Practice Pointers on Trade Secrets Verdicts – Options for Relief and Their Fate on Appeal

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Trade Secrets

- Business, financial, and technical information that generally meets the following criteria:
  - Not generally known or readily ascertainable outside of the owner's organization and control;
  - Derives independent economic value or business advantage from the information not being generally known; and
  - Owner makes reasonable efforts to preserve secrecy
- "Reasonable efforts" are fact and circumstance dependent

Defend Trade Secrets Act of 2016 (“DTSA”)

- Created a federal cause of action for misappropriation claims
- Emergency right to pursue ex parte seizure orders
- Authorizes courts to issue injunctions to prevent any actual or threatened misappropriation
- Reaches extraterritorial conduct
- Powerful damages remedies including unjust enrichment and actual damages
- Exemplary damages and attorneys’ fees available for “willful and malicious” misappropriation

DTSA vs. UTSA

Feature	Defend Trade Secrets Act (DTSA)	Uniform Trade Secrets Act (UTSA)
Jurisdiction	Provides a federal cause of action for misappropriation	State law adopted by all U.S. states except NY
"Trade Secret"	Limited to financial, business, scientific, technical, economic, or engineering information	Has a broader definition that includes any information that derives value from not being generally known
"Reasonable Measures"	Focuses on owner's "reasonable measures" to protect trade secrets, which can vary by industry	Requires "reasonable efforts under the circumstances" to maintain secrecy
Remedies	Civil remedies, including injunctions, and ex parte seizures	Civil remedies, including injunctions
Statute of Limitations	3 years from discovery (or by exercise of reasonable diligence should have discovered). Only for misappropriation occurring on or after 5/11/2016	Variable. Many states have 3 years from discovery, but some longer
Preemption	Supplements but does not preempt state law	Many versions explicitly or implicitly displace conflicting state law claims, like common law torts, related to the same misappropriation
Standing	Must be legal owner of trade secret to bring claim	Allows lawful trade secret possessors to bring claims

Remedies Available

Economic Remedy	Description	Trade Secrets
Actual Damages (e.g., Lost Profits)	Actual losses suffered by the plaintiff due to the alleged infringement or misappropriation of intellectual property (i.e., profits that the owner of the intellectual property would have made but for the infringer's misconduct)	X
Reasonable Royalty	Amounts that would have been paid, or projected to be paid, by the infringer to license the intellectual property for an agreed upon term	X **(some exceptions)**
Unjust Enrichment	Amount of any benefit or gain realized by the wrongdoer from the wrongful act	X
Injunction	Enjoin defendant from continuing to benefit from the fruits of its misappropriation	X

Insulet v. EOFlow: A DTSA Case Study

- Insulet was founded in 2000
- Omnipod was the world's first "patch pump" for diabetes management
  - Pump market still predominantly "tubed" pumps, but patch pumps at verge of overtaking
- Size of insulin pump market ~$6B
- Market leader is Medtronic (largest medical device company in the world – ~$32B in annual revenues)

Insulet v. EOFlow

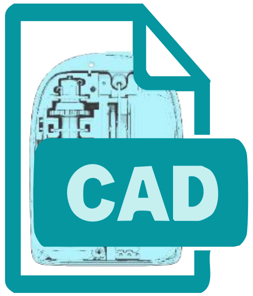
- Insulet spent over 20 years of continuous R&D and over $1 billion in developing current version of Omnipod
- No true U.S. competitor to Omnipod
- EOFlow's misappropriation of Omnipod:
  - Employed former Insulet engineers
  - Substantially similar product design to Omnipod
  - Engineered around Insulet "pain points"
  - Product development time: 18 months
  - Total Investment: $10M - $15M

Insulet v. EOFlow

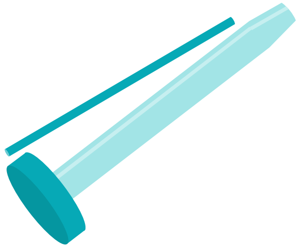
- **At trial:**
    - Jury found six defendants liable for trade secret misappropriation under the DTSA, awarding Insulet $452M ($170M for unjust enrichment and $282M in exemplary damages)
    - Court initially upheld the jury's damages verdict, but…
    - Reduced Insulet's damages award to $59.4M when Insulet elected to pursue a permanent injunction in lieu of a larger damages award
- **Status**:
    - Appeal pending at Federal Circuit (fully briefed)

Nineteen Hundred and Twenty-two NYIPLA The New York Intellectual Property Law Association®

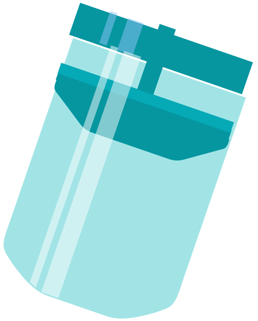
Insulet Practice Pointer No. 1: Allocate damages or unjust enrichment by asserted trade secret



Blueprints
Specifications
Technical Drawings



Component Design
&
Manufacturing
Processes



Design Features
for
Improved Performance

Software
Algorithms

Design and
Manufacturing
Documentation

Insulet Practice Pointer No. 2: To preserve the ability to elect remedies after trial, produce evidence that enables the court to determine forward-looking versus backward-looking monetary harms

Insulet Practice Pointer No. 2

The New York Intellectual Property Law Association®

Damages Only

$170 million
(Compensatory Damages)

+

$282 million
(Exemplary Damages)

OR

Damages + Permanent Injunction

$25.8 million
(Compensatory Damages)
+
$33.6 million
(Exemplary Damages)
+
Worldwide sales injunction
+
Assignment of certain patents to Insulet
+
Medtronic breakup fee
+
Destruction of all Insulet trade secrets
+
Mandatory forensic inspection
+
Audit right

Notable Trade Secrets Cases and Damages Pointers for Appeal

Zunum Aero Inc. v. Boeing Co., No. 24-5212, 2025 WL 2364602 (9th Cir. Aug. 14, 2025)

Background:

- Zunum strove to be the "Tesla of commercial aviation"
- In connection with its fundraising efforts, Zunum and Boeing entered into a proprietary information agreement under which Zunum shared its proprietary information for "limited purposes"
- Zunum sued Boeing under Washington's UTSA
  - Zunum alleges that Boeing stole its technology and disclosed it to Boeing's partners to accelerate Boeing's own roadmaps by two decades, all with the intention of hobbling Zunum's business

Zunum Aero Inc. v. Boeing Co.

Trial:

- Jury found that Boeing willfully misappropriated 11 of 19 alleged trade secrets
  - Awarded Zunum $67M for misappropriation and $14M for unjust enrichment
- District court granted Boeing's motion for JMOL on trade secret misappropriation claims:
  - Zunum failed to (1) identify its trade secrets with necessary precision and (2) present sufficient evidence that its trade secrets derived value from not being generally known or readily ascertainable by others

Zunum Aero Inc. v. Boeing Co.

Appeal:

- Zunum sufficiently identified its trade secrets
  - District Court wrongly rejected Zunum's attempts to introduce comprehensive trade secret definitions
  - Zunum's technical experts testified specifically to value derived by secrecy
  - District court overlooked relevant evidence at trial
- Zunum presented substantial evidence at trial to support a misappropriation finding
  - Indications of Boeing's improper use of Zunum's trade secrets were supported by testimony and documentary evidence

Zunum Aero Inc. v. Boeing Co.

<u>Practice Pointers</u>:

- You can't land your misappropriation case without identifying your trade secrets with sufficient detail
- Strong evidence of misappropriation is critical

Motorola Sols. Inc. v. Hytera Commc'ns Corp. Ltd., 108 F.4th 458 (7th Cir. 2024)

Background:

- Hytera hired three Motorola engineers in Malaysia, promising high pay for access to Motorola's software code and trade secrets
- Before leaving Motorola, the engineers—at Hytera's direction—downloaded over 10,000 confidential documents and source code
- Hytera used stolen information to develop and launch a line of professional-tier digital mobile radios that were functionally indistinguishable from Motorola's
- Motorola sued Hytera for copyright infringement and trade secret misappropriation under the DTSA

Motorola Sols. Inc. v. Hytera Commc'ns Corp. Ltd.

Trial:

- Jury awarded $209M in compensatory damages ($74M for Hytera's avoided R&D costs and $136M for lost profits) and $419M in exemplary damages
- District court reduced Motorola's award on DTSA claims to $407M ($136M compensatory & $272M exemplary)
  - Compensatory – Awarding avoided costs and lost profits constitutes impermissible double recovery
  - Exemplary – Reduction in award necessary to meet DTSA's 2-to-1 ratio limitation

Motorola Sols. Inc. v. Hytera Commc'ns Corp. Ltd.

Appeal:

- Motorola was entitled to the greater of:
  - Hytera's total profits as unjust enrichment (subject to apportionment); or
  - Sum of Motorola's actual losses and any additional amount of unjust enrichment not accounted in those actual losses
- 7th Circuit affirmed DTSA awards, despite various "missteps and course corrections" by the District Court
  - If properly followed, the District Court should have awarded Motorola $160M (Motorola's lost profits and Hytera's avoided R&D costs) rather than $136M (unjust enrichment)

Motorola Sols. Inc. v. Hytera Commc'ns Corp. Ltd.

<u>Practice Pointer</u>:

- Preserve multiple damages models at trial, even if conflicting, to allow for largest recovery possible

Pegasystems Inc. v. Appian Corp., 904 S.E.2d 247 (Va. App. 2024)

Background:

- Appian and Pegasystems compete in the business process management industry, offering software that enable businesses to generate programs and automate internal processes
- Pegasystems hired a consultant with access and knowledge to Appian's platform to "spy" on Appian's software and used this information to copy Appian's software
- Pegasystem employees used aliases to access software via free trials
- Appian sued Pegasystems under Virginia's UTSA (VUTSA), alleging misappropriation of trade secrets and unjust enrichment

Pegasystems Inc. v. Appian Corp.

<u>Trial</u>:

- Jury awarded Appian over $2B in damages, finding that Pegasystems used improper means to misappropriate Appian's trade secrets

Pegasystems Inc. v. Appian Corp.

Appeal:

- VA Court of Appeals reversed and remanded for a new trial on the basis that the trial court:
    - Erred in granting a jury instruction that didn't require Appian to prove proximate causation
    - Wrongly excluded Pegasystems' damages evidence
- In contrast to other UTSA jurisdictions, the VUTSA makes it clear that plaintiff must prove unjust enrichment

Status:

- Appeal pending at Supreme Court of VA (oral argument held on 10/28/25)

Pegasystems Inc. v. Appian Corp.

<u>Practice Pointer</u>:

- When seeking damages for actual loss or unjust enrichment, provide affirmative evidence at trial that misappropriation caused the damages sought (including unjust enrichment)

Relevant DTSA Statutes

Damages Remedies – 18 USC § 1836(b)(3)

"In a civil action brought under this subsection with respect to the misappropriation of a trade secret, a court may--

… (B) award-

(i)(I) damages for actual loss caused by the misappropriation of the trade secret; and

(II) damages for any unjust enrichment caused by the misappropriation of the trade secret that is not addressed in computing damages for actual loss; or

(ii) in lieu of damages measured by any other methods, the damages caused by the misappropriation measured by imposition of liability for a reasonable royalty for the misappropriator's unauthorized disclosure or use of the trade secret"

Exemplary Damages & Attorneys' Fees – 18 USC § 1839(3)

"In a civil action brought under this subsection with respect to the misappropriation of a trade secret, a court may--

…

(C) if the trade secret is willfully and maliciously misappropriated, award exemplary damages in an amount not more than 2 times the amount of the damages awarded under subparagraph (B); and

(D) if a claim of the misappropriation is made in bad faith, which may be established by circumstantial evidence, a motion to terminate an injunction is made or opposed in bad faith, or the trade secret was willfully and maliciously misappropriated, award reasonable attorney's fees to the prevailing party."

Injunctive Remedies – 18 USC § 1836(b)(3)

"In a civil action brought under this subsection with respect to the misappropriation of a trade secret, a court may--

(A) grant an injunction--

(i) to prevent any actual or threatened misappropriation described in paragraph (1) on such terms as the court deems reasonable, provided the order does not--

(I) 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; or

(II) otherwise conflict with an applicable State law prohibiting restraints on the practice of a lawful profession, trade, or business;

(ii) if determined appropriate by the court, requiring affirmative actions to be taken to protect the trade secret; and

(iii) in exceptional circumstances that render an injunction inequitable, that conditions future use of the trade secret upon payment of a reasonable royalty for no longer than the period of time for which such use could have been prohibited"

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

INSULET CORPORATION, **Plaintiff,** **v.** **EOFLOW CO., LTD.; EOFLOW, INC.; NEPHRIA BIO, INC.; and JESSE KIM,** **Defendants.**	**Civil Action No. 23-11780-FDS**

MEMORANDUM AND ORDER ON PLAINTIFF'S MOTION FOR A PERMANENT INJUNCTION AND DEFENDANTS' MOTION FOR A STAY OF JUDGMENT

SAYLOR, C.J.

This dispute concerns the misappropriation of trade secrets for the design and manufacture of an insulin patch pump, the Omnipod, produced by plaintiff Insulet Corporation. Plaintiff sued seven defendants: EOFlow Co., Ltd., and EOFlow, Inc. (collectively, "EOFlow"); Nephria Bio, Inc.; EOFlow's Chief Executive Officer, Jesse Kim; and three former Insulet employees, Luis Malave, Steven DiIanni, and Ian Welsford.

After a month-long trial, a jury returned a verdict on December 3, 2024, finding six defendants—all except Malave—liable for misappropriation of trade secrets in violation of the Defend Trade Secrets Act, 18 U.S.C. § 1836 *et seq.* ("DTSA"). The jury awarded plaintiff $452 million, composed of $170 million in unjust-enrichment damages and $282 million in exemplary damages.

Plaintiff has now moved for a permanent injunction seeking, among other things, to prohibit defendants from using, possessing, selling, or otherwise distributing plaintiff's trade secrets.[1] Plaintiff also seeks to preserve its $452 million damages award.

Defendants oppose the motion on two principal grounds.[2] First, they contend that the requested injunction would constitute an impermissible double recovery. Second, they assert that the scope of the proposed injunction is unduly broad. Defendants separately seek a stay of any injunction and damages award pending appeal.

For the following reasons, the motion for a permanent injunction will be granted in part and denied in part. In addition, the Court will enter a partial stay of its final judgment, as set forth below.

I. Analysis

A. Permanent Injunction

Plaintiff seeks entry of a permanent injunction that would, among other things, prohibit defendants from using, possessing, selling, or otherwise distributing its trade secrets—and any product, including the EOPatch 2, that uses those trade secrets—anywhere in the world. (*See* ECF No. 931-1). Plaintiff also seeks a reassignment of certain patents belonging to defendants that incorporate elements of its trade secrets; disgorgement of a break-up fee due to defendants from Medtronic PLC; and the granting of auditing rights to ensure defendants' ongoing compliance with the requested injunction order.

[1] On February 25, 2025, pursuant to a separately negotiated Consent Permanent Injunction and Judgment agreement between plaintiff and Malave, DiIanni, and Welsford, the Court entered a final judgment under Fed. R. Civ. P. 54(b) and issued a permanent injunction in accordance with the terms of the parties' agreement. (ECF Nos. 924-25).

[2] For the sake of convenience, the term "defendants" will hereafter refer only to EOFlow, Nephria Bio, and Kim unless the context indicates otherwise.

1. Legal Framework

The DTSA authorizes courts to grant injunctive relief for trade-secret misappropriation. *See* 18 U.S.C. § 1836(b)(3)(A). "A plaintiff seeking a permanent injunction is traditionally required to satisfy a four-factor test: '(1) that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction.'" *Greene v. Ablon*, 794 F.3d 133, 156 (1st Cir. 2015) (quoting *CoxCom, Inc. v. Chaffee*, 536 F.3d 101, 112 (1st Cir. 2008)). The First Circuit has stated that "[t]he first two factors together require 'a substantial injury that is not accurately measurable or adequately compensable by money damages.'" *KPM Analytics N. Am. Corp. v. Blue Sun Sci., LLC*, 729 F. Supp. 3d 84, 123 (D. Mass. 2024) (quoting *Glob. NAPs, Inc. v. Verizon New England, Inc.*, 706 F.3d 8, 13 (1st Cir. 2013)). Thus, "[a]n injunction should not be granted where 'a less drastic remedy' will suffice." *Greene*, 794 F.3d at 156 (quoting *Monsanto Co. v. Geertson Seed Farms*, 561 U.S. 139, 165-66 (2010)).

Starting with the first factor, in general, "[t]he loss of a trade secret . . . constitute[s] irreparable harm." *TouchPoint Sols., Inc. v. Eastman Kodak Co.*, 345 F. Supp. 2d 23, 32 (D. Mass. 2004). Here, it is clear that plaintiff would face irreparable harm if defendants were permitted to make unfettered use of its trade secrets. In the absence of an injunction, defendants could freely sell or distribute products incorporating plaintiff's trade secrets, entirely undermining the value of its proprietary information. Such a prospect is not, as defendants suggest, theoretical. Indeed, EOFlow already attempted to profit from the stolen trade secrets when it agreed to terms of a sale with one of plaintiff's largest competitors, Medtronic, before this lawsuit began. Without an injunction, defendants could once again profit from the sale of the trade secrets—secrets that plaintiff spent several years and millions of dollars to develop—enabling others to avoid significant upfront costs and compete with plaintiff.

Moreover, although the EOPatch 2 is available only in a select few markets, its continued sale and distribution constitute a genuine threat to plaintiff's ability to expand its market, its pricing power, and its reputation. And defendants' "brazen actions over a substantial period of time," as recognized by the jury's finding that EOFlow and Kim willfully and maliciously misappropriated certain trade secrets, only heightens the risk of future harm. *See KPM Analytics*, 729 F. Supp. 3d at 123; *see also Benchmark Techs., Inc. v. Tu*, 2023 WL 8371973, at *3 (D. Mass. May 30, 2023). Plaintiff has therefore met its burden on the first factor.

As to the second factor, money damages are not adequate to remedy the prospective injury. At the very least, "the questionable financial condition of [the defendant] reinforces the inadequacy of a remedy at law." *Robert Bosch LLC v. Pylon Mfg. Corp.*, 659 F.3d 1142, 1155 (Fed. Cir. 2011). Indeed, "[a] district court should assess whether a damage remedy is a meaningful one in light of the financial condition of the [defendant] before the alternative of money damages can be deemed adequate." *Id.* Here, the trial record established that defendants have at most approximately $24 million in net assets, making it highly unlikely that defendants have the financial wherewithal to satisfy the jury award, or even to come close to doing so.

As to the third factor, defendants contend that the balance of equities weighs in their favor because an injunction would force EOFlow to shut down. But a defendant "cannot escape an injunction simply because . . . its primary product is an infringing one." *Id.* at 1156. And nothing prohibits defendants from developing another product through legal means, without the benefit of misappropriated trade secrets. Meanwhile, requiring plaintiff to compete with a product built upon its own stolen property imposes a substantial burden that far outweighs the equities, if any, in plaintiff's favor.

Finally, the public interest in providing robust protection of trade secrets strongly weighs in favor of an injunction. The public interest favors investment and innovation in new technologies, while also deterring willful misappropriation of intellectual property. And any potential short-term hardship faced by current EOPatch 2 users does not alter the appropriateness of a permanent injunction, but could rather be accommodated through other equitable means, including a temporary carve-out of the injunction for those users in order to permit an orderly transition to other means of care.

Plaintiff has therefore satisfied the four-part test supporting its motion for a permanent injunction.

2. <u>Scope of Injunction</u>

The scope of the requested injunction is also reasonable and warranted under the circumstances. "Injunctions must be tailored to the specific harm to be prevented." *Ross-Simons of Warwick, Inc. v. Baccarat, Inc.*, 217 F.3d 8, 14 (1st Cir. 2000). The jury found that defendants misappropriated four trade secrets belonging to plaintiff, and that EOFlow and Kim did so willfully and maliciously. As noted, multiple future harms will likely flow from defendants' violation, including the further distribution of the trade secrets and the development and sale of competing devices that make use of those trade secrets.

Defendants contest a number of aspects of the injunction. First, they oppose its worldwide application, as they would be prohibited from possessing, using, selling, distributing, or providing services using plaintiff's trade secrets anywhere in the world.

The text of the DTSA plainly permits a worldwide injunction, as long as (1) the offender is a citizen or permanent resident of the United States, or an organization organized under the laws of the United States, or (2) an act in furtherance of the offense was committed in the United States. 18 U.S.C. § 1837. Here, Kim is a United States citizen, and EOFlow, Inc., and Nephria Bio are organized in the United States. Moreover, multiple acts occurred in the United States that furthered the misappropriation of plaintiff's trade secrets, thereby extending the DTSA's reach to—and the court's authority to issue an injunction against—EOFlow Co., Ltd., a Korean company.[3]

A worldwide injunction is particularly appropriate in the context of trade-secret misappropriation to prevent further dissemination of confidential information to foreign competitors. *See Nordson Corp. v. Plasschaert*, 674 F.2d 1371, 1377 (11th Cir. 1982) (stating that "confidential information is worthy of protection without geographic limitation because once divulged the information or the fruits of the information quickly can pass to competitors anywhere in the world"); *see also Lamb-Weston, Inc. v. McCain Foods, Ltd.*, 941 F.2d 970, 974 (9th Cir. 1991) (finding a worldwide injunction appropriate in certain cases of trade-secret misappropriation and always appropriate in impacted foreign markets). Defendants have already attempted to sell the trade secrets and could readily attempt to do so again to a foreign competitor. Thus, a worldwide injunction is certainly justified under the circumstances.

Defendants next contend that the injunction should be limited in time. They assert that a duration of only three and a half years is sufficient because that accounts for the "head start" they received from misappropriating plaintiff's trade secrets.

[3] Defendants did not contest the application of the DTSA's extraterritoriality provision at trial.

It may be true that courts often limit the duration of an injunction to a "period of time that would be required for independent development," including reverse engineering. 4 Roger M. Milgrim, *Milgrim on Trade Secrets* § 15.02[l][d]. However, there is limited evidence that plaintiff's trade secrets can actually be reverse engineered, let alone within a three-and-a-half-year period.[4] There was evidence that legitimate competitors of Insulet have been unable to develop a competing product, despite investing millions of dollars attempting to do so. The fact that plaintiff's damages expert, Justin McLean, assumed a four-year head start for the purposes of estimating defendants' unjust enrichment does not refute the fact that no other market participant has successfully developed a competing product to the Omnipod to date. Indeed, McLean did not testify that defendants would have, in fact, developed plaintiff's trade secrets in four years. Rather, he testified as to the time that defendants saved from their misappropriation. *See Brocade Commc'ns Sys., Inc. v. A10 Networks, Inc.*, 2013 WL 890126, at *9 (N.D. Cal. Jan. 23, 2013). Thus, without any evidence that plaintiff's trade secrets could actually be independently developed in a specified amount of time, a permanent injunction is appropriate. *See Milgrim on Trade Secrets* § 15.02[l][e] (stating that "courts do not always adhere to a rigidly-conceptualistic test based upon [independent-]development time but instead seek to do equity and will enter an arbitrary-term injunction if needed to accomplish the equitable result").

Defendants next contend that the proposed reassignment of patent application US 2023/0248902A1, along with any other submitted patent applications that disclose the same invention, is unwarranted. However, "[t]he victim of trade secret misappropriation may be entitled to ownership of any patents obtained by the wrongdoer on the misappropriated trade

[4] Plaintiff's expert, Boris Leschinsky, claimed at trial that he was able to reverse engineer the Omnipod, but in fact his testimony demonstrated he was unable to do so successfully. (*See* 13 Tr. 149:13-150:13; 152:22-153:5; 154:8-155:2; 155:19-156:10; 156:20-161:17).

secret." *Whiteside Biomechanics, Inc. v. Sofamor Danek Grp., Inc.*, 88 F. Supp. 2d 1009, 1018 (E.D. Mo. 2000), *aff'd sub nom. Whiteside Biomechanics, Inc. v. Danek Med., Inc.*, 13 F. App'x 950 (Fed. Cir. 2001). Plaintiff's expert, Lane Desborough, testified that the patent application at issue describes proprietary aspects of plaintiff's occlusion-detection-algorithm ("ODA") trade secret—a trade secret that the jury found to have been misappropriated by defendants. Equitable reassignment of defendants' patent applications derived from the trade secrets is appropriate to prevent continued use of those trade secrets. *See Ethicon Endo-Surgery, Inc. v. Crescendo Techs., LLC*, 2009 WL 2707805, at *8 (S.D. Ohio Aug. 24, 2009) (stating that "[e]quitable reassignment is appropriate for intellectual property that is misappropriated in a patent application" to ensure that "the wrongdoer is not improperly rewarded for its misappropriation").

Defendants next assert that the requested disgorgement of the anticipated $10 million break-up fee arising out of the terminated Medtronic acquisition is impermissibly duplicative of the jury award. Plaintiff, however, acknowledges that its damages award must be reduced by any amount received from the break-up fee. The disgorgement of the break-up fee serves as a partial payment of defendants' financial obligation, not as a duplicative windfall to plaintiff. Thus, there is no risk of duplicative awards from such a disgorgement.

Defendants finally contend that the auditing provisions of the proposed injunction are overly burdensome and invasive. But the requested auditing rights—which would permit plaintiff to conduct audits up to two times per year per defendant—are justified by the jury's finding that EOFlow and Kim engaged in willful and malicious misappropriation, and help mitigate the threat of future misappropriation.

The Court will therefore enter a permanent injunction, which will be set forth in a separate order. However, as set forth below, that injunction will be crafted to permit sales to current users of the EOPatch 2 for a limited period of time. Such an injunction will permit current users to transition to other means of medical care, and will also effectively preserve the status quo pending appeal.

3. <u>**Double Recovery**</u>

Defendants next assert that a permanent injunction, combined with the jury's award of monetary damages, constitutes an impermissible double recovery for plaintiff. "[I]t is well settled that, '[t]he law abhors duplicative recoveries; thus[,] double awards for the same injury are impermissible.'" *Americus Mortg. Corp. v. Est. of Belli*, 2014 WL 1338294, at *7 (D. Mass. Mar. 31, 2014) (quoting *Boqan v. City of Boston*, 489 F.3d 417, 425 (1st Cir. 2007)). Under certain circumstances, an award of damages coupled with an injunction may constitute an improper double recovery for a plaintiff. *See Syntel Sterling Best Shores Mauritius Ltd. v. The TriZetto Grp., Inc.*, 68 F.4th 792, 811 (2d Cir. 2023) (rescinding the award of monetary damages in part because the district court entered a permanent injunction prohibiting the defendant's use of the misappropriated trade secrets). Thus, although the DTSA permits a court to both "grant an injunction to prevent any actual or threatened misappropriation" and "award damages for any unjust enrichment caused by the misappropriation," 18 U.S.C. § 1836(b)(3), the damages award may not apply to "a period of use that overlap[s] with the period covered by the injunction," *PPG Indus. Inc v. Jiangsu Tie Mao Glass Co. Ltd*, 47 F.4th 156, 163 (3d Cir. 2022).

Again, the jury awarded plaintiff $452 million in total damages, consisting of $170 million in unjust enrichment and $282 million in exemplary damages based on the jury's finding that defendants misappropriated four trade secrets, three of which were misappropriated willfully and maliciously.

Plaintiff's damages expert presented two theories of unjust-enrichment damages to the jury. The first, the "head-start" theory, focused on the benefit of an accelerated development process that defendants gained as a result of the misappropriation. The second, the "market-value" theory, represented the value of the trade secrets to a prospective buyer, based in part on the agreed-upon sale of EOFlow to Medtronic. Both theories involved analyses of prospective, hypothetical sales of defendants' products and their potential future value. McLean did not present any estimate of plaintiff's "actual loss," whether suffered through lost sales, market share decline, or another metric. *See* 18 U.S.C. § 1836(b)(3)(B). Instead, McLean and plaintiff focused entirely on the benefits that accrued—or would in the future accrue—to defendants as a result of the misappropriation.

The jury's unjust-enrichment damages-award calculation was thus based in substantial part on defendants' future, unrealized gains. It therefore overlaps to a significant degree with the requested injunction, which, by its nature, is designed to prevent future harm. And both granting the requested injunction and upholding the entire jury award would, in substantial part, constitute an impermissible double recovery.

A district court may, however, fashion an award to avoid duplicative recovery. *See Villarini-Garcia v. Hosp. del Maestro*, 112 F.3d 5, 8 (1st Cir. 1997) (directing a district court to modify, but not entirely annul, the damages award to avoid partial duplication); *see also E.E.O.C. v. Waffle House, Inc.*, 534 U.S. 279, 297 (2002) (stating that it "goes without saying that the courts can and should preclude double recovery" (internal quotations omitted)).

For the reasons set forth below, the Court concludes that at least a portion of the avoided-cost and exemplary-damages award is not duplicative, and it may therefore issue an injunction together with a reduced damages award. Whether it has the authority to do so, however, does not answer the question of whether it should in fact do so. That is a matter for plaintiff to decide, as it is an issue of election of remedies. The time to make such an election is "after a verdict is entered but prior to entry of judgment." *Dopp v. HTP Corp.*, 947 F.2d 506, 515 (1st Cir. 1991). Plaintiff has made that election; in its supplemental post-trial memorandum, it stated that it "chooses to elect for a permanent injunction together with the avoided-cost and exemplary damages that are not duplicative of the injunction." (ECF No. 934 at 2).

The Court will turn, then, to the questions of whether and to what extent any portion of the avoided-cost and exemplary-damages award is not duplicative of the remedy of injunctive relief.

a. <u>Avoided Costs</u>

Plaintiff contends that defendants have already reaped certain benefits from their misappropriation—such as avoiding significant research, development, and regulatory costs as a result of the misappropriation—that are a portion of the jury's award. Because those benefits are backward-looking, plaintiff contends that they do not overlap with the forward-looking injunction.

Injunctions prohibiting the future use of misappropriated trade secrets may permissibly coexist with unjust-enrichment damages based on previously avoided costs. *See Epic Sys. Corp. v. Tata Consultancy Servs. Ltd.*, 980 F.3d 1117, 1133 (7th Cir. 2020) (upholding the jury's unjust-enrichment award, which was calculated as defendant's "avoided research and development costs," even though the district court entered an injunction prohibiting the future use, possession, and retention of plaintiff's trade secrets); *PPG*, 47 F.4th at 163-64 (upholding a damages award "for the development costs [the defendant] avoided" along with a "forward-looking permanent injunction" prohibiting future use of the plaintiff's trade secrets); *see also*

Syntel, 68 F.4th 811 (indicating that, under certain circumstances, an injunction may coexist with avoided-costs damages).

Defendants cite *Syntel* in support of their assertion that an injunction and an avoided-costs award may only be issued together when the misappropriation "diminish[es]" or "destroy[s]" the value of the trade secrets. *See* 68 F.4th at 812. Because plaintiff here did not put forth a theory of damages based on the harm that it suffered from the misappropriation, defendants assert that an avoided-costs award is inappropriate.

The court in *Syntel* identified a number of factors that bear on whether an avoided-costs award is proper in conjunction with an injunction. Those factors include (1) "the extent to which the defendant has used the secret in developing its own competing product," (2) "the extent to which the defendant's misappropriation has destroyed the secret's value for its original owner," and (3) "the extent to which the defendant can be stopped from profiting further from its misappropriation into the future." *Id.* Notably, the misappropriation at issue in *Syntel* did not implicate any of those three factors, which the court considered "unusual[]." *Id.*

Unlike in *Syntel*, defendants here used plaintiff's trade secrets to develop their own competing product. *See id.* Moreover, the jury found that EOFlow and Kim acted willfully and maliciously, raising concerns that they may again in the future engage in illicit misappropriation. Although plaintiff's damages theory did not rely on the harm that it suffered, the record nonetheless supports the conclusion that defendants' misconduct created a threat to the value of plaintiff's trade secrets—specifically, in their signed sale agreement with Medtronic that nearly disclosed the trade secrets to one of plaintiff's biggest competitors. Thus, the reasoning of *Syntel* does not require that an avoided-costs award be vacated if an injunction is to be entered.

b. Avoided-Costs Damages Calculation

Plaintiff has submitted a supplemental report by Justin McLean, its damages expert, to support its assertion that the avoided costs associated with the four misappropriated trade secrets total $52.8 million.[5]

Starting with the computer-aided design ("CAD") files, soft cannula, and ODA trade secrets, there is no genuine disagreement that the jury adopted McLean's market-value theory to arrive at its damages award of $83 million as to those three trade secrets. In presenting his market-value damages estimates to the jury, McLean explained that the estimated research and development costs were "roughly" $15 million for the CAD files, $9 million for the soft cannula, and $2.2 million for the ODA. (12 Tr. 90:2-5). He went on to testify that he incorporated plaintiff's research-and-development costs into his calculation of the market value of each trade secret. The market-value damages calculations presented to the jury therefore were a function of his avoided-costs estimates, which totaled approximately $26.2 million for those three trade secrets.

As for the design-history-file ("DHF") trade secret, McLean testified that its market value was approximately $232 million, with corresponding avoided costs of approximately $72

[5] Defendants oppose plaintiff's submission of McLean's supplemental report on the ground that it is untimely under Fed. R. Civ. P. 26(a)(2) and 37(c)(1). They assert that the report consists of new theories and opinions that should have been disclosed long before the trial. *See Massachusetts Mut. Life Ins. Co. v. DB Structured Prods., Inc.*, 2015 WL 12990692, at *4 (D. Mass. Mar. 31, 2015) (stating that if a "declaration submitted after the close of expert discovery differs substantially from the [initial] report, offers a whole new theory, opinion, or methodology, or is outside of the scope or general scheme of the report, then it is an improper supplementation"). The Court shares defendants' misgivings about the permissibility of McLean's supplemental report, and will not consider it to the extent it presents new theories and analyses not previously disclosed. However, to the extent that it simply restates or summarizes McLean's trial testimony, it appears to be harmless. *See* Fed. R. Civ. P. 37(c)(1) (stating that if a party fails to timely disclose expert testimony, then it is precluded from using "that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified *or is harmless*." (emphasis added)).

million. However, by awarding only $170 million for the misappropriation of the DHF, the jury evidently did not credit the market-value theory (or the head-start theory) in its entirety.

Because the verdict form does not indicate which aspects of McLean's theory that the jury rejected, plaintiff proposes reducing McLean's estimated avoided costs of $72 million down to $52.8 million, which reflects the same ratio as that between McLean's estimated DHF market value ($232 million) and the jury's award ($170 million). However, as defendants note, it is possible that the jury substantially rejected an avoided-costs award as to the DHF. In any event, there is no obvious way to reconstruct the jury's reasoning, and the Court is therefore disinclined to accept plaintiff's proportionality approach. Instead, and to ensure that there is no real risk of duplicative recovery, the Court will exclude the DHF-related avoided costs altogether in fashioning its relief.

Thus, the Court will award unjust-enrichment compensatory damages of $25.8 million, which represents the avoided costs associated with the CAD files, soft cannula, and ODA trade secrets.[6]

4. <u>Exemplary Damages</u>

Plaintiff seeks to preserve the jury's award of $282 million in exemplary damages. Defendants assert that any reduction in the unjust-enrichment award requires a corresponding reduction in exemplary damages. Defendants further contend that exemplary damages of any magnitude raise double-recovery concerns and should be barred altogether.

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[6] McLean estimated that the market value of the CAD files, soft cannula, and ODA trade secrets were $47.8 million, $29.6 million, and $7.2 million, respectively. The jury apparently reduced those values to the nearest million, ultimately awarding $47.0 million, $29.0 million, and $7.0 million for the misappropriation of those three trade secrets, respectively. To account for the rounding, plaintiff proposes proportionally reducing the $26.6 million of estimated research-and-development costs for those three trade secrets to $25.8 million. Because there is no genuine dispute as to the jury's adoption of plaintiff's market-value damages for those three trade secrets, the Court will enter an unjust-enrichment award of $25.8 million, comprised of $14.6 million for the CAD files, $9.0 million for the soft cannula, and $2.2 million for the ODA.

To begin, plaintiff's exemplary damages must be reduced to comply with the clear text of the DTSA, which states that "a court may . . . if the trade secret is willfully and maliciously misappropriated, award exemplary damages in an amount not more than 2 times the amount of the [unjust-enrichment] damages *awarded*." 18 U.S.C. § 1836(a)(3) (emphasis added). The DTSA therefore explicitly connects the cap on exemplary damages to the total unjust-enrichment award. There is no "award" until there is a final judgment or decision. Although an award may be granted by both a court and a jury, its critical feature is that it is a final determination. Thus, an award of exemplary damages under the DTSA may not exceed two times the unjust-enrichment damages ultimately entered for plaintiff—not the unjust enrichment determined (but not ultimately awarded) by the jury.

Plaintiff cites *Dyer v. William S. Bergman & Assocs., Inc.*, 657 A.2d 1132, 1139 (D.C. 1995), in support of its position that it is entitled to the entirety of the jury's award of $282 million in exemplary damages. In that case, the D.C. Court of Appeals upheld a trial court's decision to proscribe the entire compensatory-damages award on double-recovery grounds, while nevertheless preserving the punitive-damages award. *Dyer*, 657 A.2d at 1139. But the *Dyer* court's reasoning is not persuasive in this context. First, *Dyer* involved a common-law tortious-interference claim, and was thus not governed by a statutory scheme. *Id.* at 1134. Second, the *Dyer* court applied a plain error, not *de novo*, review standard to the trial court's damages award, holding that the lower court's decision "to set aside the award of punitive damages was not 'plainly' or 'obviously' wrong." *Id.* at 1140. Finally, the *Dyer* court itself acknowledged that its own case law on "whether compensatory damages are a prerequisite for an award of punitive damages [has] not been a model of consistency." *Id.* at 1140, n.12. In short, *Dyer* does not provide persuasive authority to depart from the text of the DTSA, and thus plaintiff's exemplary damages will be limited to two times the amount of its final unjust-enrichment award.

As noted, the jury found that EOFlow and Kim willfully and maliciously misappropriated plaintiff's trade secrets, and therefore awarded $282 million in total exemplary damages, consisting of $94 million related to the misappropriation of the CAD files, $14 million for the ODA, and $174 million for the DHF.[7] And the Court will enter a final unjust-enrichment award for each trade secret—corresponding to the avoided costs—of $14.6 million for the CAD files, $9.0 million for the soft cannula, and $2.2 million for the ODA. Thus, in accordance with the exemplary-damages cap of the DTSA, plaintiff's punitive damages will be reduced to $29.2 million for the CAD files and $4.4 million for the ODA, for a total of $33.6 million in exemplary damages.

Defendants nonetheless oppose an award of exemplary damages of any magnitude. Their principal argument is that an award of exemplary damages constitutes an impermissible double recovery with a permanent injunction because they "deter future misconduct." *Forster v. Boss*, 97 F.3d 1127, 1130 (8th Cir. 1996). But the *Forster* court actually *upheld* an award of punitive damages alongside an injunction, stating that an "award of punitive damages . . . is not duplicative of the relief contained in the injunction" because "punitive damages are not designed to compensate anybody." *Id.* Rather, the primary goal of exemplary damages is to "punish misconduct"—namely, *past* misconduct. *Id.* Conversely, injunctions are designed as a remedial tool to prevent specific *future* harms. *See Vaqueria Tres Monjitas, Inc. v. Irizarry*, 587 F.3d 464, 487 (1st Cir. 2009). When "two damages awards serve different purposes[—]that is, when one is remedial and the other is punitive"—then the awards are unlikely to be duplicative. *Giguere v.*

[7] The jury did not find that the soft-cannula trade secret was willfully and maliciously misappropriated.

Port Res. Inc., 927 F.3d 43, 51 (1st Cir. 2019); *see also Burnett v. Ocean Properties, Ltd.*, 422 F. Supp. 3d 400, 430 (D. Me. 2019), *aff'd*, 987 F.3d 57 (1st Cir. 2021) (stating that "[p]unitive damages, unlike compensatory damages, are not aimed at making a plaintiff whole; thus the rule against double recovery is inapplicable when the damages awarded are punitive" (quoting *Medina v. D.C.*, 643 F.3d 323, 329 (D.C. Cir. 2011))).

The exemplary-damages provision under the DTSA—which applies only to willful and malicious misappropriation—is unquestionably punitive in nature, and thus does not pose a double-recovery risk when combined with an injunction. Plaintiff will therefore be awarded $33.6 million in exemplary damages, resulting in a total damages award of $59.4 million.[8]

5. <u>Prejudgment Interest</u>

Plaintiff seeks prejudgment interest on its avoided-costs award at the Massachusetts rate of 12 percent per year set by Mass. Gen. Laws ch. 231, §§ 6B-6C. It asserts that defendants realized the benefit of the avoided costs during the development of the EOPatch 2 several years ago, and thus prejudgment interest should be entered to adjust for the time-value of that benefit.

Plaintiff, however, has waived the right to seek prejudgment interest. It could have requested that the question of prejudgment interest be submitted to the jury. "But the question of prejudgment interest was not submitted to the jury, nor did plaintiff[] ask that the jury be instructed on it," meaning that any subsequent "award of prejudgment interest [would] be [struck]." *Cordero v. De Jesus-Mendez*, 922 F.2d 11, 14 (1st Cir. 1990) (quoting *Furtado v. Bishop*, 604 F.2d 80, 98 (1st Cir. 1979)); *see also Giorgio v. Duxbury*, 2016 WL 3983232, at *2

[8] $25.8 million avoided-costs award + $33.6 million exemplary-damages award = $59.4 million total damages award.

(D. Mass. July 25, 2016) (stating that "[p]laintiffs are not entitled to pre[]judgment interest where they did not submit the question of pre[]judgment interest to the jury").

Plaintiff asserts that it did not previously seek prejudgment interest because its two damages theories already accounted for the time-value of money, whereas an award of only avoided costs does not, thus justifying an award of prejudgment interest at this stage.

Regardless, an award of prejudgment interest is not warranted, because "[t]he essential rationale for awarding prejudgment interest is to ensure that an injured party is *fully compensated for its loss*." *City of Milwaukee v. Cement Div., Nat. Gypsum Co.*, 515 U.S. 189, 195 (1995) (emphasis added). At trial, plaintiff did not assert any actual financial loss stemming from defendants' misappropriation; instead, plaintiff's damages theories focused entirely on defendants' unjust enrichment, including their avoided costs. It is true that those avoided-costs benefits began accruing to defendants in 2018, as they developed the EOPatch 2 using plaintiff's trade secrets. But plaintiff has not articulated any quantifiable loss for which it must be made "whole." *See Richwell Grp., Inc. v. Seneca Logistics Grp., LLC*, 433 F. Supp. 3d 58, 64 (D. Mass. 2019) (citing *Motion Picture Ass'n of Am., Inc. v. Oman*, 969 F.2d 1154, 1157 (D.C. Cir. 1992)). Nor did it seek (or receive) any damages for "actual loss" under the DTSA. *See* 18 U.S.C. § 1836(b)(3)(B). Moreover, plaintiff's unjust-enrichment and exemplary-damages awards—combined with the permanent injunction—adequately serve the DTSA's purpose of "deter[ring] misappropriation and provid[ing] recovery for trade[-]secret owners" without the addition of prejudgment interest. *See Syntel Sterling Best Shores Mauritius Ltd. v. TriZetto Grp., Inc.*, 2021 WL 1553926, at *15 (S.D.N.Y. Apr. 20, 2021), *aff'd in part, vacated in part*, 68 F.4th 792 (denying a request for prejudgment interest on damages awarded under the DTSA). Thus, plaintiff's request for prejudgment interest will be denied.

B. Stay of Relief

Defendants have moved to stay judgments of both monetary and injunctive relief pending appeal. Courts have employed different tests to evaluate the propriety of a stay as to each type of relief.

1. Monetary Relief

Under Fed. R. Civ. P. 62(d), the "execution of a money judgment is automatically stayed pending appeal upon the posting of a supersedeas bond." *Acevedo-Garcia v. Vera-Monroig*, 296 F.3d 13, 17 (1st Cir. 2002). Local Rule 62.2 sets the bond amount at the final damages-award amount plus 10 percent to cover interest and $500 for costs. *See CardiAQ Valve Techs., Inc. v. Neovasc Inc.*, 2016 WL 8710447, at *1 (D. Mass. Dec. 2, 2016). However, no bond is required if "(1) the defendant's ability to pay is so plain that the posting of a bond would be a waste of money; or (2) the bond would put the defendant's other creditors in undue jeopardy." *Acevedo-Garcia*, 296 F.3d at 17. If the bond requirement is waived, courts typically require some other form of security instead. *See, e.g.*, *Bowers v. Baystate Techs., Inc.*, 2001 WL 640876, at *1 (D. Mass. June 5, 2001) (requiring a defendant to pledge a larger percentage of stock to a plaintiff as an alternative security when the defendant was unable to obtain a bond for the full judgment amount). Ultimately, the "nature and the amount of the bond is entrusted to the discretion of the trial court." *Acevedo-Garcia*, 296 F.3d at 17.

Here, given the damages award of $59.4 million, defendants must post a bond in compliance with Local Rule 62.2 in order to obtain a stay of the monetary judgment. Defendants, by their own admission, lack the resources to meet the first exception to the bond requirement. As for the second exception, defendants filed a declaration by EOFlow's head of finance stating that its current debt obligations total approximately $39 million. It is plausible that defendants' creditors may have been placed at risk if the stay applied to the entirety of the jury's $452 million award. But the cost of a bond for the final judgment award (plus 10 percent for interest and $500 for costs) will be significantly less expensive and will not likely place defendants' creditors in undue jeopardy. Thus, a stay of the monetary judgment will be entered, subject to the posting of a bond by defendants equal to $65,340,500.[9]

2. <u>Injunctive Relief</u>

Stays of injunctive relief are "not a matter of right." *See Nken v. Holder*, 556 U.S. 418, 427 (2009). Such stays must be evaluated under the traditional four-part standard applied to injunctions. *See Acevedo-Garcia*, 296 F.3d at 16. Defendants thus bear the burden of satisfying the following: (1) they must make a "strong showing that [they are] likely to succeed on the merits" in their appeal; (2) they must show that they "will be irreparably injured absent a stay"; (3) they must show that "issuance of the stay will [not] substantially injure the other parties interested in the proceeding"; and (4) they must show that the stay would serve "the public interest." *Nken*, 556 U.S. at 434 (quoting *Hilton v. Braunskill*, 481 U.S. 770, 776 (1987)). In evaluating whether this burden has been met, the "first two factors"—that is, likelihood of success and irreparable injury—"are the most critical." *Id.*

Starting with the first factor, "[i]t is not enough that the chance of success on the merits [is] better than negligible." *Common Cause Rhode Island v. Gorbea*, 970 F.3d 11, 14 (1st Cir. 2020) (quoting *Nken*, 556 U.S. at 434-35). That said, "[w]hen the request for a stay is made to a district court, common sense dictates that the moving party need not persuade the court that it is likely to be reversed on appeal." *Reaves v. Dep't of Correction*, 404 F. Supp. 3d 520, 522 (D. Mass. 2019) (quoting *Canterbury Liquors & Pantry v. Sullivan*, 999 F. Supp. 144, 150 (D. Mass.

[9] That total represents the $59.4 million final monetary judgment, plus $5.94 million in interest, plus $500.

1998)). Instead, the movant need only "establish that the appeal raises serious and difficult questions of law in an area where the law is somewhat unclear." *Id.*

Here, defendants' principal argument on appeal is that plaintiff's claims are time-barred as a matter of law. Specifically, defendants maintain, as they have throughout the litigation process, that the statute-of-limitations provision under the DTSA applies an inquiry-notice standard, rather than a discovery-based standard. An inquiry-notice standard would, in all likelihood, render plaintiff's claims time-barred. However, for the reasons set forth in the Court's October 31, 2024 summary-judgment memorandum and order, the Court rejected defendants' proffered inquiry-notice standard as being inconsistent with both the clear text of the DTSA and the Supreme Court's reasoning in *Merck & Co. v. Reynolds*, 559 U.S. 633 (2010). (*See* ECF No. 753). That said, reasonable minds may differ as to that determination, given that the accrual standard under the DTSA is not yet clearly established. The appeal therefore raises a substantial question of law on which there is genuine room for meaningful difference of opinion, thereby satisfying the first factor for a stay of injunctive relief.

