significance of the employee’s accomplishments, and the *degree of his specialization*.”³⁵³

The *Winston* case itself is highly illustrative—which is presumably one reason Uber cited it. Plaintiff, Mincom, spent four years developing a precision tape recorder whose design improved functionality and reduced time displacement error.³⁵⁴ Defendant, Winston, developed, in a remarkably short period of time, a similarly improved tape recorder.³⁵⁵ Winston allegedly accomplished this feat by hiring many former Mincom technicians (including em-

³⁴⁹ See, e.g., *AMP Inc.*, 823 F.2d at 1205–06 (declining to grant injunctive relief because it would preclude the employee from working in the field for which he was highly qualified); *Winston*, 350 F.2d at 143 (finding injunction overly broad).

³⁵⁰ RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 42, comment (d).

³⁵¹ See *Winston*, 350 F.2d at 142 (“A permanent injunction would subvert the public’s interest in allowing technical employees to make full use of their knowledge and skill and in fostering research and development.”); *Electro-Craft*, 332 N.W.2d at 900 n.11 (noting the risk of “stifling the ability of employees to leave their employment and compete with their former employers . . . using ‘state of the art’ knowledge”).

³⁵² Defendants’ Reply in Support of Motion for Summary Judgment, *supra* note 12, at 3.

³⁵³ *Winston*, 350 F.2d at 137–38 (emphasis added).

³⁵⁴ *Id.* at 137. Mincom’s mechanical improvements consisted, generally speaking, of eliminating the flywheel on the recorder and reducing the size of all other moving parts, in order to increase the efficacy of the machine’s “servo system.” *Id.*

³⁵⁵ *Id.*

ployees named Johnson and Tobias), who helped develop the Mincom device.³⁵⁶ Mincom sued Winston for misappropriation of trade secrets, and the district court granted an injunction prohibiting “disclosure or use of the specifications of Mincom’s machine for a period of two years from the date of judgment.”³⁵⁷

On appeal to the Ninth Circuit, Winston argued that an injunction preventing Johnson and Tobias, who were by now highly specialized in tape recorder technology, from using Mincom’s approach to designing a recorder would render them “substantially unemployable in the work for which their specialized training and experience ha[d] equipped them.”³⁵⁸ The Ninth Circuit responded by applying the Exclusion to ensure that the injunction would not bar the “former Mincom employees from engaging in any development work in this area at all.”³⁵⁹ The “general approach” Mincom used developing its machine was not protectable because it was “part of the intellectual equipment of technical employees.”³⁶⁰ In contrast, trade secret law could encompass “the particular embodiment” of the Mincom machine’s “general concepts,” because this would not prevent Mincom’s former employees from continuing to work in their area of expertise.³⁶¹

If the court had not narrowed the injunction, the employees would not have the ability to use the highly specialized skills, knowledge, and experience built up over the years at Mincom.³⁶² Due to their high degree of specialization in Mincom recorder devices, they would have become essentially unemployable, in the jobs “for which their specialized training and experience [had] equipped them.”³⁶³

Not only does this approach of favoring highly specialized employees comport with the policy behind the Exclusion, it has significant support in the literature and in what some courts already do—although not always for the right reasons.³⁶⁴

³⁵⁶ *Id.*

³⁵⁷ *Id.* at 136, 141. The district court also forced Winston to assign patent applications involving inventions developed during the employees’ time at Mincom. *Id.* at 146.

³⁵⁸ *Id.* at 143.

³⁵⁹ *Id.* at 144.

³⁶⁰ *Id.* at 139; *see also id.* at 144 (noting that “Mincom’s former employees cannot be denied the right to use their general skill, knowledge, and experience, even though acquired in part during their employment by Mincom”).

³⁶¹ *Id.*

³⁶² *Id.* at 143–44; *see also* *Sarkes Tarzian, Inc. v. Audio Devices, Inc.*, 166 F. Supp. 250, 250 (S.D. Cal. 1958) (“[T]he courts will not deprive the employee of the right to use the skill he developed through the years.”).

³⁶³ *Winston*, 350 F.2d at 143.

³⁶⁴ *See, e.g., Reed, Roberts Assocs., Inc. v. Strauman*, 353 N.E.2d 590, 594 (N.Y. 1976) (“[W]e cannot agree that [the employee] should be prohibited from utilizing his knowledge and talents in this area. A contrary holding would make those in charge of operations or specialists in certain aspects of

For example, in *Dynamics Research Corp. v. Analytic Sciences Corp.*, the Massachusetts Court of Appeals applied the Exclusion in favor of an employee who already had extensive experience in the field of the alleged trade secrets.³⁶⁵ The plaintiff, Dynamics Research Corporation (DRC), had developed a proprietary “technical information retrieval and analysis system” known as TIRAS.³⁶⁶ When DRC’s employee, Robert Bicknell, who was in charge of marketing the TIRAS system, went to work for another company, DRC sued both Bicknell and his new employer Analytic Sciences Corp. (Analytic) for misappropriation of trade secrets.³⁶⁷

The lower court denied DRC’s motions for injunctive relief and damages based on the rule that “an employee upon terminating his employment may carry away and use the general skill or knowledge acquired during the course of the employment.”³⁶⁸ In reaching this holding, the court observed that Bicknell was hired by DRC as “an inertial guidance engineer,” and came to DRC with an abundance of experience and skill in the industry.³⁶⁹ Indeed, Bicknell was hired by DRC precisely because he already had a grasp on the plaintiff’s product.³⁷⁰ The court recited Bicknell’s impressive resume, including his time at MIT and the Naval Academy, the multiple graduate degrees he received from the University of Michigan, and Bicknell’s many years of experience in the field.³⁷¹ The court held Bicknell’s case should thus be treated more favorably than cases involving less skilled and experienced defendants, who “had never seen a machine that in any way resembled the plaintiff’s before coming to work for the plaintiff.”³⁷²

There are a few possible justifications for the *Dynamic Research Corp.* court’s decision and reasoning. The first is that people, like Bicknell, who come to a job with prior education, training, and expertise are more likely to have derived the claimed trade secrets themselves or from others in the field, rather than from their employers. But as explained above, this view of the Ex-

an enterprise virtual hostages of their employers.”) (emphasis added) (citation omitted) (relying on agency law).