As for the second factor, "simply showing some possibility of irreparable injury" is not sufficient to warrant a stay. *Gorbea*, 970 F.3d at 14 (quoting *Nken*, 556 U.S. at 434-35). Defendants assert that a prohibition on all sales of the EOPatch 2, as contemplated under the proposed injunction, would almost immediately force them out of business, thus constituting a real risk of irreparable harm. That risk, however, does not warrant a stay of the injunction as a whole, but rather supports a partial stay permitting continued sales to existing EOPatch 2 patients in the European Union and Republic of Korea, the only markets in which the EOPatch 2 is presently available. Defendants could therefore maintain their current revenue stream throughout the appeal process, but would not be permitted to use the trade secrets to expand their sales, develop competing products, or in any other way benefit from their misappropriation.

A partial stay limited only to existing EOPatch 2 patients also comports with the third factor, because it protects plaintiff from the threats posed by the misappropriation, including a potential sale of its trade secrets to a competitor, the expansion of a competing product into new markets, and the development of new products using its trade secrets. And the fourth factor is also supported by a partial stay, as the public interest is well-served by allowing current EOPatch 2 users to maintain uninterrupted access to their insulin-delivery system while the appeal process plays out.

The Court will therefore enter a temporary partial exception to the permanent injunction to permit continued sales of the EOPatch 2 device only to existing users in the European Union and Republic of Korea, as will be set forth in a separate permanent injunction order. Defendants will also be ordered to notify all current EOPatch 2 users subject to the temporary partial exception about the Court's permanent injunction order and the likely effect that it will have on their access to the device going forward.

II. <u>Conclusion</u>

For the foregoing reasons, plaintiff's motion for a permanent injunction is GRANTED in part and DENIED in part. Defendants' motion for a stay of judgment is GRANTED in part and DENIED in part. Total damages of $59.4 million is awarded to plaintiff without prejudgment interest. A permanent injunction order and order as to final judgment will be entered separately.

So Ordered.

/s/ F. Dennis Saylor IV
F. Dennis Saylor IV
Chief Judge, United States District Court

Dated: April 24, 2025

FILED

AUG 14 2025

MOLLY C. DWYER, CLERK
U.S. COURT OF APPEALS

NOT FOR PUBLICATION

UNITED STATES COURT OF APPEALS

FOR THE NINTH CIRCUIT

ZUNUM AERO, INC.,

Plaintiff-Ctr-Defendant-Appellant,

v.

THE BOEING COMPANY; BOEING HORIZONX VENTURES, LLC,

Defendant-Ctr-Claimants-Appellees.

No. 24-5212

D.C. No. 2:21-cv-00896-JLR

MEMORANDUM*

ZUNUM AERO, INC.,

Plaintiff-Ctr-Defendant-Appellant,

v.

THE BOEING COMPANY; BOEING HORIZONX VENTURES, LLC,

Defendant-Ctr-Claimants-Appellees.

No. 24-5751

D.C. No. 2:21-cv-00896-JLR

Appeal from the United States District Court
for the Western District of Washington
James L. Robart, District Judge, Presiding

* This disposition is not appropriate for publication and is not precedent except as provided by Ninth Circuit Rule 36-3.

Submitted August 11, 2025**
San Francisco, California

Before: RAWLINSON, BADE, and KOH, Circuit Judges.

This appeal arises from post-trial rulings in a dispute between Zunum Aero, Inc. ("Zunum"), an aerospace startup, and The Boeing Co. and Boeing HorizonX Ventures, LLC, (collectively, "Boeing"). After an eight-day trial, the jury issued a split verdict, concluding that Boeing had misappropriated 11 of 19 alleged trade secrets, breached one contract (out of two), and tortiously interfered with Zunum's business expectancy with a potential investor, Safran S.A. ("Safran"). After trial, the district court granted Boeing's motion for judgment as a matter of law ("JMOL") and Boeing's motion for a conditional new trial. We have jurisdiction under 28 U.S.C. § 1291. We review the JMOL ruling de novo and the conditional new trial ruling for abuse of discretion, *Wallace v. City of San Diego*, 479 F.3d 616, 624, 630 (9th Cir. 2007), and we reverse.

1. We reverse the district court's grant of JMOL in favor of Boeing on Zunum's trade secret misappropriation claims. First, the district court erred in concluding that "Zunum failed to identify any of its alleged trade secrets with sufficient particularity." Although a plaintiff must identify its claimed trade secrets

** The panel unanimously concludes this case is suitable for decision without oral argument. *See* Fed. R. App. P. 34(a)(2).

at trial with sufficient specificity to allow the jury to determine whether the information meets the statutory definition of a trade secret, *InteliClear, LLC v. ETC Glob. Holdings, Inc.*, 978 F.3d 653, 658 (9th Cir. 2020), it need not precisely define the boundaries of each claimed trade secret, *see, e.g.*, *Forro Precision, Inc. v. Int'l Bus. Machs. Corp.*, 673 F.2d 1045, 1057 (9th Cir. 1982). Here, the court rejected Zunum's repeated attempts to introduce comprehensive trade secret definitions into evidence and instead provided the jury with a court-created exhibit enumerating Zunum's alleged trade secrets with a short description of each. Zunum's witnesses identified the trade secrets by number, provided a basic explanation of each, and used exhibits and demonstratives to exemplify information comprising specific trade secrets. This provided sufficient specificity for the jury to meaningfully evaluate whether each alleged trade secret met the statutory definition of a protectable trade secret.

The district court also erred in concluding that Zunum failed to present substantial evidence that its alleged trade secrets derived value from not being generally known to, or readily ascertainable by, others. *See* Wash. Rev. Code § 19.108.010(4) (defining a trade secret as information that, *inter alia*, "[d]erives independent economic value, actual or potential, from not being generally known . . . and not being readily ascertainable by proper means"). Zunum's technical experts testified to these issues specifically, and, having ruled that Zunum's experts were qualified to render their opinions on these subjects, the district court was required to take their testimony as true in considering Boeing's motion for JMOL. *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000) (explaining that, in considering a motion for JMOL, "the court must draw all reasonable inferences in favor of the nonmoving party" and "may not make credibility determinations or weigh the evidence"); *Krechman v. County of Riverside*, 723 F.3d 1104, 1110-11 (9th Cir. 2013) ("Having admitted the testimony of [the nonmoving party's] experts, the judge was bound to take their testimony as true for the purposes of considering whether to grant judgment as a matter of law."). The district court also overlooked other relevant evidence introduced at trial. Zunum's fact and expert witnesses testified to the time, effort, and money it took Zunum to develop its portfolio of trade secrets, and to the technological and commercial benefits reflected in Zunum's trade secrets. Moreover, documentary evidence showed that Boeing employees contemporaneously discussed the difficulty of replicating Zunum's technology. From this evidence, the jury could have reasonably inferred that Zunum's trade secrets were not generally known, not readily ascertainable, and valuable.

Substantial evidence also supported the jury's misappropriation findings. Zunum's technical experts testified about indications of improper use of Zunum's trade secrets by Boeing, citing specific similarities between Zunum and Boeing designs, data, methods, and business strategies. This testimony was supported by documentary evidence showing these similarities, and by internal Boeing communications introduced at trial suggesting that Boeing intended to modify its own in-house designs, methods, and strategies to incorporate information from certain Zunum trade secrets. From this evidence, the jury could have reasonably concluded that Boeing improperly used Zunum's trade secrets for competitive purposes, which constitutes misappropriation under Washington law. *See* Wash. Rev. Code § 19.108.010(2)(b) (defining misappropriation to include "use of a trade secret of another without express or implied consent by a person who . . . acquired [it] under circumstances giving rise to a duty to maintain its secrecy or limit its use").

2. We reverse the district court's grant of JMOL in favor of Boeing on Zunum's breach of contract claim. First, the district court erred in concluding that Zunum failed to present substantial evidence at trial that Boeing made unauthorized use of Zunum's confidential information in breach of the parties' 2017 investor rights letter. Under the parties' agreement, Boeing was not permitted to use Zunum's confidential information for any reason other than to manage its investment in Zunum. Zunum introduced substantial evidence at trial from which a jury could reasonably infer that Boeing used Zunum's confidential information for other purposes, including advancing Boeing's own hybrid-electric aircraft

program. In concluding otherwise, the district court impermissibly reweighed the evidence and failed to make all reasonable inferences in Zunum's favor. *See Reeves*, 530 U.S. at 150.

Second, the district court erred in concluding that Zunum failed to present substantial evidence of damages resulting from this breach. Under Delaware law, which governs the parties' contract, "the issue of proximate cause is ordinarily a question of fact to be submitted to the jury." *Culver v. Bennett,* 588 A.2d 1094, 1098 (Del. 1991). Drawing all reasonable inferences in Zunum's favor, *see Reeves*, 530 U.S. at 150, the jury could have reasonably determined that Boeing's misuse of Zunum's confidential information destroyed Zunum's competitive advantage, which caused Zunum to lose future investment and partnership opportunities.

3. We reverse the district court's grant of JMOL in favor of Boeing on Zunum's tortious interference claim. The district court erred in concluding that the jury lacked substantial evidence to find that a deal between Safran and Zunum had a "reasonable expectancy of fruition." *Scymanski v. Dufault*, 491 P.2d 1050, 1055 (Wash. 1971) (en banc). At trial, Zunum's witnesses testified to a lengthy negotiation process that began when Safran reached out "cold" to Zunum with a proposal to invest and partner. Witnesses testified at trial that these negotiations were promising and ongoing until Boeing's alleged interference. Indeed, Zunum put forth evidence showing that Boeing employees acknowledged Safran's interest

in Zunum. In ruling to the contrary, the court impermissibly reweighed the evidence and failed to make all reasonable inferences in Zunum's favor. *See Reeves*, 530 U.S. at 150.

Substantial evidence also supports the jury's findings as to the remaining elements of Zunum's tortious interference claim. *See Leingang v. Pierce Cnty. Med. Bureau, Inc.*, 930 P.2d 288, 300 (Wash. 1997) (en banc) (setting forth the elements of a tortious interference claim under Washington law). From witness testimony and contemporaneous Boeing emails introduced at trial, the jury could have reasonably found that Boeing intentionally interfered in the Zunum-Safran relationship for an improper purpose, and that Boeing's interference damaged Zunum.

4. Boeing argues that even if substantial evidence supports the jury's finding of liability on Zunum's claims, it is still entitled to JMOL because Zunum failed to present substantial evidence of damages. Although we may affirm the district court's judgment on any basis supported by the record, *Surfvivor Media, Inc. v. Survivor Prods.*, 406 F.3d 625, 630 (9th Cir. 2005), we reject Boeing's argument. The district court did not abuse its discretion in admitting the testimony of Zunum's damages expert and, crediting this testimony as true as is required in considering a motion for JMOL, *see Krechman*, 723 F.3d at 1110-11, substantial evidence supported the jury's damages verdict.

5. We also reverse the district court's conditional grant of a new trial. The district court provided no substantive reasoning for its conditional ruling beyond that which it provided in its JMOL decision. Because the district court based its grant of a new trial on a JMOL analysis that is centered on "erroneous interpretations of the law," these errors "compel [the] conclu[sion] that the district court abused its discretion in ordering a new trial." *Wallace*, 479 F.3d at 630. Moreover, after a review of the full record, we conclude that "the jury's verdict was not against the great weight of the evidence." *Id.* at 631.

6. We remand with the instruction that this case be assigned to a different district judge. One day before the district court entered final judgment, the court sua sponte issued a "Notice of Financial Transaction." In it, the district judge explained that his spouse holds a traditional IRA with a bank to which she has delegated investment authority to manage the IRA's investments. Through this IRA, the district judge's spouse acquired Boeing stock on two separate occasions during the pendency of this litigation. The district judge divested this financial interest promptly in compliance with 28 U.S.C. § 455(b)(4), (f). However, the district judge did not state that he took proactive steps after learning of the first Boeing stock purchase to prevent the bank from making another Boeing stock purchase the very next month. Moreover, the district court did not promptly disclose these transactions to the parties. The district judge learned of the stock

purchases from monthly account statements in May 2023 and June 2023, just weeks after the transactions took place. However, he did not disclose these transactions until September 2024—over a year later and just one day before entering final judgment. Moreover, the disclosure did not occur until after an August 2024 media interview in which the district judge described these events as an "error." This delayed disclosure, taken together with the district court's consistent rulings in Boeing's favor during and after trial, could give an objective observer reason to question the district judge's impartiality in further proceedings. *See* 28 U.S.C. § 455(a); *Liljeberg v. Health Servs. Acquisition Corp.*, 486 U.S. 847, 865 (1988).[1]

REVERSED and REMANDED WITH INSTRUCTIONS.

[1] Amicus curiae's motions for leave to file an amicus brief (No. 24-5212, Dkt. 18; No. 24-5751, Dkt. 12) are granted.

tation marks omitted). That said, this court "should not assume that state courts would broaden the reach of a statute by giving it an expansive construction." *Richland Bookmart, Inc. v. Nichols*, 137 F.3d 435, 441 (6th Cir. 1998) (internal quotation marks omitted). Here, no narrowing mechanism can save the AEA. At a minimum, rescuing the AEA would require: (1) writing in a scienter requirement, (2) creating affirmative defenses, and (3) limiting Tenn. Code Ann. § 7-51-1407(c)(1)(B)'s reach to private, age-restricted venues. In other words, it would require a rewrite of the AEA.

* * *

The AEA is a content-based restriction on speech that cannot withstand strict scrutiny. It therefore violates the First Amendment. As a result, I do not need to also conduct substantial-overbreadth and vagueness analyses. *See R.A.V.*, 505 U.S. at 381 & n.3, 112 S.Ct. 2538.

C. Scope of Relief

The district court declared the AEA an unconstitutional restriction on speech and enjoined Mulroy from enforcing the Act in Shelby County. Mulroy does not challenge the district court's declaratory-judgment remedy, but he does contest the scope of the injunctive relief.

When a statute violates a person's free-speech rights, "[c]ourts invalidate such statutes in their entirety to prevent a chilling effect, whereby speakers self-censor protected speech to avoid the danger of possible prosecution." *Russell v. Lundergan-Grimes*, 784 F.3d 1037, 1054 (6th Cir. 2015) (internal quotation marks omitted). "[B]ecause it impairs a substantial amount of speech beyond what is required to achieve acceptable objectives, 'a statute which chills speech can and must be invalidated where its facial invalidity has been demonstrated.'" *Id.* (quoting *Citizens United v. FEC*, 558 U.S. 310, 336, 130 S.Ct. 876, 175 L.Ed.2d 753 (2010)); *see also Reed*, 576 U.S. at 172, 135 S.Ct. 2218.

The district court erred in enjoining Mulroy from enforcing the public-property provision of the AEA, Tenn. Code Ann. § 7-51-1407(c)(1)(A), because FOG lacked standing to challenge that provision. But the district court did not err in enjoining Mulroy from enforcing Tenn. Code Ann. § 7-51-1407(c)(1)(B) because that provision is a content-based restriction on speech that fails strict scrutiny. Thus, the district court did not abuse its discretion by prohibiting Mulroy from enforcing that unconstitutional law in Shelby County.

V.

FOG had standing to bring this action against Mulroy. And the AEA is an unconstitutional content-based restriction on speech. Therefore, I would affirm the district court's decision to enjoin Mulroy from enforcing Tenn. Code Ann. § 7-51-1407(c)(1)(B) in Shelby County.

I respectfully dissent.

MOTOROLA SOLUTIONS, INC. and Motorola Solutions Malaysia SDN. BHD., Plaintiffs-Appellees, Cross-Appellants,

v.

HYTERA COMMUNICATIONS CORPORATION LTD., Defendant-Appellant, Cross-Appellee.

Nos. 22-2370 & 22-2413

United States Court of Appeals,
Seventh Circuit.

Argued December 5, 2023

Decided July 2, 2024

Background: Manufacturer of two-way radio systems brought action for trade-secret misappropriation and copyright infringement against Chinese competitor, asserting claims under the federal Defend Trade Secrets Act (DTSA), the Illinois Trade Secrets Act (ITSA), and the Copyright Act based on allegations that competitor had hired engineers from manufacturer who had brought with them manufacturer's trade secrets and copyrighted source code, which competitor had used to develop digital radios that were functionally indistinguishable from those of manufacturer. Before trial, the United States District Court for the Northern District of Illinois, Charles Norgle, J., 436 F. Supp. 3d 1150, allowed manufacturer to seek certain extraterritorial damages. After a trial at which a jury awarded compensatory damages under the Copyright Act, and both compensatory and punitive damages under the DTSA, for a total award of $764.6 million, the District Court, Norgle, J., 495 F. Supp. 3d 687, denied competitor's motions for judgment as a matter of law (JMOL), a new trial, and remittitur and, 2020 WL 13898832, denied manufacturer's motion for a permanent injunction, granted, in an amount to be determined, manufacturer's alternative request for a reasonable royalty, and granted in part competitor's motion for findings on equitable issues and for an amended judgment. The District Court, Norgle, J., 2021 WL 12285863, then reduced the damages award to a total of $543.7 million, made up of $136.3 million in copyright damages, $135.8 million in DTSA compensatory damages, and $271.6 million in DTSA punitive damages, and, 2021 WL 6690279, awarded a reasonable royalty to manufacturer on competitor's future sales of digital radio equipment. Competitor appealed, challenging only the damages award. While the appeal was pending, manufacturer moved for reconsideration of the denial of permanent injunctive relief, and the District Court, Norgle, J., 2022 WL 22840175, denied the motion for lack of jurisdiction.

Holdings: The Court of Appeals, Hamilton, Circuit Judge, held that:

(1) manufacturer failed to show a completed act of copyright infringement by competitor in the United States, and manufacturer thus could not recover copyright damages for competitor's foreign sales of infringing products;

(2) competitor was entitled, on remand, to offer a proximate-cause theory for apportionment of manufacturer's copyright damages;

(3) manufacturer was entitled to damages for all copyright violations that it had discovered in the three years before asserting its copyright claims;

(4) as a matter of first impression, the DTSA rebuts the presumption against extraterritoriality, and its extraterritorial reach is subject only to the restrictions in the DTSA provision governing its applicability to conduct outside the United States;

(5) manufacturer was entitled to DTSA damages for competitor's extraterritorial sales of radios embodying stolen trade secrets, regardless of where in the world the remainder of competitor's illegal conduct occurred;

(6) district court's error in failing to apportion the $135.8 million in DTSA compensatory damages was harmless, since manufacturer could have obtained, under an alternative theory, a compensatory-damages award of $159.8 million that would not have been subject to apportionment;

(7) the award of $271.6 million in DTSA punitive damages did not violate the Fifth Amendment's Due Process Clause;

(8) district court committed legal error in denying, for lack of jurisdiction, manufacturer's motion to reconsider the denial of permanent injunctive relief; and

(9) on remand, district court would be required to take a fresh look, in light of new evidence, at manufacturer's motion to reconsider the denial of permanent injunctive relief.

Affirmed in part, reversed in part, and remanded.

1. Copyrights and Intellectual Property ⚷862

The Copyright Act is subject to the presumption against extraterritoriality, which assumes that United States law governs domestically but does not rule the world. 17 U.S.C.A. § 101 et seq.

2. Copyrights and Intellectual Property ⚷873

Copyright protection extends to infringing acts committed abroad if those acts are sufficiently related to a predicate act of infringement in the United States.

3. Copyrights and Intellectual Property ⚷873

Under the "predicate-act doctrine" for determining when copyright protection extends to infringing acts committed abroad, a copyright owner may recover damages for foreign infringement if two conditions are met: (1) an initial act of copyright infringement occurred in the United States, and (2) the domestic infringement enabled or was otherwise directly linked to the foreign infringement for which recovery is sought.

See publication Words and Phrases for other judicial constructions and definitions.

4. Copyrights and Intellectual Property ⚷873

Under the predicate-act doctrine for determining when copyright protection extends to infringing acts committed abroad, the predicate act required by the first prong of the doctrine must constitute a domestic violation of the Copyright Act. 17 U.S.C.A. § 101 et seq.

5. Copyrights and Intellectual Property ⚷1112(1)

A plaintiff that seeks to recover damages for copyright infringement abroad bears the burden of establishing that there was an initial domestic violation of the Copyright Act. 17 U.S.C.A. § 101 et seq.

6. Copyrights and Intellectual Property ⚷873

Absent evidence that Chinese competitor of manufacturer of two-way radios downloaded manufacturer's copyrighted source code from one of manufacturer's servers located in the United States, as opposed to from a server located abroad that mirrored data on the United States servers, manufacturer failed to show that competitor engaged in a completed act of copyright infringement in the United States, and the predicate-act doctrine thus did not allow manufacturer to recover damages under the Copyright Act for any of competitor's foreign sales of infringing products. 17 U.S.C.A. § 101 et seq.

7. Copyrights and Intellectual Property ⚷873

Downloads of copyrighted data from mirrored servers located outside the United States cannot serve as predicate acts of domestic copyright infringement, for purposes of allowing damages under the Copyright Act for foreign acts of copyright infringement under the predicate-act doctrine, even if the main instance of those databases is stored on a United States-based server. 17 U.S.C.A. § 101 et seq.

8. Copyrights and Intellectual Property ⚷872

By choosing to store copies of copyrighted data abroad in mirrored servers, United States copyright owners take the risk that illicit copying will be beyond the reach of United States copyright law. 17 U.S.C.A. § 101 et seq.

9. Copyrights and Intellectual Property ⚷872

If a copyright owner hopes to prove infringement based solely on the illicit download of copyrighted material from its servers but has stored identical copies of that material both on servers abroad and on servers in the United States, the copyright owner must be prepared to show that the unauthorized download was made from a United States-based server. 17 U.S.C.A. § 101 et seq.

10. Federal Courts ⚷3788

Competitor of manufacturer of two-way radios that had infringed manufacturer's copyright by using copyrighted source code to make competing radios was entitled, on remand after appellate court's determination that district court could not award damages under the Copyright Act to manufacturer for foreign copyright infringement by competitor, to offer a proximate-cause theory for apportionment of manufacturer's copyright damages and to attempt to show that some portion of the claimed damages was attributable to factors other than the copyrighted work, where competitor had been denied the opportunity to prove that theory and had instead been required to disprove but-for causation, and it was unclear to appellate court whether district court had made a factual determination or a legal error. 17 U.S.C.A. § 504(b).

11. Federal Courts ⚷3403

Failure of competitor to present to the jury, in suit by manufacturer of two-way radios for copyright infringement and trade-secret misappropriation, competitor's theory of proximate-cause apportionment of manufacturer's copyright-infringement damages for unjust enrichment did not result in forfeiture of theory, where unjust enrichment was an equitable issue tried to the court and on which the jury's verdict was advisory, and competitor had presented its theory to the district court at the first opportunity to do so, in competitor's filings seeking amended findings of fact and conclusions of law from the district court. 17 U.S.C.A. § 101 et seq.; Fed. R. Civ. P. 52(b).

12. Copyrights and Intellectual Property ⚷1095

For a copyright infringer to be entitled to an apportionment of its profits in connection with a damages award, the infringer must show (1) that not all of its profits are due to the use of copyrighted material and (2) that the evidence is sufficient to provide a fair basis of division. 17 U.S.C.A. § 504(b).

13. Copyrights and Intellectual Property ⚷1095

Under the "but-for" track for a copyright infringer to show the first element of a claim for apportionment of profits, namely that not all of its profits are due to the use of the copyrighted material, the infringer can attempt to show that consumers would have purchased its product even without—that is, but for—the infringing element. 17 U.S.C.A. § 504(b).

14. Copyrights and Intellectual Property ⚷1095

Under the "proximate-cause" track for a copyright infringer to show the first element of a claim for apportionment of profits, namely that not all of its profits are due to the use of the copyrighted material, the infringer can attempt to show that its profits are not the natural and probable consequences of the infringement alone, but are also the result of other factors under its own control.

15. Copyrights and Intellectual Property ⚷1106

Even a willful copyright infringer is entitled to offer a proximate-cause theory for apportionment of the copyright owner's damages. 17 U.S.C.A. § 504(b).

16. Federal Courts ⚷3391

An appellate court is a court of review, not one of first view.

17. Limitation of Actions ⚷95(7)

Under the discovery rule for copyright claims, manufacturer of two-way radios was entitled to damages from competitor, which had used manufacturer's copyrighted code to make its competing radios, for all copyright violations that manufacturer had discovered in the three years before asserting its copyright claims, not merely for violations committed by competitor in those three years. 17 U.S.C.A. § 507(b).

18. Limitation of Actions ⚷95(7)

The discovery rule applies to copyright claims, meaning that a copyright claim accrues, and thus the copyright statute of limitations starts to run, when the plaintiff learns, or should as a reasonable person have learned, that the defendant was violating his rights. 17 U.S.C.A. § 507(b).

19. International Law ⚷395

The Defend Trade Secrets Act (DTSA) is subject to the presumption against extraterritoriality. 18 U.S.C.A. § 1836 et seq.

20. International Law ⚷395

Under the two-step framework for determining whether the Defend Trade Secrets Act (DTSA) applies extraterritorially, at the first step, courts should ask whether the presumption against extraterritoriality has been rebutted—that is, whether the DTSA gives a clear, affirmative indication that it applies extraterritorially; once it is determined that the statute is extraterritorial, the scope of the statute turns on the limits Congress has (or has not) imposed on the statute's foreign application. 18 U.S.C.A. § 1836 et seq.

21. Antitrust and Trade Regulation ⚷415

International Law ⚷395

The Defend Trade Secrets Act (DTSA) rebuts the presumption against extraterritoriality because it gives a clear, affirmative indication that it applies extraterritorially, and its extraterritorial reach is subject only to the restrictions in the DTSA provision governing its applicability to conduct outside the United States. 18 U.S.C.A. §§ 1836, 1837.

22. International Law ⚷257

Statutes ⚷1175

It is a mistake to allow general language of a preamble to create an ambiguity in specific statutory or treaty text where none exists.

23. Statutes ⚷1075

A court cannot interpret federal statutes to negate their own stated purposes.

24. Statutes ⚷1080

After courts have applied the traditional tools of statutory construction to arrive at what appears to be the best reading of a statute, they may consider express textual evidence of congressional purpose elsewhere in the statute to double-check their work, while keeping in mind that no legislation pursues its purposes at all costs.

25. Statutes ⚷1153

Words of a statute are given their meaning by context, and context includes the purpose of the text.

26. Statutes ⚷1174, 1176

Congressionally enacted legislative purposes and findings are part of a statute's text, and thus are one permissible indicator of meaning for courts.

27. Antitrust and Trade Regulation ⚷437

Marketing in the United States by competitor of two-way-radio manufacturer of products embodying manufacturer's stolen trade secrets constituted domestic use of those trade secrets that, under the Defend Trade Secrets Act (DTSA), amounted to completed acts of domestic misappropriation sufficient to allow manufacturer to recover damages under the DTSA for competitor's extraterritorial sales of radios embodying the stolen trade secrets, regardless of where in the world the remainder of competitor's illegal conduct occurred; competitor had advertised, promoted, and marketed products embodying the stolen trade secrets at numerous trade shows in the United States. 18 U.S.C.A. §§ 1836, 1837(2), 1839(5)(B).

28. Antitrust and Trade Regulation ⚷414

"Use" of a trade secret, for purposes of liability under the Defend Trade Secrets Act (DTSA) for such use, is any exploitation of the trade secret that is likely to result in injury to the trade-secret owner or enrichment to the defendant, including marketing goods that embody the trade secret, employing the trade secret in manufacturing or production, relying on the trade secret to assist or accelerate research or development, or soliciting customers through the use of information that is a trade secret. 18 U.S.C.A. § 1839(5)(A)-(B).

See publication Words and Phrases for other judicial constructions and definitions.

29. Statutes ⚷1455

The fact that Congress has amended a statute sheds light on how the statute is to be interpreted.

30. Antitrust and Trade Regulation ⚷415

The requirement under the Defend Trade Secrets Act (DTSA), as a condition for applying the DTSA to conduct occurring outside the United States, that a defendant have engaged in "an act in furtherance of" trade-secret misappropriation in the United States does not require a completed act of domestic misappropriation, nor does it impose a specific-causation requirement. 18 U.S.C.A. § 1837(2).

31. Statutes ⚷1370

Where Congress borrows terms of art in which are accumulated the legal tradition and meaning of centuries of practice, it presumably knows and adopts the meaning its use will convey to the judicial mind unless otherwise instructed.

32. Copyrights and Intellectual Property ⚷862, 872

The Copyright Act does not apply extraterritorially, so to recover damages for foreign copyright infringement, a plaintiff is required to show specific causation. 17 U.S.C.A. § 101 et seq.

33. Antitrust and Trade Regulation ⚷415

For a defendant's act to qualify under the Defend Trade Secrets Act (DTSA) as "an act in furtherance of" the offense of trade-secret misappropriation in the United States, as required for the defendant to be held liable under the DTSA for conduct occurring outside the United States, the act need not be the offense itself or any element of the offense, but it must manifest that the offense is at work and is neither simply a project in the minds of the offenders nor a fully completed operation; put another way, an act of trade-secret misappropriation that occurs before the operation is underway or after it is fully completed is not an act "in furtherance of" the offense. 18 U.S.C.A. § 1837(2).

34. Antitrust and Trade Regulation ⚷414

Under the Defend Trade Secrets Act (DTSA), trade-secret misappropriation does not begin and end with the defendant's initial acquisition of plaintiff's trade secrets; rather, "misappropriation" includes the defendant's illicit and ongoing disclosure or use of the stolen secrets. 18 U.S.C.A. § 1839(5)(B).

See publication Words and Phrases for other judicial constructions and definitions.

35. Antitrust and Trade Regulation ⚷415, 437

An "offense" under the Defend Trade Secrets Act (DTSA) can encompass an entire operation comprising many individual acts of misappropriation; accordingly, so long as "an act in furtherance of the offense was committed in the United States," then all damages caused by the offense are recoverable under the DTSA, wherever in the world the rest of the underlying conduct occurred. 18 U.S.C.A. § 1837(2).

See publication Words and Phrases for other judicial constructions and definitions.

36. Antitrust and Trade Regulation ⚷420

International Law ⚷395

Even if the Defend Trade Secrets Act (DTSA) did not rebut the presumption against extraterritoriality, application of the DTSA to the misappropriation of trade secrets of manufacturer of two-way radios by its competitor, and the award to manufacturer of damages for competitor's domestic and extraterritorial sales, would amount to a permissible domestic application of the DTSA because the acts committed abroad were sufficiently related to a predicate act of trade-secret misappropriation in the United States. 18 U.S.C.A. § 1836 et seq.

37. Antitrust and Trade Regulation ⚷437

Manufacturer of two-way radios was not entitled to damages under the Illinois Trade Secrets Act (ITSA) beyond those awarded under the Defend Trade Secrets Act (DTSA) for competitor's misappropriation of manufacturer's trade secrets, because manufacturer could recover all of competitor's global profits caused by its trade-secret misappropriation, wherever that misappropriation occurred, and any recovery under the ITSA would thus be duplicative. 18 U.S.C.A. § 1836 et seq.; 765 Ill. Comp. Stat. Ann. 1065/1 et seq.

38. Antitrust and Trade Regulation ⚷437

District court erred in barring competitor of manufacturer of two-way radios, at trial in which competitor was found to have violated the Defend Trade Secrets Act (DTSA) by misappropriating manufacturer's trade secrets, from offering a proximate-cause theory for apportionment of manufacturer's damages and attempting to show that some portion of the claimed damages were attributable to factors other than the misappropriated trade secrets. 18 U.S.C.A. § 1836(b)(3)(B)(i).

39. Federal Courts ⚷3712(2)

District court's error in failing to apportion $135.8 million in compensatory damages awarded under the Defend Trade

Secrets Act (DTSA) to manufacturer of two-way radios that proved that competitor stole its trade secrets was harmless, where manufacturer could have obtained, under an alternative damages theory, a compensatory-damages award of $159.8 million that would not have been subject to apportionment. 18 U.S.C.A. § 1836(b)(3)(B).

40. Antitrust and Trade Regulation ⚷437

Unjust Enrichment and Constructive Contracts ⚷313

Under the Defend Trade Secrets Act (DTSA), one of a prevailing plaintiff's three options for obtaining damages is to recover as unjust enrichment the entire amount of the defendant's profits caused by the misappropriation; on this path, once the plaintiff proves the defendant's total profits from the theft, the defendant has an opportunity to seek apportionment by proving how its own efforts contributed to those profits. 18 U.S.C.A. § 1836(b)(3)(B).

41. Antitrust and Trade Regulation ⚷437

Unjust Enrichment and Constructive Contracts ⚷313

Under the Defend Trade Secrets Act (DTSA), one of a prevailing plaintiff's three options for obtaining damages is to prove as damages its actual losses (a legal remedy) plus any gains to the defendant not accounted for in plaintiff's actual losses as unjust enrichment (an equitable remedy); if a plaintiff follows this path and tries to prove its own losses, it must also show that the additional amount of unjust enrichment it seeks from the defendant will not duplicate its own lost profits. 18 U.S.C.A. § 1836(b)(3)(B).

42. Antitrust and Trade Regulation ⚷437

Under the Defend Trade Secrets Act (DTSA), a successful plaintiff that seeks to prove its damages in two permissible ways, either as the entire amount of a defendant's misappropriation-related profits or as the plaintiff's actual losses plus any gains to the defendant not accounted for in those actual losses, is entitled to the larger of the two amounts. 18 U.S.C.A. § 1836(b)(3)(B).

43. Antitrust and Trade Regulation ⚷437

Unjust Enrichment and Constructive Contracts ⚷313

Avoided costs are recoverable as damages for unjust enrichment under the Defend Trade Secrets Act (DTSA) when the defendant's misappropriation injures the plaintiff beyond its actual loss. 18 U.S.C.A. § 1836(b)(3)(B).

44. Antitrust and Trade Regulation ⚷437

Unjust Enrichment and Constructive Contracts ⚷321

Research and development costs that were avoided by competitor of manufacturer of two-way radios through competitor's theft of manufacturer's trade secrets were recoverable by manufacturer as unjust enrichment under the Defend Trade Secrets Act (DTSA), where competitor had used manufacturer's trade secrets in developing its own product such that the value of those trade secrets to manufacturer had been reduced, and the misappropriation had thereby injured manufacturer beyond its actual losses. 18 U.S.C.A. § 1836(b)(3)(B).

45. Antitrust and Trade Regulation ⚷437

A plaintiff bringing suit under the Defend Trade Secrets Act (DTSA) who seeks to prove its damages in two permissible ways, either as the entire amount of a defendant's misappropriation-related profits or as the plaintiff's actual losses plus any gains to the defendant not accounted for in those actual losses, is entitled to factual determinations as to the amounts available via both paths for calculating its compensatory damages, and the plaintiff should then be awarded the greater of the two amounts. 18 U.S.C.A. § 1836(b)(3)(B).

46. Federal Courts ⚷3731

Although the district court erred in awarding manufacturer of two-way radios, as damages in its Defend Trade Secrets Act (DTSA) suit against competitor that had stolen manufacturer's trade secrets, damages of $135.8 million for competitor's unjust enrichment, an amount that was subject to apportionment, rather than $159.8 million in damages, not subject to apportionment, under the alternative path of calculating damages as the sum of manufacturer's lost profits and competitor's avoided research and development costs, the failure of manufacturer to cross-appeal the damages award barred it from obtaining on appeal the $24 million difference between the district court's award and the correct award. 18 U.S.C.A. § 1836(b)(3)(B).

47. Federal Courts ⚷3733

Competitor of manufacturer of two-way radios that had been found liable to manufacturer for trade-secret misappropriation under the Defend Trade Secrets Act (DTSA) forfeited, by failing to raise in its opening appellate brief, its objections to the determination by the district court, rather than by a jury, of manufacturer's lost profits from the misappropriation, and of the amount of research and development costs that competitor had avoided through the misappropriation, amounts that were relevant to calculating manufacturer's damages under one of two calculation methods available under the DTSA, even though competitor had raised the objections below, where competitor failed to raise them again in its opening appellate brief. 18 U.S.C.A. § 1836(b)(3)(B).

48. Jury ⚷28(3, 17)

A party's right to have a jury determine any legal remedy in the first instance is not absolute; it can be waived, leaving factual questions instead to the court.

49. Federal Courts ⚷3733

An issue that falls within the scope of the judgment appealed from that is not raised by the appellant in its opening brief on appeal is necessarily waived.

50. Federal Courts ⚷3733

When a district court bases its ruling on two independent grounds and a plaintiff challenges only one on appeal, the plaintiff waives any claim of error in that ruling.

51. Antitrust and Trade Regulation ⚷437

Constitutional Law ⚷4427

District court's award to manufacturer of two-way radios of punitive damages of $271.6 million under the Defend Trade Secrets Act (DTSA) from competitor that had misappropriated manufacturer's trade secrets did not violate the substantive limits on punitive damages imposed by the Fifth Amendment's Due Process Clause, where competitor had willfully and maliciously appropriated manufacturer's trade secrets, manufacturer had been awarded compensatory damages under the DTSA of $135.8 million, an amount that was amply supported by the evidence, and the punitive damages were double the amount of compensatory damages, the maximum ratio allowable under the DTSA. U.S. Const. Amend. 5; 18 U.S.C.A. § 1836(b)(3)(C).

52. Federal Courts ⚷3614(2)

Review of a constitutional challenge to a punitive damages award is de novo, which operates to ensure that an award of punitive damages is based upon an application of law, rather than a decisionmaker's caprice.

53. Constitutional Law ⚷4427

When a punitive-damages award arises from a robust statutory regime, the rigid application of the guideposts found in case law for determining the constitutionality of punitive damages under the Fifth Amendment's Due Process Clause is less necessary or appropriate than when the award is based on the common law; thus, the more-relevant first consideration as to the constitutionality of a statutory award of punitive damages is the statute itself, through which the legislature has spoken explicitly on the proper scope of punitive damages. U.S. Const. Amend. 5.

54. Antitrust and Trade Regulation ⚷437

Constitutional Law ⚷4427

The exemplary-damages provision in the Defend Trade Secrets Act (DTSA) complies with the limitations imposed on punitive-damages awards by the Fifth Amendment's Due Process Clause. U.S. Const. Amend. 5; 18 U.S.C.A. § 1836(b)(3)(C).

55. Antitrust and Trade Regulation ⚷437

Unjust Enrichment and Constructive Contracts ⚷127

In trade-secret cases, unjust enrichment can take several forms and cover a broad array of activities.

56. Federal Courts ⚷3454

District court committed legal error in denying, for lack of jurisdiction, motion for reconsideration by manufacturer of two-way radios of court's denial of manufacturer's request for a permanent injunction against competitor that had been found liable under the Defend Trade Secrets Act (DTSA) for theft of manufacturer's trade secrets, even though the reconsideration motion was filed after the parties' notices of appeal and cross-appeal; the district court had the power to defer or deny the motion or, if it was inclined to grant the motion or believed it raised a substantial issue, to issue an indicative ruling to that effect so that application could be made for a remand to address the reconsideration motion on the merits. Fed. R. Civ. P. 60(b), 62.1.

57. Federal Courts ⚷3454

When a district court faces a motion for relief from judgment that it cannot grant because of a pending appeal, the court may defer or deny the motion, but it also may indicate that it would grant the motion on remand or that the motion raises a substantial issue. Fed. R. Civ. P. 60(b), 62.1.

58. Federal Civil Procedure ⚷2646

Federal Courts ⚷3607

A motion to vacate a judgment is addressed to the sound discretion of a district court, but a trial court may abuse its discretion by failing to exercise its discretion. Fed. R. Civ. P. 60(b).

59. Federal Courts ⚷3454

When a motion for relief from judgment has been brought in the district court while an appeal is pending, it is generally premature for the appellate court to relinquish appellate jurisdiction before the district court has given any indication of its likely response to that motion.

60. Federal Courts ⚷3798

On remand in suit in which competitor had been found liable under the Defend Trade Secrets Act (DTSA) to manufacturer of two-way radios for stealing manufacturer's trade secrets, district court would be required to take a fresh look at manufacturer's motion for reconsideration of district court's order denying a permanent injunction against competitor and to consider whether new evidence of competitor's non-payment of the damages award, and other post-judgment conduct and events, called for a different result. 18 U.S.C.A. § 1836 et seq.; Fed. R. Civ. P. 60(b), 62.1.

Appeals from the United States District Court for the Northern District of Illinois, Eastern Division. No. 1:17-cv-01973 — **Charles R. Norgle**, *Judge.*

Steven J. Lindsay, Attorney, Kirkland & Ellis LLP, Chicago, IL, John C. O'Quinn, Jason M. Wilcox, Attorneys, Kirkland & Ellis LLP, Washington, DC, Adam R. Alper, Attorney, Kirkland & Ellis LLP, San Francisco, CA, Michael W. De Vries, Attorney, Kirkland & Ellis LLP, Los Angeles, CA, for Plaintiffs-Appellees, Cross-Appellants.

Boyd Cloern, Alice E. Loughran, Mark Christopher Savignac, John William Toth, Attorneys, Steptoe LLP, Washington, DC, for Defendant-Appellant, Cross-Appellee.

Before Hamilton, Brennan, and St. Eve, Circuit Judges.

Hamilton, Circuit Judge.

This case concerns a large and blatant theft of trade secrets. Plaintiff Motorola and defendant Hytera compete globally in the market for two-way radio systems. Motorola spent years and tens of millions of dollars developing trade secrets embodied in its line of high-end digital mobile radio (DMR) products. For a brief period in the early 2000s, Hytera struggled to overcome technical challenges to develop its own competing DMR products.

After failing for years, Hytera hatched a new plan: "leap-frog Motorola" by stealing its trade secrets. Hytera, headquartered in China, poached three engineers from Motorola in Malaysia, offering them high-paying jobs in exchange for Motorola's proprietary information. Before those engineers left Motorola, and acting at Hytera's direction, they downloaded thousands of documents and computer files containing Motorola's trade secrets and copyrighted source code. Relying on that stolen material, between 2010 and 2014, Hytera launched a line of DMR radios that were functionally indistinguishable from Motorola's DMR radios. Hytera sold these professional-tier radios containing Motorola's confidential and proprietary technology for years in the United States and abroad.

In 2017, Motorola sued Hytera for copyright infringement and trade secret misappropriation. After three and a half months of trial, the jury found that Hytera had violated both the Defend Trade Secrets Act of 2016 (DTSA) and the Copyright Act. The jury awarded compensatory damages under the Copyright Act and both compensatory and punitive damages under the DTSA for a total award of $764.6 million. The district court later reduced the award to $543.7 million and denied Motorola's request for a permanent injunction. Hytera has appealed, and Motorola has cross-appealed.

The most startling fact about these appeals is that Hytera's liability is not at issue. It concedes that it engaged in the blatant theft of trade secrets and copying of proprietary computer code. Instead, Hytera raises several challenges only to the damages awards under the Copyright Act and the DTSA. As we explain below, we must remand for the district court to recalculate copyright damages, which will need to be reduced substantially from the district court's original award of $136.3 million. On the DTSA damages, we affirm the district court's award of $135.8 million in compensatory damages and $271.6 million in punitive damages.

On Motorola's cross-appeal, we find that the district court erred in denying Motorola's motion for reconsideration of the denial of permanent injunctive relief. On remand, the district court will need to reconsider the issue of permanent injunctive relief. We continue to commend both district judges (Judge Norgle and, after his retirement, Judge Pacold) who have presided over this case for their careful handling of this complex and sprawling case. We remain confident of the court's ability to resolve the remaining issues on remand.

I. *Factual and Procedural History*

A. *Factual History*

Motorola and Hytera both design, manufacture, and sell two-way radios and related products worldwide. They are the two main competitors in this global market. They rely on the same underlying software protocols to enable their radios to communicate across brands, but each manufacturer enhances its radios by adding unique hardware and software features. From the late 1980s through the early 2000s, Motorola worked to develop and patent the technology underlying these standard software protocols, known as "digital mobile radio" or DMR.[1]

Hytera manufactures and sells different tiers of two-way DMR radios, including commercial and professional. The products at issue in this case are Hytera's professional-tier radios, used by governments and public-safety entities around the world. They sell at premium prices compared to Hytera's non-infringing commercial-tier radios. In 2006, as internal Hytera documents show, Hytera was struggling to develop its own DMR radios comparable to Motorola's. Instead of continuing to compete fairly, Hytera decided to steal Motorola's trade secrets and copyrighted code. Hytera's goal was to "leapfrog Motorola" to become the world's preeminent provider of DMR radios.

In June 2007, the president and CEO of Hytera, Chen Qingzhou, reached out to an engineer who worked for Motorola in Malaysia, G.S. Kok, claiming that Hytera hoped to set up a potential research-and-development center in Malaysia. The two negotiated Kok's departure from Motorola. Hytera offered Kok 600,000 shares of Hytera stock as compensation, worth roughly $2.5 million when Hytera's stock later went public. Internal Hytera emails show that once Kok joined Hytera, he facilitated the hiring of two additional Motorola engineers in Malaysia, Y.T. Kok and Sam Chia. Y.T. Kok initially maintained his employment with Motorola while surreptitiously also working for Hytera. In June 2008, shortly after Y.T. Kok had secretly been added to Hytera's payroll, he downloaded over a hundred Motorola documents in response to specific requests from Hytera about unresolved issues with its own DMR radios. Evidence at trial showed that Y.T. Kok and Chia downloaded more than 10,000 technical documents from Motorola's secure ClearCase and COMPASS databases and brought them to Hytera. At the time of trial, Motorola argued, more than 1,600 of those documents remained in Hytera's possession.

The stolen files included Motorola's source code for its DMR radio project. Segments of the stolen code were later directly inserted into Hytera's products. Proof of the theft and copying included the

1. Citations to the record are abbreviated as follows: "Dkt." refers to the district court docket entries; "A" refers to the required appendix at the end of Hytera's opening brief; and "SA" refers to the supplemental appendix at the end of Motorola's response brief.

fact that minor coding errors in Motorola's code appeared in exactly the same spots in Hytera's code.

Hytera's employees understood that their use of Motorola's copyrighted code and trade secrets was unlawful. At times, Hytera modified Motorola's code to conceal its illicit origins. Hytera's engineers also circulated Motorola's code and technical documents, sometimes with the Motorola logo replaced by a Hytera logo, but other times still labeled with Motorola's logo.

Between 2010 and 2014, Hytera launched a line of DMR radios that were, as described at trial, functionally indistinguishable from the DMR radios developed and sold by Motorola. For years, Hytera sold these professional-tier radios containing Motorola's confidential and proprietary technology worldwide, including in the United States. Hytera also regularly attended trade shows in the United States where it marketed and demonstrated its infringing products to customers from around the world. According to Motorola, Hytera has continued to sell products using Motorola's misappropriated trade secrets and copyrighted code up to the present day.

B. *Procedural History*

This brings us to the present lawsuit. In March 2017, Motorola filed this lawsuit in the Northern District of Illinois alleging that Hytera had misappropriated its trade secrets in violation of the federal Defend Trade Secrets Act of 2016, 18 U.S.C. § 1836(b), and the Illinois Trade Secrets Act (ITSA), 765 ILCS 1065/1 et seq. In August 2018, Motorola amended its complaint to add infringement claims under the Copyright Act, 17 U.S.C. §§ 106, 501 et seq.

The case was tried to a jury starting in November 2019. After three and a half months of trial, the jury reached its verdict. With respect to the DTSA, the jury was instructed that Motorola was seeking damages from May 11, 2016 (the statute's effective date) to June 30, 2019. With respect to copyright infringement, the jury was instructed that Motorola was entitled to recover Hytera's profits through June 30, 2019. The jury was also instructed that damages for Motorola's trade secret claims and copyright claims should not result in double recovery for the same injury. During trial, Motorola argued that it was entitled to all of Hytera's worldwide profits from the infringing products. Motorola presented expert testimony that Hytera's radios would be unable to function without the stolen components.

Hytera, for its part, argued that Motorola's damages should be limited on a number of grounds, including that: (1) copyright damages should be limited to the three-year period before Motorola added its copyright claims; (2) the Copyright Act and the DTSA should not be applied to Hytera's sales outside the United States; and (3) DTSA damages and copyright damages should be "apportioned" to account for Hytera's own contributions to the success of its products. The district court rejected all of these arguments. The jury returned a verdict in favor of Motorola in all respects, awarding Motorola $345.8 million in compensatory damages and $418.8 million in punitive damages, for a total of $764.6 million.

Post-trial motions followed. Hytera moved under Federal Rules of Civil Procedure 50(b) and 59 for judgment as a matter of law and for a new trial or remittitur, respectively, arguing that under both the Copyright Act and the DTSA, the proper amount of unjust enrichment damages was an equitable issue for the court rather than the jury. Hytera renewed its extraterritoriality and Copyright Act statute of limitations arguments. Hytera also argued that the punitive damages award under the DTSA violated its due process rights.

The district court agreed with Hytera that unjust enrichment damages presented an equitable issue for the court. That meant the jury's findings on those amounts were advisory and the district court was required to state its findings of fact and conclusions of law under Federal Rule of Civil Procedure 52(a)(1). The parties submitted proposed findings and conclusions on the unjust enrichment issues after trial. Motorola was required to file its proposal first. It was not given an opportunity to reply to Hytera's proposal. Hytera's proposal renewed an argument from trial that recovery of its unjustly enriched profits would duplicate recovery of its avoided research and development (R&D) costs. Hytera also renewed its arguments that both the copyright and DTSA unjust enrichment awards should be apportioned to account for Hytera's own contributions to its infringing products.

In a follow-up order, the district court agreed with Hytera that the unjust enrichment damages awarded by the jury improperly double-counted Hytera's profits and its avoided R&D costs. The district court deducted the amount of avoided R&D costs of $73.6 million from the jury's original $209.4 million DTSA compensatory damages award, arriving at $135.8 million as the total amount of Hytera's unjust profits under the DTSA. The court then adjusted the punitive damages downward in accord with the advisory jury's two-to-one ratio, yielding a punitive damages award of $271.6 million. After these rulings, the district court formally issued its final findings and conclusions. Hytera's unjustly enriched profits under the Copyright Act from 2010 to May 2016 were $136.3 million, its unjustly enriched profits under the DTSA from May 2016 to June 2019 were $135.8 million, and punitive damages under the DTSA were $271.6 million, yielding a total award of $543.7 million. Along the way, the district court also found that Motorola's lost profits under the DTSA were $86.2 million, and that Hytera's avoided R&D costs were $73.6 million. The court again rejected Hytera's arguments with respect to extraterritoriality, apportionment, and the copyright statute of limitations, and rejected the due process challenge to punitive damages.

After trial, Motorola sought a permanent injunction to prohibit Hytera from selling the infringing products world-wide or making any other use of the stolen intellectual property. The district court denied permanent injunctive relief in December 2020, finding that Motorola could not establish that it had no other adequate remedy at law. The district court found that Motorola could be adequately compensated for Hytera's continuing use of its intellectual property and trade secrets with a reasonable, ongoing royalty, which the court later set at 100 percent of Hytera's profits on the infringing products beginning in July 2019. Motorola moved for reconsideration of this denial under Federal Rule of Civil Procedure 60(b) in September 2021, submitting new evidence of Hytera's inability or unwillingness to make its required royalty payments. Before the district court ruled on that motion, however, Hytera filed this appeal, and Motorola then filed its cross-appeal of the district court's denial of permanent injunctive relief. Holding that Motorola's notice of appeal stripped it of jurisdiction to decide Motorola's Rule 60(b) motion, the court denied that motion without expressing any view on the merits.

We must conclude our discussion of this case's procedural history by noting that for much of the intervening six years of litigation, including after these appeals were filed, Hytera has continued its gamesmanship and deception. It deleted stolen documents rather than producing them. It presented fabricated evidence inflating its research-and-development costs. Its witnesses have repeatedly contradicted themselves in depositions and at trial. It has dragged its feet in paying the royalty ordered by the district court, and it has obstructed discovery into its assets and ability to pay. Meanwhile, Hytera continues to sell DMR radios worldwide that Motorola claims still incorporate its copyrighted code and stolen trade secrets. Whether Hytera's new DMR products continue the illicit use of Motorola's trade secrets is the subject of ongoing contempt proceedings before the district court. Hytera's violation of the district court's anti-suit injunction issued in the course of those contempt proceedings and the resulting contempt sanctions were recently the subject of emergency motions in a successive appeal pending before this panel. See *Motorola Solutions Malaysia SDN. BHD. v. Hytera Communications Corp.*, No. 24-1531, Order, ECF No. 9 at 7 (April 6, 2024) ("Given Hytera's record of behavior, from the underlying theft of trade secrets and copyright infringement to sanctionable conduct before trial, the post-verdict litigation in this case, the failure to pay royalties as ordered (leading to an earlier contempt finding), filing the long-secret Shenzhen case, and its responses to the injunctions at issue here, Hytera has shown that its unverified representations to the tribunal cannot be trusted.").

In this appeal, Hytera raises six distinct challenges to the damages awarded under the Copyright Act and the DTSA. Three concern copyright and three the DTSA. With respect to the copyright award, Hytera argues: (1) copyright damages should not have been awarded for its sales outside the United States; (2) copyright damages should have been apportioned to account for its own contributions to its profits; and (3) the Copyright Act bars recovery of damages incurred more than three years before the claims were added. With respect to the DTSA, Hytera argues: (1) DTSA damages should not have been awarded for its sales outside the United States; (2) DTSA damages should have been apportioned to account for its own contributions to its profits; and (3) the \$271.6 million punitive damages award violates the Fifth Amendment's due process clause. In its cross-appeal, Motorola challenges the district court's denial of both its motion for permanent injunctive relief and its Rule 60(b) motion for reconsideration.

We address the issues in that order. On the copyright issues, we remand for the district court to recalculate the copyright damages limited to Hytera's domestic sales and to reconsider the issue of apportionment. This means the copyright award will ultimately be reduced substantially from the original award of \$136.3 million, perhaps by roughly an order of magnitude. On the DTSA issues, we affirm the compensatory damages award of \$135.8 million and the punitive damages award of \$271.6 million. Finally, we hold that the district court needs to reconsider Motorola's Rule 60(b) motion and the issue of permanent injunctive relief.

II. *Copyright Damages for Foreign Sales*

First, we address the extraterritorial application of the Copyright Act. Motorola argues that it is entitled to recover Hytera's profits on worldwide sales of infringing products. Hytera argues that Motorola's recovery should be limited to only Hytera's sales of infringing products in the United States.

[1] Like all federal statutes, the Copyright Act is subject to the presumption against extraterritoriality, which assumes that "United States law governs domestically but does not rule the world." *RJR Nabisco, Inc. v. European Community*, 579 U.S. 325, 335, 136 S.Ct. 2090, 195 L.Ed.2d 476 (2016), quoting *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 454, 127 S.Ct. 1746, 167 L.Ed.2d 737 (2007). The Supreme Court has set out a two-step framework for determining whether a statute applies extraterritorially. See *id.* at 337, 136 S.Ct. 2090. First, courts should ask "whether the presumption against extraterritoriality has been rebutted—that is, whether the statute gives a clear, affirmative indication that it applies extraterritorially." *Id.* With respect to the Copyright Act at this step, the Supreme Court has said no. *Impression Products, Inc. v. Lexmark Int'l, Inc.*, 581 U.S. 360, 379, 137 S.Ct. 1523, 198 L.Ed.2d 1 (2017).

[2, 3] If the statute does not rebut the presumption against extraterritoriality, courts should proceed to the second step: determining whether "the conduct relevant to the statute's focus occurred in the United States" or "in a foreign country." *RJR Nabisco*, 579 U.S. at 337, 136 S.Ct. 2090. The second step asks whether the present case involves only a permissible domestic application of the statute. *Id.* Under this second step, copyright protection extends to infringing acts committed abroad if those acts are sufficiently related to a predicate act of infringement in the United States. Circuit courts have developed the "predicate-act doctrine" to govern this second step of the extraterritoriality analysis under the Copyright Act. The doctrine holds that a copyright owner may recover damages for foreign infringement if two conditions are met: (1) an initial act of copyright infringement occurred in the United States, and (2) the domestic infringement enabled or was otherwise "directly linked to" the foreign infringement for which recovery is sought. *Tire Engineering & Distrib., LLC v. Shandong Linglong Rubber Co.*, 682 F.3d 292, 306–08 (4th Cir. 2012) (collecting cases and locating origins of doctrine in *Sheldon v. Metro-Goldwyn Pictures Corp.*, 106 F.2d 45, 52 (2d Cir. 1939) (Hand, J.)).

[4, 5] The predicate act required by the first prong of the doctrine must constitute "a domestic violation of the Copyright Act." *Tire Engineering*, 682 F.3d at 307. Motorola, as the plaintiff, bears the burden of establishing a domestic violation of the Copyright Act. *Id.* At trial and on appeal, Motorola has offered only one theory for a potential predicate act of copyright infringement completed by Hytera in the United States: its so-called "server theory." The parties agree that Hytera's thieves in Malaysia downloaded copyrighted source code from Motorola's ClearCase database. Motorola argues that because the ClearCase database has a "main server in Illinois" that is "mirrored" on other servers around the world, the thieves' unauthorized download constituted a domestic predicate act of copyright infringement.[2] The question for us is whether the

2. "Mirroring" means creating a duplicate copy of a database, or subsets of a database, on a new server, turning that new server into a "mirror." The mirror is instructed to check with the main server and every other mirrored server worldwide in real-time or near real-time for updates and changes made to the database. Mirroring thereby creates a network of servers around the world, each housing either a complete and up-to-date copy of the database or at least the most frequently accessed parts of the database, so that the database can be used and modified simultaneously by programmers around the world. Multinational corporations sometimes choose to mirror key databases onto servers that are geographically closer to programmers on other continents, reducing the time it takes for those programmers to exchange messages with the server and building in redundancies

download of Motorola's source code from the company's ClearCase database constituted "a domestic violation of the Copyright Act." *Id.* at 307.

[6] The district court accepted Motorola's argument, relying on Motorola's server theory to supply the domestic predicate act of infringement and finding that Motorola was entitled to damages for Hytera's worldwide sales as unjust enrichment. We must respectfully disagree. Motorola failed to provide evidence that the code was downloaded from its Illinois server versus one of the mirrored instances of the ClearCase database stored on servers outside the United States. The district court's factual finding that the code was downloaded from the Illinois server lacks adequate support in the record, and we reverse that factual finding as clearly erroneous. Motorola thus failed to establish the first prong of the predicate-act doctrine: a completed act of copyright infringement in the United States. Motorola is not entitled to recover damages for any of Hytera's foreign sales of infringing products under the Copyright Act.[3]

Motorola failed to supply evidence that the source code was illicitly downloaded from its Illinois server as opposed to one of the mirrored servers located abroad. At trial, Motorola's primary technical expert explained that the "main" ClearCase server is in Illinois and that the contents of that server are "mirrored" on servers in other locations around the world, including Sri Lanka, Bangladesh, Malaysia, and China.

Crucially, Motorola's expert admitted that "there's no evidence of the actual downloads from" the main ClearCase server in Illinois, as opposed to one of the mirrored servers abroad. SA77. Motorola counters with the same expert's testimony that, even if there is no evidence that the source code was downloaded from the Illinois server, "anything that happens on one of [the foreign mirrored servers] goes to Illinois." SA74. The district court considered this second statement sufficient to support a factual finding that Motorola's copyrighted code was illicitly downloaded from the Illinois server. We disagree.

We understand this second statement to mean that the mirrored ClearCase servers are linked in a way typical of mirrored servers, in which a log of everything that happens to every copy of the database worldwide is automatically reported to every other mirrored server, so that each mirror can then make identical changes to its own local copy of the database. For instance, if Hytera's thieves in Malaysia downloaded parts of the ClearCase database from the mirrored server in Malaysia, a notice that a download had occurred would be immediately forwarded to the server in Illinois, which would add the notice of the download to the records of events that had happened to the database. Only in this sense is it true that "anything that happens on one of" Motorola's mirrored servers "goes to Illinois." See SA74.

The existence of a typical mirroring relationship between foreign and domestic

to guard against a server failure in one part of the world.

3. In awarding relief for foreign sales under the Copyright Act, the district court also seemed to rely on the fact that Hytera "promoted, advertised, marketed, and sold its DMR products containing Motorola's copyrighted source code in the United States, including at trade shows." Hytera pointed out in its opening brief that marketing, advertising, and promoting products containing copyrighted code are not themselves copyright violations and thus cannot be domestic predicate violations. In its response brief, Motorola did not challenge this argument, forfeiting reliance on the trade-show theory to support extraterritorial copyright damages.

servers does not mean that an illicit copy made anywhere in the world was necessarily downloaded from a domestic server. Motorola's expert admitted there was no evidence that the stolen code had been downloaded from the Illinois server. He did not know "which particular cache or server" the Hytera thieves "connected to" in order to download the stolen source code. SA75. Rather, the most that Motorola's expert could say was that material on ClearCase servers outside the United States "reflected," that is, duplicated, "material that is in Illinois." *Id.* Given the location of the thieves in Malaysia, it seems likelier (or at least, would have been more efficient) for the thieves to download the copyrighted code from Motorola's Malaysia server. And in any event, the burden of proof was on Motorola on this issue.

[7] Downloads of copyrighted data from mirrored servers located abroad cannot serve as predicate acts of domestic infringement even if the "main" instance of those databases is stored on a U.S.-based server. A contrary rule would stretch U.S. copyright law far beyond its proper borders, giving global businesses an incentive to store local copies of copyrighted files in the United States as insurance against intellectual property theft worldwide. Consider the parallel case of a book publisher who chooses to distribute identical copies of a book in the United States and in multiple other countries. If a foreign competitor obtains one of the copies distributed abroad, reproduces it abroad, and sells it abroad, no domestic act of copyright infringement has occurred. The existence of the original copy of the book in the United States makes no difference.

[8, 9] In the same way, by choosing to store copies of their copyrighted data abroad in mirrored servers, U.S. copyright owners take the risk that illicit copying will be beyond the reach of U.S. copyright law. If a copyright owner hopes to prove infringement based solely on the illicit download of copyrighted material but has stored identical copies of that material in servers abroad, it must be prepared to show that the unauthorized download was made from a U.S.-based server. See *Authors Guild, Inc. v. HathiTrust*, 755 F.3d 87, 98–99 (2d Cir. 2014) (treating back-ups of copyrighted data stored in mirrored servers as complete copies for purposes of copyright fair-use analysis).[4]

Because Motorola failed to prove that Hytera's thieves made their unauthorized download from the Illinois server, as opposed to one of Motorola's mirrored servers abroad, its server theory fails at step one of the predicate-act doctrine. Without a completed domestic violation of the Copyright Act, Motorola is not entitled to recover damages for any of Hytera's foreign sales of infringing products as unjust enrichment. We reverse the district court on this issue and remand with instructions to limit Motorola's copyright award to

4. Even if Motorola had offered evidence that Hytera's thieves in Malaysia had downloaded the source code from Motorola's server in Illinois, at least two circuits (one in a precedential opinion) have refused to extend the predicate-act doctrine to reach foreign infringement where the only predicate act alleged was the download of content from a server located in the United States to a computer located abroad. See *IMAPizza, LLC v. At Pizza Ltd.*, 965 F.3d 871, 877–79, 878 n.2 (D.C. Cir. 2020); *Superama Corp. v. Tokyo Broadcasting System Television, Inc.*, 830 F. App'x 821, 823–24 (9th Cir. 2020) (non-precedential). This circuit has not addressed this issue. Because Motorola has no evidence that its copyrighted data was downloaded from a U.S.-based server, we do not need to reach it here.

Hytera's domestic sales of infringing products.[5]

III. *Copyright Apportionment*

Next, Hytera seeks to pare the copyright damages further, arguing that even limited to Hytera's profits within the United States, the district court's award overcompensates Motorola. Under the Copyright Act, an infringer may trim a disgorgement award by showing "elements of profit attributable to factors other than the copyrighted work." 17 U.S.C. § 504(b).

[10, 11] We agree with Hytera that this issue needs a fresh look because we cannot determine whether the district court applied the correct legal standard in deciding whether to apportion those damages. We remand for the district court to apply the proper legal standard, taking no position on the outcome of the apportionment analysis in this case. We hold only that Hytera should get a chance to prove a proximate-cause theory of apportionment.[6]

Hytera takes aim at the district court's reliance on "but-for" causation to refuse copyright apportionment. The district court accepted Motorola's argument that, without the stolen intellectual property, Hytera's infringing radios would never have reached the market. It found that "none of Hytera's DMR radios would function without Motorola's copyrighted source code." A93. That conclusion apparently justified the district court's next move. It opted not to apportion damages, instead ordering Hytera to disgorge all of its profits from infringing radio sales.

That last move may have been based on a legal error. We explain by reviewing the origins of apportionment in copyright law. The doctrine emerged in the early days of the film industry. When Hollywood adapted the play *Dishonored Lady* for the silver screen, the resulting movie—called *Letty Lynton*—was released without permission from the original playwright. See *Sheldon v. Metro-Goldwyn Pictures Corp.*, 309 U.S. 390, 396–97, 60 S.Ct. 681, 84 L.Ed. 825 (1940). Infringement was plain. The question, though, was how to divide up the profits from the infringing movie. The storyline from the play helped draw crowds to movie theaters, but so did the headline actors and the producers' skill in bringing the film to market. Harmonizing copyright law with patent cases, the Supreme Court concluded that, to avoid "the manifest injustice of giving to [the playwright] all the profits made by the motion picture," it

5. Motorola also argues that its entitlement to extraterritorial damages is barred from reexamination because it was actually and necessarily decided by a jury. The jury verdict awarded Motorola copyright damages for foreign sales. However, the district court later ruled that disgorgement of Hytera's profits was an equitable remedy for the court to resolve, and the court decided the extraterritoriality issues itself. Any jury findings on the issue were rendered advisory by the district court's later ruling. The district court's factual findings on the locations of the illicit downloads are properly subject to appellate review for clear error.

6. Motorola argues that Hytera forfeited this theory of proximate-cause apportionment by failing to present it to the jury. We disagree. Hytera presented these arguments to the proper factfinder, the district court, at its first opportunity to do so with its Federal Rule of Civil Procedure 52(b) filings, so the arguments are not forfeited. See Dkt. No. 1096-1, at ¶¶ 95–285. Because the parties tried this case to an advisory jury, at least as to these unjust-enrichment issues, the district court was the proper factfinder. See Fed. R. Civ. P. 52(a)(1); see also *OCI Wyoming, L.P. v. PacifiCorp*, 479 F.3d 1199, 1205–06 (10th Cir. 2007) (for factual issues presented to an advisory jury, district court retains "duty to conduct factfinding" and "review on appeal is of the findings of the court as if there had been no verdict from an advisory jury." (quoting *Marvel v. United States*, 719 F.2d 1507, 1515 n.12 (10th Cir. 1983)).

would apportion the profits "so that neither party will have what justly belongs to the other." *Id.* at 408, 60 S.Ct. 681. The Court affirmed an apportionment that gave the playwright 20 percent of the film's profits. *Id.* at 408–09, 60 S.Ct. 681.

[12] Today, *Sheldon*'s legacy is a two-part test for entitlement to apportionment of profits: the infringer must show (1) "that all the profits are not due to the use of the copyrighted material," and (2) that "the evidence is sufficient to provide a fair basis of division." *Id.* at 402, 60 S.Ct. 681. In the intervening decades, Congress has amended the Copyright Act to follow *Sheldon*: "In establishing the infringer's profits, the copyright owner is required to present proof only of the infringer's gross revenue, and the infringer is required to prove his or her deductible expenses and the elements of profit attributable to factors other than the copyrighted work." 17 U.S.C. § 504(b).

[13] Over the years, case law has developed two parallel tracks for infringers to meet *Sheldon*'s first element, which is really a "rule of causation." *Walker v. Forbes, Inc.*, 28 F.3d 409, 412 (4th Cir. 1994). We refer to these as the "but-for" and "proximate-cause" tracks. Under the first, "the defendant can attempt to show that consumers would have purchased its product even without," that is, but for, "the infringing element." *Data General Corp. v. Grumman Systems Support Corp.*, 36 F.3d 1147, 1175 (1st Cir. 1994), abrogated on other grounds by *Reed Elsevier, Inc. v. Muchnick*, 559 U.S. 154, 130 S.Ct. 1237, 176 L.Ed.2d 18 (2010).

[14] Under the second "proximate-cause" track, the defendant can attempt to show that "its profits are not the natural and probable consequences of the infringement alone, but are also the result of other factors" under its own control. *Data General*, 36 F.3d at 1175. Put another way, the infringement might be a necessary cause of the profits without being a proximate cause of *all* of the profits. To the extent those other causes stem from the defendant's own skill and effort, the defendant can profit from those without offending copyright law.

The proximate-cause track is well-trodden. In case after case, defendants have shown they were entitled to apportionment even when their products could not exist without the infringement. Take *Sheldon* itself. Absent the original play, the film could not exist; it makes no sense to imagine a film without its plot and then wonder whether audiences would have paid to watch it. The play and film were bound up together. The Supreme Court determined that some "fair apportionment" was required, "so that neither party will have what justly belongs to the other." *Sheldon*, 309 U.S. at 408, 60 S.Ct. 681.

We explained the concept in *Bucklew v. Hawkins, Ash, Baptie & Co.*: an "infringer's profits that are due to features of his work that do not infringe ... belong to him and not the copyright owner." 329 F.3d 923, 932 (7th Cir. 2003). Other cases have put this theory of apportionment to good use. See, e.g., *Bruce v. Weekly World News, Inc.*, 310 F.3d 25, 26–27, 32 (1st Cir. 2002) (splitting profits evenly between holder of copyright in "routine and generic" photo of President Clinton and artist who added "exponentially greater appeal" by adding image of an extraterrestrial shaking his hand); *Cream Records, Inc. v. Jos. Schlitz Brewing Co.*, 754 F.2d 826, 828–29 (9th Cir. 1985) (affirming award of one-tenth of one percent of defendant's annual profit for infringing use of a "ten-note ostinato" in music for beer commercial).

In this case, the district court applied the but-for track correctly, finding that "none of Hytera's [products] would function without Motorola's copyrighted source code," so that Hytera was not entitled to apportionment under this track. A93. On appeal, Hytera does not challenge the district court's factual determinations barring apportionment under this but-for track, and there is no error in the district court's holdings in this respect.

But the district court erred by apparently closing the "proximate-cause" track to Hytera. The court's findings did not address Hytera's own contributions, if any, to the value of its products. Hytera claimed in its Rule 52(b) briefing that its customers valued its flexibility with customizations; that it brought the first DMR radio with a color screen to market, as well as an "intrinsically safe" radio for use in oil drilling and other industries dependent on explosives; that it boasted a superior dealer network; and that it sells non-infringing radios for about 12 percent less cost—suggesting that not all the value of Hytera's DMR radios comes from infringement.

[15] In summarizing these arguments, we do not endorse them. The problem is that the district court did not engage with them. Even a willful infringer like Hytera is entitled to offer a proximate-cause theory for apportionment. *Data General*, 36 F.3d at 1175–76. The district court erred in denying Hytera the opportunity to prove that theory and instead requiring Hytera to disprove but-for causation. See also *Cream Records*, 754 F.2d at 828–29 ("In cases ... where an infringer's profits are not entirely due to the infringement, and the evidence suggests some division which may rationally be used as a springboard *it is the duty of the court* to make some apportionment." (emphasis added) (quoting *Orgel v. Clark Boardman Co.*, 301 F.2d 119, 121 (2d Cir. 1962))).

[16] To avoid apportionment on remand, Motorola argues that the district court's silence on Hytera's proximate-cause arguments was simply an implicit rejection of Hytera's evidence, a factual decision on damages that we should review for clear error. See *Entertainment USA, Inc. v. Moorehead Communications, Inc.*, 897 F.3d 786, 792 (7th Cir. 2018). But the failure to recognize Hytera's right to seek apportionment under the proximate-cause track would be a legal error subject to de novo review. See *Clanton v. United States*, 943 F.3d 319, 325 (7th Cir. 2019). The problem is that we cannot tell from the record whether the district court made a factual determination (that Hytera's proximate-cause arguments and evidence failed) or a legal error (that but-for causation ended the apportionment inquiry). See *Stop Illinois Health Care Fraud, LLC v. Sayeed*, 957 F.3d 743, 751 (7th Cir. 2020) (remanding in similar situation); see also *Mozee v. Jeffboat, Inc.*, 746 F.2d 365, 370, 375 (7th Cir. 1984) (vacating judgment and remanding for new trial where district court "made the necessary ultimate finding" but "failed to make the subsidiary findings necessary for us to follow its chain of reasoning"). The absence of any findings on Hytera's proximate-cause theory "precludes effective appellate review" of the issue. *Mozee*, 746 F.2d at 370. We also cannot decide on this appeal the proper method of apportioning Motorola's domestic copyright damages. We are "a court of review," not "one of first view." *Arreola-Castillo v. United States*, 889 F.3d 378, 383 (7th Cir. 2018), quoting *Wood v. Milyard*, 566 U.S. 463, 474, 132 S.Ct. 1826, 182 L.Ed.2d 733 (2012). The district court must reconsider apportionment under the proximate-cause standard on remand based on the evidence presented at trial and in the parties' Rule 52(b) filings.

IV. *The Copyright Statute of Limitations*

[17] Before leaving copyright damages, we address one final copyright issue regarding the three-year statute of limitations for civil actions under the Copyright Act. The Copyright Act provides: "No civil action shall be maintained under the provisions of this title unless it is commenced within three years after the claim accrued." 17 U.S.C. § 507(b). Hytera argues that Motorola's copyright damages should be limited to copyright violations *committed* in the three years before the date Motorola amended its complaint to add copyright claims. Motorola responds that under the "discovery rule" adopted by this circuit, it can recover for any copyright violations *discovered* in the three years prior to adding those claims. See *Chicago Bldg. Design v. Mongolian House, Inc.*, 770 F.3d 610, 614 (7th Cir. 2014) ("Our circuit recognizes a discovery rule in copyright cases . . . ."); *Taylor v. Meirick*, 712 F.2d 1112, 1117–18 (7th Cir. 1983) (adopting discovery rule).

[18] The "overwhelming majority of courts" interpreting section 507(b) have adopted a discovery rule to determine when a claim accrues under this provision. *Starz Entertainment, LLC v. MGM Domestic Television Distrib., LLC*, 39 F.4th 1236, 1242 (9th Cir. 2022), quoting 6 William F. Patry, *Patry on Copyright* § 20:19 (2013); see also *Warner Chappell Music, Inc. v. Nealy*, 601 U.S. 366, 372, 144 S. Ct. 1135, 218 L.Ed.2d 363 (2024) (eleven circuits apply a copyright discovery rule). The discovery rule holds that a copyright claim accrues and thus the copyright statute of limitations starts to run "when the plaintiff learns, or should as a reasonable person have learned, that the defendant was violating his rights." *Mongolian House*, 770 F.3d at 614, quoting *Gaiman v. McFarlane*, 360 F.3d 644, 653 (7th Cir. 2004). The alternative would be an "injury rule," under which the claims accrue "when the harm, that is, the infringement, occurs, no matter when the plaintiff learns of it." *Nealy v. Warner Chappell Music, Inc.*, 60 F.4th 1325, 1330 (11th Cir. 2023), *affirmed*, 601 U.S. 366, 144 S. Ct. 1135, 218 L.Ed.2d 363 (2024).

The proper interpretation of section 507(b)'s three-year statute of limitations was the subject of a circuit split and recent Supreme Court decision in *Warner Chappell Music, Inc. v. Nealy.* In its briefs filed before that decision, Hytera had asked us to adopt the Second Circuit's holding from *Sohm v. Scholastic Inc.*, which applied the discovery rule but then imposed a three-year limit on damages entirely distinct from any rule of accrual. 959 F.3d 39, 51–52 (2d Cir. 2020). In *Nealy*, the Supreme Court abrogated *Sohm*'s reading of section 507(b), rejecting any such "judicially invented damages limit." 601 U.S. at 373, 144 S. Ct. 1135. We thus reject Hytera's argument on this point.

We also decline Hytera's alternative request that we overrule *Taylor*, 712 F.2d at 1117–18, which adopted the discovery rule. *Nealy* was careful to leave the discovery rule intact. The question presented in *Nealy* "incorporate[d] an assumption: that the discovery rule governs the timeliness of copyright claims." 601 U.S. at 371, 144 S. Ct. 1135. The defendant in *Nealy* did not challenge the application of the discovery rule in its appeal to the Eleventh Circuit. *Id.* at 371, 144 S. Ct. 1135. The Supreme Court has "never decided whether that assumption is valid," and in *Nealy*, its review "exclud[ed] consideration of the discovery rule." *Id. Nealy* did not overturn this circuit's settled adoption of the discovery rule in copyright cases. See *Mongolian House*, 770 F.3d at 614. District courts throughout our circuit may continue to apply the discovery rule to copyright claims, as they routinely do. See *Design*

Basics LLC v. Campbellsport Bldg. Supply Inc., 99 F. Supp. 3d 899, 919 (E.D. Wis. 2015) (collecting cases).

Without a Supreme Court mandate to do so, we decline Hytera's invitation to depart from our precedent and ten other circuits. Consistent with the discovery rule, Motorola is entitled to damages for all copyright violations it discovered in the three years before it added its copyright claims.

V. *Trade Secret Damages for Foreign Sales*

We now proceed to issues under the Defend Trade Secrets Act. The DTSA issues parallel two of the copyright issues, dealing with (1) damages for sales outside the United States and (2) apportionment of damages. Hytera also challenges (3) the punitive damages awarded under the DTSA. We address the issues in that order.

[19, 20] The DTSA, like the Copyright Act, is subject to the presumption against extraterritoriality. The same two-step framework from *RJR Nabisco* discussed above also governs whether the DTSA applies extraterritorially. See *RJR Nabisco, Inc. v. European Community*, 579 U.S. 325, 335–38, 136 S.Ct. 2090, 195 L.Ed.2d 476 (2016). At the first step, courts should ask "whether the presumption against extraterritoriality has been rebutted—that is, whether the statute gives a clear, affirmative indication that it applies extraterritorially." *Id.* at 337, 136 S.Ct. 2090. Once it is determined that the statute is extraterritorial, the scope of the statute "turns on the limits Congress has (or has not) imposed on the statute's foreign application." *Id.* at 337–38, 136 S.Ct. 2090.

[21] Whether the DTSA rebuts the presumption against extraterritoriality at the first step of the *RJR Nabisco* inquiry is a question of first impression for our circuit, and as far as we can tell, for any circuit.[7] The DTSA took effect in May 2016, amending sections of the Economic Espionage Act of 1996 (EEA), Pub. L. No. 104-294, § 101, 110 Stat. 3488. The EEA had added chapter 90 to title 18 of the United States Code, making the theft of trade secrets a federal crime in many situations. § 101, 110 Stat. 3488. Section 1837 of chapter 90, entitled "Applicability to conduct outside the United States," provides: "This chapter also applies to conduct occurring outside the United States if . . . an act in furtherance of the offense was committed in the United States." § 101, 110 Stat. at 3490.

Two decades later, the DTSA amended chapter 90. It created a private right of action, 18 U.S.C. § 1836(b), and added a definition of "misappropriation," 18 U.S.C. § 1839(5), mirroring the definition in the Uniform Trade Secrets Act. See Defend Trade Secrets Act of 2016, Pub. L. 114-153, § 2(a) & (b)(3), 130 Stat. 376, 376, 380–81 (2016). The DTSA made no changes to section 1837.

During trial, Hytera objected to any award of damages under the DTSA for sales outside the United States. In a careful opinion that parsed the DTSA and the EEA, the district court held that the DTSA rebutted the presumption against extraterritoriality and allowed damages for Hytera's foreign sales. *Motorola Solutions, Inc. v. Hytera Communications Corp. Ltd.*, 436 F. Supp. 3d 1150 (N.D. Ill. 2020). The court explained that "the clear indication of Congress in amend[ing] Chapter 90

7. The First Circuit has said in *dicta* that "Congress was concerned with the theft of American trade secrets abroad and intended the DTSA to have extraterritorial reach." *Amyndas Pharmaceuticals, S.A. v. Zealand Pharma A/S*, 48 F.4th 18, 35 (1st Cir. 2022). We agree.

of Title 18 of the U.S. Code was to extend the extraterritorial provisions of Section 1837 to Section 1836, meaning Section 1836 may have extraterritorial reach subject to the restrictions in Section 1837." *Id.* at 1162. That is, the district court found that the DTSA rebutted the presumption against extraterritoriality at step one of the *RJR Nabisco* test. See *id.* at 1163. The court further found that Hytera's misappropriation fell within the limits on extraterritorial reach set by section 1837, so Motorola was entitled to recover all of Hytera's foreign profits from the misappropriation. *Id.* at 1163–66. In the alternative, the district court held that even if the DTSA does not apply extraterritorially, the facts of this case constituted a permissible domestic application of the statute under *RJR Nabisco*'s step two, and Motorola could still recover Hytera's profits from foreign sales on those grounds. *Id.* at 1166–67.

We agree with the district court, and we rely on its reasoning that section 1836 has extraterritorial reach subject to the restrictions in section 1837 under *RJR Nabisco*'s first step. We summarize the key points of statutory interpretation that led the district court to conclude the DTSA rebuts the presumption against extraterritoriality. We then address Hytera's counterarguments.[8]

A. *The DTSA Applies Extraterritorially in This Case*

The district court began by explaining the history of the DTSA as a 2016 amendment to chapter 90 of title 18, a chapter of the U.S. Code that had been created to codify the EEA in 1996. *Motorola*, 436 F. Supp. 3d at 1157. Because "Congress was not acting to change an existing interpretation of the EEA, but rather was creating a private right of action in the statutory chapter," the district court concluded that "the chapter amended through the DTSA should be read as a cohesive whole." *Id.* at 1158. The district court was correct that the relevant statutory text is all of chapter 90.

The district court applied the "traditional tools of statutory interpretation" under *RJR Nabisco*'s step one to determine whether the statutory text of chapter 90 clearly rebuts the presumption against extraterritoriality. *Id.* at 1156. On "this first step of the extraterritorial analysis, *RJR Nabisco* cautions that '[t]he question is not whether we think Congress would have wanted a statute to apply to foreign conduct if it had thought of the situation before the court, but whether Congress has affirmatively and unmistakably instructed that the statute will do so.' " *Id.* at 1155–56 (alteration in original), quoting *RJR Nabisco*, 579 U.S. at 335, 136 S.Ct. 2090. An express statement of extraterritorial application is the clearest instruction Congress could give. Here, however, neither the private right of action in 18 U.S.C. § 1836(b) nor the definition of "misappropriation" added by the DTSA in section 1839(5) includes express references to extraterritorial conduct.

The district court correctly looked to the rest of chapter 90 for guidance, including the express extraterritoriality provision in section 1837. *Motorola*, 436 F. Supp. 3d at

8. At least three district courts outside this circuit have also cited with approval Judge Norgle's reasoning on the DTSA's extraterritoriality. *Syntel Sterling Best Shores Mauritius Ltd. v. TriZetto Grp., Inc.*, No. 15-cv-211-LGS, 2021 WL 1553926, at *14 (S.D.N.Y. Apr. 20, 2021), aff'd in part and vacated in part on other grounds, 68 F.4th 792 (2d Cir. 2023); *Aldini AG v. Silvaco, Inc.*, No. 21-cv-06423-JST, 2022 WL 20016826, at *14 (N.D. Cal. Aug. 3, 2022); *Herrmann Int'l, Inc. v. Herrmann Int'l Europe*, No. 17-cv-00073-MR, 2021 WL 861712, at *16 (W.D.N.C. Mar. 8, 2021).

1159. Section 1837 has been part of chapter 90 since the EEA's passage in 1996 with the title "Applicability to conduct outside the United States." See § 101, 110 Stat. at 3490. It says in relevant part: "This chapter also applies to conduct occurring outside the United States if . . . an act in furtherance of the offense was committed in the United States." 18 U.S.C. § 1837(2). The district court wrote that section 1837 expressly rebutted the presumption against extraterritoriality, but that a question remained as to whether, as Hytera argues, "Section 1837 limits that rebuttal only to criminal matters." *Motorola*, 436 F. Supp. 3d at 1159.

To resolve this question, the district court applied the usual tools of statutory interpretation. Section 1837 says that its provisions governing extraterritoriality apply to "This chapter," meaning all of chapter 90. "From this language, which Congress did not amend when it amended the chapter," the district court drew the inference "that Congress intended Section 1837 to apply to Section 1836." *Motorola*, 436 F. Supp. 3d at 1159. That is the most straightforward reading of the statutory text.

[22–26] The district court buttressed this inference with other references to extraterritorial conduct in the DTSA, including the "notes that Congress included in the piece of legislation passed as the DTSA." *Id.* at 1159–60. "It is a mistake to allow general language of a preamble to *create* an ambiguity in specific statutory or treaty text where none exists." *Jogi v. Voges*, 480 F.3d 822, 834 (7th Cir. 2007) (emphasis added). At the same time, "[w]e cannot interpret federal statutes to negate their own stated purposes." *King v. Burwell*, 576 U.S. 473, 493, 135 S.Ct. 2480, 192 L.Ed.2d 483 (2015), quoting *New York State Dep't of Social Servs. v. Dublino*, 413 U.S. 405, 419–20, 93 S.Ct. 2507, 37 L.Ed.2d 688 (1973). After courts have applied the traditional tools of statutory construction to arrive at what appears to be the best reading of a statute, they may consider express textual evidence of congressional purpose elsewhere in the statute to double-check their work, while keeping in mind that "no legislation pursues its purposes at all costs." E.g., *Rodriguez v. United States*, 480 U.S. 522, 525–26, 107 S.Ct. 1391, 94 L.Ed.2d 533 (1987). When Congress has enacted its findings and purposes in the statutory text, a judicial "allergy to the word 'purpose' is strange." *Harrington v. Purdue Pharma L.P.*, 603 U.S. ––––, –––– n.6, 144 S.Ct. 2071, 2110 n.6, 219 L.Ed.2d 721 (2024) (Kavanaugh, J., dissenting). "After all, 'words are given their meaning by context, and context includes the purpose of the text. The difference between textualist interpretation' and 'purposive interpretation is not that the former never considers purpose. It almost always does,' but 'the purpose must be derived from the text.' " *Id.*, quoting A. Scalia & B. Garner, Reading Law 56 (2012); accord, William N. Eskridge, Interpreting Law: A Primer on How to Read Statutes and the Constitution 105–06 (2016) ("[P]urpose clauses are enacted into law as part of the statute and . . . they provide authoritative context for reading the entire statute."); Abbe R. Gluck, *Comment: Imperfect Statutes, Imperfect Courts: Understanding Congress's Plan in the Era of Unorthodox Lawmaking*, 129 Harv. L. Rev. 62, 91 (2015) ("Textualists have suggested for years that such enacted statements of purpose would obviate the dangers posed by legislative history," collecting sources). Congressionally enacted legislative purposes and findings are part of a statute's text, and thus are one "permissible indicator of meaning" for courts. Scalia & Garner, Reading Law 63.

In the DTSA, Congress enacted its purposes in the statutory text itself. The DTSA's legislative purposes and findings expressed "the sense of Congress that . . . trade secret theft occurs in the United States and around the world; . . . trade secret theft, wherever it occurs, harms the companies that own the trade secrets and the employees of the companies; . . . [and] chapter 90 . . . applies broadly to protect trade secrets from theft." DTSA § 5, 130 Stat. at 383–84. The DTSA also added new reporting requirements for the Attorney General that had been absent in the original EEA. *Motorola*, 436 F. Supp. 3d at 1160. Those required reports cover the "scope and breadth of the theft of the trade secrets of United States companies occurring outside of the United States," the "threat posed" by those thefts, and the "ability and limitations of trade secret owners to prevent the misappropriation of trade secrets outside of the United States, to enforce any judgment against foreign entities for theft of trade secrets, and to prevent imports based on theft of trade secrets overseas." *Id.*, quoting DTSA § 4(b), 130 Stat. at 383. The district court correctly concluded: "Taken together, it is clear that Congress was concerned with actions taking place outside of the United States in relation to the misappropriation of U.S. trade secrets when it passed the DTSA." *Motorola*, 436 F. Supp. 3d at 1160.

The court paused to distinguish *RJR Nabisco*, which had held that limiting language in the Racketeer Influenced and Corrupt Organizations Act as to the types of damages available for civil claims limited the extraterritorial reach of RICO's private right of action as compared to its criminal provisions. *Id.* The district court found no such limiting language in the DTSA's private right of action in section 1836(b), which defined the remedies more broadly than RICO's private right of action. *Id.*

The district court then rejected Hytera's alternative argument that section 1837(2)'s use of the word "offense" limits its extraterritorial reach to criminal cases. The court explained that "offense" could reach both criminal and civil violations, so that the extraterritorial provisions of section 1837 apply to civil claims under section 1836(b). *Id.* at 1160–62.

We agree with the district court's careful interpretation of the text of chapter 90, including the private right of action in section 1836(b), the extraterritoriality provisions in section 1837(2), and the definition of "misappropriation" in section 1839(5). We also agree that other sections of the DTSA confirm that Congress was especially concerned with foreign misappropriation of U.S. trade secrets. See DTSA, § 5, 130 Stat. at 383–84.

Because the DTSA rebuts the presumption against extraterritoriality, the only limits on its reach are "the limits Congress has . . . imposed on the statute's foreign application" in section 1837(2). See *RJR Nabisco*, 579 U.S. at 337–38, 136 S.Ct. 2090. Section 1837(2) is satisfied if "an act in furtherance of the offense was committed in the United States." As the district court wrote: "The offense, in the context of the DTSA private cause of action, is the misappropriation of a trade secret." *Motorola*, 436 F. Supp. 3d at 1163.

[27] Hytera argued in the district court and on appeal that even if section 1837(2) does encompass civil violations, section 1837(2) is not satisfied here because there was no domestic " 'act in furtherance' of the purely extraterritorial sales whose profits the district court awarded to Motorola." Hytera Br. at 60. The district court found, however, that Motorola had "presented evidence sufficient to support a finding that an act in furtherance of the offense has been committed in the United States." *Motorola*, 436 F. Supp. 3d. at 1163. We agree with the district court.

[28] The DTSA defines "misappropriation" as "acquisition of a trade secret" by "improper means," or "disclosure or use of a trade secret" by an unauthorized person meeting certain other conditions. 18 U.S.C. § 1839(5)(A)–(B); accord, *Motorola*, 436 F. Supp. 3d at 1163 ("[M]isappropriation can occur through any of three actions: (1) acquisition, (2) disclosure, or (3) use."). The DTSA does not further define "use," but we agree with the district court. "Use" is "any exploitation of the trade secret that is likely to result in injury to the trade secret owner or enrichment to the defendant," including "marketing goods that embody the trade secret, employing the trade secret in manufacturing or production, relying on the trade secret to assist or accelerate research or development, or soliciting customers through the use of information that is a trade secret." *Motorola*, 436 F. Supp. 3d at 1164, quoting Restatement (Third) of Unfair Competition, § 40, cmt. c (Am. L. Inst. 1995). The district court found that "use" of the alleged trade secrets had occurred in the United States because Hytera had advertised, promoted, and marketed products embodying the stolen trade secrets at numerous trade shows in the United States. *Id.* at 1165.

We agree that Hytera's marketing of products embodying Motorola's stolen trade secrets constituted domestic "use" of those trade secrets, amounting to completed acts of domestic "misappropriation" under 18 U.S.C. § 1839(5)(B). Hytera's completed domestic acts of misappropriation are sufficient to satisfy section 1837(2). We affirm the district court's holding that Hytera committed an act in furtherance of misappropriation of Motorola's trade secrets in the United States. *Id.* at 1166. The district court did not err by awarding Motorola relief based on Hytera's worldwide sales of products furthered by that misappropriation, regardless of where in the world the remainder of Hytera's illegal conduct occurred.

B. *Hytera's Counterarguments*

Hytera makes several arguments to oppose application of the DTSA to its sales outside the United States. First, Hytera argues that the district court erred by considering 18 U.S.C. § 1837 in its extraterritoriality analysis. That provision was not added to chapter 90 as part of the DTSA but was adopted earlier in 1996 as part of the EEA, a different statute. Hytera cites *RJR Nabisco* for its argument that courts assessing the extraterritoriality of a remedy must determine "whether the *statute* gives a clear, affirmative indication that it applies extraterritorially." Hytera Br. at 54 (emphasis by Hytera), quoting 579 U.S. at 337, 136 S.Ct. 2090. Hytera takes this to mean that courts must "look at the statute adopting the remedy, not to another statute codified in a neighboring provision." *Id.* at 55.

This argument asks courts to disregard the plain text of the DTSA and the EEA and misreads *RJR Nabisco*, which determined the extraterritoriality of RICO's criminal provisions by considering a variety of other criminal statutes used as predicate offenses for RICO. 579 U.S. at 338–39, 136 S.Ct. 2090. Section 1837 applies by its terms to all of chapter 90, including section 1836. Hytera's suggestion that we treat section 1837 as meaning something other than what it says faces a steep uphill climb, and further statutory context makes the climb impossible. See *Morrison v. National Australia Bank Ltd.*, 561 U.S. 247, 265, 130 S.Ct. 2869, 177 L.Ed.2d 535 (2010) ("Assuredly context can be consulted as well."). We have already mentioned the DTSA's legislative purposes section stating

Congress's concerns about foreign theft of trade secrets. In addition, Congress wrote the DTSA in such a way that it must be interpreted in the larger context of chapter 90. See DTSA § 5(3), 130 Stat. at 383–84; see also 130 Stat. at 376 (DTSA formally titled "An Act [t]o amend chapter 90 of title 18 . . . to provide Federal jurisdiction for the theft of trade secrets, and for other purposes."). The DTSA's detailed line-editing of chapter 90 indicates that Congress carefully relied on the existing provisions of the EEA and wrote the DTSA so that the provisions of both acts would mesh smoothly. For example, to the EEA's list of exceptions from criminal liability, the DTSA added that chapter 90 also would not "create a private right of action" for the same exceptions. DTSA § 2(c), 130 Stat. at 381. Congress made detailed changes to other sections of chapter 90 but not to section 1837. We treat that choice as intentional, not an oversight, and we apply the plain meaning of section 1837. See *Gross v. FBL Financial Services, Inc.*, 557 U.S. 167, 174, 129 S.Ct. 2343, 174 L.Ed.2d 119 (2009). The extraterritorial provisions of section 1837 extend to the private right of action in section 1836(b).

Hytera also renews its argument that the term "offense" in section 1837(2) reaches only criminal trade secret thefts. First, Hytera argues that because the EEA provided only criminal jurisdiction over trade secret thefts, Congress must have meant the term "offense" in section 1837 to refer only to criminal violations. Second, Hytera argues that interpreting "offense" to cover civil violations runs contrary to the Supreme Court's earlier statement that, "while the term 'offense' is sometimes used" to denote civil violations, "that is not how the word is used in Title 18." *Kellogg Brown & Root Services, Inc. v. United States ex rel. Carter*, 575 U.S. 650, 659, 135 S.Ct. 1970, 191 L.Ed.2d 899 (2015). Neither argument is persuasive.