³⁶⁵ *Dynamics Research Corp.*, 400 N.E.2d at 1285–86; *id.* at 1285 n.23 (applying the First Restatement).

³⁶⁶ *Id.* at 1275.

³⁶⁷ *Id.* at 1275, 1281.

³⁶⁸ *Id.* at 1282 (quoting *Junker v. Plummer*, 67 N.E.2d 667, 669 (Mass. 1946)).

³⁶⁹ *Id.*

³⁷⁰ *Id.*

³⁷¹ *Id.* at 1280–81.

³⁷² *Id.* at 1282. To justify this reasoning, the court cited to a *Harvard Law Review* article about non-competition agreements by Harlan Blake. *Id.* at 1282–83 (citing Blake, *supra* note 91, at 684–85). Blake asserted that courts should be more willing to protect highly specialized employees against post-employment restraints, because “the loss to the individual and the economic loss to society are both greatest” if that “highly trained and specialized person is prevented from employing his special abilities” in a new job or business. Blake, *supra* note 91, at 684–85.

clusion is too narrow. It fails to take into account that information can potentially be excluded even if the employee acquired it directly from the plaintiff.³⁷³

A second justification is that highly trained and specialized people are simply more valuable in the workforce and more valuable for society. This is a highly problematic assumption. How would a court know which types of workers are more valuable in the current labor market than others?

The third explanation is the best. Employees, like Bicknell, who are highly specialized in the subject matter to which the alleged trade secrets pertain should be more shielded from post-employment restraints because they are suitable for a much narrower range of jobs after they leave. The General Knowledge, Skill, and Experience Exclusion seeks to ensure trade secret law does not deprive an employee of the ability to pursue work in the industry for which he or she is best equipped; it therefore makes perfect sense for a court to be more protective of highly specialized people whose primary job options lie in the same subject matter as the claimed trade secrets.

To be clear, the court also must consider the first factor: the scope of the information claimed. If the employer is claiming highly specific information as a trade secret—not the general approach for doing something that has now become state of the art—it probably does not matter how specialized the employee is. The restraint on future job options would not be too severe. In sum, the main effect of the Exclusion should be as a scope-limiting tool, with the limitation on scope calibrated by trade secret law's impact on affected employees.

CONCLUSION

This Article demonstrates that, despite plentiful dicta, courts do not accurately apply and sometimes do not understand trade secret law's General Knowledge, Skill, and Experience Exclusion. Many courts view the Exclusion as merely an extension of the secrecy requirement. They thus assess only whether information is generally known to people within the industry. These courts do not inquire further to determine whether the claimed secret might nonetheless be excluded from protection. Other courts assess whether the employee generated the information rather than her employer or assess only an employee's incoming education and experience to determine whether the information is excluded. This effectively makes the Exclusion off-limits to employee-defendants who acquire new knowledge, skill, and experience on the job, due partly to exposure to their employer's trade secrets.

The true Exclusion is broader in scope. It excludes from protection even information that would otherwise be the employer's trade secret and that

³⁷³ See *supra* notes 279–329 and accompanying text.

would otherwise be owned by the employer.³⁷⁴ Since neither the UTSA nor the DTSA explicitly codified the Exclusion, the burden is on common law and the courts to ensure the Exclusion survives. There are a few things courts should understand.

First, as a matter of policy, the Exclusion encapsulates one of trade secret law's most sacred principles: workers who have not signed an enforceable contract stating otherwise are allowed to gain new knowledge, skills, and experiences on the job and transfer those improvements to different opportunities in the field. The Exclusion should thus not be limited to where the employee or others in the industry already knew what the employee now seeks to use.³⁷⁵

Second, as a matter of practice, information should be excluded as general knowledge, skill, and experience if the plaintiff's former employee or other similarly situated party could not reasonably work in the subject matter to which the trade secrets pertain without the ability to use it.³⁷⁶ This effectively turns the Exclusion into a limitation on the scope of trade secrets. When the employer claims a very broad scope, the information is most likely to be excluded—especially if the employee is also highly specialized in the subject matter of the secrets.³⁷⁷

In light of this Article's corrections, courts should more accurately identify, state, and apply the General Knowledge, Skill, and Experience Exclusion. Even if they do not use it to deny trade secret protection, they must at least take it into account at the remedial stage when considering the employee's interest in pursuing work, as compared to the employer's interest in protecting trade secrets.³⁷⁸

³⁷⁴ See *supra* notes 279–329 and accompanying text.

³⁷⁵ See *supra* notes 233–329 and accompanying text.

³⁷⁶ See *supra* notes 330–334 and accompanying text.

³⁷⁷ See *supra* notes 337–373 and accompanying text.

³⁷⁸ Cf. *eBay Inc. v. MercExchange, LLC.*, 547 U.S. 388, 391 (2006) (noting equity's long-standing balancing requirement).