[29] Hytera's first argument would have been persuasive before passage of the DTSA in 2016. The EEA extended federal jurisdiction only over criminal violations, so "offense" in section 1837 could have referred initially only to criminal violations.[9] But as the district court noted, "the fact that Congress has amended a statute sheds light on how the statute is to be interpreted." *Motorola*, 436 F. Supp. 3d at 1157, citing *Gross*, 557 U.S. at 174, 129 S.Ct. 2343. The district court reiterated that "Congress also did not amend the introductory language of Section 1837, which states that Section 1837 applies to 'this chapter'—a chapter which now includes Section 1836's private cause of action." *Id.* We agree that Congress's decision to leave the introductory language in section 1837 unchanged, such that it continues to cover all of chapter 90, is more persuasive textual evidence than Hytera's assertion that the Congress believed the term "offense" could not encompass civil violations.

Second, Hytera also relies on language from *Kellogg Brown* that, "while the term 'offense' is sometimes used" to denote civil violations, "that is not how the word is used in Title 18." 575 U.S. at 659, 135 S.Ct. 1970. The argument gets the Supreme Court's reasoning in *Kellogg Brown* exactly backwards. The Court recognized that "the term 'offense' is sometimes used . . . to denote a civil violation." *Id.* The Court's statement that the term was not used that way in title 18 was a description of title 18 in 2015, not a sweeping command that the word may never be used in title 18 to refer

9. As enacted in 1996, the EEA contained a limited a civil remedy, codified in 18 U.S.C. § 1836(a), authorizing only the Attorney General to seek injunctions against criminal violations of the EEA.

to a civil violation. *Id.* ("Although the term appears hundreds of times in Title 18, neither respondent nor the Solicitor General, appearing as an *amicus* in support of respondent, has been able to find a single provision of that title in which 'offense' is employed to denote a civil violation.").

Kellogg Brown was decided a year before the DTSA was enacted. To the extent the DTSA's drafters considered the Supreme Court's guidance on whether it was necessary to modify the term "offense," *Kellogg Brown* would have reassured them that "offense" could in fact encompass civil violations. If *Kellogg Brown* had been handed down after the DTSA amended title 18, Hytera's argument might be stronger. But because the DTSA was enacted after *Kellogg Brown*, section 1837's use of the term "offense" to encompass section 1836's civil violations would have provided the "single provision of that title" the Supreme Court looked for but did not find in *Kellogg Brown. Id.*

Hytera also argues briefly that it would be anomalous for the DTSA's private right of action to have extraterritorial reach when other intellectual property statutes, such as the Copyright Act, do not. We see nothing necessarily anomalous about making different policy choices for different statutes. The issue for us is statutory interpretation, not the public policy choices. The DTSA's text expressly applies outside the United States and distinguishes it from other intellectual property laws. See DTSA § 2(g), 130 Stat. at 382, to be set out as a note under 18 U.S.C. § 1833 ("[T]he amendments made by this section shall not be construed to be a law pertaining to intellectual property for purposes of any other Act of Congress."). We agree with the district court that the express extraterritoriality provisions of section 1837 apply to the DTSA's private right of action in section 1836(b). Motorola may recover damages for Hytera's "conduct occurring outside the United States," including its foreign sales of products containing the stolen trade secrets.

C. *Domestic "Act in Furtherance"*

[30] Hytera also argues on appeal that the district court erred in holding that it had committed a domestic act in furtherance of its foreign misappropriation. Hytera asserts in a single sentence that its "participation [in] U.S. trade shows certainly was not an 'act in furtherance' of . . . purely extraterritorial sales," pointing to arguments earlier in its brief about Motorola's trade-show theory of extraterritoriality under the Copyright Act. Hytera Br. at 60. Hytera's argument seeks to import the completed-act and causation requirements from copyright law's predicate-act doctrine into section 1837(2). For reasons we have explained, though, the extraterritorial reach of the DTSA is far broader than that of the Copyright Act. Section 1837(2)'s requirement of "an act in furtherance of" the misappropriation does not require a *completed* act of domestic misappropriation, nor does it impose a specific causation requirement.

[31] Instead, as at least one other court has recognized, the "act in furtherance of" language in section 1837(2) "is regularly used in the area of federal conspiracy law." *Motorola*, 436 F. Supp. 3d at 1165, quoting *Luminati Networks Ltd. v. BIScience Inc.*, No. 2:18-cv-00483-JRG, 2019 WL 2084426, at *9 (E.D. Tex. May 13, 2019), citing in turn *Yates v. United States*, 354 U.S. 298, 334, 77 S.Ct. 1064, 1 L.Ed.2d 1356 (1957) ("[T]he *overt act* must be found . . . to have been *in furtherance of* a conspiracy . . . .") (emphasis added); see also *Findlay v. McAllister*, 113 U.S. 104, 114, 5 S.Ct. 401, 28 L.Ed. 930 (1885) ("[I]t must be shown not only that there was a conspiracy, but that there were tortious *acts in furtherance of* it ....") (emphasis added). "[W]here Congress borrows terms of art in which are accumulated the legal tradition and meaning of centuries of practice, it presumably knows and adopts ... the meaning its use will convey to the judicial mind unless otherwise instructed." *Morissette v. United States*, 342 U.S. 246, 263, 72 S.Ct. 240, 96 L.Ed. 288 (1952). We thus consider the established legal meaning of "an act in furtherance of" when interpreting section 1837(2).

[32] These origins in the law of conspiracy make clear that, unlike copyright's predicate-act doctrine for extraterritorial application, section 1837(2) does not require a *completed* act of domestic misappropriation, nor does it impose a causation requirement. The Copyright Act does not apply extraterritorially, so to recover damages for foreign copyright infringement under *RJR Nabisco*'s step two, a plaintiff is required to show specific causation. See *Tire Engineering & Distrib., LLC v. Shandong Linglong Rubber Co.*, 682 F.3d 292, 308 (4th Cir. 2012) ("[P]laintiff is required to show a domestic violation of the Copyright Act and damages *flowing from foreign exploitation of that infringing act* to successfully invoke the predicate-act doctrine.") (emphasis added). Conversely, there is a causation requirement in the DTSA between misappropriation and the resulting damages, but it is imposed in the cause of action itself, not by section 1837's extraterritoriality provisions. See § 1836(b)(3)(B)(i) (authorizing award of damages and unjust enrichment "caused by the misappropriation."). We therefore reject the proposition that section 1837(2)'s "in furtherance of" language requires specific causation between the qualifying domestic act and particular foreign sales for which damages are sought.

[33] Nor does the "act in furtherance of" language require a *completed* act of domestic misappropriation. To further a criminal conspiracy, an overt act, "taken by itself," need not "be criminal in character." *Yates*, 354 U.S. at 334, 77 S.Ct. 1064. By the same reasoning, an act in furtherance of a civil misappropriation need not itself be a complete violation of the law:

> Applied to the DTSA, *Yates* makes clear that the act in furtherance of the offense of trade secret misappropriation need not be the offense itself or any element of the offense, but it must "manifest that the [offense] is at work" and is not simply "a project [...] in the minds of the" offenders or a "fully completed operation." Put another way, an act that occurs before the operation is underway or after it is fully completed is not an act "in furtherance of" the offense.

Luminati, 2019 WL 2084426, at *10, quoting *Yates*, 354 U.S. at 334, 77 S.Ct. 1064.

[34, 35] We agree with this analysis. We also agree with Judge Norgle's conclusion that under the DTSA, misappropriation does not begin and end with the defendant's initial acquisition of plaintiff's trade secrets. Rather, "misappropriation" includes the defendant's illicit and ongoing "disclosure or use" of the stolen secrets. 18 U.S.C. § 1839(5)(B). Section 1837(2) is satisfied if "an act in furtherance of" a disclosure or use of a stolen trade secret occurred in the United States. Once that condition is met, the private right of action in section 1836(b) "also applies to conduct occurring outside the United States" for any foreign conduct related to "the offense." 18 U.S.C. § 1837. Just as a single criminal conspiracy can encompass a large number of independently unlawful acts within its scope, so too can an "offense" in section 1837(2) encompass an entire "operation" comprising many individual acts of misappropriation. See *Yates*, 354 U.S. at 334, 77 S.Ct. 1064. So long as "an act in furtherance of the offense was committed in the United States," 18 U.S.C. § 1837(2), then all damages caused by the offense are recoverable under sections 1836(b) and 1837(2), wherever in the world the rest of the underlying conduct occurred.

We have already agreed with the district court's finding that Hytera's use of Motorola's trade secrets at U.S. trade shows was not just a domestic "act in furtherance of" misappropriation but was itself a complete domestic act of misappropriation. *Motorola*, 436 F. Supp. 3d. at 1165. Hytera thus committed an "act in furtherance of" its worldwide "offense" within the United States, and thus satisfied "the limits Congress has ... imposed on the statute's foreign application" in section 1837(2). See *RJR Nabisco*, 579 U.S. at 337–38, 136 S.Ct. 2090. We reject Hytera's arguments to the contrary. The district court properly awarded Hytera's profits on all worldwide sales of products caused by the offense, regardless of where in the world the remainder of Hytera's illegal conduct occurred. In this case, Hytera's "offense" encompassed all misappropriations arising from the initial unlawful acquisitions by the former Motorola employees. Thus, under the DTSA's private right of action in 18 U.S.C. § 1836(b), Motorola can recover damages for all foreign sales involving the trade secrets acquired by theft.

[36, 37] We conclude on extraterritoriality with two further issues. First, we agree with the district court's alternative finding that, even if the DTSA did not apply extraterritorially under *RJR Nabisco*'s step one, this case would still amount to a permissible domestic application of the DTSA under *RJR Nabisco*'s step two. See 579 U.S. at 337, 136 S.Ct. 2090. Second, because Motorola can recover all of Hytera's global profits caused by its illicit acquisition and use of Motorola's trade secrets, regardless of where the misappropriations occurred, any recovery under the Illinois Trade Secrets Act would duplicate recovery to Motorola for the same injuries from the loss of its trade secrets. Because additional damages would not be available under the ITSA, we need not address the district court's holding that the ITSA does not apply extraterritorially. See *Motorola*, 436 F. Supp. 3d at 1170.

VI. *DTSA Apportionment and Harmless Error*

Hytera raises the same arguments with respect to apportionment of the DTSA compensatory damages that it raised on copyright damages. The DTSA's compensatory damages scheme closely parallels the language of the Copyright Act discussed above. The Copyright Act allows recovery for "actual damages ... and any profits of the infringer that are ... not taken into account in computing the actual damages." 17 U.S.C. § 504(b). The DTSA allows recovery of "damages for actual loss ... and ... for any unjust enrichment ... that is not addressed in computing damages for actual loss ...." 18 U.S.C. § 1836(b)(3)(B)(i).

[38] Federal courts routinely apply their reasoning about apportionment to unjust enrichment awards under a variety of statutes. See *Sheldon v. Metro-Goldwyn Pictures Corp.*, 309 U.S. 390, 401, 60 S.Ct. 681, 84 L.Ed. 825 (1940) (extending apportionment causation doctrine from patent law to copyright infringement). Applying a different federal statute, this court has noted:

> The problem of apportioning a wrongdoer's profits between those produced by his or her own legitimate efforts and those arguably resulting from his or her wrong is familiar to courts in other areas of the law. Where [a federal statute] is silent as to how profits should be apportioned, we draw on those other areas of law for guidance. Perhaps the

closest analogy is the apportionment of a copyright infringer's profits.

Leigh v. Engle, 727 F.2d 113, 138 (7th Cir. 1984) (extending copyright and patent apportionment reasoning to profitable investments made through breaches of fiduciary duties under ERISA). Here, we apply the case law regarding proof of causation for apportionment of awards under the Copyright Act to the DTSA. As with copyright damages, the district court also erred in closing off to Hytera the proximate-cause track to support possible apportionment of DTSA damages.

But this does not end our inquiry. Motorola argues that failure to apportion the DTSA compensatory damages award was harmless. Its theory is that 18 U.S.C. § 1836(b)(3)(B) offers an alternative calculation of compensatory damages under the DTSA. This alternative calculation would add Motorola's own lost profits ($86.2 million, as found by the district judge) to Hytera's avoided R&D costs ($73.6 million, as also found by district judge), for a total of $159.8 million. Neither of those amounts is subject to apportionment, so Motorola would be entitled to the entire $159.8 million under this calculation. This amount is greater than the amount of Hytera's profits actually awarded by the district court as unjust enrichment, $135.8 million, which was potentially subject to apportionment. Motorola does not seek the $24 million difference in its cross-appeal, but it argues that the availability of a $159.8 million compensatory damages award makes the district court's failure to apportion the $135.8 million award a harmless error.

Hytera counters with two arguments: first, that the district court did not actually make a factual finding on Motorola's amount of lost profits, and second, that even if the court made such a factual finding, the amount of Motorola's lost profits is a legal (not equitable) remedy on which Hytera is entitled to a jury finding in the first instance. Neither argument is persuasive. The first is clearly incorrect on the record. The second is a true statement of the law—lost profits are a legal remedy rather than an equitable one—but Hytera forfeited the argument that it was entitled to a jury trial on that issue by failing to raise it in its opening brief.

[39] We thus find that the district court's failure to apportion the $135.8 million in compensatory damages under the DTSA was a harmless error. We first explain why Motorola's alternate calculation of compensatory damages is valid under the DTSA. We then explain why Hytera forfeited its arguments that the jury needed to make any finding on the issue.

A. *Compensatory Damages Under the DTSA*

The DTSA offers a trade secret plaintiff the greatest of three distinct calculations for compensatory damages in 18 U.S.C. § 1836(b)(3)(B). Under the DTSA, Motorola is entitled to "(I) damages for actual loss caused by the misappropriation of the trade secret; and (II) damages for any unjust enrichment caused by the misappropriation of the trade secret that is not addressed in computing damages for actual loss," § 1836(b)(3)(B)(i), or "in lieu of damages measured by any other methods, [the district court may award] damages caused by the misappropriation measured by imposition of liability for a reasonable royalty for the misappropriator's unauthorized disclosure or use of the trade secret," § 1836(b)(3)(B)(ii). See *MedImpact Healthcare Systems, Inc. v. IQVIA Holdings Inc.*, No. 19-cv-1865-GPC (DEB), 2022 WL 5460971, at *4 (S.D. Cal. Oct. 7, 2022) (describing DTSA's "three separate measures of damages"). The third method for calculating damages, ascertaining the value of a reasonable royalty, is not at issue here. We do not discuss it further.

[40, 41] The statutory language for the DTSA's first two methods of calculating damages parallels the Copyright Act. See 17 U.S.C. § 504(b). A plaintiff's first option is to recover as unjust enrichment the entire amount of the defendant's profits caused by the misappropriation. On this path, once the plaintiff proves the defendant's total profits from the theft, the defendant has an opportunity to seek apportionment by proving how its own efforts contributed to those profits. See *id.* A plaintiff's second option is to prove as damages its actual losses (a legal remedy) plus any gains to the defendant not accounted for in plaintiff's actual losses as unjust enrichment (an equitable remedy). If a plaintiff follows this path and tries to prove its own losses, it must also show that the additional amount of unjust enrichment it seeks from defendant will not duplicate its own lost profits. In this case, for example, it would be double-counting for Motorola to count the same unit of sale as both lost profits to itself and unjust enrichment to Hytera. We explained this principle under the Copyright Act in *Taylor v. Meirick*:

> Taylor presented no evidence that selling the infringing maps was more profitable to Meirick than selling more of the original maps would have been to himself. *True, he would not have had to present such evidence if he were seeking to recover Meirick's profits as the sole item of damages, as the statute permitted him to do.* But since he was trying to recover both his lost profits and Meirick's profits, he had to show what part of Meirick's profits he, Taylor, would *not* have earned had the infringement not occurred; in other words, he had to subtract his profits from Meirick's.

712 F.2d 1112, 1120 (7th Cir. 1983) (first emphasis added).

[42–44] A successful plaintiff is entitled to the larger of these two amounts. *Id.* (characterizing the paths as a choice for plaintiff, but "an easy choice" where one amount is larger than the other). Judge Shadur made the same point in *Respect Inc. v. Committee on Status of Women*, also interpreting the Copyright Act:

> [T]he ... plain meaning of [Section 504(b)] is that the copyright owner is entitled to the *greater* of (1) its own actual damages and (2) the infringer's profits. Indeed the enactment was a corrective measure to overturn the line of some prior case law authority that had granted copyright owners the *sum* of their actual damages plus the infringer's profits.

821 F. Supp. 531, 532 (N.D. Ill. 1993) (emphases in original). The bottom line is that Motorola is entitled to the larger of (1) Hytera's total profits from the theft, as unjust enrichment (subject to apportionment), or (2) the sum of Motorola's own actual losses and any additional amount of unjust enrichment not accounted for in those actual losses, which in this case includes Hytera's avoided R&D costs.[10]

10. We agree with the Second Circuit that "avoided costs are recoverable as damages for unjust enrichment under the DTSA" when the defendant's "misappropriation injure[s plaintiff] *beyond* its actual loss." *Syntel Sterling Best Shores Mauritius Ltd. v. The TriZetto Grp., Inc.*, 68 F.4th 792, 809–10 (2d Cir. 2023) (emphasis in original). Hytera's avoided R&D costs are recoverable as unjust enrichment in this case because its misappropriation injured Motorola beyond its actual losses. Hytera " 'used the claimant's trade secrets in developing its own product,' thereby diminishing the value of the trade secret to the claimant." *Id.* at 812, quoting *GlobeRanger Corp. v. Software AG U.S. of America, Inc.*, 836 F.3d 477, 499 (5th Cir. 2016) (alteration omitted).

[45] Crucially for this case, a plaintiff is entitled to factual determinations as to the amounts available under both paths for calculating its compensatory damages. "There is of course only one way to determine which of two numbers is larger, and that is to ascertain *both* of those numbers." *Respect Inc.*, 821 F. Supp. at 532 (emphasis in original); accord, *Navarro v. Procter & Gamble Co.*, 529 F. Supp. 3d 742, 749 (S.D. Ohio 2021) ("While [the Copyright] Act did not expressly tell courts to take actual damages into account in ascertaining the profits award, that is inherent in the statutory scheme."). If a plaintiff adequately preserves its arguments for compensatory damages under both theories through the close of trial and any relevant post-trial motions, as Motorola did here, the factfinder is obliged to make findings as to the amount of compensatory damages available by each path. Plaintiff should then be awarded the greater of the two amounts.

B. *Key Procedural Steps and Missteps*

The path to the final judgment on this issue included some missteps and course corrections during and after trial. First, Motorola (and Hytera) believed throughout trial that Motorola's unjust-enrichment theory would likely produce a higher verdict than its lost-profits theory. Still, Motorola always preserved its right to receive the higher of the two sums. The jury was also instructed to calculate both numbers and to award the higher.[11]

Second, the district court submitted all damages issues to the jury under the mistaken impression that all awards would be legal remedies rather than equitable. After the trial, Hytera convinced Judge Norgle that he had been wrong. He then treated the jury verdict as advisory. The jury's verdict form included only one total for compensatory damages and one total for exemplary damages. After trial, however, the evidence and arguments allowed Judge Norgle to break down the separate amounts awarded by the jury for copyright and trade secret damages.

Third, in post-trial briefing and proposed findings and conclusions, Motorola asked Judge Norgle to find two facts specifically: (1) that Motorola's lost profits under the DTSA were $86.2 million, and (2) that Hytera's avoided R&D costs were $73.6 million. Hytera objected to both numbers on their merits. It also objected to having the district court make the initial finding on lost profits, arguing that lost profits were a legal remedy requiring a jury determination in the first instance.

After receiving the parties' proposed findings of fact and law, Judge Norgle adopted both of Motorola's proposed findings on the amounts of its lost profits and Hytera's avoided R&D expenses. Hytera mistakenly argues on appeal that the district court made no express finding as to the amount of Motorola's lost profits. See Dkt. No. 1100, ¶ 10 ("The $209.4 million [awarded by the jury for Hytera's unjust enrichment] exceeds *Motorola's $86.2 million in Motorola's lost profits* due to Hytera's trade secret misappropriation under the DTSA.") (emphasis added); *id.* ¶ 46 ("[T]he Court finds that the evidence *supports $73.6 million for Hytera's avoided*

11. Motorola's expert, its counsel, and the district judge proceeded through trial under the misapprehension (eventually corrected by the district judge) that the amount of Hytera's avoided R&D costs ($73.6 million) could be added to Hytera's profits (ultimately argued by Motorola to be $135.8 million) without causing a double recovery. Motorola persisted in this mistaken argument, seeking $209.4 million in unjust enrichment from Hytera, until Judge Norgle's post-trial findings of fact and conclusions of law corrected the mistake and reduced the unjust enrichment award to $135.8 million.

research and development costs for Hytera's trade secret misappropriation under the DTSA.") (emphasis added). The court made these express findings in the course of figuring out which of the two compensatory damages paths produced the greater number. The court did not expressly address Hytera's argument that the jury would have had to make any finding about Motorola's lost profits, but it incorporated by reference the reasoning in its earlier post-trial order that "the jury award for actual losses pursuant to the DTSA is ... a legal remedy." *Motorola Solutions, Inc. v. Hytera Communications Corp.*, 495 F. Supp. 3d 687, 708 (N.D. Ill. 2020). The problem with this answer is that the jury verdict did not include any explicit finding on the amount of Motorola's actual losses.

Fourth, the district court's post-trial decisions and findings should have brought the present harmless-error and jury-versus-judge problems into focus for the parties. The district court correctly found that the avoided R&D costs should be subtracted from Hytera's profits to avoid double-counting. That lowered the potential unjust-enrichment award from $209.4 million to $135.8 million, which put that amount now below the sum of Motorola's own lost profits and Hytera's avoided R&D costs ($159.8 million). The district court also made an express finding on the amount of Motorola's lost profits, ($86.2 million) while incorporating by reference its own earlier reasoning that the amount of that award was a legal (not equitable) remedy. And after saying (incorrectly) that the maximum compensatory damages recoverable by Motorola under the DTSA were Hytera's unjust enrichment profits of $135.8 million, the court failed to show it applied the right causation standard to Hytera's contributions to its profits.

[46] If the district court had properly followed DTSA's statutory remedial scheme, the court should have awarded Motorola the sum of its own lost profits and Hytera's avoided R&D for a total of $159.8 million (not subject to apportionment) as soon as it became clear that this total was greater than the amount of Hytera's profits recoverable through unjust enrichment, $135.8 million (still subject to reduction by apportionment). Motorola has not cross-appealed, however, on the $24 million difference between that amount and the final award of $135.8 million. Still, the district court's failure to apportion its erroneous lower amount of $135.8 million was harmless unless Hytera was entitled to have the jury decide the amount of Motorola's lost profits.

C. *Forfeiture on Appeal*

[47–49] No one should be surprised that in a case of this complexity and scope, the leisurely hindsight available on appeal will turn up arguable errors favoring both sides. Nor should anyone be surprised that some arguable errors were not properly preserved for appeal. Most rights, including constitutional rights, are subject to waiver and forfeiture. That includes a party's right to have a jury determine any legal remedy in the first instance. That right is not absolute. It can be waived, leaving factual questions instead to the court. E.g., *Lacy v. Cook County*, 897 F.3d 847, 860 (7th Cir. 2018). In addition, orderly presentation of issues for appeal is critical, particularly in a case with as many issues swirling around as in this one. "An issue that falls within the scope of the judgment appealed from that is not raised by the appellant in its opening brief on appeal is necessarily waived." *Lexion Medical, LLC v. Northgate Technologies, Inc.*, 618 F. Supp. 2d 896, 902 (N.D. Ill. 2009), citing *Amado v. Microsoft Corp.*, 517 F.3d 1353, 1360 (Fed. Cir. 2008); accord, *Dinerstein v. Google, LLC*, 73 F.4th 502, 512

(7th Cir. 2023). We find that Hytera forfeited its objections to the district court's determination of Motorola's lost profits and Hytera's own avoided R&D costs when it failed to challenge those findings in its opening brief on appeal.

Here, Hytera sufficiently preserved in the district court its arguments that Motorola's lost profits were a legal remedy to be decided by a jury. It made that point in its proposed findings of fact and conclusions of law after trial. The critical forfeiture occurred in its opening brief on appeal, however, when Hytera did not challenge the district court's finding of fact on Motorola's lost profits. Recall the structure of the trade secret statute, with its two paths to calculate compensatory damages. Motorola is entitled to recover by whichever path awards the larger amount and entitled to a factual finding on both amounts. Motorola preserved both paths for itself through trial and post-trial briefing. Hytera's arguments (that eventually proved successful) to reduce the maximum amount of Hytera's profits obtainable as unjust enrichment on the first path necessarily put in issue the amount alternatively available on the second path (the sum of Motorola's lost profits and Hytera's avoided R&D). The district court, as required by statute, made express calculations and findings as to the amounts available on both paths. Those findings were available to support the judgment unless Hytera challenged them. Hytera did not do so in its opening brief in its own appeal, forgoing its opportunity to challenge them.

As noted, Hytera contested the $86.2 million lost profits finding in its own proposed findings of fact before the district court made its final decision on the issue. But after the court issued its order and findings of fact, Hytera dropped any dispute with the amount of Motorola's lost profits and with whether the issue was for the jury or the court. Critically, Hytera failed to raise the issue in the opening brief for its appeal to this court. We have explained:

> [P]arties can waive the right to jury trial by conduct just as they can by written or oral statements. ... A failure to object to a proceeding in which the court sits as the finder of fact "waives a valid jury demand as to any claims decided in that proceeding, at least where it was clear that the court intended to make fact determinations."

Fillmore v. Page, 358 F.3d 496, 503 (7th Cir. 2004), quoting *Lovelace v. Dall*, 820 F.2d 223, 227 (7th Cir. 1987); accord, *United States v. Resnick*, 594 F.3d 562, 569 (7th Cir. 2010) (same).

In its second brief on appeal, in response to Motorola's argument for harmless error, Hytera argued that it had no reason to raise the issue in its opening brief because neither the judge nor the jury had made a finding on lost profits. That is not correct. The text of the DTSA plainly required a comparison of the amounts recoverable by Motorola under both paths to determine the greater amount. Neither party has disputed that requirement during or after trial. The district court made crystal clear that it was treating the jury verdict as advisory. That meant the court was obliged to make findings on both theories of compensatory damages. See *Respect Inc.*, 821 F. Supp. at 532. It did so here. Even (or especially) if the district court erred in failing to apportion the amount recoverable by Motorola on the unjust-enrichment path, we would still have to consider the alternative calculation to determine Motorola's entitlement to compensatory damages under the DTSA. That alternate path, Motorola's lost profits plus Hytera's avoided R&D, was supported by express factual findings by the district court. Hytera was not entitled to take aim at lowering just one of the two alternative paths for awarding damages for its theft of trade secrets while being forgiven for failing to challenge a clear finding by the district court concerning a higher amount available on the alternate path.

To be clear, we do not adopt or apply here a broad rule that any appellant must anticipate and address any possible harmless-error arguments in its opening brief. Hytera's forfeiture of its challenge to the district court's lost profits finding in this case is based on the structure of these alternative statutory remedies, where the statute requires the factfinder to calculate both amounts and to award the higher. The statutory text is plain. Both sides were clearly aware throughout trial that lost profits and unjust enrichment were two alternate theories of recovery. Both were aware that Motorola would be entitled to recover the greater amount. Motorola did not sneak its $86.2 million figure in under Hytera's nose; far from it. Hytera spent several pages challenging this figure in its own proposed findings of fact and law. But after the district court adopted Motorola's proposed lost profits amount, Hytera failed to challenge it in its opening brief to this court.

[50] This situation is akin to a simpler case. Imagine a defendant is sued for one injury on both a tort theory and a contract theory. At trial, the defendant loses on both theories, and in a special verdict, the jury awards the same amount under each theory. The defendant cannot win on appeal without challenging both theories. Showing only, for example, that the jury instructions on the tort theory were wrong would not affect the contract verdict. On appeal, the defendant-appellant could not argue only that the tort finding was erroneous, saving its contract issues for its reply brief, after the winning plaintiff points out that any tort-theory errors were harmless because the defendant failed to challenge an independent basis for the verdict. "When a district court bases its ruling on two grounds and a plaintiff challenges only one on appeal, she 'waive[s] any claim of error in that ruling.'" *Appvion, Inc. Retirement Savings & Employee Stock Ownership Plan by & through Lyon v. Buth*, 99 F.4th 928, 954 (7th Cir. 2024) (alteration in original), quoting *Landstrom v. Illinois Dep't of Children & Family Services*, 892 F.2d 670, 678 (7th Cir. 1990).

Finally, Hytera's failure does not implicate any of the countervailing interests that have motivated us in rare cases to overlook forfeiture or waiver of the right to a jury trial on legal issues. Both parties to this case are highly sophisticated, and the district court's intent to make factual findings was clear. Hytera had plenty of notice and opportunity to challenge them on appeal. Cf. *Lacy*, 897 F.3d at 860 (declining to find waiver where "the district court failed to communicate its intent to make conclusive factual determinations"); see also *Chapman v. Kleindienst*, 507 F.2d 1246, 1253 (7th Cir. 1974) (explaining "[n]ormally, the failure to object [to resolution of factual issues by the trial judge] . . . would constitute a waiver of the right to a jury trial," but making exception for *pro se* litigant who "may not have been aware of his right to object to a hearing to the court").

In sum, although the district court erred by failing to apply the correct causation standard to Hytera's claim for apportionment of the $135.8 million DTSA compensatory damages award, we nevertheless uphold the award. The legal error on apportionment was harmless, and Hytera forfeited on appeal its argument that the jury should have made any finding on Motorola's lost profits.

VII. *Due Process Challenge to DTSA Punitive Damages Award*

[51] Hytera argues that the punitive damages awarded by the district court under the DTSA, $271.6 million, violated the substantive limits on punitive damages imposed by the due process clause of the Fifth Amendment. We reject this challenge.

We begin with a review of the procedural history of this award. The jury originally awarded Motorola $418.8 million in punitive damages under the DTSA, twice the jury's award of $209.4 million in DTSA compensatory damages. This ratio matched the DTSA's statutory cap, which sets an upper limit on punitive damages at twice the award of compensatory damages. 18 U.S.C. § 1836(b)(3)(C). After trial, the district court ruled that DTSA compensatory damages, when based on defendant's gains rather than plaintiff's losses, were actually an equitable remedy subject to determination by the court rather than the jury. The district court then made its own factual findings on DTSA compensatory damages, reducing the award from $209.4 million to $135.8 million to avoid double-counting Hytera's avoided R&D costs with its profits. The district court then adopted the jury's now-advisory finding as to the proper ratio of punitive damages, sticking with the statutory maximum of two-to-one. The judge doubled the reduced compensatory damages award to calculate the new punitive damages award, arriving at $271.6 million.

[52] "Review of a constitutional challenge to a punitive damages award is *de novo*, which operates to 'ensure that an award of punitive damages is based upon an application of law, rather than a decisionmaker's caprice.' " *Estate of Moreland v. Dieter*, 395 F.3d 747, 756 (7th Cir. 2005) (alterations omitted), quoting *State Farm Mutual Automobile Ins. Co. v. Campbell*, 538 U.S. 408, 418, 123 S.Ct. 1513, 155 L.Ed.2d 585 (2003). The Supreme Court established the framework for assessing the constitutionality of punitive damages awards in three opinions: *BMW of North America, Inc. v. Gore*, 517 U.S. 559, 116 S.Ct. 1589, 134 L.Ed.2d 809 (1996); *Cooper Industries, Inc. v. Leatherman Tool Grp., Inc.*, 532 U.S. 424, 121 S.Ct. 1678, 149 L.Ed.2d 674 (2001); and *State Farm*, 538 U.S. 408, 123 S.Ct. 1513 (2003). In *Gore*, the Supreme Court "instructed courts reviewing punitive damages to consider three guideposts: (1) the degree of reprehensibility of the defendant's misconduct; (2) the disparity between the actual or potential harm suffered by the plaintiff and the punitive damages award; and (3) the difference between the punitive damages awarded by the jury and the civil penalties authorized or imposed in comparable cases." *State Farm*, 538 U.S. at 418, 123 S.Ct. 1513, citing *Gore*, 517 U.S. at 575, 116 S.Ct. 1589.

[53] In *Gore*, the Supreme Court assessed the constitutionality of a state common law punitive damages award. Here, by contrast, we assess the constitutionality of punitive damages awarded pursuant to a federal statute expressly authorizing them, "a different question than the Supreme Court considered in *Gore*." *Arizona v. ASARCO LLC*, 773 F.3d 1050, 1055 (9th Cir. 2014) (en banc). Circuit courts applying the *Gore* factors have recognized that the "landscape of our review is different when we consider a punitive damages award arising from a statute that rigidly dictates the standard a jury must apply in awarding punitive damages and narrowly caps . . . compensatory damages and punitive damages." *Id.*; see also *BNSF Railway Co. v. U.S. Dep't of Labor*, 816 F.3d 628, 643 (10th Cir. 2016) (agreeing that review is more flexible where Congress has spoken explicitly on proper scope of punitive damages); *Abner v. Kansas City Southern Railroad Co.*, 513 F.3d 154, 164 (5th Cir. 2008) ("As we see it, the combination of the statutory cap and high threshold of culpability for any award confines the amount of the award to a level tolerated by due process. Given that Congress has effectively set the tolerable proportion, the three-factor *Gore* analysis is relevant only if the statutory cap itself offends due process."). As the Ninth Circuit explained further in *ASARCO*:

> An exacting *Gore* review, applying the three guideposts rigorously, may be appropriate when reviewing a common law punitive damages award. However, when a punitive damages award arises from a robust statutory regime, the rigid application of the *Gore* guideposts is less necessary or appropriate. Thus, the more relevant first consideration is the statute itself, through which the legislature has spoken explicitly on the proper scope of punitive damages.

773 F.3d at 1056.

Gore itself shows that substantial deference is due to the Congressional judgment about punitive damages under the DTSA. The third of its three guideposts instructs courts to defer to "legislative judgments concerning appropriate sanctions for the conduct at issue." *Gore*, 517 U.S. at 583, 116 S.Ct. 1589, quoting *Browning-Ferris Industries of Vt., Inc. v. Kelco Disposal, Inc.*, 492 U.S. 257, 301, 109 S.Ct. 2909, 106 L.Ed.2d 219 (1989) (O'Connor, J., concurring in part and dissenting in part). The "appropriate sanctions" for misappropriation under the DTSA, in Congress's judgment, cap out at twice the compensatory damages awarded by the district court. 18 U.S.C. § 1836(b)(3)(C).

Still, all three of *Gore*'s guideposts are "undeniably of some relevance in this context." *ASARCO*, 773 F.3d at 1055, citing *Cooper Industries*, 532 U.S. at 441–43, 121 S.Ct. 1678 (applying *Gore* to punitive damages under federal Lanham Act). In *ASARCO*, the Ninth Circuit applied *Gore* to analyze the due process implications of a punitive damages award authorized and capped by a federal statute, 42 U.S.C. § 1981a, which governs damages in federal employment discrimination cases. In line with other circuits, we consider first whether the federal statutory damages cap complies with due process, and second, whether the challenged punitive damages award falls within those statutory limits. See *ASARCO*, 773 F.3d at 1055; *Abner*, 513 F.3d at 164.

A. *The DTSA's Limits on Punitive Damages*

[54] Under the DTSA, if a trade secret "is willfully and maliciously misappropriated," a court may award "exemplary damages in an amount not more than 2 times the amount of the damages awarded under" the compensatory damages provisions. 18 U.S.C. § 1836(b)(3)(C). As relevant here, the compensatory damages provisions allow recovery for actual loss caused by the misappropriation and any unjust enrichment not addressed in computing actual loss. § 1836(b)(3)(B)(i). We have no doubt that the DTSA's exemplary damages provision complies with due process.

First, keeping in mind due process considerations of fair notice, the DTSA clearly sets forth the type of conduct and the mental state a defendant must have to be found liable for punitive damages. The DTSA provides a private right of action to redress "the misappropriation of a trade secret" using two terms defined in the statute. 18 U.S.C. §§ 1839(3), (5) (defining "trade secret" and "misappropriation"). Trade secret law is familiar and well-developed. There is no doubt that Hytera's conduct falls squarely within the statutory prohibitions. The DTSA also limits punitive damages to willful and malicious violations. 18 U.S.C. § 1836(b)(3)(C). This mens rea requirement for punitive damages easily satisfies *Gore's* concern that conduct be reprehensible. 517 U.S. at 575, 116 S.Ct. 1589; see also *ASARCO*, 773 F.3d at 1057.

Second, the DTSA sets a cap on the punitive damages available at "not more than 2 times the amount of the damages awarded" under the DTSA's compensatory damages provisions. 18 U.S.C. § 1836(b)(3)(C). In capping punitive damages at a ratio of two-to-one, the DTSA functions like a host of other federal statutes authorizing double or treble damages—especially for wrongdoing in commerce—whose constitutionality is virtually beyond question. *State Farm*, 538 U.S. at 425, 123 S.Ct. 1513 ("[S]anctions of double, treble, or quadruple damages to deter and punish" have "a long legislative history, dating back over 700 years and going forward to today."); *Gore*, 517 U.S. at 580 & n.33, 116 S.Ct. 1589 (noting centuries-long history of such legislation); see, e.g., 15 U.S.C. § 15(a) (mandating treble damages for antitrust violations); 18 U.S.C. § 1964(c) (mandating treble damages for racketeering violations); 35 U.S.C. § 284 (authorizing treble damages for patent infringement); and 15 U.S.C. § 1117(a) (authorizing treble damages for trademark infringement).

In addition, the compensatory damages that may be multiplied to calculate punitive damages under the DTSA themselves require solid proof and must avoid duplicative and excessive recoveries. See § 1836(b)(3)(B) (courts may award "damages for actual loss ... and ... damages for any unjust enrichment ... *that is not addressed in computing damages for actual loss*; or ... *in lieu of damages measured by any other methods*, the damages ... measured by imposition of liability for a reasonable royalty") (emphases added). The DTSA narrowly describes the categories of harm for which compensatory damages are available, and its two-to-one limit on punitive damages reasonably caps liability under the statute. Thus, *Gore*'s ratio analysis has less applicability under the DTSA because § 1836(b)(3)(C) expressly governs the ratio of punitive damages. The two-to-one limit on punitive damages is strong evidence that "Congress supplanted traditional ratio theory and effectively obviated the need for a *Gore* ratio examination" of awards that comport with DTSA's statutory scheme. See *ASARCO*, 773 F.3d at 1057.[12]

Here, as in § 1981a and other federal statutes like the Sherman Act, RICO, and

12. The DTSA and 42 U.S.C. § 1981a, analyzed in *ASARCO* and *Abner*, differ in that § 1981a caps the total amount of punitive and compensatory damages at a fixed dollar amount, while the DTSA caps the ratio of punitive damages to compensatory damages without an absolute limit on either type of damages. That did not make a difference to the Ninth Circuit in *ASARCO*:

> When a statute narrowly describes the type of conduct subject to punitive liability, and reasonably caps that liability, it makes little sense to formalistically apply a ratio analysis devised for unrestricted state common law damages awards. That logic applies with special force here because the statute provides a consolidated cap on *both* compensatory and punitive damages.

773 F.3d at 1057 (emphasis in original). The Ninth Circuit's "special force" language makes clear that the same logic would also apply to a statute like the DTSA, which caps only punitive damages by way of a ratio to compensatory damages. We agree with the Ninth Circuit on this point. For reasons explained in the text, the DTSA's damages provisions work together to keep both compensatory and punitive damages award within reasonable, evidence-based bounds. Those statutory limits should ensure that an award that satisfies them will also comply with due process, except perhaps in rare cases.

patent and trademark laws authorizing double or treble damages, Congress has made a specific and reasonable legislative judgment about punitive damages in cases like this one. There is no reason to search outside the text of the DTSA for legislative guidance in analogous contexts. *Id.* at 1057; see also *E.E.O.C. v. AutoZone, Inc.*, 707 F.3d 824, 840 (7th Cir. 2013) ("we need not look far to determine the legislature's judgment concerning the appropriate level of damages in this case: Congress has already defined the statutory cap"). The $271.6 million punitive damages award here complies with the DTSA's statutory limits. Hytera "willfully and maliciously misappropriated" Motorola's trade secrets. See 18 U.S.C. § 1836(b)(3)(C). As explained above, we affirm the district court's $135.8 million compensatory damages award because a procedural error in determining apportionment was harmless. The evidence amply supports a compensatory award of that amount. The $271.6 million in DTSA punitive damages is exactly double, and thus, "not more than 2 times the amount" of compensatory damages awarded by the district court. *Id.*; see also *AutoZone*, 707 F.3d at 840 (existence of a "statutory cap suggests that an award at the capped maximum is not outlandish"). Based on the statutory limits on punitive damages in the DTSA, the award here is consistent with *Gore* and its progeny.

B. *Epic Systems Does Not Control*

Given the express federal statutory authority for this punitive damages award, Hytera's constitutional challenge to the $271.6 million award leans primarily on our opinion in *Epic Systems Corp. v. Tata Consultancy Services Ltd.*, 980 F.3d 1117 (7th Cir. 2020). Despite some similarities, Hytera's reliance is not persuasive. *Epic Systems* also involved a multi-year campaign of trade secret misappropriation by one large competitor against another. In that case, an employee of defendant Tata Consultancy Services (TCS) gained access to Epic's private web portal by disguising himself as an Epic customer. He then shared his credentials with other TCS employees, who accessed and downloaded over 6,000 confidential documents over two years. TCS's employees lied to investigators and failed to preserve relevant evidence once litigation had started. A jury awarded Epic $140 million in compensatory damages for the misappropriation and $700 million in punitive damages. *Id.* at 1123. The district court reduced the $700 million award to $280 million to comply with a state statute capping punitive damages on most statelaw claims at a ratio of two-to-one (or $200,000, whichever was greater). See Wis. Stat. § 895.043(6).

TCS appealed, arguing that the size of the award violated its substantive due process rights under the Fourteenth Amendment. We agreed that the award was "constitutionally excessive" and remanded with instructions to reduce the punitive damages award to a maximum of $140 million, a ratio of one-to-one with the compensatory damages awarded. 980 F.3d at 1145. (The district court did so, and we affirmed in a successive appeal after the remand. See *Epic Systems Corp. v. Tata Consultancy Services Ltd.*, No. 22-2420, 2023 WL 4542011 (7th Cir. July 14, 2023).)

Despite similarities, there are critical differences between *Epic Systems* and this case. Although both cases concerned the theft of trade secrets, the *Epic Systems* defendants challenged punitive damages awarded under state-law. 980 F.3d at 1123–24. In this case, Hytera challenges punitive damages awarded under a federal statute, the DTSA. The two-to-one statutory punitive damages cap applied by the district court in *Epic Systems* was generic, applying to nearly all Wisconsin-law claims. It did not reflect a more precise, reasoned legislative judgment with respect to the particular claims for which punitive damages were sought.

The opposite is true here. The two-to-one punitive damages cap is tailored to the wrongdoing, included by Congress in the same federal statute creating the cause of action. Recalling the purposes and values driving *Gore*, this difference alone is sufficient to distinguish the two cases. "When a statute narrowly describes the type of conduct subject to punitive liability, and reasonably caps that liability, it makes little sense to formalistically apply a ratio analysis devised for unrestricted state common law damages awards." *ASARCO*, 773 F.3d at 1057. The state statutory and common law claims at issue in *Epic Systems* looked much more like the state common law claims the Supreme Court considered in *Gore* itself, justifying more exacting *Gore* review.

If the due process holding of *Epic Systems* were read to elide this key distinction, it would call into question the constitutionality of many federal statutes expressly authorizing punitive or multiple damages. This important limit on *Epic Systems* was highlighted when the plaintiff in that case sought Supreme Court review of our due process ruling. The Court invited the views of the Solicitor General, who recommended denial of certiorari by pointing to exactly this limit:

> If a court of appeals relies on the Seventh Circuit's decision to hold that an enhanced-damages award *under federal law* violates the Due Process Clause, this Court's review may be warranted at that time. But given the important distinctions between the Wisconsin cap at issue here and the various federal laws that authorize enhanced damages, the decision below is not properly understood to affect those statutes.

Brief for the United States as Amicus Curiae at 23, *Epic Systems Corp. v. Tata Consultancy Services Ltd.*, 142 S. Ct. 1400 (2022) (mem.) (No. 20-1426), 2022 WL 476882, at *23 (emphasis added). We agree with the Solicitor General's reasoning. Our decision in *Epic Systems* is not properly understood to affect federal statutes like the DTSA that allow for enhanced damages awards. On that basis alone, *Epic Systems* does not control this case.[13]

13. We also addressed similar due process issues in *Saccameno v. U.S. Bank N.A.*, 943 F.3d 1071 (7th Cir. 2019), where we affirmed a verdict under a state consumer protection law awarding compensatory and punitive damages for oppressive conduct by a creditor. We ultimately applied the due process clause of the Fourteenth Amendment to reduce the punitive damages awarded in that case to a ratio of one-to-one ($582,000 for each type), using as the denominator in our *Gore* ratio analysis the sum of compensatory damages awarded for all claims. *Id.* at 1084–91.

Our thorough discussion of the factual details in *Saccameno* shows that we were not suggesting that a one-to-one ratio must govern in all applications of that state consumer protection statute, let alone of all statutes authorizing punitive damages in commercial settings involving monetary harm. Our application of the *Gore* factors was, as required, fact-intensive. Critically, we deemed the defendant's wrongdoing in *Saccameno* to be the result of indifference, not the willful and malicious conduct Hytera has undertaken here. See *id.* at 1090. We also gave weight to the fact that plaintiff Saccameno's compensatory damages award included emotional distress damages, which "already contain [a] punitive element." *Id.*, quoting *State Farm*, 538 U.S. at 426, 123 S.Ct. 1513. We have no such elements in the compensatory damages award in this case. Moreover, unlike the DTSA, the state law authorizing punitive damages in *Saccameno* did not reflect a specific legislative judgment as to the appropriate ratio of punitive damages in the case at hand. See 18 U.S.C. § 1836(b)(3)(C). In light of the important factual differences and the deference owed to specific legislative judgments under *Gore*'s third guidepost, 517 U.S. at 583, 116 S.Ct. 1589, *Saccameno*'s sound reasoning does not require a one-to-one ratio in this case.

This case is distinguishable from *Epic Systems* for two further factual reasons. First, Hytera's conduct here was reprehensible "to an extreme degree," far worse than even the behavior of defendant TCS in *Epic Systems.* 980 F.3d at 1144. Second, Motorola proved it had suffered significantly greater harm resulting from the misappropriation than did plaintiff Epic Systems.

First, in *Epic Systems*, we found that the conduct of TCS was "reprehensible, but not to an extreme degree." 980 F.3d at 1144. *Gore*'s reprehensibility guideline involves a consideration of five factors, and for the same reasons articulated in *Epic Systems*, the first three weigh against punitive damages here. See *id.* at 1141. We focus on the fourth and fifth: whether "the conduct involved repeated actions or was an isolated incident;" and whether "the harm was the result of intentional malice, trickery, or deceit, or mere accident." *Id.*, quoting *State Farm*, 538 U.S. at 419, 123 S.Ct. 1513.

As to the fourth factor, unlawful access to Epic's trade secrets extended to only internal use by "dozens of TCS employees." *Id.* at 1125. Hytera, in contrast, used Motorola's trade secrets to launch an entirely new and successful product line of professional-tier radios between 2010 and 2014 that it then sold worldwide, in direct competition with Motorola. And with respect to the fifth factor, in *Epic Systems*, the original deceitful act used to gain access to Epic's trade secrets was done by someone outside of TCS's control; TCS discovered this employee's illicit access belatedly and only then took advantage of it. *Id.* at 1125 ("Before working for TCS, [the thief] worked for a different company .... While working for that company, [he] falsely identified himself to Epic as a [customer], and Epic granted [him] full access to" its trade secrets.).

Hytera's conduct was even more reprehensible. Hytera's CEO directly solicited Motorola employees to steal trade secrets while they still worked for Motorola. The Motorola employees spent months illicitly downloading Motorola's source code and other trade secrets for Hytera, and they all eventually left Motorola for high-paying jobs at Hytera.

In addition, *Epic Systems* considered the defendant's deceit and foot-dragging during litigation of the trade secret theft as evidence of increased reprehensibility. *Id.* at 1126, 1142. Hytera's litigation misconduct in this case seems to have been even more severe. See *Motorola Solutions Malaysia SDN. BHD. v. Hytera Communications Corp.*, No. 24-1531, Order, ECF No. 9 at 7 (April 6, 2024) ("Hytera's record of behavior" including "sanctionable conduct before trial, the post-verdict litigation in this case, the failure to pay royalties as ordered (leading to an earlier contempt finding), filing the long-secret Shenzhen case, and its responses to the injunctions at issue ... show[ ] that its unverified representations to the tribunal cannot be trusted.").

Second, and even more important, unlike the plaintiff in *Epic Systems*, Motorola suffered large and measurable harms caused by the theft of its trade secrets: $86.2 million in lost profits, and $73.6 million in Hytera's avoided R&D costs. The second *Gore* guidepost requires us to "analyze the ratio of punitive damages to the 'harm, or potential harm' inflicted on the plaintiff." *Epic Systems*, 980 F.3d at 1142, quoting *State Farm*, 538 U.S. at 424, 123 S.Ct. 1513. "In most cases, the compensatory-damages award approximates the plaintiff's harm" and can thus be used as the denominator for *Gore*'s ratio analysis. *Id.*

Hytera argues here that because the district court awarded punitive damages of twice its finding of unjust enrichment, the award did not reflect any actual harm to Motorola. We explained above, however, the alternative damages calculations required under the DTSA, as well as the district court's factual findings on the amounts of Motorola's lost profits and Hytera's avoided R&D costs.

In *Epic Systems*, we raised questions about the extent to which unjust enrichment to the defendant could provide an appropriate measuring stick for punitive damages, 980 F.3d at 1143, because *Gore*'s denominator typically measures harm to the plaintiff. 517 U.S. at 580, 116 S.Ct. 1589. We need not announce here a sweeping rule about unjust enrichment, punitive damages, and the due process clause. Several features of this case persuade us that, to the extent our due process analysis of a punitive damages award within the DTSA's statutory cap is aided by a ratio analysis, the Fifth Amendment's due process clause does not forbid including both Motorola's lost profits and Hytera's avoided R&D costs in the denominator as harms to Motorola. First, of course, the DTSA expressly authorizes as a compensatory award the sum of those numbers. See 18 U.S.C. § 1836(b)(3)(B)(i). That is part of the legislative judgment that deserves our deference. See *Gore*, 517 U.S. at 583, 116 S.Ct. 1589.

Second, we acknowledged in *Epic Systems* that, in certain circumstances, courts may "account for [unjust enrichment] in the harm-to-punitive-damages ratio." See 980 F.3d at 1142, citing *Sommerfield v. Knasiak*, 967 F.3d 617, 623–24 (7th Cir. 2020); see also *id.* at 1143, citing *Rhone-Poulenc Agro, S.A. v. DeKalb Genetics Corp.*, 272 F.3d 1335, 1351 (Fed. Cir. 2001) (punitive damages may be based on an unjust enrichment award when defendant's gain is "logically related" to plaintiff's "harm or potential harm"), vacated, 538 U.S. 974, 123 S.Ct. 1828, 155 L.Ed.2d 662 (2003), on remand, 345 F.3d 1366 (Fed. Cir. 2003) (reaching same result as to punitive damages).

[55] Third, the nature of this unjust enrichment award differs from the unjust enrichment award in *Epic Systems* in ways that make it more appropriate to account for unjust enrichment in the harm-to-punitive-damages ratio here. In trade secret cases, "unjust enrichment can take several forms and cover a broad array of activities." *Syntel Sterling Best Shores Mauritius Ltd. v. TriZetto Grp., Inc.*, 68 F.4th 792 (2d Cir. 2023); see also *Epic Systems*, 980 F.3d at 1130 ("Simply put, there is no single way to measure the benefit conferred on a defendant; the measurement is context dependent."). In both *Epic Systems* and this case, the relevant unjust enrichment awards were calculated based on avoided R&D costs. See 980 F.3d at 1130. But even two awards of avoided R&D costs can differ meaningfully in their method of calculation, depending on how defendants used and profited from the stolen trade secrets. See *Syntel*, 68 F.4th at 810 ("[T]he amount of avoided costs damages recoverable must still derive from 'a comparative appraisal of all the factors in the case,' among which are 'the nature and extent of the appropriation' and 'the relative adequacy to the plaintiff of other remedies.' "), quoting Restatement (Third) of Unfair Competition § 45(2) (Am. L. Inst. 1995). These differences help determine whether a particular unjust enrichment award can be counted as harm to the plaintiff for purposes of *Gore*'s ratio analysis.

In *Epic Systems*, the avoided R&D costs were awarded based on a " 'head start' TCS gained in development and competition" that was indirectly related to product sales and hard to quantify: "a free shot—using stolen information—to determine whether it would be profitable" to improve an existing product to enter a new market. *Id.* at 1130, 1132. In *Epic Systems*, TCS put Epic's trade secrets to use primarily to create a "comparative analysis" of the two competitors' software, which it then used to try—without success—to poach one of Epic's largest clients, to enter the U.S. market, and to address key gaps in its own software. *Id* at 1131. Thus, any competitive harm to Epic was "hard to quantify" because "Epic was not deprived of the enjoyment of its software, did not lose business, and did not face any new competition." *Id.* at 1142. Consequently, it was clear that the $140 million in avoided R&D costs did not "reflect Epic's harm." *Id.* at 1143.

The opposite is true here. Hytera's avoided R&D costs of $73.6 million were not, as in *Epic Systems*, based on speculative, hard-to-quantify competitive harms where stolen information was used only to determine *whether* to improve a product or enter a new market. Hytera's theft of trade secrets included not just documentation *about* Motorola's radios but the source code itself, perhaps the most valuable part of a functional DMR radio. Before the theft, Hytera had struggled internally to develop its own DMR radio source code. After the theft, Hytera relied on the stolen code to launch a profitable line of products that it sold worldwide. The avoided R&D costs (and Hytera's reduced time to bring its products to market) in this case had a direct competitive effect on Motorola. In a case between the two largest competitors in the relevant global market, these avoided R&D costs are "no less beneficial to the recipient than a direct transfer" of $73.6 million from Motorola to Hytera. *Syntel*, 68 F.4th at 810 (cleaned up), quoting Restatement (Third) of Unfair Competition § 1 cmt. d. We have already found that Hytera's misappropriation harmed Motorola "*beyond* its actual loss of [$86.2 million] in lost profits." See *Syntel*, 68 F.4th at 810; see also *id.* at 811–112 (whether there is "compensable harm supporting an unjust enrichment award of avoided costs" depends on "the extent to which the defendant has used the secret in developing its own competing product, the extent to which the defendant's misappropriation has destroyed the secret's value for the original owner, or the extent to which the defendant can be stopped from profiting further from its misappropriation in the future.").

Given the particularly harmful nature of Hytera's misappropriation to the value of Motorola's trade secrets and the nature of the unjust enrichment award in this case, we find it appropriate to treat Hytera's avoided R&D costs as a competitive harm to Motorola. Accordingly, the economic and competitive harms to Motorola were quantifiable and large: Motorola's lost profits of $86.2 million and Hytera's avoided R&D costs of $73.6 million. Given the increased reprehensibility of Hytera's actions here and the significant, quantifiable harms to Motorola, *Epic Systems* does not control, and the punitive damages award did not violate due process.

VIII. *Permanent Injunctive Relief*

Finally, we address Motorola's cross-appeal asserting that the district court abused its discretion in denying Motorola's request for a permanent injunction on Hytera's worldwide sales of infringing products. The DTSA authorizes injunctions "to prevent any actual or threatened misappropriation." 18 U.S.C. § 1836(b)(3)(A)(i). Motorola moved in the district court for a permanent injunction enjoining Hytera from continuing to misappropriate Motorola's trade secrets and infringing its copyrights, including any further sales of any of Hytera's infringing products anywhere in the world. The district court denied that motion, opting instead to order a reasonable royalty at a rate to be determined later. *Motorola Solutions, Inc. v. Hytera Communications Corp.*, No. 1:17-cv-1973, 2020 WL 13898832, at *1 (N.D. Ill. Dec. 17, 2020).

A few months later, Motorola moved to reconsider that denial under Federal Rule of Civil Procedure 60(b), arguing that its harm could not be remedied by money damages because Hytera's actions during the intervening months showed that it was either unwilling or unable to pay an ongoing royalty. Rule 60(b) allows relief from orders for reasons including mistake, newly discovered evidence, and misconduct by an opposing party. Motorola argued that relief was justified because, when the district court had denied Motorola's request for a permanent injunction, it believed that Motorola could and would be fully compensated for the harms Motorola had already suffered and would continue to suffer as a result of Hytera's theft. Motorola argued: "Recent events in connection with Motorola's judgment enforcement efforts have now revealed that belief was incorrect." Dkt. No. 1240 at 2.

Before the district court ruled on Motorola's motion, however, Hytera filed its appeal. Motorola responded by filing a cross-appeal that included the denial of its motion for a permanent injunction. Shortly after Motorola filed its cross-appeal, the district court denied Motorola's Rule 60(b) motion for reconsideration, reasoning that Motorola's appeal of the denial of an injunction deprived the district court of jurisdiction.

[56] In its cross-appeal, Motorola argues that even if the district court lacked jurisdiction, it still should have considered the motion for reconsideration and issued an indicative ruling, citing *Boyko v. Anderson*, 185 F.3d 672, 675 (7th Cir. 1999). These are matters entrusted to a district court's sound discretion. In light of the post-judgment developments here, however, we agree with Motorola that the district court's denial of the Rule 60(b) motion for lack of jurisdiction reflected a legal error. We begin with a discussion of the procedure that should be followed by district courts confronting Rule 60(b) motions after an appeal has been docketed, including the history and effects of Federal Rule of Civil Procedure 62.1, which applies in this situation.

"The effect of pending ... appeals on the power of the trial court to grant relief under Rule 60 is not free from doubt." 11 Charles Alan Wright & Arthur R. Miller, *Federal Practice & Procedure* § 2873 (3d ed. 2024). Rule 60(b) "is silent on the question." *Id.* In past decades, some courts adopted the view the district court did here: "that the district court has no power to consider a motion under Rule 60(b) after a notice of appeal has been filed." *Id.* But this circuit adopted a "different and more satisfactory procedure," so that "during the pendency of an appeal the district court may consider a Rule 60(b) motion and if it indicates that it is inclined to grant it, application then can be made to the appellate court for a remand." *Id.*, citing *Boyko*, 185 F.3d 672. "The logical consequence" of this rule "is that the district court may deny the motion although it cannot, until there has been a remand, grant it." *Id.*; see *Boyko*, 185 F.3d at 675 ("[W]e are among the courts that hold that the judge does have the power to deny, though not to grant, a Rule 60(b) motion filed while an appeal is pending."). We spelled this out in *Brown v. United States*:

> The district court refused to consider [plaintiff's] Rule 60(b) motion, assuming that it had no jurisdiction to do so because a notice of appeal had been filed. In fact, the court did have jurisdiction to consider the motion. Parties may file motions under Rule 60(b) in the district

> court while an appeal is pending. In such circumstances, we have directed district courts to review such motions promptly, and either deny them or, if the court is inclined to grant relief, to so indicate so that we may order a speedy remand.

976 F.2d 1104, 1110–11 (7th Cir. 1992).

[57] The problem posed by Rule 60(b) motions during a pending appeal was addressed in 2009 by adoption of Rule 62.1 on indicative rulings, which adopted our practice. 11 Wright & Miller, *supra*, § 2873. When a district court faces a motion for relief it cannot grant because of a pending appeal, the court may defer or deny the motion, but it also may indicate that it would grant the motion on remand or that the motion raises a substantial issue. *In re Checking Account Overdraft Litigation*, 754 F.3d 1290, 1297 (11th Cir. 2014) (footnote omitted). The final subsection of Rule 62.1 confirms that "the district court may grant the motion only if the appellate court specifically remands for that purpose." 11 Wright & Miller, *supra*, § 2911.

[58] Rule 62.1 means that "the district judge had an option other than a summary denial of [Motorola's] Rule 60(b) motion based on the still-pending appeals." See *Ameritech Corp. v. Int'l Brotherhood of Elec. Workers, Local 21*, 543 F.3d 414, 419 (7th Cir. 2008).

> A motion to vacate a judgment pursuant to Rule 60(b) is addressed to the sound discretion of a district court .... However, a trial court may abuse its discretion by failing to exercise its discretion. Furthermore, the abuse of discretion standard implies that the judge must actually exercise his discretion. In this case, the district court's erroneous denial of jurisdiction resulted in an abuse of its discretion when it failed to exercise any discretion in not reaching the merits of the plaintiff's Rule 60(b) motion. We reverse the district court's denial of plaintiff's Rule 60(b) motion and remand for a determination of the merits of the motion.

LSLJ Partnership v. Frito-Lay, Inc., 920 F.2d 476, 479 (7th Cir. 1990) (internal quotations and alteration omitted).

Under this standard, the district court here erred by finding that it could not even consider the possibility of an indicative ruling on Motorola's Rule 60(b) motion. The motion identified recent developments that called into serious question the court's reason for denying a permanent injunction. Under these circumstances, that denial needs a fresh look. We vacate the denial of Motorola's Rule 60(b) motion and remand to the district court to consider it on the merits.

One proper procedure after Motorola's notice of appeal was filed would have been for the district court to issue an indicative ruling on the outstanding Rule 60(b) motion under Rule 62.1. Or, if the district court believed that motion presented a substantial issue that might require evidentiary hearings beyond the scope of its limited jurisdiction over Rule 60(b) motions once an appeal is pending, it could have issued an order noting the substantial issue. See *Boyko*, 185 F.3d at 675. The Advisory Committee Notes to Rule 62.1 instruct that when a Rule 60(b) motion "present[s] complex issues that require extensive litigation and that may either be mooted or be presented in a different context by decision of the issues raised on appeal," the best practice for the district court is to "state that the motion raises a substantial issue, and to state the reasons why it prefers to decide only if the court of appeals agrees that it would be useful to decide the motion before decision of the pending appeal." Fed. R. Civ. P. 62.1 advisory committee's note to 2009 amendment.

If, in considering these options, "the judge thought there was some chance that he would grant the Rule 60(b) motion, but he needed to conduct an evidentiary hearing in order to be able to make a definitive ruling on the question, he should have indicated that this was how he wanted to proceed." *Boyko*, 185 F.3d at 675. At that point, Motorola

> would then have asked us to order a limited remand to enable the judge to conduct the hearing. If after the hearing the judge decided . . . that he did want to grant the Rule 60(b) motion, he should have so indicated on the record and [Motorola] would then have asked us to remand the case to enable the judge to act on the motion and we would have done so. As we explained earlier, this would not be a limited remand but the scope of our eventual review of any appeal taken from the order entered by the district court on remand would depend on the nature of that order.

See *id.* at 675–76 (citations omitted).

[59, 60] Under Federal Rule of Appellate Procedure 12.1, the decision to remand is left to the discretion of the appellate court. "[I]t is premature to relinquish appellate jurisdiction before the district court has given any indication of its likely response to the Rule 60(b) motion." *Boyko*, 185 F.3d at 674. Here we are remanding the case for reconsideration of the copyright damages award. There is no need for a limited remand for an indicative ruling on permanent injunctive relief. However, the district court's earlier procedural error means that on remand, the court must take a fresh look at Motorola's Rule 60(b) motion for reconsideration of the denial of a permanent injunction to determine whether the new evidence of Hytera's nonpayment and other post-judgment conduct and events calls for a different result.

On remand on this issue, Motorola will be free to supplement its motion or to file a new Rule 60(b) motion including additional evidence of Hytera's litigation misconduct that has come to light since the original denial of a permanent injunction. Since that denial, Hytera has acted in ways that might well have surpassed the judge's worst-case predictions. Because we have not ruled on the merits of either Motorola's original motion for a permanent injunction or its motion for reconsideration in finishing with this case, there is no jurisdictional obstacle for the district court in reconsidering Motorola's original Rule 60(b) motion. See *Standard Oil Co. of California v. United States*, 429 U.S. 17, 18–19, 97 S.Ct. 31, 50 L.Ed.2d 21 (1976) (district court may take appropriate action without appellate court's leave on Rule 60(b) motion that would reopen a case which has been reviewed on appeal); *LSLJ Partnership*, 920 F.2d at 478–79 (same). After Judge Norgle's retirement, after a long and distinguished career, this case was assigned to Judge Pacold. We have commended her close attention to crafting appropriate temporary injunctive relief in recent proceedings in this case. See *Motorola Solutions Malaysia SDN. BHD. v. Hytera Communications Corp.*, No. 24-1531, Order, ECF No. 24 at 7 (April 16, 2024). We remain confident of the court's ability to do so with respect to permanent injunctive relief on remand.

The judgment of the district court is REVERSED IN PART with respect to the availability of copyright damages for Hytera's extraterritorial sales, Hytera's entitlement to prove apportionment of its copyright damages under a proximate-cause theory, and the denial of Motorola's Rule 60(b) motion for reconsideration of the denial of injunctive relief. The case is REMANDED for further proceedings on those issues consistent with this opinion.

In all other respects, the judgment of the district court is AFFIRMED.

UNITED STATES of America, Plaintiff-Appellee,

v.

Robert SMITH, Defendant-Appellant.

No. 23-2472

United States Court of Appeals, Seventh Circuit.

Submitted May 16, 2024

Decided July 11, 2024

Background: After defendant pleaded guilty to conspiracy to distribute methamphetamine and money laundering conspiracy but before sentencing, the United States District Court for the Southern District of Illinois, Staci M. Yandle, J., 2023 WL 4531260, denied defendant's counsel's motion to withdraw, filed at defendant's request, declined to appoint substitute counsel, and sentenced defendant to 324 months' imprisonment. Defendant appealed the denial of his request for substitute counsel and his sentence.

Holdings: The Court of Appeals, Ripple, Circuit Judge, held that:

(1) defendant's request for substitute counsel was untimely, as factor that would support the court's denial of defendant's request for substitute counsel;

(2) district court's inquiry into defendant's concerns regarding his counsel was sufficient, as factor that would support the court's denial of defendant's request for substitute counsel;

(3) defendant's relationship with his counsel had not deteriorated to the point where a total lack of communication prevented an adequate defense, as factor that would support the court's denial of defendant's request for substitute counsel; and

(4) defendant failed to rebut the presumption that his below-Guidelines sentence of 324 months' imprisonment was reasonable.

Affirmed.

1. Criminal Law ⚷1152.19(3)

Court of Appeals reviews the district court's denial of a defendant's request for substitute counsel for abuse of discretion.

2. Criminal Law ⚷1134.47(2)

In reviewing the district court's denial of a defendant's request for substitute counsel, the Court of Appeals considers such factors as the timeliness of the defendant's motion, the adequacy of the district court's inquiry into the motion, and whether the conflict resulted in a total lack of communication preventing an adequate defense.

3. Sentencing and Punishment ⚷348

Defendant's request for substitute counsel was untimely, as factor that would support the district court's denial of defendant's request for substitute counsel prior to sentencing in prosecution for conspiracy to distribute methamphetamine and money laundering conspiracy; defendant previously had obtained a good number of extensions of time with respect to his sentencing hearing and filed the request for substitute counsel on the day before his sentencing hearing and more than ten months after his guilty plea.

4. Sentencing and Punishment ⚷348

District court's inquiry into defendant's concerns regarding his counsel was one outside when mistreated by a guard, which foot would control? Rather than focusing on the location where the claim accrued, it is best to track the language of the statute. We find that Marlowe's claims relate to the conditions of his confinement regarding the manner in which he was restrained and transported to the Southwest Virginia Regional Jail. At the time these claims ⌊432 accrued he was under the care and custody of the Southwest Virginia Regional Jail—and he was in a state of confinement there. Therefore, his claims fall within the parameters of Code § 8.01-243.2. Accordingly, the statute's one-year statute of limitations applies to his claims and they are untimely.[9]

While we disagree with the circuit court's logic below, we agree with its outcome under the right for the wrong reason doctrine. *Miller & Rhoads Bldg., L.L.C. v. City of Richmond*, 292 Va. 537, 547, 790 S.E.2d 484 (2016) (where the record supports the right reason, the appellate court may reject the wrong reason, but leave the correct judgment undisturbed); *Haynes v. Haggerty*, 291 Va. 301, 305, 784 S.E.2d 293 (2016) (applying right for the wrong reason analysis). Marlowe's claims were properly dismissed.

CONCLUSION

We set aside the trial court's denial of the plea asserting that Marlowe's claims were barred under the statute of limitations set forth in Code § 8.01-243.2. Because we find that Marlowe's claims are time-barred under the governing statute of limitations, Code § 8.01-243.2, we affirm the judgment below dismissing his second amended complaint.

Affirmed.

81 Va.App. 433

PEGASYSTEMS INC.

v.

APPIAN CORPORATION

Record No. 1399-22-4

Court of Appeals of Virginia, Leesburg.

July 30, 2024

Background: Computer software company filed suit against competitor under Virginia Uniform Trade Secrets Act (VUTSA), alleging competitor misappropriated its trade secrets through information gathered from consultant it hired to provide competitive intelligence. The Fairfax Circuit Court, Richard E. Gardiner, J., entered judgment on jury verdict awarding damages against competitor in the amount of over $2 billion, plus attorney fees, costs, and interest, and denied competitor's motions to strike the evidence and to set aside the verdict, and its request for new trial or remittitur. Competitor appealed.

Holdings: The Court of Appeals, Friedman, J., held that:

(1) whether contested information constituted protected trade secret under the VUTSA was question for jury;

(2) company's expert testimony sufficiently delineated contours of trade secrets it alleged were misappropriated;

(3) jury instruction regarding unjust enrichment damages improperly relieved company of burden of proving proximate cause;

(4) trial court's error in excluding competitor's damages evidence based on interrogatory response was not harmless;

(5) competitor was entitled to opportunity to authenticate its software using dif-

9. We note that the definition of a "local correctional facility" in Code § 53.1-1 includes a "jail, jail farm or other place used for the detention or incarceration of adult offenders . . . ." We further note that the "or other place" wording does not appear in the definition of a "state correctional facility." We do not rely on this language in reaching our conclusion. This avoids the incongruous result that local jail vans may be intended, by statute, as places of confinement but state transport vans are not.

ferent laptop than one provided in discovery;

(6) error in failing to give competitor that opportunity was not harmless; and

(7) evidence of who had access to company's software, and in what numbers, was relevant to whether it was protected trade secret under VUTSA, and thus, was admissible.

Affirmed in part, reversed in part, and remanded.

1. Appeal and Error ⚷3937

On appeal from a judgment of a jury verdict, the Court of Appeals considers the evidence and all reasonable inferences fairly deducible from it in the light most favorable to the prevailing party below.

2. Trial ⚷158

When ruling on a motion to strike a plaintiff's evidence, a trial court is required to accept as true all evidence favorable to a plaintiff and any reasonable inferences that may be drawn from such evidence.

3. Appeal and Error ⚷4524
Trial ⚷158

When ruling on a motion to strike a plaintiff's evidence, the trial court is not to judge the weight and credibility of the evidence, and may not reject any inference from the evidence favorable to the plaintiff unless it would defy logic and common sense; that same standard is applicable to appellate review of the decision of the trial court granting the motion to strike.

4. Antitrust and Trade Regulation ⚷412

Purpose of Virginia Uniform Trade Secrets Act (VUTSA) is to protect the owner of a trade secret from another's misuse of that secret. Va. Code Ann. § 59.1-336 et seq.

5. Antitrust and Trade Regulation ⚷414

To state a trade secret claim under the Virginia Uniform Trade Secrets Act (VUTSA), a plaintiff must allege sufficient facts to establish (1) the existence of a trade secret, and (2) its misappropriation by the defendant. Va. Code Ann. § 59.1-336 et seq.

6. Antitrust and Trade Regulation ⚷417

The crucial characteristic of a trade secret protected by the Virginia Uniform Trade Secrets Act (VUTSA) is secrecy rather than novelty. Va. Code Ann. § 59.1-336.

7. Antitrust and Trade Regulation ⚷413

A list of contacts may have little novelty but still may be a trade secret protected by the Virginia Uniform Trade Secrets Act (VUTSA). Va. Code Ann. § 59.1-336.

8. Antitrust and Trade Regulation ⚷417

Secrecy need not be absolute for protection under the Virginia Uniform Trade Secrets Act (VUTSA); the owner of a trade secret may, without losing protection, disclose it to a licensee, an employee, or a stranger, if the disclosure is made in confidence, express or implied. Va. Code Ann. § 59.1-336.

9. Antitrust and Trade Regulation ⚷413

Depending on the facts of a particular case, software components, as parts of a computer program, may be trade secrets covered by the Virginia Uniform Trade Secrets Act (VUTSA). Va. Code Ann. § 59.1-336.

10. Antitrust and Trade Regulation ⚷417

Trade secret can exist initially under the Virginia Uniform Trade Secrets Act (VUTSA), but lose its status when process or design becomes generally known or independently derived by others over time. Va. Code Ann. § 59.1-336.

11. Antitrust and Trade Regulation ⚷419

Not every piece of information a business might wish to keep from its competitors is a trade secret under Virginia Uniform Trade Secrets Act (VUTSA); if a party seeks to avail itself of trade secret protections, it must make reasonable efforts under the circumstances to keep its information secret. Va. Code Ann. § 59.1-336.

12. Antitrust and Trade Regulation ⚷417

If a company chooses to release or publicize information, it cannot later wield a trade secret club pursuant to the Virginia Uniform Trade Secrets Act (VUTSA) against competitors who gain access to the information. Va. Code Ann. § 59.1-336.

13. Antitrust and Trade Regulation ⟹419

Generally, if an individual discloses his trade secret protected by the Virginia Uniform Trade Secrets Act (VUTSA) to others who are under no obligations to protect the confidentiality of the information his property right is extinguished. Va. Code Ann. § 59.1-336.

14. Antitrust and Trade Regulation ⟹433

Whether contested information belonging to software company was generally known or readily ascertainable, and whether company took reasonable steps to maintain the secrecy of the information, as required to establish existence of protected trade secret under Virginia Uniform Trade Secrets Act (VUTSA), were questions for jury, in company's action for misappropriation of trade secrets against competitor that hired consultant to provide competitive intelligence, where company presented considerable evidence, including expert testimony, of numerous ways it sought to safeguard its secrets and that, contrary to competitor's assertions, information was not subject to wholesale disclosure, as indicated by competitor's own access problem. Va. Code Ann. § 59.1-336.

15. Antitrust and Trade Regulation ⟹433

Whether a trade secret exists and whether certain information constitutes a trade secret under the Virginia Uniform Trade Secrets Act (VUTSA) are generally questions of fact. Va. Code Ann. § 59.1-336.

16. Antitrust and Trade Regulation ⟹428

There is no heightened particularity standard in identifying trade secrets that is not found in Virginia Uniform Trade Secrets Act (VUTSA), but the plaintiff is still required to plead and prove its case under Virginia law with enough clarity that the defendant is adequately informed of what it is defending. Va. Code Ann. § 59.1-336.

17. Antitrust and Trade Regulation ⟹432

Software company's expert testimony sufficiently delineated contours of trade secret relating to a smart services feature that it alleged competitor misappropriated, as required to support claim under Virginia Uniform Trade Secrets Act (VUTSA) against competitor that hired consultant to obtain competitive intelligence; expert testified that competitor did not have smart services feature in earlier versions of its software, that there was information available about existence of feature but information about how it worked and was used was not publicly available, that competitor focused on feature in its sessions with consultant, that competitor added similar feature to its own platform, which greatly enhanced competitor's product, and that competitor touted new feature as reason for customers to purchase latest version of its software. Va. Code Ann. § 59.1-336.

18. Antitrust and Trade Regulation ⟹432

Software company's expert testimony sufficiently delineated contours of trade secret relating to custom data types that it alleged competitor misappropriated, as required to support claim under Virginia Uniform Trade Secrets Act (VUTSA) against competitor that hired consultant to obtain competitive intelligence; expert testified that competitor had different mechanism that was difficult for developers to understand, that competitor made improvements to platform by adding custom data types that mimicked software company's feature, that changes significantly simplified and accelerated data modeling process in competitor's platform, and that competitor highlighted its new feature in its marking materials as one that would make it easier and faster for developers to know how to use the data and make modifications. Va. Code Ann. § 59.1-336.

19. Antitrust and Trade Regulation ⟹432

Software company's expert testimony sufficiently delineated contours of trade secret relating to ease-of-editing feature that it alleged competitor misappropriated, as required to support claim under Virginia Uniform Trade Secrets Act (VUTSA) against competitor that hired consultant to obtain competitive intelligence; expert testified that competitor's editing process did not have equivalent, that competitor's changes to its editing features were result of consultant's demonstrations of company's platform for competitor's project management team, and that changes were significant because they enabled competitor's platform to be used by a much broader constituency of users and allowed less technical people to accomplish far more. Va. Code Ann. § 59.1-336.

20. Antitrust and Trade Regulation ⟹432

Software company's expert testimony sufficiently delineated contours of trade secret relating to "out-of-the-box" mobile capabilities that it alleged competitor misappropriated, as required to support claim under Virginia Uniform Trade Secrets Act (VUTSA) against competitor that hired consultant to obtain competitive intelligence; expert testified that competitor had very basic capability that was not out of the box and suggested that competitor was floundering in that arena while company was already providing ability to take applications and deliver them to mobile devices and desktops, that competitor added out-of-the-box ability to deploy applications to mobile devices in new version of software, and that improvement increased developer efficiency and eliminated need for separate versions of applications. Va. Code Ann. § 59.1-336.

21. Antitrust and Trade Regulation ⟹432

Software company's expert testimony sufficiently delineated contours of trade secret relating to "out-of-the-box" feature that allowed for better social interaction among users working on a project that it alleged competitor misappropriated, as required to support claim under Virginia Uniform Trade Secrets Act (VUTSA) against competitor that hired consultant to obtain competitive intelligence; expert testified that, prior to meeting with consultant, competitor did not have comparable feature, that competitor made improvement after consultant conducted training videos on social interactions among users, and that competitor listed its new social capabilities as a new and improved feature that enhanced the value of its applications and gave users the tools to chat easily with colleagues and incorporate external social-media conversations. Va. Code Ann. § 59.1-336.

22. Antitrust and Trade Regulation ⟹432

Software company presented sufficient evidence delineating contours of trade of secret relating to serious weaknesses in its own platform that could be exploited, which it alleged competitor misappropriated, as required to support claim under Virginia Uniform Trade Secrets Act (VUTSA) against competitor that hired consultant to obtain competitive intelligence; company presented evidence that consultant gave competitor documents related to disaster recovery configurations containing descriptions of software, mobile and social configurations, and user manual, and that competitor initiated a program dubbed "Project Crush" in which it analyzed company's strengths and weaknesses, and created and updated marketing materials attacking company based on those vulnerabilities. Va. Code Ann. § 59.1-336.

23. Appeal and Error ⟹3348

Sole purpose of appellate review of jury instructions is to see that the law has been clearly stated and that the instructions cover all issues which the evidence fairly raises.

24. Appeal and Error ⟹3348

Court of Appeals reviews a trial court's decisions in giving and denying requested jury instructions for abuse of discretion.

25. Appeal and Error ⟹3348

Whether a proffered jury instruction accurately states the law is reviewed de novo.

26. Appeal and Error ⟹3363

Questions relating to burden of proof, including the standard of proof and which party bears the burden to meet it, are questions of law reviewed de novo.

27. Unjust Enrichment and Constructive Contracts ⟹12

Remedies based on unjust enrichment require a defendant to disgorge its gain resulting from a wrong.

28. Antitrust and Trade Regulation ⟹434

Jury instruction regarding damages grounded in unjust enrichment, which instructed jury to apply a burden-shifting approach under which, upon software company proving competitor misappropriated trade secrets pursuant to Virginia Uniform Trade Secrets Act (VUTSA), company's only further burden was to establish competitor's sales, with burden then shifting to competitor to prove what portion of sales were not attributable to trade secrets, improperly relieved software company of its burden of proving that misappropriation proximately caused competitor to win any sale, and to prove its damages and their cause with reasonable certainty; result of instruction was presumption that company's trade secrets were but-for cause of all of competitor's sales, including product lines that did not use any information associated with the claimed trade secrets. Va. Code Ann. § 59.1-338(A).

29. Appeal and Error ⚷3173

Statutes ⚷1080, 1111, 1405

Statutory interpretation is a question of law which the Court of Appeals reviews de novo, and it determines the legislative intent from the words used in the statute, applying the plain meaning of the words unless they are ambiguous or would lead to an absurd result.

30. Antitrust and Trade Regulation ⚷431

Virginia Uniform Trade Secrets Act (VUTSA) places the burden of proving unjust enrichment damages caused by misappropriation on the complainant. Va. Code Ann. § 59.1-338(A).

31. Statutes ⚷1139, 1225

Where a legislative body deviates from a model, uniform act to add language, the court effectuates this deliberate and intentional choice.

32. Damages ⚷184

Virginia law generally places the burden on plaintiffs in any case to prove with reasonable certainty the amount of their damages and the cause from which they resulted.

33. Antitrust and Trade Regulation ⚷437

Negligence ⚷379, 384

Establishing proximate cause requires a plaintiff to prove that defendant's unlawful conduct produced the damages in a natural and continuous sequence and that it was a but-for cause without which that event would not have occurred; this requirement also applies in the trade secret arena under the Virginia Uniform Trade Secrets Act (VUTSA). Va. Code Ann. § 59.1-338(A).

34. Damages ⚷18, 184

A plaintiff must establish both a causal connection between defendant's wrongful conduct and the damages claimed, and prove the amount of damages with reasonable certainty using a proper method and factual foundation for calculating such damages.

35. Trial ⚷213, 242

No instruction should be given that incorrectly states the applicable law or which would be confusing or misleading to the jury.

36. Antitrust and Trade Regulation ⚷431

Under Virginia Uniform Trade Secrets Act, proponent must bear burden of proving trade secret claim, including as to damages; this burden does not shift, even when plaintiff has presented prima facie case. Va. Code Ann. §§ 59.1-336, 59.1-338(A).

37. Antitrust and Trade Regulation ⚷431, 434

Even if burden-shifting framework in Restatement (Third) of Unfair Competition, which provided that after plaintiff established sales causation, burden shifted to defendant to isolate unjust gains from just gains, had not been rejected under Virginia law, jury instruction regarding damages grounded in unjust enrichment, which instructed jury to apply a burden-shifting approach under which, upon software company proving that competitor misappropriated trade secrets under Virginia Uniform Trade Secrets Act (VUTSA), company's only further burden was to establish competitor's sales, with burden then shifting to competitor to prove what portion of sales were not attributable to trade secrets, improperly relieved company of its burden of proving proximate cause under Restatement; nothing in Restatement relieved company of its obligation to prove causation in the first instance. Restatement (Third) of Unfair Competition § 45.

38. Antitrust and Trade Regulation ⚷434
New Trial ⚷41(3)

Trial court's instructional error, in failing to instruct jury that software company had burden of proving proximate cause between misappropriation of trade secrets and unjust enrichment damages under the Virginia Uniform Trade Secrets Act (VUTSA), was reversible error, warranting new trial, in action by company against competitor that hired consultant to provide competitive intelligence in which jury awarded over $2 billion in damages.

39. Pretrial Procedure ⚷224

Competitor's response to software company's interrogatory seeking information regarding revenues broken out by version of software, which disclaimed any records based on version of the product sold, was appropriate discovery response, and was not disavowal that provided basis for excluding evidence as to competitor's revenue derived from products not in competition with company's software, as relevant to unjust enrichment damages and causation under Virginia Uniform Trade Secrets Act (VUTSA); interrogatory asked about "versions" of specific product and not products or lines of business, reporting that company did not track revenue by software versions was not tantamount to saying it sold no other products or that it did not track revenue by product or lines of business, company could have sought clarification, and there was no ambush or surprise, as breakdowns of other product lines were provided in discovery. Va. Code Ann. § 59.1-338(A); Va. Sup. Ct. R. 4:12.

40. Trial ⚷55

A trial court has the authority to exclude evidence when, for example, a party makes a blunt disavowal in discovery of overcharge damages and then shows up at trial seeking to prove such damages.

41. Appeal and Error ⚷3361
Trial ⚷43

While a trial court wields considerable discretion in deciding evidentiary matters, discretion does not mean that the trial court may do whatever pleases it; the phrase "abuse of discretion" means instead that the court has a range of choice, and that its decision will not be disturbed as long as it stays within that range and is not influenced by any mistake of law.

42. Courts ⚷26(3)

An "abuse of discretion" can occur in three principal ways: when a relevant factor that should have been given significant weight is not considered; when an irrelevant or improper factor is considered and given significant weight; and when all proper factors, and no improper ones, are considered, but the court, in weighing those factors, commits a clear error of judgment.

See publication Words and Phrases for other judicial constructions and definitions.

43. Pretrial Procedure ⚷312

Even if evidence that competitor derived significant revenue from other products not in competition with company's software was excluded as discovery sanction for competitor's response to interrogatory seeking information regarding revenues broken out by version of software that disclaimed any records based on version of the product sold, sanction of excluding competitor's evidence of hundreds of millions of dollars in damages based on strained reading of discovery response as disclaiming records relating to products or other lines of business was disproportional to any offense in responding to interrogatory, and thus not warranted, in action under Virginia Uniform Trade Secrets Act (VUTSA). Va. Code Ann. § 59.1-338(A); Va. Sup. Ct. R. 4:12.

44. Pretrial Procedure ⚷44.1

Analysis as to whether to impose sanction for discovery violation must encompass some notion of proportionality. Va. Sup. Ct. R. 4:12.

45. Appeal and Error ⚷4270
Pretrial Procedure ⚷312

Trial court's error in excluding competitor's damages evidence as to products not in competition with company's software based on skewed reading of interrogatory response was not harmless error, in trial for misappropriation of trade secrets by software company under Virginia Uniform Trade Secrets Act (VUTSA), particularly given burden-shifting instruction on damages that improperly shifted burden to competitor to disprove unjust enrichment damages and away from company to prove proximate cause, and ultimate damages award in excess of $2 billion; exclusion of damages evidence, in tandem with instruction's emphasis on competitor's total sales, exponentially increased likelihood of runaway damages verdict that had no correlation to proximate cause. Va. Code Ann. § 59.1-338(A).

46. Appeal and Error ⚷3366

Generally, the Court of Appeals reviews a trial court's decision to admit or exclude evidence using an abuse of discretion standard and, on appeal, will not disturb a trial court's decision to admit evidence absent a finding of abuse of that discretion.

47. Evidence ⚷844

The proponent of the evidence bears the burden of establishing by a preponderance of the evidence the facts necessary to support its admissibility.

48. Evidence ⚷1462

In general, electronic documents or records that are merely stored in a computer raise no computer-specific authentication issues; if a computer processes data rather than merely storing it, authentication issues may arise. Va. Sup. Ct. R. 2:901.

49. Evidence ⚷1462

When a computer is used to create a data compilation, how much information will be required about data input and processing to authenticate the output will depend on the nature and completeness of the data, the complexity of the manipulation, and the routineness of the operation. Va. Sup. Ct. R. 2:901.

50. Evidence ⚷1462

A computer decodes electronic records, converts them into a format understood by users and either prints them or displays them on a terminal, and a person who can verify that the business records are authentic can present the evidence by testifying about what he saw displayed or by presenting a printed copy of the display. Va. Sup. Ct. R. 2:901.

51. Evidence ⚷1462

Competitor was entitled to opportunity to authenticate its software using different laptop than one it provided in discovery, so as to support admissibility of software, in trial for misappropriation of trade secrets by software company under Virginia Uniform Trade Secrets Act (VUTSA); evidence at issue was software and not method by which evidence was transmitted in discovery, company's discovery request sought software, and it never lodged any pretrial objection to what it received, competitor was prepared to authenticate its software, company's expert had already displayed competitor's software on different medium earlier in trial, there was no specific claim of tampering or corruption, and company could still challenge software if it had plausible basis for doing so. Va. Code Ann. § 59.1-336; Va. Sup. Ct. R. 2:901.

52. Courts ⚷26(3)

A court abuses its discretion when it believes that the law requires something that it does not.

53. Appeal and Error ⚷4376

Evidence ⚷1462

Trial court's evidentiary error, in failing to give competitor opportunity to authenticate its software on laptop different than one it provided in discovery, was not harmless, in trial on claim for misappropriation of trade secrets brought by software company under Virginia Uniform Trade Secrets Act (VUTSA), though company asserted that competitor's witnesses were permitted to argue that they did not copy company's software; error significantly hampered competitor's liability defense that features it was accused of copying either predated consultant it hired to provide competitive intelligence, worked differently, or both, particularly given company's expert testimony that opined liberally that many things competitor saw on company's system were copied on grand scale, and company's closing argument that repeatedly attacked competitor for its lack of software evidence. Va. Code Ann. § 59.1-336; Va. Sup. Ct. R. 2:901.

54. Appeal and Error ⚷3141, 3143

In evaluating whether a trial court abused its discretion, the Court of Appeals does not substitute its judgment for that of the trial court; instead, it considers whether the record fairly supports the trial court's action.

55. Evidence ⚷864

Evidence is "relevant" if it has any logical tendency to prove an issue in a case, and relevant evidence may be excluded only if the prejudicial effect of the evidence outweighs its probative value. Va. Sup. Ct. R. 2:401, 2:403.

See publication Words and Phrases for other judicial constructions and definitions.

56. Antitrust and Trade Regulation ⚷430

Evidence of who was given access to company's software, and in what numbers, was relevant to whether information was protected trade secret under Virginia Uniform Trade Secrets Act (VUTSA), and thus was admissible in trial by company against competitor that hired consultant to provide competitive intelligence; adequacy of company's confidentiality measures was hotly disputed, particularly given evidence that thousands of free trial users and prospective customers had access to review secrets and company did not keep track of how many of a certain type of service-provider agreement it had issued. Va. Code Ann. § 59.1-336; Va. Sup. Ct. R. 2:401.

57. Antitrust and Trade Regulation ⚷417, 419

Number of people who can see a secret is not dispositive of whether information is protected or generally known, so as to be a trade secret protected from misappropriation under the Virginia Uniform Trade Secrets Act (VUTSA), especially where information is zealously shielded; for example, millions of people can enjoy a restaurant chain's fried chicken, but the recipe, if closely guarded, can still be a trade secret. Va. Code Ann. § 59.1-336.

58. Antitrust and Trade Regulation ⚷413

Fact that some or all of the components of a trade secret are well-known does not preclude protection for a secret combination, compilation, or integration of the individual elements under the Virginia Uniform Trade Secrets Act (VUTSA); hence, even if all of the information is publicly available, a unique combination of that information, which adds value to the information, also may qualify as a trade secret. Va. Code Ann. § 59.1-336.

59. Antitrust and Trade Regulation ⚷430

While number of people with access to information is not, in isolation, determinative of information's trade secret status under the Virginia Uniform Trade Secrets Act (VUTSA), such evidence is hardly irrelevant; to the contrary, who is given access to such information, and in what numbers, are among most important factors in assessing both whether information was generally available and reasonableness of efforts to maintain its secrecy. Va. Code Ann. § 59.1-336.

FROM THE CIRCUIT COURT OF FAIRFAX COUNTY, Richard E. Gardiner, Judge

E. Joshua Rosenkranz (Christopher J. Cariello; Eric A. Shumsky; Jeremy Peterman; James A. Flynn; Jonas Wang; Monica T. Monday; Michael J. Finney; Orrick, Herrington & Sutcliffe LLP; Gentry Locke, on briefs), for appellant.

Adeel A. Mangi (Jeffrey S. Ginsberg; Muhammad U. Faridi; Clinton W. Morrison; Robert W. Loftin, Richmond; Jonathan Y. Ellis; Ellen D. Marcus; Sheila M. Costin; Patterson Belknap Webb & Tyler LLP; McGuireWoods LLP; Holmes Costin & Marcus PLLC, on brief), for appellee.

Amicus Curiae: Northern Virginia Chamber of Commerce (Vernon E. Inge, Jr., Richmond; Michael H. Brady, Richmond; Whiteford, Taylor & Preston L.L.P., on brief), for appellee.

Amicus Curiae: Professor Harvey S. Perlman (Juli M. Porto, Fairfax; Blankingship & Keith, P.C., on brief), for appellee.

Amicus Curiae: The American Intellectual Property Law Association (Richard T. Matthews, Norfolk; Williams Mullen, P.C., on brief), for neither party.

Amici Curiae: Professors Mark Gergen and Pamela Samuelson (William M. Jay, Washington, D.C.; Rohiniyurie Tashima, Washington, D.C.; Goodwin Procter LLP, on brief), for neither party.

Present: Judges Beales, Friedman and Callins

OPINION BY JUDGE FRANK K. FRIEDMAN

448This case raises questions about trade secrets, corporate espionage, and the proper measure of unjust enrichment damages for such offenses under the Virginia Uniform Trade Secrets Act (VUTSA). The trial below resulted in the largest damages verdict in the history of the Commonwealth of Virginia—an award of over two billion dollars. A jury found Pegasystems, Inc. (Pega) used improper means to misappropriate trade secrets from Appian Corporation (Appian). On appeal, Pega asks this Court to reverse the jury verdict and enter judgment for Pega because it contends, as a matter of law, 449there was insufficient evidence that Pega misappropriated any trade secrets. In the alternative, Pega seeks a new trial, arguing the trial court erred in excluding certain evidence and in granting flawed jury instructions (particularly with respect to proximate cause). We reject Pega's claim that it is entitled to judgment as a matter of law; however, we find that the trial court committed a series of errors that require us to reverse the judgment as to Appian's trade secret claims.

BACKGROUND [1]

I. The Business Process Management Industry

[1] This controversy involves companies engaged in the business process management (BPM) industry. Appian and Pega are competitors and "industry leaders" in the BPM field. Both companies offer platforms that enable third party business customers to build complex software applications using "low-code application development platforms." These customers purchase the BPM platform to generate programs or applications (apps) that automate processes, such as fulfilling orders or opening new customer accounts. A BPM customer might use its own employees to design a project or it might hire outside "developers" to do so.

At trial, Pega portrayed itself as having expertise in platforms catering to big, complex, and sophisticated problems with many permutations for "very large ... companies." Pega's platform put a premium on "scalability"—the ability to quickly and reliably create, customize, and modify apps used by large numbers of users. Thus, Pega suggested its BPM product was particularly useful for complex undertakings. Appian painted Pega's product as overly complex, difficult to 450grasp, hyper-technical, and clunky. By contrast, Appian's BPM product focused on ease-of-use, speed, and simplicity.

The gist of this dispute is that Appian contends that Pega misappropriated its trade secrets to copy and steal Appian's user-friendly features to enhance Pega's appeal with a broader base of potential customers. Appian further asserts that in the course of stealing its secrets, Pega illicitly obtained trade secrets regarding weaknesses in Appian's BPM platform and Pega used this ill-gotten knowledge for its own advantage.

II. Pega Studies Appian's Product

Pega acknowledges that "[l]ike most companies in a competitive market, ... Pega stays abreast of its competitors." Appellant's Br. at 8. The trade secret claims in this case primarily arose from activities that Pega's then-head of competitive intelligence, John Petronio, managed from 2012 to 2014. Pega's goal was to examine how Appian's BPM platform performed from the perspective of a developer creating apps. In so doing, Pega hoped to improve its own platform and to learn of Appian's weaknesses to better market its own platform. Pega did not have access to Appian's platform because, as Appian witnesses confirmed, Appian "never made [its] software publicly available without license terms." Appian's software, including its "internal workings," remained a mystery to Pega. Internally, Pega acknowledged that Appian was "guarded" with respect to its "technology."

1. On appeal from a judgment of a jury verdict, "[w]e consider the evidence and all reasonable inferences fairly deducible from it in the light most favorable to the prevailing party below." *MCR Fed., LLC v. JB&A, Inc.*, 294 Va. 446, 457, 808 S.E.2d 186 (2017) (quoting *Government Emps. Ins. Co. v. United Servs. Auto. Ass'n*, 281 Va. 647, 655, 708 S.E.2d 877 (2011)).

A. Pega Hires a Consultant, Zou, to Gain Access to Appian's Platform

Through a staffing agency, Petronio sought a source to demonstrate how developers used Appian's platform. In seeking out a consultant, Petronio informed the recruitment company that, "[a]cess to the Appian BPM tool is a must" and "make sure they aren't 'loyal' to Appian because [Pega] doesn't want it getting back to Appian that Pega is doing this work." This search culminated in Pega hiring Youyong Zou to provide consulting services for Pega about Appian's BPM platform. Zou's consulting work for Pega was a side-job; he ⌊451worked for Serco, a company that implemented government contracts. Zou had access to Appian's platform through his employment with Serco, which licensed Appian's platform.

As part of his consulting services, Zou provided presentations to Pega in which he demonstrated Appian's platform, illustrating strengths and weaknesses. Petronio described Zou as Pega's "spy." Appian characterized Zou as Pega's "Trojan horse." Pega took measures to hide Zou's identity by giving him an alias and blurring his username on screenshots. Over a two-and-a-half-year period, Zou spent approximately 200 hours consulting for Pega and received $23,608 in compensation.

Pega's executives observed some of Zou's demonstrations, which were recorded for training purposes. Pega recorded nearly 100 videos of Zou using Appian's platform, in which Zou would explain strengths and weaknesses of various features on Appian's BPM system. *See, e.g.*, Pl. Ex. 853-910 (training videos). Zou also demonstrated building apps with Appian's software. At trial, Appian established Pega's widespread use of Zou's tutorials. Several of the videos "cascaded" through Pega's product management team. Zou even came to Pega's Massachusetts headquarters for an all-day meeting with Pega's senior leadership. Pega's engineers participated in meetings with Zou, including Kerim Akgonul, Pega's Head of Product Management—the group responsible for making improvements to Pega's platform. Petronio encouraged Akgonul to meet with Zou to "see something in [t]here that [Akgonul] might like for our product." Pl. Ex. 853 at 01:00-01:15. Appian's expert opined that following Zou's demonstrations, Pega made changes to its platform that had "striking similarities" to Appian's product. Moreover, Pega used the information gathered by Zou to improve its own platform and also to identify and attack Appian's weaknesses.

B. Pega Employees Access Appian's Platform Independent of Zou's Efforts

After Zou stopped consulting for Pega, Pega continued its attempts to access Appian's trade secrets via improper means. ⌊452For example, in 2017, three years after Zou stopped consulting for Pega, Pega employees accessed Appian's platform using aliases to discreetly view Appian's free trials.

III. Appian Learns of Pega's "Research" and Files this Action

In 2015, Petronio and Pega parted ways. Appian hired Petronio the following year as a consultant. He later became Appian's Senior Director of Market Intelligence and Strategy. Eventually, in 2020, Petronio informed Appian about Zou and his consulting work on behalf of Pega. Appian responded by suing Pega and Zou.

Appian brought claims against Pega under the Virginia Uniform Trade Secrets Act, Code § 59.1-336 et seq., based on Pega's alleged misappropriation of trade secrets through its dealings with Zou, and under the Virginia Computer Crimes Act, Code § 18.2-152.1, et seq., relating to Pega's efforts to obtain improper access to Appian materials.

IV. What Secrets Did Pega Allegedly Receive?

The trade secrets that Appian contends were misappropriated by Pega basically fell into three categories: (1) functions of Appian's platform that Appian accused Pega of copying; (2) knowledge relating to weaknesses of Appian's platform which Pega used to its own advantage; and (3) access to Appian's confidential documentation such as its user manual which assisted Pega in copying Appian's strengths and exploiting its weaknesses.

A. The Copied Functions that Improved Pega's Platform

Appian identified five functions related to "the architecture and design underlying specific features of Appian's platform" that Pega copied to improve its platform based on Zou's demonstrations. Appellee's Br. at 8. Dr. Marshall, Appian's expert witness, provided extensive testimony over the course of multiple days. He testified that it appeared Pega made improvements to its platform based on trade secrets it ob|453tained from Appian. Marshall testified that Pega misappropriated the following features of Appian's platform, which constituted trade secrets: (1) Smart Services, (2) Custom Data Types, (3) Ease-of-Editing Functionality, (4) Out-of-the-Box Ability to Deploy Applications to Mobile, and (5) Out-of-the-Box Integrated Social View of Worklist and Tasks. These features can be briefly summarized as follows:

1. smart services: this tool enables a developer to implement a function by dragging and dropping an icon into an app;
2. custom data types: these features allow a developer to group related pieces of data together;
3. an edit button: this tool lets a developer toggle between testing an application and editing it;
4. out-of-the-box mobile: this feature permits apps to run on both a desktop and mobile device without additional configuration;
5. out-of-the box social: this provides a pre-programmed user interface that displays work lists and tasks in a social feed permitting easy communication among teams.

Pega countered that none of these features were unique to Appian, that it was commonplace for businesses to study competitors' products, and that its own software did not utilize any of Appian's innovations.

B. Pega Gains Access to Appian Documentation and Insights into Weaknesses in Appian's Platform

Zou's presentations suggested that Appian struggled with "scalability"—the ability to handle large, complex projects. Pega's head of sales concluded that Appian's "weaknesses are glaring and big." Pega's product manager for social features was "not impressed" with Appian's social features, while noting its marketing was "impress[ive]." Pega also identified significant weaknesses in Appian's mobile capabilities. Upon learning about the "internal workings" of Appian's platform from Zou, Petronio announced, "we should never lose to |454Appian." Prior to Zou's work for Pega, Pega's marketing materials had addressed various Appian weaknesses. However, Pega updated and bolstered these materials to reflect its competitor's shortcomings based on information Zou provided.

Appian asserted Pega's knowledge of these platform foibles constituted additional trade secrets related to the "sensitive structural limitations of Appian's platform previously unknown to Pega[.]" Appellee's Br. at 14. Most of the purported secrets were Appian product deficiencies that Appian did not want potential customers to consider when making purchasing decisions.[2] Appian ultimately categorized these "weakness" trade secrets as problems involving:

1. Concurrent Development and Locking of Process Model
2. Specific Reporting Tools and Chart Types Available
3. Web Services Returned Only the Process ID
4. Specifics on Unified Management Tools Available
5. Star Schema/Reporting on External Data
6. Configuration and Customization of Checkpointing
7. Topology Specifics, Including Information from Experimentation

2. At the same time, similar information was available through reviews, internet videos, and basic customer observation and comparison. Relatedly, when asked whether Appian's business partner, Serco, was required to have prospective customers sign non-disclosure agreements after receiving demonstrations, Appian's witness Dr. Cole stated, "I don't believe they do, but they do have restrictions," including "careful[ ] supervis[ion]."

This is *verbatim* how Appian described the weaknesses to the jury in closing argument.

Finally, Appian asserted that, through Zou, Pega obtained Appian's documentation which included private information that enabled Pega to further exploit its knowledge of Appian's platform. For example, Zou gave Pega confidential portions of Appian materials, including a document entitled "High Availability and Disaster Recovery Configurations." This document contained descriptions of Appian's software. Zou also provided ⌊455Pega documentation related to Appian's mobile and social capabilities. Zou further accessed Appian's user manual through Appian Forum and provided this information to Pega. With respect to Appian's "weaknesses," Pega used the information it gained from Appian's documents to create marketing materials that attacked Appian.

V. How Secret was the Information Pega Obtained?

Appian contended that the information Pega received was "confidential" and closely guarded. Appian's evidence demonstrated that many features of its BPM platform were protected from widespread public consumption. For example, Appian stored its software and related documentation on Appian Forum, a password protected website accessible by authorized users including Appian employees and business partners. To access Appian Forum, a prospective user had to comply with Appian's terms of use, which incorporated individual license agreements that contained some confidentiality provisions. As one witness explained, Appian "never made [its] software publicly available without license terms."

Appian asserted that any third-party companies or partners accessing its software and documentation "had licensing agreements in place" and "any individuals that were accessing . . . Appian Forum" had to agree to the "terms of use." Appian's "terms of use" on its Forum stated, in part, as follows:

> **Use of Software**
>
> You may access and download certain software . . . . Any Software You download or access through the Site is the copyrighted work of Appian . . . . Use of the Software is subject to the terms of the . . . software license agreement between You and Appian which governs Your use of the Software and which triggered Your receipt of a username and password to access the Site. To the extent you do not have a . . . license agreement with Appian for the Software, you are prohibited from downloading, accessing or using the Software without Appian's express prior written consent.

⌊456At the same time, Appian was involved in sales—and it encouraged its sales representatives to share information about its platform. It urged these representatives or "resellers"—who worked on commission—to demonstrate the platform to potential buyers without significant restrictions.[3] Appian did not limit "the number of people who could be shown the documentation" or view demonstrations provided by its resellers.

Appian also granted latitude in its agreements with its business partners, authorizing them to "market, promote and demonstrate the Appian software to prospective customers." Business Partner Agreement at §§ 1.1, 2.2.1; *see also* Value-Added Service Provider Agreement. Serco was just one of many of Appian's business partners. The Business Partner Agreement provides the business partner "with a nonexclusive, nontransferable license to use, copy and display Appian's published marketing materials associated with the Appian Software, and to incorporate the Marketing Materials into Business Partner's promotional and marketing literature . . . ." In addition to granting business partners the ability to demonstrate Appian's software for prospective customers, with certain

3. Appian delegated discretion to these resellers to demonstrate features of its platform and to display documentation to prospective customers. It permitted resellers to decide what was reasonable to disclose, while actively encouraging resellers to promote the benefits of the product. Appian diminishes the breadth of this discretion by retaining the right to enforce disclosure restrictions. Appian confirmed it had no way of tracking usage of its software by its business partners: "We had no automated mechanism for introspecting and auditing installations . . . by companies like Serco." Appian further acknowledged it gave discretion to its partners to decide who could have access to Appian's software.

limitations, the agreement provides that a business partner can "[e]nhance, modify and/or combine the Appian software with other software or code to develop prototypes to be demonstrated to prospective customers." The business partner agreement contained a confidentiality provision, but it did not mention any trade secrets. *See* Business Partner Agreement at § 6.1 (listing software as confidential).

⌊457 Potential customers, who received demos from Appian partners like Serco, could share descriptions, screenshots, and videos of the demos. Further, potential customers, who received demos from Appian's business partners, were not required to sign non-disclosure agreements. Similarly, Appian offered free trials to prospective buyers. These prospective buyers were not required to sign restrictive non-disclosure agreements either (but were subject to "click-through" terms of service). Nonetheless, Appian asserted that it could impose careful supervision over prospective customers and business partners.

VI. Serco's Restrictions on Zou

Notably, Zou was not an Appian employee; he was employed by Serco, a government contractor. Zou had access to Appian's platform and user manuals through his work at Serco, which was a business partner of Appian's. Zou did not have access to Appian's source code. In 2012, Zou, as a condition of employment with Serco, signed an "Employee Proprietary and Confidential Information Agreement." As part of his contract with Serco, Zou was precluded from sharing confidential information that he learned through his work. Appian claimed "all [its] developers" were governed by "[s]imilar agreements" as Zou's.[4] Appellee's Br. at 6.

⌊458 VII. Disputed Rulings at Trial

A. The Trial Court Grants Appian's Motion *in Limine* Excluding Evidence of the Number of People with Access to its Software as "Irrelevant"

Appian filed a motion *in limine* to exclude evidence of the number of people with access to its software. Appian argued, and the trial court ruled, that the number of people with access to Appian's trade secrets was "not relevant at all" to the question of whether the software was sufficiently protected to be a trade secret. The court gave the jury a specific instruction that provided, "[t]he numbers of users of the Appian Platform and Appian Forum licenses are not relevant to any issue in this case, and any evidence as to those numbers should be disregarded." In explaining its decision, the trial court stated, "Pegasystems cannot offer mere numbers as a way of showing that the trade secret—that these are not Appian's trade secrets .... Pegasystems can certainly put on evidence concerning the security that Appian attached to its licensees and require of its licensees ... but it cannot just offer sheer numbers as a way to show that Appian was not maintaining the secrecy of its alleged trade secrets."

After the trial court granted Appian's motion *in limine* prohibiting evidence of the number of people with access to its platform, Pega proffered the following evidence, which it argued was relevant to whether Appian took reasonable measures to protect its trade secrets and whether the trade secrets were generally known:

4. The question of whether Zou's agreement to protect Serco's confidential information extends to Appian is a point debated by the parties. Zou's confidentiality agreement with Serco included the following provisions related to confidentiality:

- "'Confidential Information' means any and all information disclosed or made available to the Employee or known by the Employee as a direct or indirect consequence of or through his or her employment by Serco and not generally known in the industry in which Serco is or may become engaged during the course of Employee's employment, and which is non-public information of commercial value to Serco, and/or any information related to Serco's business, employees, customers, products, processes ... and trade secrets."
- "Employee agrees not to use or disclose to anyone or any entity, other than as necessary and appropriate in further of Serco's business activities, any Confidential Information, either during or after employment by Serco."
- "Employee agrees that all Confidential Information used or generated by him or her in connection with employment for Serco is the sole property of Serco."

- From 2012 through 2016, over 12,500 individuals were granted access to Appian Forum.
- Appian did not track the number of "value added service providers" it had.[5]
- ⌊459Over 44,000 people had access to Appian Forum between 2012 and 2021.
- Appian entertained 12,000 free-trial recipients between 2017 and 2021.

B. The Trial Court Prevented Pega From Demonstrating its Software to the Jury to Show that it Had Not Stolen Disputed Features of Appian's Platform

Before trial, Pega timely disclosed, in an exhibit list, that it intended to introduce versions of its software as evidence, including versions 6.3 and 7.1. Per the exhibit list, Pega stated that it would present its software evidence on a "Pega Laptop" that it described as a "physical object." During discovery, Pega provided Appian with a laptop containing its software for Appian to review. Notably, despite numerous objections to the exhibit list generally, Appian did not object to Pega's exhibit list entries providing that it intended to present its software evidence to the jury. In fact, during the trial, Appian itself presented evidence of Pega's BPM platform software on a different computer than that used in discovery.

At trial, Pega sought to present its software to illustrate that many of the features Appian claimed Pega had "stolen" pre-existed Pega's contact with Zou or were developed wholly independently of his demonstrations. However, when Pega sought to introduce this software evidence at trial, on a computer that was not the same laptop on which it had transmitted a copy of the software during discovery, Appian objected because the evidence was on a different computer than used in discovery. Pega explained that the original laptop, which transported the software for discovery purposes, ⌊460was simply a medium for transferring its evidence to Appian. The original, transport laptop was now inoperable and could not run the software at trial; thus, Pega argued it should be allowed to present its software evidence via another medium such as a different laptop so long as it could authenticate the software. Appian had already introduced the software on a different laptop during its case in chief. Yet Appian argued that Pega's evidence was inadmissible unless Pega used the exact same laptop on which it transmitted a copy of the software to Appian during discovery. The trial court agreed.

The trial court suggested that using a different computer might raise doubts about the software's authenticity, calling for "a trial within a trial to authenticate." Pega was prepared to authenticate the software through Stephen Bixby—the person who led development of the software at Pega. Bixby would have testified that the software introduced at trial was "the exact same thing" Pega produced to Appian during discovery. The trial court, however, refused to permit Pega to attempt to authenticate the software:

> The fact that this upcoming witness may be able to authenticate what's on there, we're not doing that. We're not having a trial within a trial to authenticate that. That's something that should have been dealt with pre-trial during discovery.
>
> I'm not going to—this is essentially what you're asking me to do is to conduct a discovery proceeding here to determine whether the information on the software is the same as other software, and I'm simply not going to do that. That should have been done during discovery pre-trial.

The court permitted Pega witnesses to testify that various features were not copied from Appian. However, the jury was not allowed to view Pega's software evidence.

5. The Value Added Service Provider Agreement enabled companies (or service providers) to "provide value-added intellectual property on top of the Appian platform." The agreement allowed service providers to "market, promote and demonstrate" Appian's software to "prospective End Users[.]" *See* Value Added Service Agreement at § 2.2.1. The agreement also allowed service providers to "enhance, modify and/or combine the Appian software with other software . . . to develop prototypes to be demonstrated to prospective End Users . . . ." Service providers "retain[ed] exclusive ownership and control of the resulting enhancement . . . ."

C. The Damages Instruction Relating to Proximate Cause

One of the central disputes at the instructions phase of the trial concerned the appropriate proximate cause instruction in ⌊461the unjust enrichment context under VUTSA. Over Pega's objection, the trial court granted Instruction 14:

> If you find that plaintiff Appian has proved by greater weight of the evidence its claim for misappropriation of trade secrets against defendant Pegasystems, you must find your verdict for Appian and decide the issue of damages as to Pegasystems. You may award the amount of unjust enrichment caused by misappropriation.
>
> For unjust enrichment, Appian is entitled to recover Pegasystems' net profits. Appian has the burden of establishing by greater weight of the evidence Pegasystems' sales; Pegasystems has the burden of establishing by greater weight of the evidence any portion of the sales not attributable to the trade secret or trade secrets and any expenses to be deducted in determining net profits.

Thus, the court instructed the jury that Appian could prove its damages simply by establishing "Pegasystems' sales" during the relevant time frame. Upon Appian proving Pega's total sales, the burden would shift to Pega to prove damages (sales) were unrelated to its wrongdoing. Accordingly, Appian produced evidence that Pega's sales for the relevant time period were in the billions of dollars. Consistent with Instruction 14, Appian stated in closing argument that "the burden is on [Pega]. If they want to show you some of those sales were innocent, right, because it's about some other feature than ours, they have to show that[,]" and further, "remember the shifting burdens, it's their burden to show you any sales they made were innocent."

D. The Trial Court Excluded Critical Damages Evidence Based on an Interrogatory Answer

Instruction 14 allowed Appian to rely on Pega's total sales to establish its damages and shifted the burden to Pega to prove which sales were not tainted. Pega was then prohibited from introducing significant evidence regarding its "total sales" based on a discovery response. Appian propounded the following interrogatory to Pega in discovery seeking informa⌊462tion relating to revenues tied to *versions* of Pega's BPM *software*:

> Interrogatory No. 18: Identify all *revenues* received by Pegasystems for each fiscal year from 2012 through 2021 relating to *Pega 6.3, Pega 7.0* and any subsequent *version* broken out by year and *version* of the software; and identify the costs and expenses Pegasystems incurred in order to realize those revenues.

Pega responded:

> Answer: Pegasystems does not record or report revenue, or any associated costs and expenses incurred by Pegasystems, *based on the "version" of the product sold* (e.g., Pega 6.3, Pega 7.0). There is no mechanism or process by which Pegasystems is able to determine these revenue, cost and expense amounts. As a result, Pegasystems' financial results (including total revenue and all associated costs and expenses) for each applicable fiscal year as reported to the SEC in Pegasystems' annual Form 10-K filings and quarterly Form 10-Q filings are attached as Schedule 3.

(Objections omitted; emphases added). The trial court viewed this response as a declaration that Pega "can't breakdown [its] revenue based on lines of business." Thus, it ruled that Pega could not present evidence that much of its revenue came from products with which Appian did not even compete.

Pega asserted that the fact that it did not track revenue by *version* of its BPM software did not mean that Pega did not track revenue by other products or lines of business. In fact, Pega submitted an expert report in discovery breaking down its revenues from other business sources. However, the trial court ruled that Pega had "essentially given up" any such defense to damages with its response to Interrogatory 18.

As a result, the trial court excluded this "other lines of business" damages evidence and Pega made a proffer of what its evidence would have been. According to the proffer, Pega's Chief Executive Officer Allen Trefler would have testified that Pega sold products that did not compete with Appian; specifically "more than 50 percent of Pega's revenue is derived from ⌊463customers for these other products" that do not compete with Appian. Trefler also would have testified that Pega offers features unrelated to Appian's trade secrets. Pega's Chief Technology Officer Don Schuerman would have testified that Pega had customers who "bought things that Appian didn't sell." Schuerman was barred from testifying about 25 products unique to Pega that increased its sales and that were distinct from its BPM platform. Further, Simon Platt, who created an expert damages report for Pega, would have testified that Appian's damages should be significantly reduced to account for sales driven by Pega's unique products that "were not available from Appian." Platt would have provided that the associated revenue from these sales was attributable to Pega's own innovation rather than as a result of misappropriating Appian's trade secrets. Finally, in challenging the testimony of Appian's damages expert, James Malackowski, Pega was prevented from demonstrating that the expert's damages figure included Pega sales unrelated to Pega's BPM platform.

VIII. The Verdict

The jury returned a verdict in Appian's favor, finding that Pega and Zou misappropriated Appian's trade secrets, in violation of VUTSA, and awarding damages against Pega in the amount of $2,036,860,045. The jury also rendered judgment against Zou in the amount of $5,000.[6] The trial court entered a written order of judgment in Appian's favor against Pega, awarding the damages verdict, plus attorney fees, costs, and interest. The trial court denied Pega's motions to strike the evidence and to set aside the verdict. The court also denied Pega's request for a new trial or remittitur. This appeal followed.

⌊464ANALYSIS

I. The Trial Court Did Not Err in Denying Pega's Motions to Strike and to Set Aside the Verdict

A. Standard of Review

[2, 3] "When ruling on a motion to strike a plaintiff's evidence, a trial court 'is required to accept as true all evidence favorable to a plaintiff and any reasonable inferences that may be drawn from such evidence.'" *TB Venture, LLC v. Arlington Cnty.*, 280 Va. 558, 562, 701 S.E.2d 791 (2010) (quoting *James v. City of Falls Church*, 280 Va. 31, 38, 694 S.E.2d 568 (2010)). "The trial court is not to judge the weight and credibility of the evidence, and may not reject any inference from the evidence favorable to the plaintiff unless it would defy logic and common sense." *Id.* at 562-63, 701 S.E.2d 791 (quoting *Austin v. Shoney's, Inc.*, 254 Va. 134, 138, 486 S.E.2d 285 (1997)). "That same standard is applicable to [appellate] review of the decision of the trial court granting the motion to strike." *Baysden v. Roche*, 264 Va. 23, 26, 563 S.E.2d 725 (2002).

Pega asks this Court to enter judgment on its behalf as a matter of law on the ground that Appian failed to prove the existence of its trade secrets. Specifically, Pega argues (1) "[n]one of Appian's purported secrets were trade secrets as a matter of law because Appian exposed them without requiring confidentiality," Appellant's Br. at 19, and (2) "Appian did not identify key trade secrets with the requisite particularity." *Id.* at 26.

[4, 5] The purpose of VUTSA is "to protect the owner of a trade secret from another's misuse of that secret." *Collelo v. Geographic Servs.*, 283 Va. 56, 68, 727 S.E.2d 55 (2012) (quoting *MicroStrategy Inc. v. Li*, 268 Va. 249, 263, 601 S.E.2d 580 (2004)). "To state a trade secret claim, a plaintiff must allege sufficient facts to establish (1) the existence of a trade secret, and (2) its misappropriation by the defendant." *Preferred Sys. Sols., Inc. v. GP Consulting, LLC*, 284 Va. 382, 405, 732 S.E.2d 676 (2012). Our Supreme Court has stated that "whether a ⌊465trade secret exists," and "whether a trade secret has been misappropriated" are generally fact questions for the factfinder. *See MicroStrategy Inc.*, 268 Va. at 264-65, 601 S.E.2d 580; *see also Decision Insights, Inc. v. Sentia Grp.,*

6. The jury also found in Appian's favor on its computer fraud claim, in violation of the VCCA, and awarded damages in the amount of $1. Pega has not appealed the VCCA verdict. The court entered a suspension of judgment pending the appeal. Similarly, Zou has not appealed the judgment against him and is not a party to this appeal.

Inc., 311 F. App'x 586, 592 (4th Cir. 2009) ("Whether or not a trade secret exists is a 'fact-intensive question to be resolved at trial.' " (quoting *Hoechst Diafoil Co. v. Nan Ya Plastics Corp.*, 174 F.3d 411, 419 (4th Cir. 1999))).

B. Identifying Trade Secrets and Misappropriation

Under Virginia law, a "trade secret" is "information, including but not limited to, a formula, pattern, compilation, program, device, method, technique, or process," that "[d]erives 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 "[i]s the subject of efforts that are reasonable under the circumstances to maintain its secrecy." Code § 59.1-336; *see also Dionne v. Southeast Foam Converting & Packaging, Inc.*, 240 Va. 297, 302, 397 S.E.2d 110 (1990).

Under VUTSA, "[m]isappropriation" requires:

1. Acquisition of a trade secret of another by a person who knows or has reason to know that the trade secret was acquired by improper means; or
2. Disclosure or use of a trade secret of another without express or implied consent by a person who
   a. Used improper means to acquire knowledge of the trade secret; or
   b. At the time of disclosure or use, knew or had reason to know that his knowledge of the trade secret was

      (1) Derived from or through a person who had utilized improper means to acquire it;

      (2) Acquired under circumstances giving rise to a duty to maintain its secrecy or limit its use;

      ⌊466(3) Derived from or through a person who owed a duty to the person seeking relief to maintain its secrecy or limit its use; or

      (4) Acquired by accident or mistake.

Code § 59.1-336. "Improper means" includes theft, bribery, misrepresentation, use of a computer network without authority, breach of a duty or inducement of a breach of a duty to maintain secrecy, or espionage through electronic or other means. *Id.*; *see* Kent Sinclair, 1 Virginia Remedies § 29-1 (2023) (noting "the Act's definition of improper means is broad to the point of being sweeping").

[6–9] "The crucial characteristic of a trade secret is secrecy rather than novelty." *Dionne*, 240 Va. at 302, 397 S.E.2d 110. For example, a list of contacts may have little novelty but still may be a trade secret. *See, e.g.*, *MicroStrategy, Inc. v. Bus. Objects, S.A.*, 331 F. Supp. 2d 396, 416 (E.D. Va. 2004) (finding "under the right set of [factual] circumstances" customer lists, pricing information, marketing and sales techniques, and information about products can be considered trade secrets), *aff'd*, 429 F.3d 1344 (Fed. Cir. 2005). Further, secrecy need not be absolute: "the owner of a trade secret may, without losing protection, disclose it to a licensee, an employee, or a stranger, if the disclosure is made in confidence, express or implied." *Dionne*, 240 Va. at 302, 397 S.E.2d 110; *see also Trandes Corp. v. Guy F. Atkinson Co.*, 996 F.2d 655, 664 (4th Cir. 1993) ("Absolute secrecy is not essential. It is enough that [plaintiff] made it difficult for others to acquire copies of the … software through proper means" (internal citations and quotations omitted))). "Depending on the facts of a particular case, software components, as parts of a computer 'program,' may be trade secrets covered by the Act." *MicroStrategy Inc.*, 268 Va. at 263, 601 S.E.2d 580.

[10] Pega asserts the jury verdict should be reversed because, as a matter of law, there was insufficient evidence to find that Pega misappropriated information that qualified as trade secrets. It claims that the information Zou accessed was not secret, but generic knowledge that was unprotected as it ⌊467floated amidst thousands of users and various internet discussions and displays.[7] Pega

7. A trade secret can exist initially, but lose its status when the process or design becomes generally known or independently derived by others over time. *See Synopsys, Inc. v. Risk Based Sec., Inc.*, 70 F.4th 759, 772 (4th Cir. 2023) ("The trade secret's economic value depreciates or is argues that Appian's alleged trade secrets lost legal protection because they were "generally known," "readily ascertainable," and no reasonable efforts were taken to maintain their secrecy. As a result, Pega asks this Court to enter judgment on its behalf. Similarly, Pega claims the trial court erred in denying Pega's motion to strike and motion to set aside the verdict on the grounds that Appian failed to "identif[y] its alleged trade secrets with sufficient particularity." We address each argument in turn.

C. Appian did not Fail, as a Matter of Law, to Show the Misappropriated Information Qualified as Trade Secrets

[11, 12] Not every piece of information a business might wish to keep from its competitors is a trade secret. If a party seeks to avail itself of trade secret protections, it must make reasonable efforts under the circumstances to keep its information secret. Code § 59.1-336. If a company chooses to release or publicize the information, it cannot later wield a trade secret club against competitors who gain access to the information. *See MicroStrategy Inc.*, 268 Va. at 262, 601 S.E.2d 580 ("[T]he owner of a trade secret is not entitled to prevent others from using public information to replicate his product, nor may the owner prevent others from making similar products which are not derived from the trade secret." (quoting *Am. Can Co. v. Mansukhani*, 742 F.2d 314, 329 (7th Cir. 1984))).

[13] There is an inherent tension between a company's goal of keeping its product's secret features hidden, while also promoting the product's innovative attributes to boost sales. To help businesses navigate this uncertain landscape, the law ⌊468 imposes certain requirements of proof on a party asserting a trade secret claim: (1) each trade secret must derive independent economic value from not being "generally known" nor "readily ascertainable by proper means"; and (2) the plaintiff must make reasonable efforts to maintain the secrecy of the information at issue. Code § 59.1-336. Thus, generally "[i]f an individual discloses his trade secret to others who are under no obligations to protect the confidentiality of the information ... his property right is extinguished." *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1002, 104 S.Ct. 2862, 2872, 81 L.Ed.2d 815 (1984).

1. Pega's Claims that the Trade Secrets were "Generally Known" or Left Unprotected

[14] Pega asserts that Appian lost trade secret protection because it "exposed" its secrets "without requiring confidentiality." Appellant's Br. at 19. For example, Pega claims that Appian delegated to independent resellers complete discretion to disclose its software. Pega also points to Appian's agreements with its resellers as proof that strict confidentiality measures were not in place and that trade secret protection, accordingly, was not preserved. *See* Business Partner Agreement; Value-Added Service Provider Agreement.

Relatedly, Pega argues that Appian shared its secrets with countless independent developers and end users without taking reasonable measures to guard its secrets. Pega claims that "[j]udgment is required for the separate reason that Appian exposed its alleged secrets to thousands of independent app developers ... without imposing the required confidentiality obligation." Appellant's Br. at 23. For example, Pega asserts: "[t]here were over 6000 people with access to the alleged trade secrets through Appian Forum alone when Zou provided his demonstrations ...."[8]

⌊469 **[15]** The problem with Pega's analysis is that, as our Supreme Court stated in *MicroStrategy Inc.*, "whether a trade secret exists" and "whether certain information

eliminated altogether upon its loss of secrecy[.]" (quoting *Oakwood Labs. LLC v. Thanoo*, 999 F.3d 892, 913 (3d Cir. 2021))).

8. Pega acknowledges that Appian used "terms of use," which were imposed on developers. Pega argues that Appian's "terms of use" are insufficient to protect its trade secrets because many of the "terms of use" provisions contained no confidentiality restrictions. Pega acknowledges that the agreement between Zou and his employer, Serco, did in fact contain "some confidentiality provisions." Appellant's Br. at 25. But it also points out that the language does not mention Appian, nor identify what information constitutes Appian's trade secrets.

constitutes a trade secret" are generally questions of fact. 268 Va. at 264-65, 601 S.E.2d 580. Under VUTSA, a trade secret is information that: (1) derives economic value from being neither generally known nor readily ascertainable, and (2) is the subject of reasonable efforts to maintain its secrecy. Code § 59.1-336. And secrecy need not be absolute. *See Dionne*, 240 Va. at 302, 397 S.E.2d 110. Certainly, here, a jury question was presented where the reasonableness of Appian's efforts was hotly contested—and Appian provided considerable evidence that it took careful steps to safeguard its secrets and that the information was neither "generally known" nor readily ascertainable.

2. The Record Contains Ample Evidence that the Contested Information was not Generally Known nor Readily Ascertainable—and that Appian Took Reasonable Steps to Protect its Trade Secrets

Appian's evidence included extensive expert testimony regarding Appian's measures to protect its trade secrets, including through employing "terms of use and license agreements," restricting "access to documentation," and using "firewalls." Appian's expert, Dr. Cole, also described Appian's use of "multifactor authentication," "encryption ... [,] user authentication, [and] password change requirements." Ultimately, Dr. Cole opined that the steps Appian took to protect its trade secrets were reasonable under the circumstances and entirely consistent with industry standards. Courts consistently have recognized such measures as reasonable under comparable circumstances. *See* Sinclair, 1 Virginia Remedies, *supra*, § 29-1 (listing reasonable efforts to protect trade secrets).

⌊470 Moreover, while Pega suggested that resellers could freely disclose the targeted information to prospective buyers, the lengthy record is devoid of any evidence of such wholesale disclosures taking place. As Appian observes, evidence from Pega's own witnesses spoke volumes as to the difficulty Pega had getting its hands on Appian's product. One Pega executive, Ben Baril, told a colleague: "Appian is very guarded about their technology so some of this information is impossible to come by without access to a system." Given Pega's access problem, when Petronio utilized a search firm to identify a developer to share the desired information, he advised the recruiter that "access to the Appian BPM tool is a must" and "make sure they aren't loyal to Appian ...." Ultimately, the evidence, when viewed in best light to Appian, reveals that Pega used a "spy" to obtain access to Appian's software and confidential "documentation."

The trial court here correctly determined that Appian provided sufficient evidence to survive Pega's motions to strike and to set aside the verdict. Whether Appian established that its information constituted a trade secret was a question of fact for the jury. The voluminous record here demonstrates numerous, earnest ways in which Appian sought to protect its information; similarly, when viewed in best light to Appian, the record shows that the trade secrets were not generally known nor readily ascertainable. Accordingly, we cannot say, as a matter of law, that Appian failed to prove the existence of any trade secrets.

D. Pega's "Particularity" Argument

Pega next asserts that Appian failed to identify its secrets with sufficient particularity "to allow the finder of fact to distinguish that which is legitimately a trade secret from other information that is simply confidential but not a trade secret, or is publicly available information." *MicroStrategy Inc.*, 331 F. Supp. 2d at 418.

[16] Pega suggests that a heightened "particularity" requirement should be read into Code § 59.1-336. But, as the ⌊471 Utah Supreme Court has opined: "[I]f a 'particularity' requirement beyond what is present in the statute is to be required in trade secret cases, it is for the legislature to implement." *USA Power, LLC v. PacifiCorp*, 372 P.3d 629, 649 n.44 (Utah 2016). Otherwise, a plaintiff need only "defin[e] its purported trade secret in a manner that would allow the factfinder to determine if it met the statutory requirements." *Id.* at 649-50. Virginia's General Assembly has implemented no "particularity" requirement here.

Nonetheless, this debate is somewhat semantic—because Appian is still required to plead and present its case under Virginia law with enough clarity that Pega is adequately informed of what it is defending. *See Ted Lansing Supply Co. v. Royal Aluminum & Constr. Corp.*, 221 Va. 1139, 1141, 277 S.E.2d 228 (1981). In *Dionne*, our Supreme Court noted that "the proponent must bear the burden of proving a trade-secret claim." 240 Va. at 303 n.2, 397 S.E.2d 110; *see also Preferred Sys. Sols.*, 284 Va. at 407, 732 S.E.2d 676 (stating plaintiff's trade secret claim must provide sufficient facts informing defendant of the nature and character of the claim asserted); Restatement (Third) of Unfair Competition § 39 cmt. d (explaining "[a] person claiming rights in a trade secret bears the burden of defining the information for which protection is sought with sufficient definiteness to permit a court to apply the criteria for protection … and to determine the fact of an appropriation").

The need for such clarity is paramount in the trade secret arena because the scope of a trade secret may be quite broad, while at the same time there is no requirement that the holder must file with an administrative body either a written description or an example of the material to be protected, in contrast to patent and copyright law, respectively. *See* 35 U.S.C. §§ 111-112; 17 U.S.C. § 411. Only the plaintiff knows what it considers to be secret—and the defendant cannot harness a defense without gaining a meaningful description of the violation. *See Inteliclear, LLC v. ETC Glob. Holdings, Inc.*, 978 F.3d 653, 658 (9th Cir. 2020) (to "prove ownership of a trade secret, plaintiffs 'must identify the trade secrets and carry the ⌊472 burden of showing they exist' " (quoting *MAI Sys. Corp. v. Peak Comput., Inc.*, 991 F.2d 511, 522 (9th Cir. 1993))). Similarly, the factfinder needs to know the alleged secrets' precise contours so it can determine whether the information was generally known and reasonably protected, as well as to assess its worth. *See Trandes Corp.*, 996 F.2d at 661 (a plaintiff must "describe the subject matter of its alleged trade secrets in sufficient detail to establish each element of a trade secret").

While we decline to impose any "heightened" particularity standard that is not found in VUTSA, we do adhere to the admonition that Appian was required to identify its claims in a manner that informed the defendant of the character of the claims asserted. *See Preferred Sys. Sols.*, 284 Va. at 407, 732 S.E.2d 676; *MicroStrategy, Inc.*, 331 F. Supp. 2d at 418. We believe, on this record, Appian's evidence sufficiently identified its secrets to survive Pega's motions to strike and to set aside the verdict.

1. The "Architecture and Design" Trade Secrets Were Sufficiently Delineated to Survive a Motion to Strike and to Set Aside the Verdict on this Record

Appian alleged that Pega misappropriated five "architecture and design" trade secrets: i.e., information Pega lifted from Appian's platform to bolster its own product. These design secrets were Appian innovations dealing with Smart Services, Custom Data Types, Ease-of-Editing Functionality, Out-of-the-Box Ability to Deploy Applications to Mobile, and Out-of-the-Box Integrated Social View of Worklist and Tasks. We will address each feature in turn—and in each case Appian's expert, Dr. Marshall, provided testimony establishing the contours of the secret.

(a) Smart Services

[17] Appian's Smart Services feature enabled software developers to build applications more easily by making available a precoded tool "shape" to perform a given task. Dr. Marshall testified that Pega "did not have Smart Services" in ⌊473 Versions 6.2 and 6.3 of its software. He further testified that although "[t]here was information that these services existed," information about "how they worked, how [they] were used was not publicly available. That was privileged information." According to Dr. Marshall, Pega focused on this feature in its sessions with Zou, "asking a number of questions about how Smart Services work in the context of building an application[.]"

Ultimately, according to Dr. Marshall, Pega added a Smart Services feature similar to Appian's to its own platform. Dr. Marshall testified that Pega's improvement related to Smart Services was "released in September 2013" and "there [was] a new category that ha[d] been added to the flow editor, which is the Pega equivalent of what we've just seen called smart shapes. These smart shapes are a subset of the Smart Services offered by Appian." This improvement, according to Dr. Marshall, "greatly enhance[d] [Pega's] ease of use," "greatly reduce[d] the need for training," "reduced the number of errors that developers ma[de]," "increase[d] the number of people who can use the [Pega] platform," and "increase[ed] the productivity of those people." In Pega's marketing publication, "Pega 7: Why Upgrade?" Pega touted this new feature as a reason for customers to purchase the latest version of its software.

(b) Custom Data Types and Ease-of-Editing

[18] Appian's Custom Data Types (CDTs) were a means of improving "human understanding of data" in a project. According to Marshall, Pega had a "different mechanism" called "data classes" which was "difficult for developers to understand." Dr. Marshall testified that Pega made improvements to its platform by adding custom data types that mimicked Appian's CDTs. He further testified that "[t]hese changes significantly simplify and accelerate the data modeling process in the Pega platform." In its marketing materials, including its "Why Upgrade?" publication, Pega highlighted its new CDT-like feature that would "make[ ] it easier and faster for ⌊474developers to know how to use the data and modify the application."

[19] Appian's Ease-of-Editing Functionality feature allowed developers to transition from a simulated end-user environment to an editing environment without having to go through a complex series of navigations. Zou also disclosed this feature to Pega. According to Marshall, Pega's "editing process" did not have an equivalent feature, and Appian alleged that Pega copied this feature to improve its own platform. Dr. Marshall opined that Pega's changes to its editing features were the result of Zou's demonstrations of the platform for Pega's product management team. He further testified these changes were significant because they enabled Pega's platform to be used by "a much broader constituency of users," and allowed "business analysts, less technical people to be able to accomplish far more."

(c) Out-of-the-Box Features

[20] According to Appian's evidence, Pega also co-opted Appian's "out-of-the-box" mobile capabilities. Appian's model did not require any coding to deliver applications to mobile devices, while "Pega had a very basic capability that was not out of the box" and "[d]idn't do very much." Marshall suggested that Pega was floundering in this arena while Appian's mobile capability "was already delivering the ability to take your applications ... and deliver them to mobile devices as well as the desktop ...." Ultimately, Pega added out-of-the-box ability to deploy applications to mobile devices in Version 7.1. Per Dr. Marshall: "this improvement increased developer efficiency and eliminated the need to create separate versions of an application for a phone, tablet, or desktop."

[21] Appian's final "architecture and design" trade secret related to its "Out-of-the-Box Integrated Social View of Worklist and Tasks." This feature allowed for better social interaction among users working on a project. Again, according to Marshall, prior to meeting with Zou, Pega did not have a comparable feature, as its social capability was "extremely ⌊475basic." After Zou conducted training videos on social interactions among users, Pega subsequently made an improvement to this feature. In its "Why Upgrade?" publication, Pega listed its new social capabilities as a "new and improved feature[ ]" that "enhance[d] the value of ... Pega applications," and "gives users the tools to chat easily with colleagues[,] ... advance a process or resolve a case directly from their conversation feeds, and even incorporate conversations from external social media networks."

Appian's expert identified contours of each of these "Design and Architecture" trade secrets. Marshall's testimony spanned nearly three days and over 800 transcript pages. Appian sufficiently laid out these trade secrets, letting the jury know what Pega was accused of misappropriating.

2. Identifying "Documentation" Secrets and Weaknesses in Appian's Product

[22] In addition to identifying its "Architecture and Design" trade secrets, Appian asserted additional trade secrets were misappropriated based on "sensitive structural limitations of Appian's platform previously unknown to Pega[.]" These secrets essentially boiled down to serious weaknesses in Appian's BPM platform that competitors could exploit. Again, VUTSA's definition of a trade secret encompasses information that derives independent economic value from not being known or readily ascertainable by competitors who "can obtain economic value for its disclosure or use." Code § 59.1-336. Appian's asserted trade secrets in this regard relate to Pega obtaining Appian's "written documentation" that included private information as well as Pega's ability to identify and exploit weaknesses in Appian's software once armed with Zou's demonstrations and Appian's documentation.[9]

476 Indeed, Pega initiated a program dubbed "Project Crush" where it analyzed Appian's strengths and weaknesses, and determined that Pega's software had many significant advantages over Appian's. Buttressed by this knowledge, Pega created or updated marketing materials attacking Appian based on these vulnerabilities. Each of the so-called "weakness" trade secrets identified by Appian was the subject of a Pega marketing foray. *Supra* at 453–55, 904 S.E.2d at 257–58. Pega marketing materials addressing these weaknesses were presented to the jury as exhibits.

On this record, the trial court did not err in denying Pega's motions to strike and to set aside the verdict as a matter of law. Having rejected Pega's position that it is entitled to judgment as a matter of law, we next turn to Pega's claims that a series of evidentiary errors and instruction missteps below necessitate a retrial. Here, we agree with Pega.

II. The Trial Court Erred by Giving Instruction 14 Which Failed to Place the Burden of Proving Proximate Causation on Appian

A. Standard of Review

[23–26] The sole purpose of appellate review of jury instructions is "to see that the law has been clearly stated and that the instructions cover all issues which the evidence fairly raises." *Dorman v. State Indus., Inc.*, 292 Va. 111, 125, 787 S.E.2d 132 (2016) (quoting *Cain v. Lee*, 290 Va. 129, 134, 772 S.E.2d 894 (2015)). "We review a trial court's decisions in giving and denying requested jury instructions for abuse of discretion." *Conley v. Commonwealth*, 74 Va. App. 658, 675, 871 S.E.2d 640 (2022). "Whether a proffered jury instruction accurately states the law, however, is reviewed de novo." *Holmes v. Commonwealth*, 76 Va. App. 34, 53, 880 S.E.2d 17 (2022). "Questions relating to burden of proof, including the standard of proof and which party bears the burden to meet it, 477 are questions of law reviewed de novo." *La Bella Dona Skin Care, Inc. v. Belle Femme Enters., LLC*, 294 Va. 243, 257, 805 S.E.2d 399 (2017) (quoting *Ballagh v. Fauber Enters.*, 290 Va. 120, 124, 773 S.E.2d 366 (2015)).

B. VUTSA and Virginia Precedent Require Plaintiffs to Prove Proximate Cause

[27] Remedies based on unjust enrichment require a defendant to disgorge its gain resulting from a wrong. *Schmidt v. Household Fin. Corp.*, 276 Va. 108, 116, 661 S.E.2d 834 (2008).[10] The damages Appian sought against Pega were grounded in unjust enrichment. VUTSA requires the complainant to prove that "unjust enrichment" damages were "caused by misappropriation." Code § 59.1-338(A). Yet, the trial court's instructions, here, relieved Appian of its burden of

9. For example, Zou gave Pega confidential portions of certain Appian documents including one entitled "High Availability and Disaster Recovery Configurations," which contained descriptions of Appian's software. Zou also gave Pega a portion of Appian's "Tempo documentation," and additional documentation relating to its mobile and social capabilities. Zou further accessed Appian's user manual through Appian Forum and provided this information to Pega.

10. VUTSA expressly states that it "displaces conflicting tort, restitutionary, and other law of this Commonwealth providing civil remedies for misappropriation of a trade secret." *See Babcock & Wilcox Co. v. Areva NP, Inc.*, 292 Va. 165, 205 n.51, 788 S.E.2d 237 (2016) (quoting Code § 59.1-341(A)).

proving that the alleged misappropriation *caused* Pega to win any sale. The trial court rejected Pega's requests for instructions requiring Appian to prove that "Pega's wrongful conduct was the proximate cause of Appian's damages." Instead, the court instructed the jury to apply a burden-shifting approach under which, upon proving a misappropriation of a trade secret, Appian's only further burden was to "establish[ ] by ... greater weight of the evidence Pegasystems' *sales*." (Emphasis added).

The result was a presumption that Appian's trade secrets were the but-for cause of all of Pega's sales—including product lines that did not use any information associated with Appian's claimed trade secrets. Under this hotly contested framework, once Appian proved Pega's total sales revenue (which was billions during the relevant time frame), the burden shifted to Pega to prove what portion of these sales were not attributable to the trade secrets. Pega contended that this damages rubric was impermissible on multiple levels: (1) it ⌊478 failed to place the burden of proving proximate cause on Appian, (2) it utilized burden shifting concepts that the Supreme Court of Virginia has rejected, and (3) even if burden shifting were appropriate in the unjust enrichment arena, the instruction utilized here, which was modeled after principles enunciated by the Restatement of Unfair Competition, improperly applied the Restatement framework. We agree with Pega on all fronts.

1. Instruction 14

Appian argued to the trial court that burden shifting was appropriate under the Restatement (Third) of Unfair Competition in the situation where a victim of misappropriation has relied upon unjust enrichment damages under VUTSA because the wrongdoer has more knowledge of its own sales than the victim. Based on this logic, Appian championed a burden-shifting framework which placed the onus on Pega, after Appian demonstrated misappropriation, to prove *all* of its sales were not tainted. This instruction followed:

> If you find that plaintiff Appian has proved by greater weight of the evidence its claim for misappropriation of trade secrets against defendant Pegasystems, you must find your verdict for Appian and decide the issue of damages as to Pegasystems. You may award the amount of unjust enrichment caused by misappropriation.
>
> For unjust enrichment, Appian is entitled to recover Pegasystems' net profits. Appian has the burden of establishing by greater weight of the evidence Pegasystems' sales; Pegasystems has the burden of establishing by greater weight of the evidence any portion of the sales not attributable to the trade secret or trade secrets and any expenses to be deducted in determining net profits.

Instruction 14.

[28] Per the instruction, the court advised the jury that Appian could prove its damages simply by establishing "Pegasystems' sales." This framework impermissibly "shifted the burden" to Pega to prove sales were not related to the ⌊479 wrongdoing and relieved Appian of its burden to prove proximate cause for the misappropriation. Put another way, for damages purposes, Appian only had to establish Pega's enrichment—it did not have to prove "unjust" enrichment. Moreover, by permitting Appian to use *all* of Pega's sales as damages, the instruction removed any causation nexus between the sales and the misappropriation.

2. VUTSA's Express Language Forecloses Appian's Theory

[29] "Statutory interpretation is a question of law which we review de novo, and we determine the legislative intent from the words used in the statute, applying the plain meaning of the words unless they are ambiguous or would lead to an absurd result." *Wright v. Commonwealth*, 278 Va. 754, 759, 685 S.E.2d 655 (2009). When a statute "is plain and unambiguous, [courts] are bound by th[at] plain meaning." *Jones v. Commonwealth*, 296 Va. 412, 415, 821 S.E.2d 540 (2018) (quoting *Alston v. Commonwealth*, 274 Va. 759, 769, 652 S.E.2d 456 (2007)). A court "must presume that the General Assembly chose, with care, the words that appear in a statute, and must apply the statute in a manner faithful to that choice." *Id.* (quoting *Johnson v. Commonwealth*, 292 Va. 738, 742, 793 S.E.2d 321 (2016)). "Once the legislature has acted, the role of the judiciary 'is the narrow one of determining what [the legislature] meant by the words it used in the statute.' " *Dionne*, 240 Va. at 304, 397 S.E.2d 110 (quoting *Diamond v. Chakrabarty*, 447 U.S. 303, 318, 100 S.Ct. 2204, 2212, 65 L.Ed.2d 144 (1980)).

[30] VUTSA's plain language places the burden of proving unjust enrichment damages caused by misappropriation on the complainant:

> Damages can include both the actual loss *caused by misappropriation* and the unjust enrichment *caused by misappropriation* that is not taken into account in computing actual loss. *If a complainant is unable to prove* a greater amount of damages by other methods of measurement, the damages caused by misappropriation can be measured exclusively by ⌊480imposition of liability for a reasonable royalty for a misappropriator's unauthorized disclosure or use of a trade secret.

Code § 59.1-338(A) (emphases added). First, under the statute's plain language, only damages "caused by misappropriation" are recoverable.

[31] Moreover, the second sentence of the provision makes clear that it is the *complainant*—Appian—that has the burden to "prove" unjust enrichment damages.[11] It is also notable that the key statutory language "[i]f a complainant is unable to prove" is unique to VUTSA. While forty-eight other states have enacted the Uniform Trade Secrets Act (UTSA), the model uniform act does not speak in terms of the complainant "proving" damages.[12] Virginia expressly codified this language clarifying that the burden to "prove" damages is on the complainant. Where a legislative body deviates from a model, uniform act to add language, we effectuate this "deliberate and intentional" choice. *Commonwealth, Dep't of Taxation v. Champion Int'l Corp.*, 220 Va. 981, 992, 265 S.E.2d 720 (1980); *see Cornell v. Benedict*, 301 Va. 342, 350, 878 S.E.2d 191 (2022) ("Our canons of statutory construction presume that the General Assembly's decision" not to adopt some of the statute's definitions, while accepting others, "represents a conscious ⌊481decision with deliberate implications."). Thus, VUTSA's express language militates against relieving Appian of its burden of proving proximate cause.

3. <u>Virginia Precedent Requires that Appian Bear the Burden of Proving Proximate Cause</u>

[32, 33] Even if VUTSA did not contain this clarifying language, Virginia law generally places the burden on plaintiffs "in any case" to "prove with reasonable certainty the amount of [their] damages and the cause from which they resulted." *Hale v. Fawcett*, 214 Va. 583, 585-86, 202 S.E.2d 923 (1974). Establishing proximate cause requires a plaintiff to prove that defendant's unlawful conduct produced the damages in a "natural and continuous sequence" and that it was a but-for cause "without which that event would not have occurred." *Ford Motor Co. v. Boomer*, 285 Va. 141, 150, 736 S.E.2d 724 (2013); *see also Saks Fifth Ave., Inc. v. James, Ltd.*, 272 Va. 177, 189, 630 S.E.2d 304 (2006) (plaintiff bears burden of proving its damages were proximately caused by defen-

11. Construing the burden is straightforward. The first sentence authorizes damages in the form of actual loss and/or unjust enrichment caused by misappropriation. The second sentence sets forth when a plaintiff may pursue a reasonable royalty. In doing so, the second sentence refers to "other methods of measurement"—which includes the methods mentioned in the first sentence: actual loss and unjust enrichment. Code § 59.1-338(A). Thus, a reasonable royalty is available only if *a complainant is unable to prove* a greater amount of actual loss, unjust enrichment or other damages caused by misappropriation. Notably, the availability of the royalty recovery hinges on the *complainant's* inability to *prove* higher unjust enrichment damages; this framework confirms the complainant has the burden to prove unjust enrichment caused by misappropriation in the first instance.

12. In discussing when a royalty remedy is available, the corresponding sentence in section 3(a) of the UTSA begins in relevant part: "In lieu of damages measured by any other methods ...." Virginia replaced this wording with: "If a complainant is unable to prove a greater amount of damages by other methods of measurement ...." *Supra* at 479, 904 S.E.2d at 270.

dant's wrongful conduct). This requirement also applies in the trade secret arena.

[34] Our Supreme Court has stated that to establish lost profits a plaintiff has "the burden of proving with reasonable certainty the amount of damages and the cause from which they resulted; speculation and conjecture cannot form the basis of the recovery." *Banks v. Mario Indus.*, 274 Va. 438, 455, 650 S.E.2d 687 (2007) (quoting *Saks Fifth Ave., Inc.*, 272 Va. at 188, 630 S.E.2d 304). A plaintiff must establish both a causal connection between defendant's wrongful conduct and the damages claimed—and prove the amount of damages with reasonable certainty using a proper method and factual foundation for calculating such damages. *See Saks Fifth Ave., Inc.*, 272 Va. at 188-89, 630 S.E.2d 304. Professor Sinclair's treatise on remedies also notes that this causation requirement should be applied to trade secret claims, including claims for unjust enrichment damages. *See* Sinclair, 1 Virginia Remedies, *supra*, § 29-3[A]; *see also Saks Fifth Ave., Inc.*, 272 Va. at 190, 630 ⌊482 S.E.2d 304 (Plaintiffs must "show the necessary factor of proximate causation.").

[35] Given the plain language of the Act and the foregoing case law on causation and damages principles, Instruction 14 was erroneous in requiring Appian to prove only misappropriation plus Pega's total sales to meet its burden in proving damages. Appian should have been required to carry the burden of proving that the misappropriation *caused* the damages—and to prove its damages and their cause with reasonable certainty.[13] *Banks*, 274 Va. at 455, 650 S.E.2d 687.

C. Virginia has Rejected the Burden-Shifting Framework Adopted by the Trial Court—and even if it had not, the Instruction Granted by the Trial Court Misconstrues the Restatement Approach

[36] In addition to relieving Appian of its obligation of proving proximate cause, the trial court's Instruction 14 openly applies a burden-shifting framework. Our Supreme Court ⌊483 has explicitly addressed the issue of burden-shifting under VUTSA: "The plain language of the Act does not provide any burden-shifting requirement. As we observed in *Dionne*, 'the proponent must bear the burden of proving a trade-secret claim.' This burden does not shift, even when a plaintiff has presented a prima facie case." *MicroStrategy Inc.*, 268 Va. at 265, 601 S.E.2d 580 (quoting *Dionne*, 240 Va. at 303 n.2, 397 S.E.2d 110).

Appian argues that *MicroStrategy* is not controlling here because it was discussing burden-shifting in the context of the misappropriation element. However, the Court in *MicroStrategy* did not qualify or limit its finding that VUTSA does not permit any burden-shifting. While the Court made this ruling in the context of the misappropriation element, VUTSA contains no burden-shifting requirement as to damages either; indeed, as discussed above, the statutory language in Code § 59.1-338(A) places the burden of proof for damages squarely on the complainant.

13. Appian observes that the instructions permit the jury to find "the amount of unjust enrichment caused by misappropriation." However, we agree with Pega that saying a jury may "find something is not the same as saying Appian has the burden of proving it. Only one sentence in the instructions addresses Appian's burden: ... 'Appian has the burden of establishing by greater weight of the evidence Pegasystems' sales.' " Reply Br. at 13. Even if we did not hold that this instruction is erroneous, under Virginia law, the uncertainty spawned by this framework would warrant reversal based on confusion. *See Riverside Hosp., Inc. v. Johnson*, 272 Va. 518, 536, 636 S.E.2d 416 (2006) ("[W]here an erroneous instruction conflicts with an instruction that correctly states the law, the verdict must be set aside because it is impossible to determine which instruction was the basis for the jury's decision."); *Gabbard v. Knight*, 202 Va. 40, 47, 116 S.E.2d 73 (1960) (finding that giving conflicting and inconsistent instructions is error, unless it plainly appears from the record that the jury could not have been misled by them); *see also ADA Motors, Inc. v. Butler*, 7 Wash.App.2d 53, 432 P.3d 445, 451 (2018) (finding trial court erred by granting instruction that only required plaintiff to establish defendant's sales because such instruction contained potential for confusion or uncertainty). "No instruction should be given that incorrectly states the applicable law or which would be confusing or misleading to the jury." *Kennemore v. Commonwealth*, 50 Va. App. 703, 712, 653 S.E.2d 606 (2007) (quoting *Mouberry v. Commonwealth*, 39 Va. App. 576, 581-82, 575 S.E.2d 567 (2003)).

1. A Proper Reading of the Restatement Reveals that the Complainant Bears the Burden of Proving Proximate Cause

[37] Even if it were appropriate under Virginia law to employ burden-shifting and to invoke the approach adopted by the Restatement (Third) of Unfair Competition, the instruction advanced by Appian wholly misconstrued the Restatement framework. Jurisdictions that allow burden-shifting require plaintiffs to prove more than misappropriation plus total sales. These jurisdictions still require the *plaintiff* to prove "whether or not the sales are attributable to the trade secret[s]"—what some commentators call "sales causation." *See, e.g.*, *ADA Motors, Inc. v. Butler*, 7 Wash.App.2d 53, 432 P.3d 445, 449-51 (2018); *Syntel Sterling Best Shores Mauritius Ltd. v. Trizetto Grp., Inc.*, 68 F.4th 792, 810 (2d Cir. 2023) (finding Restatement requires plaintiff to establish "defendant's profits on sales attributable to the use of the trade secret").

Under the Restatement formula, *after* the plaintiff has established sales causation, the burden shifts to defendants for ⌊484 analysis of subsequent considerations including: (1) deducting expenses from revenue to yield profits; and (2) what is often called "apportionment" which is the exercise of segregating the portion of revenue from any particular sale that is attributable to the misappropriated information from the portion that is "not attributable to the trade secret[s]."[14] *ADA Motors, Inc.*, 432 P.3d at 450-51.

These steps—apportionment and profit calculation—help isolate the defendant's unjust gains from its just ones. *See* William O. Kerr & Richard B. Troxel, *Calculating Intellectual Property Damages* § 7:4 (2018 ed.); *Collelo*, 283 Va. at 84, 727 S.E.2d 55 (McClanahan, J., concurring and dissenting in part) (explaining that plaintiffs must "provid[e] a factual basis upon which a jury could discern between [defendants'] just and unjust enrichment"). And, again, the Restatement shifts the burden to defendant to prove these adjustments to the damage calculation—deducting expenses, apportionment, and isolating "just" profits—only after plaintiffs prove the first step: the share of sales that were *caused by the misappropriation*. In short, nothing in the Restatement methodology relieved Appian of its obligation to prove causation in the first instance. This approach is consistent with the Restatement comments and uniform practice of the states that have adopted the Restatement framework. *See ADA Motors, Inc.*, 432 P.3d at 451 ("The plaintiff has the initial burden of proving sales attributable to the trade secret."); *Iconics, Inc. v. Massaro*, 266 F. Supp. 3d 461, 467 (D. Mass. 2017) ("[i]n order to establish defendants' unjust profits, plaintiffs must 'do more ⌊485 initially than toss up an undifferentiated gross revenue number; the revenue stream must bear a legally significant relationship to the infringement" (citations omitted)).[15] The Restatement certainly does not authorize a plaintiff to sidestep its burden of proof as to proximate cause between sales and the misappropriation.[16]

14. Apportionment attempts to identify the value of the copied feature from the value attributable to the defendants' own contributions. *ADA Motors*, 432 P.3d at 450-51; *accord* William O. Kerr & Richard B. Troxel, *Calculating Intellectual Property Damages* §§ 7:2, 7:4 (2018 ed.). For example, if a defendant made a wonderful, groundbreaking innovation, but then misappropriated one minor editing function from a competitor to enhance the creation, the competitor would not usually recover all profits from the innovation. *See* Restatement § 45, cmt. f: "[I]f the trade secret accounts for only a portion of the profits earned on the defendant's sales, such as when the trade secret relates to a single component of a product marketable without the secret, an award to the plaintiff of a defendant's entire profit may be unjust."

15. *Taylor v. Meirick*, 712 F.2d 1112, 1122 (7th Cir. 1983) ("[I]f General Motors were to steal your copyright and put it in a sales brochure, you could not just put a copy of General Motors' corporate income tax return in the record and rest your case for an award of infringer's profits."); *Inteum Co. v. Nat'l Univ. of Sing.*, 371 F. Supp. 3d 864, 884-85 (W.D. Wash. 2019) (providing the plaintiff bears the initial burden of establishing the defendant's profits, and then the defendant subsequently bears the burden of establishing which portion of those profits is not attributable to the trade secret and any expenses that should be deducted).

16. The Restatement makes clear that unjust enrichment is not simply a deep pocket mechanism for collecting sales profits unconnected to wrongdoing. "Allegations that the defendant is a wrongdoer, and that the defendant's business is profitable, do not state a claim in unjust enrichment." Restatement (Third) of Restitution and

2. The Trial Court Misplaced Reliance on Comment f in the Restatement of Unfair Competition § 45 and on *Petters v. Williamson & Assocs., Inc.*, 151 Wash.App. 154, 210 P.3d 1048 (2009), to Justify Instruction 14; Neither the Restatement nor the Washington Case Law Support Instruction 14

The trial court granted Instruction 14 based on a misreading of comment f of the Restatement of Unfair Competition § 45 and a case from Washington state that utilized the instruction at issue in another context. Ultimately, Instruction 14 was inconsistent with the very authorities Appian invoked—the Restatement and Washington law.

Comment f, set out below, actually confirms that plaintiffs bear the burden to show proximate cause (or sales causation)486.[17] The comment first defines the outer limits of recoverable unjust enrichment damages: plaintiffs can recover a defendant's "*profits on sales attributable to the use of the trade secret*." Restatement (Third) of Unfair Competition § 45, cmt. f (1995) (emphasis added). The comment then uses the language Appian emphasized in Instruction 14—identifying a plaintiff's burden as "establishing the defendant's sales." *Id.* This mid-paragraph proposition, however, assumes what has been previously stated in the comment—that plaintiff must *first* identify sales attributable to the improper use of the trade secret. Thus, when this sentence speaks of identifying defendants' "sales," it takes for granted that this figure will be a subset of relevant damages—i.e., sales attributable to the use of the trade secret.[18]

The trial court, however, applied the term "sales" to all Pega's sales—not just sales attributable to the misappropriation of the trade secret. To support its reading of comment f, the trial court adopted a novel interpretation of the law of Washington state and purported to follow *Petters*, 210 P.3d at 1054. *Petters* involved the misappropriation of the design of an undersea drill. Notably, *Petters* did *not* absolve plaintiffs of the initial burden of proving sales causation; it addressed the defendant's *apportionment* burden following the Restatement's burden-shifting template. *Id.* Critically, several years 487 later, in *ADA Motors*, the Washington Court of Appeals clarified and emphasized that *Petters* should *not* be read to relieve a plaintiff of its burden of proving proximate cause. The *ADA Motors* court flatly rejected an instruction nearly identical to the one issued here: "Plaintiff has the initial burden of proving defendants' sales." *See* 432 P.3d at 451 (emphasis omitted). The *ADA Motors* court held the instruction to be error—even under *Petters*—because it could "be read to allow the plaintiff to satisfy its burden with gross sales data, *whether or not the sales are attributable to the trade secret*." *Id.* (emphasis added). That is exactly what happened here.

The *ADA Motors* court explained that a proper instruction must impose on plaintiffs the burden of proving not just any sales, but sales "attributable to the trade secret."[19] *Id.*;

Unjust Enrichment § 51, cmt. I (2011); accord Restatement (First) of Torts § 747, cmt. c (1934) ("[T]he defendant is liable not for the entire profits of his business but only for the profits earned by means of his tortious conduct.").

17. In pertinent part, comment f states:

> Relief measured by defendant's gain. The traditional form of restitutionary relief in an action for the appropriation of a trade secret is an accounting of the defendant's profits on sales *attributable to the use of the trade secret*. The general rules governing accountings of profits are applicable in trade secret actions. The plaintiff is entitled to recover the defendant's net profits. *The plaintiff has the burden of establishing the defendant's sales*; the defendant has the burden of establishing any portion of the sales not attributable to the trade secret and any expenses to be deducted in determining net profits.

Restatement (Third) of Unfair Competition § 45, cmt. f (1995) (emphases added).

18. Comment f then shifts the burden to defendants to winnow damages via other factors such as profit calculation and apportionment; for example, showing the value of features that the defendant contributed to the disputed sale.

19. Here, the trial court acknowledged that Instruction 14 was inconsistent with Washington law under *ADA Motors*: "I see that and I disagree with [*ADA Motors'*] conclusion ... I think this is the wrong standard" under Virginia law. In doing so, it adopted *Petters* while rejecting a subsequent—and controlling—holding of the same court.

accord Inteum Co., 371 F. Supp. 3d at 884-85.[20]

[38] Thus, Instruction 14 contravenes Virginia case law, VUTSA's express language, and the Restatement's own burden-shifting framework. We hold that the granting of Instruction488 14 was reversible error. Accordingly, we remand for a new trial in which the jury is instructed that the complainant bears the burden of proving proximate cause between the misappropriation and any unjust enrichment damages. *See Saks Fifth Ave., Inc.*, 272 Va. at 190, 630 S.E.2d 304.[21]

III. The Trial Court Erroneously Excluded Evidence Relevant to Damages and Causation Based on a Skewed Reading of an Interrogatory Response

[39] After Instruction 14 improperly shifted the burden to Pega to disprove damages, the trial court then hampered Pega from meeting that burden by precluding Pega from presenting evidence, or conducting cross-examination, to demonstrate that much of Pega's total sales revenue was attributable to products with which Appian did not compete and that had "nothing to do with" the misappropriation. This evidence, highlighted in detail earlier, *supra* at 462–63, 904 S.E.2d at 261–62, included testimony that "more than 50 percent of Pega's revenue is derived from customers" buying products not in competition with Appian and that Pega had many customers who "bought things that Appian didn't sell."

Pega's efforts to *disprove* such total sales, under the flawed instruction, were short-circuited based upon a dispute involving an interrogatory. The interrogatory sought information about Pega *revenues* derived from different *versions* of its *software*:

> Interrogatory No. 18: Identify all revenues received by Pegasystems for each fiscal year from 2012 through 2021 relating to Pega 6.3, Pega 7.0 and any subsequent version broken out by year and version of the software; and identify the costs and expenses Pegasystems incurred in order to realize those revenues.
>
> Answer: Pegasystems does not record or report revenue, or any associated costs and expenses incurred by Pegasystems, 489based on the "version" of the product sold (e.g., Pega 6.3, Pega 7.0). There is no mechanism or process by which Pegasystems is able to determine these revenue, cost and expense amounts. As a result, Pegasystems' financial results (including total revenue and all associated costs and expenses) for each applicable fiscal year as reported to the SEC in Pegasystems' annual Form 10-K filings and quarterly Form 10-Q filings are attached as Schedule 3.

R. 47525-26 (objections omitted). While Pega disclaimed revenue records for *versions* of its software in this answer—the trial court interpreted the response to disclaim records for all of its *products* or other *lines of business*: "[Y]ou've essentially given up by answering an interrogatory that you can't breakdown the damages, you can't breakdown your revenue based on lines of business."

The trial court's reading of the response misses the distinction between different *products* and different "*versions*" of the same product. The interrogatory asked about "*versions*" of a specific product: Pega's soft-

20. Finally, from a policy perspective, chaos would ensue in commercial litigation settings if we adopted the premise that the burden for a plaintiff seeking unjust enrichment for any misappropriation of a trade secret in Virginia is simply showing all sales made by the defendant. Here, Instruction 14 bluntly informed the jury that Appian could establish damages merely by showing that Pega earned $6 billion in sales revenue during the relevant time frame. That is certainly what Appian argued to the jury, noting that "the burdens of proof . . . are critical" and repeatedly focusing on Instruction 14: "We just got to show all the money that flowed in, the 6 billion plus from their customers, right? That's what we have to show." If this instruction were correct, billions of dollars in "total sales" commonly would be in play in corporate trade secret cases involving unjust enrichment—regardless of whether a single, minor misappropriation were asserted or a hundred serious ones. Trade secret litigation routinely would devolve into a "bet the company" gamble unfettered by proximate cause burdens.

21. We recognize that this error is central to damage issues; however, errors addressing liability follow which require a new trial on VUTSA liability issues as well.

ware. Reporting that Pega does not track revenue by software versions is not tantamount to asserting that Pega sells no other products or that Pega does not track revenue by product or by lines of business. This is particularly true where long before trial Pega's damages expert, Platt, submitted a report breaking out revenue attributable to various products.

[40] A trial court has the authority to exclude evidence when, for example, a party makes a blunt disavowal of "overcharge damages" and then shows up at trial seeking to prove such damages. *See Little v. Cooke*, 274 Va. 697, 717-18, 652 S.E.2d 129 (2007). Similarly, if a party asserts in discovery it has no witnesses on whether the traffic light was green or red—and that it conducted no tests on its car's brakes—the trial court can limit the litigant from providing witnesses at trial who claim the light was green, *Martin & Martin v. Bradley Enters.*, 256 Va. 288, 292, 504 S.E.2d 849 (1998); it can also bar undisclosed test reports that reveal the brakes were working perfectly. *See John Crane, Inc. v. Jones*, 274 Va. 581, ⌊490 593, 650 S.E.2d 851 (2007) (in an expert report context). The logic behind this authority is (1) to aid in disclosure of "all relevant and material evidence before trial in order that the trial may be an effective method for arriving at the truth" and (2) to prevent ambush at trial. *Cooke*, 274 Va. at 717-18, 652 S.E.2d 129.

The above examples of clear discovery misstatements are straightforward and stark. And litigants who provide misleading or false answers in discovery run the risk of harsh consequences at trial. But, here, Pega's discovery response was appropriate, under the circumstances, and the proponent did not object or seek clarification of the response prior to trial. Appian framed its interrogatory to ask about "versions" of software rather than product lines. Pega answered the interrogatory as it was posed. The interrogatory sought revenues "relating to *Pega 6.3, Pega 7.0* and any subsequent version broken out by year and version of the *software*." R. 47525 (emphases added). The interrogatory request by its express language did not ask Pega to break down revenue based on other product or business lines—rather it focused on "versions" of software. There was no ambush by Pega—or even surprise—as Appian received breakdowns of other product lines in discovery.

If Appian felt the interrogatory answer was unclear or incomplete, it was permitted to seek clarification through a pre-trial motion to compel and, further, a motion seeking sanctions for any failure to comply. Rule 4:12.[22] These options, too, are consistent with the objectives stated in *Cooke* of employing methods designed to arrive "at the truth" and to ⌊491 prevent trial by ambush. *Id.* What happened at trial with respect to Interrogatory 18 defeated both of these goals.

[41, 42] While a trial court wields considerable discretion in deciding evidentiary matters, discretion does "not mean that the [trial] court may do whatever pleases it. The phrase [abuse of discretion] means instead that the court has a range of choice, and that its decision will not be disturbed as long as it stays within that range and is not influenced by any mistake of law." *Landrum v. Chippenham Johnston-Willis Hosps., Inc.*, 282 Va. 346, 352, 717 S.E.2d 134 (2011) (quoting *Kern v. TXO Prod. Corp.*, 738 F.2d 968, 970 (8th Cir. 1984)).

> An abuse of discretion ... can occur in three principal ways: when a relevant factor that should have been given significant weight is not considered; when an irrelevant or improper factor is considered and given significant weight; and when all proper factors, and no improper ones, are considered, but the court, in weighing

22. If Appian saw a possible inconsistency between Pega's interrogatory answer and its evidence at trial, then its options for relief included objecting or seeking clarification pre-trial, or introducing the response as evidence at trial and asking the jury to reject Pega's "new position" as untrue. *See TransiLift Equip., Ltd. v. Cunningham*, 234 Va. 84, 93, 360 S.E.2d 183 (1987) ("Resolution of any inconsistencies and discrepancies is peculiarly within the province of the jury."); *see also Gentry v. Toyota Motor Corp.*, 252 Va. 30, 34 n.2, 471 S.E.2d 485 (1996) ("Discovery depositions and answers to interrogatories generally are not conclusively binding upon a party.").

those factors, commits a clear error of judgment.

Id. (quoting *Kern*, 738 F.2d at 970).

We do not see any justifiable basis for the trial court's decision to bar admission of evidence of Pega's massive revenue from products which had nothing to do with any alleged misappropriation based on the interrogatory response. *See Lawlor v. Commonwealth*, 285 Va. 187, 213-14, 738 S.E.2d 847 (2013); *Landrum*, 282 Va. at 352, 717 S.E.2d 134. Here, the trial court demonstrated an error in judgment in concluding that Pega's response to this interrogatory somehow foreclosed the availability of evidence of sales of other product lines.

[43, 44] Appian now posits two cases in an attempt to justify the exclusion of this evidence as a recourse for "discovery abuses." But both cases involve exclusion of evidence as a sanction for violation of a court order. *See Spaid v. Spaid*, No. 0021-22-4, slip op. at 10-11, 2022 WL 14156360 (Va. Ct. App. Oct. 25, 2022) (affirming discovery sanction "after the circuit court ordered" compliance); *Moore v. Moore*, No. 0314-20-4, slip op. at 22, 2020 WL 6277427 (Va. Ct. App. Oct. 27, 2020) ("[W]ife violated the scheduling order."). Appian did not seek sanctions or assert noncompliance with a court order regarding492 the interrogatory below. The trial court did not exclude Pega's damages evidence as a sanction pursuant to Rule 4:12; thus, Appian's reliance on the two, unpublished cases is unpersuasive.[23]

[45] The trial court's ruling to exclude Pega's damages evidence was particularly consequential given the burden-shifting instruction on damages; we cannot say the wrongful exclusion of this evidence based on the interrogatory response constitutes harmless error, given the type of evidence excluded and the ultimate award in excess of two billion dollars. *See Egan v. Butler*, 290 Va. 62, 69, 772 S.E.2d 765 (2015) ("In a civil case, the erroneous exclusion of evidence is reversible error when the record fails to show plainly that the excluded evidence could not have affected the verdict." (quoting *Barkley v. Wallace*, 267 Va. 369, 374, 595 S.E.2d 271 (2004)). Indeed, the exclusion of this damages evidence—in tandem with Instruction 14's emphasis on Pega's total sales—exponentially increased the likelihood of a runaway damages verdict that had no correlation to proximate cause.

IV. The Trial Court Erred in Excluding Pega's Software Evidence on the Ground It Was Not on the Original Laptop Used in Discovery and in Denying Pega the Opportunity to Authenticate It Under Rule of Evidence 2:901

[46] "Generally, we review a trial court's decision to admit or exclude evidence using an abuse of discretion standard and, 493on appeal, will not disturb a trial court's decision to admit evidence absent a finding of abuse of that discretion." *Warren v. Commonwealth*, 76 Va. App. 788, 802, 883 S.E.2d 709 (2023) (quoting *Avent v. Commonwealth*, 279 Va. 175, 197, 688 S.E.2d 244 (2010)). "The abuse-of-discretion standard includes review to determine that the discretion was not guided by erroneous legal conclusions." *Id.* (quoting *Coffman v. Commonwealth*, 67 Va. App. 163, 166-67, 795 S.E.2d 178 (2017)).

[47] "The proponent of the evidence bears the burden of establishing by a preponderance of the evidence, the facts necessary to support its admissibility." *Bell v. Commonwealth*, 49 Va. App. 570, 576, 643 S.E.2d 497 (2007). "The requirement of authentication or identification as a condition precedent to admissibility is satisfied by evidence sufficient to support a finding that the thing in

23. Notably, even if a sanction had been imposed—and it was not—sanction analysis must encompass some notion of proportionality. *See Emerald Point, LLC v. Hawkins*, 294 Va. 544, 558-59, 808 S.E.2d 384 (2017) (in a spoliation context, "[t]o allow such a severe sanction as a matter of course when a party has only negligently destroyed evidence is neither just nor proportionate" (quoting *Brookshire Bros., Ltd v. Aldridge*, 438 S.W.3d 9, 24 (Tex. 2014))); *see also United States v. Rhynes*, 218 F.3d 310, 321 (4th Cir. 2000) (en banc) ("[S]anction analysis must encompass proportionality, and sanctions as extreme as witness exclusion must be proportional to the offense."). Here, the exclusion of evidence of hundreds of millions of dollars in damages based on a strained reading of a discovery response would lie beyond the pale of proportionality.

question is what its proponent claims." Va. R. Evid. 2:901.

[48–50] "In general, electronic documents or records that are merely stored in a computer raise no computer-specific authentication issues. If a computer processes data rather than merely storing it, authentication issues may arise." *Midkiff v. Commonwealth*, 54 Va. App. 323, 337, 678 S.E.2d 287 (2009) (citations omitted), *aff'd*, 280 Va. 216, 694 S.E.2d 576 (2010). "When a computer is used to create a data compilation, how much information will be required about data input and processing to authenticate the output will depend on the nature and completeness of the data, the complexity of the manipulation, and the routineness of the operation." *Id.* (quoting *McCormick on Evidence* § 227 (Kenneth S. Broun et al. eds., 6th ed. 2006)); *see generally* Charles E. Friend & Kent Sinclair, *The Law of Evidence in Virginia* § 17-1 (8th ed.).[24]

⌊494A. The Discovery and Trial History of the Excluded Software Evidence

Appian served a discovery request asking Pega to produce relevant "versions" of its platform so Appian could analyze it and determine whether Pega made improvements based on Appian's trade secrets. Pega complied with the discovery request and provided its software to Appian via a laptop computer. Prior to trial, Pega twice timely disclosed that it intended to introduce "versions" of its software that both pre-dated and post-dated Zou's tutorials. The exhibit list had entries entitled, "Pega Laptop Containing Version 6.3 and subversion (Physical Object)" and "Pega Laptop Containing Version 7.1 and subversions (Physical Object)." Appian did not object either time. Indeed, Appian conceded when arguing this issue that its discovery request sought Pega's BPM platform—not an old laptop.

The original laptop was, in Pega's words, "a mechanism of getting the software" to Appian. Moreover, Appian was fully aware of the laptop's transmission function; upon receiving Pega's software, Appian moved the software onto another medium to view it and concluded the laptop was "unusable" for other purposes. Again, Appian raised no objection. And during its case in chief, Appian showed the jury Pega's software using a different laptop than the one it received during discovery. However, when Pega sought to do the same thing, Appian balked.

Specifically, Appian objected that, based on Pega's discovery response, Pega could only present its software evidence if it used the original laptop from discovery. Pega argued the laptop was simply a means to produce its evidence, and the evidence at issue was its software. The trial court agreed with Appian and sustained the objection, excluding Pega from introducing its software evidence and any demonstrative images taken from it, stating "[y]our objection to the use of ⌊495their—this new laptop is sustained." The trial court observed that Pega was free to use the original, non-functional laptop used in discovery to show the software—but the discovery laptop was not able to show it.[25]

After initially being rebuffed, Pega moved again to admit its software evidence when presenting its case. Pega restated that Appian never objected to the exhibit list entries in question. Pega proffered that its witness, Bixby, who worked for Pega for nearly 20 years as a chief designer of software, "can

24. A "computer decodes electronic records, converts them into a format understood by users and either prints them or displays them on a terminal. A person who can verify that the business records are authentic can present the evidence by testifying about what he saw displayed or by presenting a printed copy of the display." *Lee v. Commonwealth*, 28 Va. App. 571, 577, 507 S.E.2d 629 (1998); *see also United States v. Ahlstrom*, 530 F. App'x 232, 239 (4th Cir. 2013) (noting that any concerns about the reliability of machine-generated information are addressed through the process of authentication, which is generally satisfied by evidence describing the process or system used to produce the result and showing it produces an accurate result).

25. The issue arose initially when Pega was cross-examining Appian's expert and moved to admit the software evidence. Pega wanted to introduce its software to counter Appian's expert, who alleged that Pega used Appian's trade secrets to improve its platform. The trial court refused, finding "Pega produced the computer the way it is. If they're not ready to go with it now, that's on them . . . if we can't start the computer up, then you're going to have to do your cross without it."

testify about how that software is kept in the course of time and whether or not this [is] the same thing that was given to Dr. Marshall." Pega argued that its software is a fungible product, and the software it would produce is the *exact same thing* as the software Pega gave to Appian during discovery. Pega asked the trial court to allow Bixby to attempt to authenticate the software evidence specifically as it related to his testimony "about his product that he developed, what it can do, what features it had." Pega further explained that "it's difficult for a witness to explain what that software looks like without showing something to the jury to help them understand it."

Ultimately, the trial court ruled against Pega, stating "[t]hat computer is not coming into evidence one way or another. It is not the same computer that was provided." The trial court found that Pega's ability to authenticate the demonstratives via Bixby did not change anything: "The fact that this upcoming witness may be able to authenticate what's on there, we're not doing that. We're not having a trial within a trial to authenticate that."

In this case, we must determine whether the trial court abused its discretion when it ruled Pega could not introduce its software evidence at trial because the software was on a ⌊496different laptop than the one used in discovery. Further, we must determine whether the trial court abused its discretion in refusing to give Pega an *opportunity* to authenticate its software on a different laptop pursuant to Rule 2:901.

B. The Court Improperly Prevented Pega from Authenticating Its Software

[51] In a technical case where a multi-billion-dollar claim turned on whether and how Pega copied Appian's functions, the trial court prevented Pega from displaying its software and any demonstrative images taken from it. This deprived Pega of evidence that could show that functions it was accused of stealing actually pre-dated Zou or differed from Appian's. Pega told the court the software was "probably the most important exhibit in the case."

The trial court's basis for excluding Pega's software was that the software was inadmissible unless it was contained on the same physical object on which it was produced to the opposing party in discovery. In so ruling, the court conflated the evidence at issue—software—with the method by which the evidence was to be transmitted in discovery (i.e., an electronic transfer link, an external hard drive, or a different laptop). Appian acknowledged its discovery request sought software—and Appian never lodged any pretrial objection to what it received.

This Court has held, "electronic documents or records that are merely stored in a computer raise no computer-specific authentication issues." *Midkiff*, 54 Va. App. at 337, 678 S.E.2d 287 (quotation marks omitted).[26] Thus, Pega was entitled to ⌊497introduce a copy of its software as long as it was relevant, under Rule of Evidence 2:401, and authenticated, under Rule 2:901.[27] *See* Va. R. Evid. 2:402.

26. In support of its position that the software evidence was properly excluded, Appian cites two cases that acknowledge electronic evidence may be manipulated, and thus, Appian argues a higher standard should apply to authenticating electronic evidence. But neither case stands for the proposition that Appian suggests. *See United States v. Browne*, 834 F.3d 403, 412 (3d Cir. 2016) (while recognizing the unique nature of electronic evidence, the court nonetheless found that traditional authentication principles apply). Relatedly, in *Knowles v. Commonwealth*, No. 1814-97-3, slip op. at 9, 1998 WL 743695 (Va. Ct. App. Oct. 27, 1998), an unpublished opinion, we stated that "[a] computer record is peculiarly susceptible to tampering and to unidentifiable alterations by any person who has access to the computer." In *Knowles*, however, the trial court excluded electronic evidence on the ground that "the computer professional" who was to offer authenticating testimony was not present to testify. By contrast, in this case, Pega's witness was both qualified and present to authenticate the evidence. *See id.* at 8-9. Neither case Appian invokes stands for the proposition that a higher standard applies when authenticating electronic evidence in Virginia, nor does either case suggest that a refusal to permit Pega to authenticate its software evidence was appropriate here. Instead, both cases, while noting that electronic evidence may be susceptible to tampering in certain circumstances, suggest that traditional authentication principles apply even to electronic evidence.

27. The requirement of authentication or identification as a condition precedent to admissibility is satisfied by evidence sufficient to support a find-

For purposes of authentication, under Virginia's "very modest" standard, Friend & Sinclair, *The Law of Evidence in Virginia*, *supra*, § 16-1, the question was whether Pega had evidence "*sufficient for the trier of fact*" to conclude Pega's software was actually Pega's software. *Walters v. Littleton*, 223 Va. 446, 451, 290 S.E.2d 839 (1982) (emphasis added). Pega was prepared to authenticate the software through the person, Stephen Bixby, who led development of the software that Pega sought to introduce and who also would have testified that it was "the exact same thing" Pega produced to Appian in discovery.

The trial court observed that allowing Pega to use a different computer to display the evidence might raise doubts about the software's authenticity. However, the court then expressly prohibited Pega from authenticating it ("we're not doing that")—even though the court recognized that Pega's witness, Bixby, "may be able to authenticate what's on there." And it prohibited Pega from using a different laptop to demonstrate ⌊498 the software after having already allowed Appian to show the software on a different laptop.[28]

[52] A court abuses its discretion when it makes a mistake of law. *See Lawlor*, 285 Va. at 214 n.5, 738 S.E.2d 847. It abuses its discretion when it fails to consider a relevant factor that should have been given significant weight—or gives substantial weight to an immaterial factor. *Landrum*, 282 Va. at 352, 717 S.E.2d 134. A court also abuses its discretion "when it believes that the law requires something that it does not . . . ." *Lawlor*, 285 Va. at 213, 738 S.E.2d 847.

Here, the law did not require that Pega must play the software to the jury on the same laptop it provided in discovery. *Id.* If the exhibit were a voicemail or an officer's body camera footage, would only the exact thumb drive submitted in discovery be admissible?[29] Moreover, the court did not mention any basis under either Rule 2:901 or 2:403 for refusing to allow authentication and excluding the evidence. It did state that the matter should have been resolved pre-trial—but, again, Appian never filed any objection to the list during discovery. Appian authored the timing of its objection. Here, there simply was no indication that basic authentication would have caused any unreasonable delay or hardship. Again, (1) Bixby was present and prepared to say the software was the same as tendered in discovery, (2) there was no specific claim ⌊499 of tampering or corruption, (3) Appian had already introduced the software to the jury *on its own laptop*, (4) authentication would not prevent Appian from challenging the software if it had a plausible basis for doing so, and (5) no objection had been lodged by Appian pre-trial in response to the discovery designation.

Appian cites no case prohibiting a party from introducing—let alone even attempting to authenticate—software evidence on the ground that the software resides on a medium different from the one used to transmit it in discovery. Nor does Appian explain why it was appropriate for the court to prohibit Pega from using the software on that basis when Appian's expert displayed the software on a different medium earlier at trial. Ultimately, under these circumstances, the trial court abused its discretion in denying Pega the opportunity to authenticate its software.

ing that the thing in question is what its proponent claims. Va. R. Evid. 2:901.

28. As this Court observed over 35 years ago, "the potentially limitless application of computer technology to evidentiary questions will continually require legal adaptation." *Penny v. Commonwealth*, 6 Va. App. 494, 499, 370 S.E.2d 314 (1988). As artificial intelligence progresses, battles over the accuracy of computer images and manipulation of "deepfakes" can be expected to intensify. *See generally* Paul W. Grimm et al., Artificial Intelligence as Evidence, 19 Nw. J. Tech. & Intell. Prop. 9 (2021). No such issues were raised here. Basic authentication efforts were simply prohibited.

29. Notably, introducing the authenticated evidence would not have deprived Appian of the opportunity to challenge it, if it had a basis for doing so. Appian would still be free to argue to the jury that the software was corrupted. *See Church v. Commonwealth*, 71 Va. App. 107, 122-23, 834 S.E.2d 477 (2019) (finding when threshold for proving admissibility has been met, any gaps in the evidence are relevant to the jury's assessment of its weight rather than its admissibility).

See Landrum, 282 Va. at 352, 717 S.E.2d 134.[30]

C. Appian's Attempt to Defend the Trial Court's Exclusion of Pega's Software Fails

On appeal, Appian seeks to circumvent the trial court's actual rationale for exclusion, which was that the computer Pega brought to trial "was not 'the laptop [Pega] gave [Appian].'" Lacking support for the trial court's ruling, Appian attempts to recast the trial court's decision in various ways. First, Appian seeks to portray the trial court's order as a sanction based on a purported "finding" of "gamesmanship" in discovery. However, there is no such finding in the record. In fact, Appian sought no such sanction during discovery, and the trial court imposed none. Nor could it have: Appian never objected to, or tried to flesh out, Pega's discovery response.

⌊500Appian then recasts the ruling by suggesting that the "court merely applied Rule 2:901's authentication requirement." Appellee's Br. at 42. Again, the record offers Appian no solace. Prohibiting a party from even attempting to authenticate evidence is not tantamount to applying the authentication rule. Moreover, Appian does not contest Pega's proffer that Bixby had first-hand knowledge that the software was what Pega represented it to be and "the exact same thing" Pega produced in discovery. Mere speculation about tampering generally goes to the weight of the evidence, not its admissibility. *See McDaniel v. Commonwealth*, 73 Va. App. 299, 316, 858 S.E.2d 828 (2021); *Reedy v. Commonwealth*, 9 Va. App. 386, 391-92, 388 S.E.2d 650 (1990).

[53] Appian finally tries to minimize the impact of the ruling by suggesting that Pega witnesses were permitted to argue they did not copy Appian's software. Appian argues this was enough—and that any error in excluding the software was de minimis or harmless. We reject this analysis. Pega explained to the trial court that where software was concerned, demonstrative aids were vital. With the software, Pega claims it could have shown the jury that "the features in question in this case . . . either existed in Version 6.3, which predated Mr. Zou, or were developed entirely independently within Pega without any input from Appian." Further, Appian's expert was given broad discretion to opine—and he opined liberally—that many things Pega saw on Appian's system were copied by Pega on a grand scale. The best way to disprove this testimony was by showing the jury that each function either predated Zou or worked differently from Appian's, or both.

The trial record further confirms the importance of this evidence. Virginia courts have noted on multiple occasions that a litigant's emphasis on certain evidence in closing argument provides insight into whether an error in admitting or excluding evidence is harmless. *See Keesee v. Donigan*, 259 Va. 157, 162, 524 S.E.2d 645 (2000) (identifying prejudice from "emphasi[s] . . . in [a] closing argument"); *see also Hodges v. Commonwealth*, 272 Va. 418, 437, 634 S.E.2d 680 (2006) (noting ⌊501frequent emphasis on erroneous evidence in closing argument); *Durant v. Commonwealth*, 7 Va. App. 454, 461, 375 S.E.2d 396 (1988) (prosecution emphasis on issue in closing argument weakens harmless error claim). Here, Appian repeatedly attacked Pega for its lack of *software* evidence in arguing to the jury. For example, Appian urged the jury in closing argument to reject the testimony of Pega's witnesses who denied that Pega copied Appian's trade secrets; Appian argued that Pega asked the jury simply to "take [its] word for it," with no corroborating evidence. It further exploited Pega's lack of software evidence, telling the jury: "Show me, where it is? They haven't *shown you* a thing . . . . *That's how you tell, you look at the platform*." (Emphasis added).

Prohibiting Pega from introducing its software was not harmless error. *See Food Lion v. Melton*, 250 Va. 144, 153, 458 S.E.2d 580

30. We do not suggest that concern regarding a drawn-out and unnecessary "trial within a trial" cannot be a proper basis for exclusion of evidence. At the same time, a trial within a trial is sometimes *mandated* by our precedent. *See Campbell v. Bettius*, 244 Va. 347, 352, 421 S.E.2d 433 (1992) (legal malpractice damages issues). On this record, however, there was no logical basis for prohibiting Pega to authenticate its software evidence.

(1995) (exclusion of evidence not harmless). The error significantly hampered Pega's liability defense, and we cannot say it did not affect the verdict. *Barkley*, 267 Va. at 374, 595 S.E.2d 271. Thus, the error necessitates reversal of the judgment.[31]

V. The Trial Court Erred in Instructing the Jury that the Number of People with Access to Appian's Secrets was "Not Relevant" and Abused Its Discretion in Excluding Relevant Evidence on the Ground It Was "Irrelevant"

Because this case will be remanded for a new trial, we must consider an additional issue that is likely to arise on retrial. *Velocity Express Mid-Atlantic v. Hugen*, 266 Va. 188, 203, 585 S.E.2d 557 (2003); *Emerald Point, LLC v. Hawkins*, 294 Va. 544, 555, 808 S.E.2d 384 (2017). The question is whether it is appropriate for the trial court to instruct the jury—as it did in Instruction 13-1—that the number of users of Appian's platform is "not relevant to any issue in this case" and to exclude related evidence.

⊥502 A. Standard of Review

[54] Evidentiary rulings are reviewed for an abuse of discretion. *Galloway v. Northampton Cnty.*, 299 Va. 558, 563, 855 S.E.2d 848 (2021). In evaluating whether a trial court abused its discretion, we do not substitute our judgment for that of the trial court. Instead, we consider whether the record fairly supports the trial court's action. *See Carter v. Commonwealth*, 293 Va. 537, 543, 800 S.E.2d 498 (2017). "A [circuit] court by definition abuses its discretion when it makes an error of law .... The abuse-of-discretion standard includes review to determine that the discretion was not guided by erroneous legal conclusions." *Porter v. Commonwealth*, 276 Va. 203, 260, 661 S.E.2d 415 (2008) (quoting *Koon v. United States*, 518 U.S. 81, 100, 116 S.Ct. 2035, 2048, 135 L.Ed.2d 392 (1996)).

[55] In Virginia, "[a]ll relevant evidence is admissible, except as otherwise provided by ... statute, Rules of the Supreme Court of Virginia, or other evidentiary principles." Va. R. Evid. 2:402(a). " 'Relevant evidence' means evidence having any tendency to make the existence of any fact in issue more probable or less probable than it would be without the evidence." Va. R. Evid. 2:401. Evidence is relevant if it has any logical tendency to prove an issue in a case, and relevant evidence may be excluded only if the prejudicial effect of the evidence outweighs its probative value. *See John Crane, Inc.*, 274 Va. at 590, 650 S.E.2d 851; *Jones v. Commonwealth*, 50 Va. App. 437, 446, 650 S.E.2d 859 (2007). Here, the trial court did not apply balancing considerations; it held that the "numbers" evidence was irrelevant, excluded it, and instructed the jury accordingly. Whether an instruction accurately states the law is reviewed de novo. *Holmes*, 76 Va. App. at 53, 880 S.E.2d 17.[32]

⊥503 B. Evidence of the Number of People with Access to the Secrets is Not Irrelevant

[56] The trial court granted Appian's motion *in limine* to exclude evidence of the number of people with access to Appian's platform. The trial court ruled that the number of people with access to Appian's platform was "not relevant at all." The court gave the jury an instruction that provided, "[t]he numbers of users of the Appian platform ... are not relevant to any issue in this case."[33]

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31. While a retrial is required on liability and damages under VUTSA, Pega has not appealed the judgment on the VCCA claim and it stands.

32. Instruction 13-1 stated:

> The numbers of users of the Appian platform and Appian Forum licensees are not relevant to any issue in this case, and any evidence as to those numbers should be disregarded.

33. In explaining its decision, the trial court stated,

> Pegasystems cannot offer mere numbers as a way of showing that the trade secret – that these are not Appian's trade secrets .... Pegasystems can certainly put on evidence concerning the security that Appian attached to its licensees and require of its licensees ... but it cannot just offer sheer numbers as a way to show that Appian was not maintaining the secrecy of its alleged trade secrets.

The suggestion that mere numbers *alone* cannot defeat a trade secret claim, however, does not mean that evidence that thousands of users had access to Appian's trade secrets is irrelevant.

Pega then proffered a swath of evidence that demonstrated that thousands of people had access to the alleged trade secrets, *supra* at 458–59, 904 S.E.2d at 259–60, with varying degrees of restrictions. For example, various users were under different agreements, including licensing agreements, terms of use for Appian Forum, additional terms of use, the Value-Added Service Provider Agreement, the Business Partner Agreement, and the Cloud Trial and Evaluation Clickwrap Agreement, all of which required shifting amounts of protection. These agreements, moreover, did not identify—or put users on notice of—the trade secrets at issue in this case.

Appian's own expert lent some support to Pega's theory. At trial, Dr. Cole testified that prospective customers that received free demos were not required to sign non-disclosure agreements. He also confirmed that prospective customers, who received free demos, could share descriptions, screenshots, and videos. Dr. Cole suggested that free trial users had access to Appian's trade secrets but were bound by terms of service, despite not having to sign non-disclosure agreements. ⌊504Appian put faith in the proposition that free users and others carefully reviewed the legal restrictions buried behind the click screen. Pega had less faith in this mechanism.

[57, 58] We do not disagree with the trial court's basic premise that the number of people who can see the secret is not *dispositive* of whether the information is protected or generally known. This is especially true where the information is zealously shielded. *See Bd. of Trade of Chi. v. Christie Grain & Stock Co.*, 198 U.S. 236, 250-51, 25 S.Ct. 637, 639-40, 49 L.Ed. 1031 (1905) (finding holder of trade secret does not lose rights by communicating secrets to others if done confidentially pursuant to a contract); *see also MicroStrategy Inc.*, 268 Va. at 262, 601 S.E.2d 580 (a trade secret owner does not lose protection "by disclosing the secret to a licensee, an employee, or others" so long as the disclosure is made in "confidence"). For example, *millions* of people can enjoy a restaurant chain's fried chicken, but the recipe, if closely guarded, can still be a trade secret.[34]

Pega's argument is that, while not dispositive, the number of people with access to Appian's trade secrets is relevant because it goes to multiple issues in the case—specifically, whether Appian took reasonable efforts in protecting its secrets and whether such secrets were generally known and readily ascertainable. *See* Code § 59.1-336. Indeed, courts have consistently held that "the extent to which the information is known outside of [one's] business" is a "factor[ ] to be considered in determining whether given information is one's trade ⌊505secret." *SI Handling Sys., Inc. v. Heisley*, 753 F.2d 1244, 1256 (3d Cir. 1985) (quoting Restatement (First) of Torts § 757, cmt. b (1939)). The Restatement of Torts lists the following factors as instructive:

> (1) the extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and to his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

See Restatement of Torts, § 757, cmt. b; *Pauwels v. Deloitte LLP*, 83 F.4th 171, 181 n.2 (2d Cir. 2023) (applying Restatement factors); *Allstate Ins. Co. v. Fougere*, 79 F.4th 172, 188 (1st Cir. 2023) (same).

[59] Thus, while the number of people with access to information is not, in isolation, determinative of the information's trade se-

34. The fact that some or all of the components of the trade secret are well-known does not preclude protection for a secret combination, compilation, or integration of the individual elements. Hence, even if all of the information is publicly available, a unique combination of that information, which adds value to the information, also may qualify as a trade secret. *Penalty Kick Mgmt. v. Coca Cola Co.*, 318 F.3d 1284, 1291 (11th Cir. 2003) (internal citations omitted); *see also Decision Insights, Inc. v. Sentia Grp., Inc.*, 416 F. App'x 324, 329 (4th Cir. 2011) (recognizing "a trade secret may be composed of publicly-available information if the method by which that information is compiled is not generally known").

cret status—such evidence is hardly irrelevant. To the contrary, who is given access to such information, and in what numbers, are among the most important factors in assessing both whether the information was generally available and the reasonableness of efforts to maintain its secrecy. *Turret Labs USA, Inc. v. CargoSprint, LLC*, No. 21-952, 2022 WL 701161, at *2, 2022 U.S. App. LEXIS 6070, at *5 (2d Cir. Mar. 9, 2022) (listing cases); *see MicroStrategy Inc.*, 268 Va. at 264, 601 S.E.2d 580 (inquiries "require[ ] an ad hoc evaluation of all the surrounding circumstances").[35]

The bar for establishing that evidence is relevant is not high. *See McNeir v. Greer-Hale Chinchilla Ranch*, 194 Va. 623, 629, 74 S.E.2d 165 (1953) ("The criterion of relevancy is whether or not the evidence tends to cast any light upon the subject of the inquiry."). Appian has not provided a single case ⌊506where an instruction was given informing a jury that such "numbers" evidence is irrelevant. Instead, it has framed a different question: is it permissible for a factfinder to determine that confidentiality provisions are so clear as to preserve trade secrecy despite disclosure to numerous trusted people?[36] But that is a distinct inquiry, going to the merits of the claim, from the question we are reviewing: is the excluded evidence about thousands of people having access to Appian's trade secrets irrelevant as a matter of law in the context of a trade secret claim?

Appian does not argue it was entitled to judgment below as a matter of law—it argues the factfinder's verdict should be upheld. But, none of the cases cited by Appian *prohibit* a factfinder from making the trade secret determination based on many factors, including the number of people with access to the alleged secret. This is particularly true where, as here, the adequacy of confidentiality measures was hotly disputed. Pega proffered, for example, that thousands of free trial users and prospective customers of Appian had access to review the secrets and that Appian did not even keep track of how many "Value Added Service Provider Agreements" it had issued.

⌊507As noted above, Appian took many legitimate steps to protect its secrets—and a reasonable jury certainly could find its actions sufficient to afford its information trade secret status. But, ultimately, in this case, that is a factual question; and here the trial court improperly removed a relevant factor from the jury's consideration. *MicroStrategy Inc.*, 268 Va. at 264-65, 601 S.E.2d 580 (whether a trade secret exists is generally a question of fact). This error denied Pega the opportunity to effectively argue that Appian forfeited its trade secret protection by broadly sharing the information with thousands.[37]

35. Similarly, courts have observed that "the chance of a leak increases as the number of people having access to information increases." *United Steelworkers of Am. v. Auchter*, 763 F.2d 728, 743 (3d Cir. 1985).

36. To be sure, there are cases that answer this question in the affirmative. *See SyncSort v. Innovative Routines, Int'l*, No. 04-3623, 2011 WL 3651331, at *15, 2011 U.S. Dist. LEXIS 92321, at *40 (D.N.J. Aug. 18, 2011) ("distribution ... to many users" does "not *necessarily* negate trade secrecy," as a matter of law, if the owner also took correspondingly reasonable measures to protect secrecy); *see Dionne*, 240 Va. at 297, 397 S.E.2d 110 ("The secrecy need not be absolute; the owner of a trade secret may, without losing protection, disclose it to a licensee, an employee, or a stranger, if the disclosure is made in confidence, express or implied."). Similarly, courts have rejected trade secret claims based on the *limited* "number of people who had access"—however, even this confirms that the "numbers" evidence was considered. *See Oberfoell v. Kyte*, No. A17-0575, 2018 WL 492629, at *3, 2018 Minn. App. Unpub. LEXIS 74, at *10 (Jan. 22, 2018). Ultimately, trade secret "number" issues come in varying shapes and sizes. For example, in *Dionne*, a family owned business was at issue and the actions of one actor with a confidentiality agreement were under review—by contrast, in a software case thousands of users may have access, with varying levels of restrictions, and the measures for controlling such restrictions may be hotly contested.

37. Appian posits that the trial court actually excluded the numbers evidence based on other grounds: "confusion" concerns, application of Rule of Evidence 2:403(a)(i), or as a trial sanction. While Appian made these arguments to the trial court, ultimately the trial court excluded the evidence on relevancy grounds; the record does not support Appian's suggestion that the trial court's exclusion was on any ground other than relevancy. The trial court, upon considering case law from both sides, found the evidence that related to the number of people with access to Appian's trade secrets was simply irrelevant. "My view is that the numbers are not relevant at all, as I read the cases." In granting jury Instruc-

On remand, an instruction telling jurors that such evidence is not relevant should not be granted.

CONCLUSION

This complex trial ventured into uncharted legal waters and culminated in a multi-billion dollar damages award which we now reverse. We reject Pega's claim that Appian failed to establish misappropriation of any trade secret as a matter of law. However, we agree with Pega that the trial court erred in granting Instruction 14, which relieved Appian of its proper burden to prove causation between the alleged misappropriation and any damages. Moreover, while Jury Instruction 14 erroneously permitted Appian to rely on Pega's total "sales" to prove unjust enrichment damages, the trial court then improperly foreclosed Pega, based on Interrogatory 18, from showing ⌊508 that many of Pega's total sales were in areas in which Appian did not even compete with Pega.

Under the circumstances of this case, the trial court also abused its discretion by refusing to permit Pega to attempt to authenticate its software evidence and, as a consequence, by excluding Pega's software—a principal means of demonstrating it did not steal secrets through Zou—on the basis that it was on a different laptop than provided in discovery. Finally, on remand, the trial court should refrain from instructing the jury that the number of people with access to Appian's platform is "not relevant"—and, accordingly, should not exclude all related evidence of these numbers on that basis. We reverse the judgment as to the VUTSA claims and remand for a new trial consistent with this opinion.

Affirmed in part, reversed in part, and remanded.

81 Va.App. 508

Samuel ROLOFSON

v.

Brittany FRASER

Brittany Fraser

v.

Samuel Rolofson

Record No. 0535-23-4, Record No. 0828-23-4

Court of Appeals of Virginia, Fredericksburg.

July 30, 2024

Background: Army officer brought action alleging that fellow officer had defamed him. The Fairfax Circuit Court, Tania M.L. Saylor, J., sustained defendant's plea in bar, denied plaintiff's motion for leave to amend, ruled that Virginia's anti-SLAPP (strategic lawsuit against public participation) statute did not apply, and denied defendant's motion for reconsideration. Plaintiff appealed, and defendant cross-appealed.

Holdings: The Court of Appeals, Frucci, J., held that:

(1) defendant's testimony at Board of Inquiry (BOI) hearing was entitled to absolute judicial proceeding privilege;

(2) defendant's purported statement that "she was in fear of her life because [plaintiff] knew her address and had sued her" was non-actionable expression of opinion;

(3) circuit court did not abuse its discretion by not granting plaintiff leave to amend his complaint;

(4) as a matter of first impression, defendant's statements before BOI did not address "matter of public concern" under anti-SLAPP statute;

tion 13-1, the trial court stated, "I've re-reviewed the case law, and it's my view that the numbers are not, not relevant. The reason is pretty simple. The case law indicates what that would mean is that you got more successful selling your secret, you lose the secret. Certainly the law can't allow that."

Trends in Trade Secret Litigation Report

VOLUME 3

Table of Contents

Introduction

Whether developed and maintained to protect firms' algorithms, manufacturing processes, or proprietary methods for optimizing logistics, trade secrets are crucial to many business operations. Companies large and small know the pitfalls of key secrets being exposed and have long looked to the state and federal court system as one forum in which to safeguard and defend their trade secrets.

The development, protection, and enforcement of trade secrets has always been a vital part of the toolkit available to companies whose success is tied to their intellectual assets. In recent years – as competition intensifies, firms increasingly digitize their data, and evolving patent law has both limited certain historical remedies available to firms and introduced new risks to patent assertion – trade secrets have arguably become more important than ever.

It is against that backdrop that we have provided this update, which focuses on the period since the issuance of Stout's last Trends in Trade Secrets Report in 2020. This report analyzes recent developments in trade secret litigation and considers whether those trends are likely to persist.

From 2015 to 2018, likely spurred on in part by the passage of the Defend Trade Secret Act of 2016 (DTSA), trade secret litigation rose approximately 28%. In the years since, however, trade secret litigation filings have leveled off and are perhaps showing early signs of decreasing. Whether such decrease is simply a blip in a longer-run trend of growth, or whether it portends further reductions, will depend on several factors. Some of these are:

1 | Macroeconomic Factors: What had previously been a gradual evolution in the nature of labor accelerated considerably with the onset of the COVID-19 pandemic, which began to impact the U.S. economy in 2020. Future years will bring increasing clarity on which of the drastic changes seen in the last four years are here to stay. To the extent that workforce mobility, the utilization of contract workers, and the acceptance of non-traditional work structures continue to expand, certain causes of action in labor and employment litigation that often include a trade secret component may also grow.

2 | Statutory Factors: The enactment of the Defend Trade Secrets Act of 2016 (DTSA) appeared to drive an initial spike in trade secret filings, which extended approximately three years after its passage. That growth has since halted and perhaps even reversed. However, the DTSA remains relatively new, and firms and their legal counsel continue to adjust to its impact on the trade secret landscape. Whether new or modified law surrounding trade secrets is passed – and whether firms develop new legal strategies within the context of the DTSA – may have significant impact on the growth curve in trade secret filings in the coming years.

3 | Courtroom Factors: Statute alone will not determine the legal and practical considerations facing companies as they consider how to best defend their trade secrets. Both legal precedent stemming from the courts' interpretation of the DTSA and the prevalence of large damages awards will impact the cost/benefit analysis of filing a trade secret case and seeing it through to trial. The mean trade secret judgment has increased to $8.2 million in recent years, though this growth is largely attributable to a handful of very large decisions rather than a clear and sustained increase in the median award. In fact, most awards are still at or below $1 million. Given the expense associated with litigation, an increase in the median award, either due to evolving precedent around trade secret damages or some other combination of factors, could be one accelerant to future filings.

4 | Shifting Trade-offs: Trade secret strategy is not only a relevant consideration at the point of litigation, but far earlier, at the point of innovation. For those innovations that may be eligible for protection through either the maintenance of a trade secret or the issuance of a patent, the traditional tradeoffs are well-understood. Patents require public disclosure and have an expiration date, but they protect from competitive use for 20 years regardless of independent competitive discovery and are protected by more well-established law around damages. However, the increase in successful invalidity challenges against asserted patents has the potential to change this calculus; filing a patent litigation now carries the risk of losing protections entirely and leaving a firm with a patent that has been declared invalid and has been publicly disclosed. If firms become more hesitant to seek patents in the first place and instead bolster their trade secret protections, one downstream result could be a long-term substitution of trade secret filings for patent filings.

As a result of these factors, attorneys and industry experts must continue to be mindful of the nuances impacting where a trade secret case is filed, the damage remedies available in that venue, and emerging precedents available to practitioners for determining damages.

This report presents Stout's comprehensive research on trade secret litigation, spanning three decades. It details our observations and analyses on the types of trade secrets at issue, certain case-specific matters, and a discussion of trends since our last report issued in 2020.

The insight we have gathered into certain trends paints a clear picture of the far-ranging effects, changing patterns in patent litigation, and the labor and employment landscape will have on trade secret litigation going forward.

REPORT BACKGROUND

Stout initially conducted an independent analysis of federal trade secret cases decided over the 27-year period from 1990 through the summer of 2017, studying the historical impact of these matters. This report, originally published in 2017, has been updated to include federal trade secret cases decided through 2022. Stout's research methodology is detailed in Appendix I to this report.

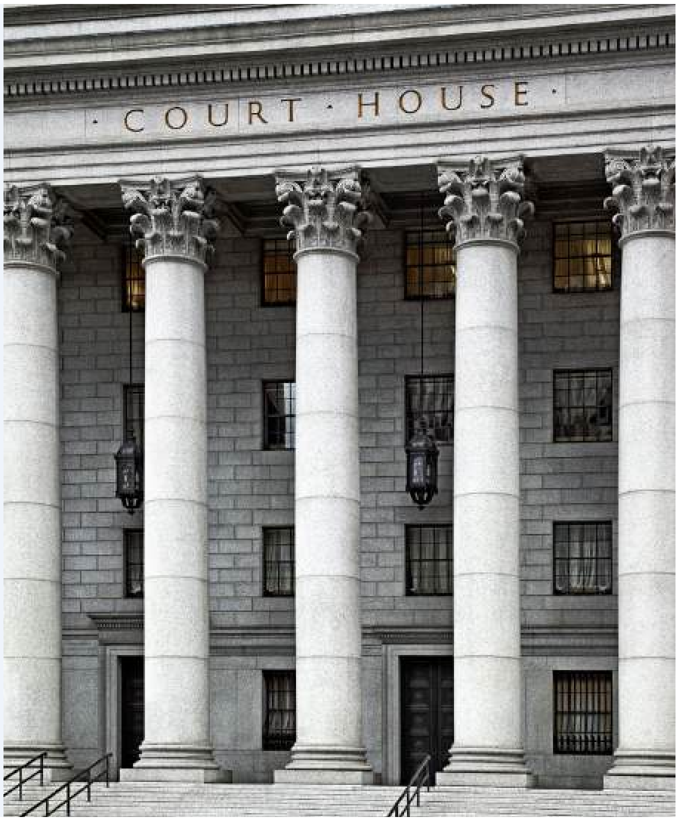
We have observed numerous trends in trade secret litigation via continual research, monitoring, and marketplace exposure. We discuss our findings throughout this report, and our research and results have been summarized to highlight notable observations.

Key Findings

Our research uncovered a number of interesting findings in trade secret litigation between 1990 and 2022.

OBSERVED TRENDS (2017-2022)

- Trade secret litigation filings have decreased back to pre-DTSA levels.
- 42% of trade secret cases included multiple types of trade secrets.
- Over 80% of trade secret cases also include contract claims.
- The majority of the top ten trade secret damages awarded were appealed.
- While the average trade secret damages awards have been increasing over recent years, the median damages award has remained at approximately $1 million.



What constitutes a trade secret and what constitutes confidential information can vary between organizations. All trade secrets are confidential information, but not all confidential information is a trade secret.

EMPLOYEE MOBILITY

While trade secret filings slightly decreased in 2022 in the aggregate, trade secret cases related to employee turnover have increased. This can be attributed in part to increased labor market turnover resulting from the Great Recession and accelerated by the COVID-19 pandemic and its after-effects. These shifts in the labor market – alongside other factors, including an increasingly service-based economy, strategic recruiting by competitors, and the ease of misappropriating digitized information – have increased the frequency with which employee departures drive trade secret litigation. Based on an in-depth analysis of a representative sample of 327 trade secret cases from 2017-2022, 82% included contract claims (largely comprised of employment-related contract breaches), 36% included breaches of fiduciary duty, and many included additional causes of action associated with misappropriation by a current or prior employee.

CONFIDENTIAL INFORMATION

There has also been a significant influx of cases involving trade secrets and/or confidential information related to:

- Computer technology, programing methods, and source code
- Customer lists
- Proprietary pricing
- Supplier relationships
- Designs/blueprints

Our analysis considered data relating to thousands of trade secret cases filed in recent years. However, for purposes of better understanding some relevant trends, we performed a more detailed analysis of a representative sample of 327 trade secret misappropriation cases filed since 2017. Of this sample, 143 (or 43%) of the cases alleged misappropriation of trade secrets related to business relationships such as customer/client information, vendor information, employee information, supplier information, subscriber information, and reseller lists.

However, what constitutes a trade secret and what constitutes confidential information can vary between organizations. All trade secrets are confidential information, but not all confidential information is a trade secret. Often, the categories of financial information and business relationships overlap, resulting in matters in which customer lists, proprietary pricing, and other marketing and financial records are at issue. The complexity of distinguishing trade secrets from other, similar information is likely responsible for at least some non-willful trade secret misappropriation and may also be responsible for some filings that ultimately prove unsuccessful.

CASE RESOLUTIONS

Plaintiffs received favorable judgments in 81% of cases in our sample which ultimately resulted in a judgment. Defendants/counterclaimants received favorable rulings in the remaining minority of cases. While this could incentivize further filings, it may also be more indicative of the confidence necessary for plaintiffs to proceed all the way to trial and incur the associated costs. At the increment, increased filings might be less meritorious on average and reduce this measure. At this point, however, trade secret plaintiffs' success at trial appears fairly stable, with amounts varying by only a few percentage points from year to year.

Favorable Judgments

84% Plaintiffs

16% Defendants

Federal cases that went to trial:

78%
awarded damages

10

Ten largest awards each
$100+M

DAMAGES

Our sample included over 9,600 federal cases with trade secret claims whose most recent docket activity occurred since the beginning of 2017. Of these, 271 include a trial verdict in district court. In 228 of these cases (84%), a trial judgment was entered in favor of the claimant, while the finding was for the defendant in the remaining 43 (16%). Damages were awarded in 212 of the 228 cases in which judgment was entered for the claimant, or 78% of all federal cases with trade secret claims that went to trial during the sample period.

Of the 212 cases[1] with an asserted trade secret claim in which damages were awarded, 50 included damages numbers explicitly tied to trade secret claim[2], with contract damages, damages associated with other classes of intellectual property, and various other claims comprising the remaining awards (either in lieu of or in addition to trade secret damages). In addition to these 50, the sample includes four additional cases with publicly available records of trade secret-specific awards. Three of these are cases that have not yet been terminated and, thus, are not coded as having a "Case Resolution" in the data source used to assemble our dataset. The fourth additional public trade secret award resulted from a default judgment.

The resulting sample of 54 trade secret-specific awards provides several interesting insights into the present state of trade secret damages at the federal level. The trade secret components of these awards ranged from six awards of less than $100,000 on the low end to three awards in excess of $100 million on the high end. Ten of the 54 awards exceeded $100 million in aggregate (i.e., when aggregating associated claims along with the trade secret claims).

Total damages across the sample of 54 cases reached nearly $2.5 billion, of which $970 million can be tied

1 We note that certain of these cases had appeals pending as of the time of our data analysis. We have included the results of initial verdicts in the data cited in this section to provide an instructive sample of trial results in district courts.

2 This number may understate the economic impact of the trade secret claim(s), as certain verdicts included damages measures that would have considered multiple or overlapping claims.

directly to trade secret claims. The mean trade secret award across the 54-case sample is thus approximately $18 million, though the largest awards cause that average to skew significantly higher than the median award of approximately $1.3 million. Aside from the amounts tied directly to trade secret damages, the 54 cases included enhanced damages – comprised of punitive damages, prejudgment interest, and attorneys' fees and other costs of the action – of an additional $923 million (or a mean of approximately $17 million per case). While we have not identified these additional damages as entirely due to trade secret claims, the strong likelihood is that the majority – and perhaps overwhelming majority – of these damages do relate to trade secret awards.

We have also analyzed certain publicly available verdict forms and post-trial orders to estimate the composition of the various trade secret damages awards. Of the $970 million in trade secret damages aggregated across the 54 judgments in our study, over two-thirds (approximately $669 million) were awards of unjust enrichment. Trade secret lost profits and reasonable royalty awards made up the balance, contributing approximately $147 million and $153 million, respectively. An interesting observation is that, while the aggregate amount of lost profits and reasonable royalties awarded in these cases were very similar, the frequency with which they were awarded differed significantly. $147 million in trade secret lost profits damages resulted from 41 separate awards that included lost profits. Only four cases in the sample of 54 included damages specifically identified as arising from a reasonable royalty approach, but these awards were significantly larger on average. When awarded, both unjust enrichment and reasonable royalty damages for cases in the sample were approximately $40 million per judgment, on average.

We note a correlation between the number of cases adjudicated in a particular jurisdiction and the average size of damages awards. Whether that correlation indicates causality, and in which direction any such causality goes (i.e., whether plaintiffs take cases to trial more frequently in jurisdictions where they know awards are higher or whether judges and juries in larger trade secret dockets rule more favorably for plaintiffs) is a potentially interesting question for further study.

FORUM PREFERENCES

Many factors affect plaintiffs' decisions regarding the jurisdiction in which to file a case. These include, but are not necessarily limited to, speed-to-trial rates, the court's experience with the type of litigation at issue, and the perceived likelihood of positive outcomes (and large awards). Prior to the advent of the DTSA, plaintiffs commonly filed trade secret suits in such jurisdictions as the Eastern District of Texas, the Northern District of Illinois, and the District of Colorado. Since the introduction of the DTSA, this has shifted slightly, with the Central District of California, the Southern District of New York, and the Northern District of California joining the Northern District of Illinois as the most popular districts. For example:

- Over half of the cases in our research were in just four federal circuits from 1990 to 2016. Since 2017, the spread of federal trade secret cases were more evenly distributed throughout multiple districts, with fewer than 20% of cases filed in the top four federal circuits.
- Federal district courts in Texas were responsible for nearly 20% of trade secret case decisions in our last report but represent fewer than 6% since 2018.
- The Central District of California, the Southern District of New York, and the Northern District of Illinois each had approximately a 5% share of the filed trade secret cases.

Post-DTSA Growth in Trade Secret Filings Has Tapered

Historically, trade secret assets have been protected at both the federal and state court levels, yet the definition of "trade secret" has varied. For several decades, litigators have looked to the Uniform Trade Secrets Act (UTSA) as a framework for trade secret proceedings. The introduction of the DTSA broadened the definition of a trade secret, and the 2017 edition of this report observed an increase in trade secret filings in the first year following its enactment. However, that increase quickly leveled out, and trade secret filings have begun to show signs of potential decline.

How the UTSA Defines Trade Secrets

The Uniform Trade Secrets Act, published by the Uniform Law Commission in 1979 and amended in 1985, was promulgated in an effort to provide a legal framework to better protect trade secrets for U.S. companies operating in multiple states. The UTSA aimed to codify and harmonize standards and remedies regarding misappropriation of trade secrets that had emerged in common law on a state-to-state basis.[3]

Under UTSA § 1.4, "a 'trade secret' means information, including a formula, pattern, compilation, program, device, method, technique, or process, that: i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and is the subject of efforts that are reasonable under the circumstances to maintain its secrecy."[4]

3 Uniform Trade Secrets Act with 1985 Amendments, Section 1.4.

4 *Ibid.*

How the DTSA Defines Trade Secrets

The Defend Trade Secrets Act of 2016, which was signed into law on May 11, 2016, by President Barack Obama, amended the earlier-enacted Economic Espionage Act of 1996, which designated trade secret misappropriation as a federal crime.

The DTSA – the first U.S. law to create a federal civil cause of action for the misappropriation of trade secrets – allows businesses to choose to sue for theft of trade secrets and seek remedies in either federal or state court.[5]

While one intention of the DTSA was to align federal statute with the UTSA, the two laws differ in certain respects. The DTSA's definition of trade secrets is broad, allowing a wide range of proprietary information to fall within the purview of trade secret protection under the statute. The DTSA defines trade secrets as: "all forms and types of financial, business, scientific, technical, economic, or engineering information, including patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing if (A) the owner thereof has taken reasonable measures to keep such information secret; and (B) the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, another person who can obtain economic value from the disclosure or use of the information."[6]

Trade secret actions filed pursuant to the DTSA can originate in federal district courts. However, the DTSA does not conflict with, replace, or preempt state laws. Rather, it works alongside state laws, providing victims of trade secret misappropriation easier access to federal courts, which are better equipped to handle cross-state and international cases, as well as complex technological issues.

For example, a federal court may still enjoin an employee under relevant state law, and a company may still elect, as a strategic matter, to file suits in state court and use the DTSA for the same alleged misappropriation.

For more information on how the DTSA compares with the UTSA, see **Appendix II**.

TRADE SECRET LITIGATION FILINGS POST-DTSA

Several trends emerged in the years following enactment of the DTSA. First, the geographic mix of trade secret lawsuits began to shift. California and Texas each accounted for over 5% of total national filings in the first year. Aggregate filings also initially grew. An uptick in the late spring of 2016 gave way to some seasonality for the remainder of that year before a significant spike in filings materialized in March 2017.[7] Specifically, an average of 1,400 federal trade secret lawsuits were filed from 2017 through 2019, compared to approximately 1,100 per year in the six full years (2010-2015) preceding the passage of the DTSA.

5 Tony Dutra, "New Trade Secret Law: More to Consider in Patent Trade-Off;" *Bloomberg BNA*, May 31, 2016.

6 Bret A. Cohen, Michael T. Renaud, and Nicholas W. Armington, "Explaining the Defend Trade Secrets Act," American Bar Association: *Business Law Today*, September 2016.

7 David L. Newman and Christina O. Alabi, "The Federal Gates Are Open: Defense of Trade Secrets Act 2016," Gould & Ratner, LLP, May 2016.

The first jury verdict under the DTSA was returned by a federal jury in Pennsylvania on February 27, 2017. The jury in *Dalmatia Import Group, Inc. v. FoodMatch, Inc. et al.*, 16-cv-02767 (E.D. Pa. Feb. 24, 2017) found for the plaintiff (the owner of a proprietary fig spread), awarded damages of $500,000 for its trade secret misappropriation claim, and issued an injunction preventing future use of the trade secrets. While the facts and outcome of this matter are fairly ordinary, the timeline is notable: the verdict came less than a year after the DTSA became law with the intention to allow trade secret cases to "move quickly to federal court, with certainty of the rules, standards, and practices to stop trade secrets from winding up being disseminated and losing their value."[8]

Waymo v. Uber[9] was one of the first DTSA cases to make national headlines. Waymo (a subsidiary of Google's parent, Alphabet) filed a trade secret misappropriation claim alleging theft of over 14,000 files by former Waymo employee and then-Uber employee Anthony Levandowski, as well as improper solicitation of Google employees by Uber. In May 2017, the Northern District of California awarded a preliminary injunction against Uber, including a bar on Levandowski further working on the technology at issue in the case, ultimately leading to Levandowski's firing by Uber. Five days into the trial, the parties reached a settlement under which Uber compensated Waymo in shares of its stock, valued at $245 million.[10]

In another notable case, *BladeRoom v. Emerson Electric*, a California jury found that Emerson misappropriated trade secrets from BladeRoom in order to win a bid for a $200 million Facebook data center. BladeRoom trade secrets at issue in the matter consisted of a method for manufacturing and installing prefabricated data centers. BladeRoom had previously described the method to both Emerson and Facebook in pitches and claimed that the two larger companies

> ***The DTSA [allows] trade secret cases to "move quickly to federal court, with certainty of the rules, standards, and practices to stop trade secrets from winding up being disseminated and losing their value."***

had secretly worked together to steal BladeRoom's proprietary techniques for the project. In 2019, a jury found in favor of BladeRoom and awarded $30 million in damages. A California federal judge enhanced the award, adding prejudgment interest, attorneys fees, and $30 million in exemplary damages.[11]

The 2017 spike in trade secret filings was not the beginning of an extended period of growth. It did, however, result in a higher "plateau' of trade secret filings. In subsequent years, filings initially remained relatively consistent and, even though annual filings began to decline in 2020, filings still exceeded the 1,101 cases filed in the last full pre-DTSA year in each individual year from 2016 through 2022 (i.e., in every year considered in this study).

Whether this decline is an indication of things to come, or simply a temporary blip in either an upward trend or a sustainably higher plateau, remains to be seen.

Numbers aside, the change in incentives stemming from the DTSA provides reason to expect at least modest growth, as business owners leverage stronger, more consistent rules of procedure, protections, and enhanced remedies against unwarranted exposure of their trade secret information.

We also anticipate that federal case law from other IP areas will increasingly influence the determination of

8 David Opderbeck, "DTSA Statistics," *The Cybersecurity Lawyer,* May 10, 2017.

9 Thomas A. Muccifori and Daniel DeFiglio, "Jam Recipe Yields 1st DTSA Verdict," *Law360*, March 28, 2017.

10 *Waymo, LLC v. Uber Technologies, Inc., et al.*, United States District Court for the Northern District of California, 3:17-cv-00939.

11 Josh Rychlinski, "Waymo v. Uber: An Update on the Ongoing Trade Secret Dispute," *Trade Secrets Trends,* May 22, 2017; Dennis Crouch, "Waymo and Uber at the Federal Circuit – Round 2," *Patently-O*, June 7, 2017.

trade secret damages under the DTSA. By consolidating cases to federal courts, the DTSA may, over time, provide trade secret litigators with a more established and broader set of precedents with which to work in evaluating damages.

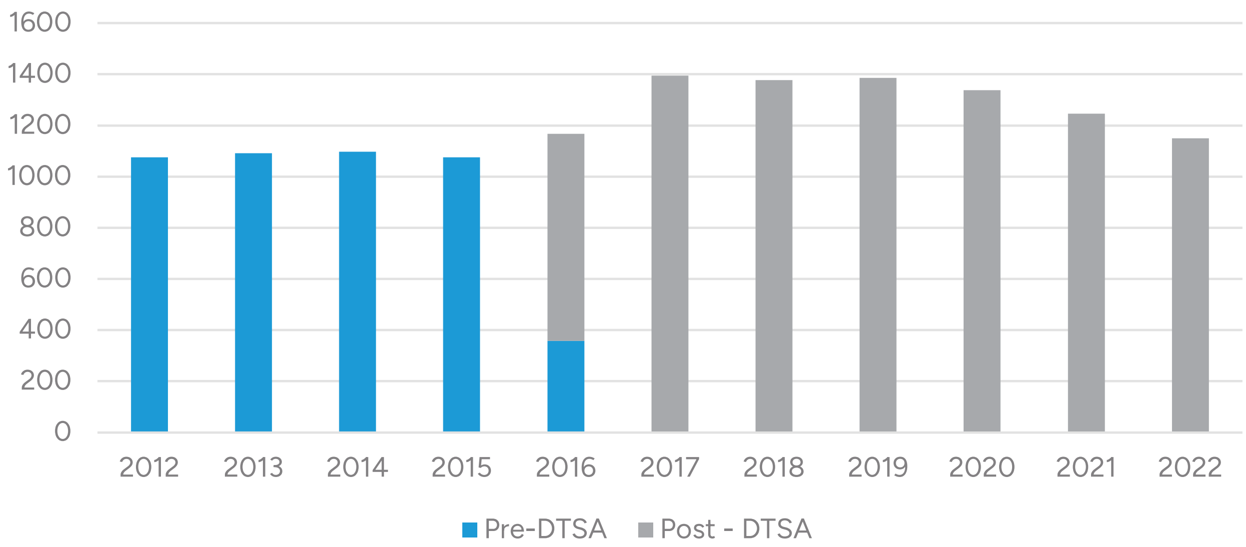
Similarly, a correlation exists between the steady increase in trade secret claims in both state and federal courts in recent years – rather than cannibalizing state court filings, the DTSA appears to have emboldened owners to believe that this is an asset class capable of being defended (and monetized) in the courtroom.

Perhaps the biggest impact the DTSA will have is the creation of a uniform body of federal law on trade secret litigation, in the same vein as trademark or patent law. Federal courts may provide a more efficient litigation process and more consistent decisions compared with state courts.

This may fundamentally alter the risk/reward calculus of filing litigation in favor of trade secret owners and, as these owners and their outside counsel gain a better understanding of the new terrain and associated rules of engagement, drive filings to sustainably higher levels.

FIGURE 1:

Trade Secret Filings from 2012 to 2022



Trade Secrets in Employment Litigation

Labor and employment litigation filings have significantly increased during the past several decades. Firms are increasingly proactive in pursuing a variety of claims following an employee's departure or termination, and trade secret enforcement is not exempt from this trend. Companies frequently seek a temporary restraining order immediately upon discovering that a former employee has taken confidential information. These cases often resolve quickly, with the employee returning the information and agreeing to cease and desist use. For those that are not resolved so simply, litigation is the likely next step.

An observable increase in litigation related to alleged breaches of confidentiality agreements and restrictive covenants, including noncompete and non-solicitation agreements, has also occurred since the prior edition of this report. Legal strategy sometimes dictates that underlying claims related to the alleged misappropriation of trade secrets in these cases are plead separately.

INCREASE OF CLAIMS OF MISAPPROPRIATION OF TRADE SECRETS IN LABOR AND EMPLOYMENT LITIGATION

Several factors are likely responsible for the increasing frequency of trade secret claims as components of broader labor and employment litigation. These factors include the rapid pace and advent of new technologies, greater workforce mobility, growing consistency and awareness of trade secret law, and increased risk to companies of international exposure.

One of the most significant factors affecting trade secret litigation is the diversity and speed to market of new technologies, which simplify the misappropriation of information intended to be kept as a trade secret. As companies become more reliant on digital media for the storage and creation of information, barriers to stealing protected information are lowered. Instead of key locks and safes, companies use firewalls and encryption to keep out the public – but not always their employees.

The focus on reducing external theft can, at times, leave companies more exposed to internal theft from employees with sufficient access to otherwise-secure systems. Once an employee gains access to protected trade secrets, copying, preserving, and disseminating that information is far easier in the modern digital world of social media, ubiquitous smartphones and tablets, and growing technological literacy. By the same token, these technological shifts reduce a trade secret owner's ability to identify and mitigate the theft until it is too late. This ease of theft and preservation has lead to an increase in the filing of trade secret claims within labor and employment litigation.

In addition to new technologies, the emergence of a more highly mobile U.S. workforce, in part linked to the Great Recession and the COVID-19 pandemic, has direct implication on the theft of trade secrets within an employment environment.

As job mobility increases, and remote work requires new types of access to be granted to employees, the opportunity for individuals to misappropriate trade secrets also rises.

PROTECTABLE TRADE SECRETS COMPARED WITH CONFIDENTIAL INFORMATION

When firms bring action against former employees for allegedly breaching noncompete and non-solicitation agreements, one common goal is to prevent the defendant from using the trade secrets, or other confidential information, in a manner that could compete with or otherwise harm the plaintiff. When paired with a claim of trade secret theft, plaintiffs are required to specify the confidential information embodying an asserted secret.

One potential challenge for parties and courts to navigate, however, is that defining the metes and bounds of a particular trade secret in the context of a litigation is not always straightforward. Companies may attempt to pre-empt this issue long before the point of litigation by defining specific trade secrets within employees' restrictive covenant agreements (e.g., confidentiality, nondisclosure, and noncompete agreements) alongside explicit protections for other IP classes, such as patents, trademarks, and copyrights. If this has been done, then employment litigation centering around the breach of these agreements may allow plaintiffs to assert trade secrets that, at least in their minds, have already been defined and agreed to by and among the parties to the litigation.

Labor and employment litigators must appreciate the legal distinction between what constitutes a trade secret and what constitutes confidential information. As previously discussed, while all trade secrets are confidential information, not all confidential information constitutes a trade secret. Confidential information represents a much broader category, including virtually any information about the business that is not generally known to the public.

As a simple example, a given company may consider that it possesses certain trade secrets relating to its manufacturing know-how, processes, formulae, customer lists, and pricing information. That company may further define these business assets as trade secrets in an employee's confidentiality agreement. However, that confidentiality agreement is likely to be far broader and to cover not only those trade secrets but also any information the company deems to be confidential, nonpublic information. In this example, confidential information could include the company's financial position, its business plan, volumes purchased by customers, and key suppliers.

It is important, therefore, to recognize that an alleged theft of trade secrets may also involve the theft of separate confidential information. There are significant legal issues to address in determining whether to pursue litigation pertaining to theft of trade secrets and/or confidential information, such as the specificity

> ***The diversity and speed to market of new technologies are making the misappropriation of trade secret information easier.***

in employment agreements, arbitration provisions, whether to pursue a claim against the new employer of the former employee via trade secrets, jurisdiction and case law, and other considerations. The answers to these questions may have consequences that impact recoverable damages, the likelihood of injunctive relief, and other key case outcomes.

ADDITIONAL OBERSERVATIONS PERTAINING TO TRADE SECRETS AND LABOR AND EMPLOYMENT LITIGATION

One subset of labor and employment litigation in which trade secret claims are relatively common surrounds the departure or termination of sales personnel. Because these employees are responsible for revenue generation and have often spent years if not decades cultivating, maintaining, and growing customer relationships, their movement between firms is a frequent antecedent of trade secret litigation.

In particular, when sales personnel join a competitor of their prior employer, the potential for companies to suffer damages due to the theft of trade secrets significantly increases. Customer and contact lists, pricing data, and supplier information are just a few categories of information whose acquisition by a competitor can potentially drive loss of accounts, price erosion, and other potential forms of loss. As a result, companies have become increasingly proactive in the pursuit of claims when they perceive a risk to their market share, customer base, and competitive advantage, both to recover for any harm and to disincentivize their remaining employees to act similarly.

Noncompete law is also evolving. Though largely outside the purview of this report, the limitation of situations in which noncompetes are enforceable leaves plaintiffs to consider whether, absent a signed document on which to build their case, they are likely to clear the hurdles placed before trade secret plaintiffs.

Illinois and New York have passed litigation meant to reduce the enforceability of noncompete clauses for lower-level employees.[12] Other states have enacted legislation to limit the restrictiveness of noncompetes, particularly related to geographical and time-duration limitations.[13] At the extreme end of the spectrum, California, North Dakota, and Oklahoma generally prohibit all forms of noncompetes.[14]

Furthermore, certain industries have been the target of similar noncompete legislation. Hawaii enacted a law in 2015 that banned most noncompetes in technology positions, while Rhode Island enacted a law in 2016 that prevents restrictions of any kind related to the ability of a physician to practice medicine.[15] In 2018, several states passed laws which limit noncompete agreements. Illinois, Maine, Maryland, New Hampshire, Rhode Island, and Washington have all enacted laws which ban noncompetes for workers who do not meet income requirements.[16]

The status of noncompete agreements continues to be challenged through courts and federal rule making bodies. In 2021, a Hawaii court struct down a real estate company's noncompete agreement, stating that protection from competition is not a legitimate purpose for the noncompete.[17] In January 2023, the FTC released a proposed rule banning noncompete clauses, stating that they suppress wages, hamper innovation, and block entrepreneurs from starting new businesses.[18] After an extended public comment period, the FTC received around 27,000 public comments and will consider changes to the rule based on those comments.

On April 23, 2024, the FTC announced its ban on non-compete clauses for employment contracts. The new rule forbids employers from entering into new non-compete agreements with workers and also requires employers to inform any current and past workers that their non-compete agreements are unenforceable.[19]

The new rule will go into effect 120 days after it is published in the Federal Register. The existing non-compete agreements for certain senior executives making more than $151,164 and who are in policy making positions may remain in effect. According to the FTC, existing noncompetes for senior executives that can remain in force under the new rule make up less than 0.75% of all workers. Also, purchasers of a business can generally still enter and enforce non-compete agreements as part of a sale of a business entity.[20]

Trade secret laws and non-disclosure agreements ("NDAs") may play a larger role for employers impacted by the FTC's ban. Trade secret law and NDAs may allow firms to protect their IP and other investments without having to use, or being able to enforce, non-competes. The FTC was explicit about this in its guidance, stating that "trade secret laws and [NDAs] both provide employers with well-established means to protect proprietary and other sensitive information." The FTC further noted that, "researchers estimate that over 95% of workers with a non-compete already have an NDA."

While the FTC's new rule was scheduled to go into effect prior to the publication of this report, it was set aside in federal court in August 2024 and its future remains uncertain.

12 James Witz and Abiman Rajadurai, "What Employers Should Know About New Ill. Noncompete Law," Littler Mendelson PC, *Law360*, September 2016.

13 David S. Almeling and Tony Beasley, "The Shifting Junction of Trade Secret Law and Noncompetes," O'Melveny & Myers LLP, August 2016.

14 John Skelton, James Yu and Dawn Mertineit, Webinar: "Enforcing Trade Secret and Noncompete Provisions in Franchise Agreements," Seyfarth Shaw LLP, June 2016.

15 David S. Almeling and Tony Beasley, "The Shifting Junction of Trade Secret Law and Noncompetes," O'Melveny & Myers LLP, August 2016; Erik Weibust and Andrew Stark, "Two New England States Pass Legislation Restricting Physician Noncompetes," Seyfarth Shaw LLP, August 2016.

16 Andrew Boling, William Dugan and Colton Long, "The Delicate Nuances In New State Noncompete Laws," Baker McKenzie, *Law360*, December 2019.

17 "Trending Topic: Non-Compete Agreements," Hawaii Employees Counsel. June 2022.

18 https://www.ftc.gov/news-events/news/press-releases/2023/01/ftc-proposes-rule-ban-noncompete-clauses-which-hurt-workers-harm-competition

19 Dan Papscun, "FTC Expected to Vote in 2024 on Rule to Ban Noncompete Clauses," *Bloomberg Law*, May 2023.

20 Defend Trade Secrets Act of 2016.

In-Depth Research and Analysis of Trade Secret Litigation Trends

Given the enactment of the DTSA and the increase in trade secret issues related to labor and employment litigation, we conducted a comprehensive study on trade secret litigation in federal court.

Stout performed substantive in-depth research into 328 federal matters covering the prior 32-year period, from 1990 to 2022. We focused our research on only those trade secret cases that had advanced to a verdict or settlement and had a measurable outcome. The ensuing discussion on the data is a result of this set of cases exclusively. For more information on our research methodology, see **Appendix I.**

In addition, we discuss our insights on certain trends in trade secret litigation during the past few years that we have observed through research, monitoring, and marketplace exposure. These include litigation-related trends, a broad assessment of the types of trade secrets at issue, industry trends, and case-specific matters through 2022.

TYPES OF TRADE SECRETS AT ISSUE

Federal trade secret laws cover any type of information that constitutes a trade secret to a particular business, so long as it meets the requirements of independently derived economic value and reasonable efforts to maintain secrecy. For the purposes of this study, we categorized the information at issue in each case into six classifications of trade secrets:

Business Relationships	Designs
Methods/Processes	Products
Financial Information	Marketing Information

The most commonly asserted categories of trade secrets have varied over time. Trends in recent years are consistent with the increasingly data-driven nature of the U.S. economy.

Cases involving trade secrets relating to software, including source code and methods documented and maintained electronically, are growing quickly relative to other filings. This type of information is readily misappropriated via email, jump drives, data scraping, or other electronic means and is made increasingly possible through improper access to company information maintained on cloud platforms. Algorithms, and programing processes and interrelated connectivity technologies are also being protected as trade secrets more frequently.

Trade secrets related to business relationships such as customer lists, supplier relationships, and proprietary pricing strategies are also typically maintained electronically.

This type of company-specific information is frequently protected as a trade secret, though the increased frequency in employee turnover that began during the Great Recession[21] has led to the theft of trade secrets being more actively pursued through the litigation process. This category of trade secrets has been the most active in federal courts in recent years.

Although claims involving know-how and manufacturing processes as well as designs and blueprints are still being filed, business relationship-based trade secrets, such as those previously cited, have begun to play a more significant role in trade secret litigation. Given the evolution of patent law and other issues discussed throughout in this report, it appears that companies developing and maintaining know-how and manufacturing innovations may opt to protect their information via trade secrets as opposed to, or in conjunction with, patents. This will likely lead to an increase in litigation for these types of trade secrets in the future.

21 The Great Recession officially began in December 2007 and ended in June 2009. The Financial Crisis Inquiry Commission, "Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States," January 2011. The Great Resignation began in March 2021. Bureau of Labor Statistics, "The 'Great Resignation' in perspective," July 2022.

Examples of these trends and the results of our research pertaining to the type of trade secrets are summarized in **Figure 2**.

FIGURE 2:

Case Activity by Type of Trade Secrets at Issue

TYPE OF TRADE SECRETS	NO. OF CASES	% OF TOTAL*	EXAMPLES
Business Relationships	143	44%	Customer Information, Vendor Information, Employee Information, Supplier Information, Suscriber Information, Client Information, Reseller Lists, Policy Holder
Design	97	30%	Designs, Drawings, Products in Development , Engineering , Formulas, Recipe, Instructions, Source Code, Programming, Research and Development, Mold Designs, Plans, Ingredients, Diagrams
Methods and Processes	90	28%	Data Processing, Manufacturing, Development , Training, Policies, Business Practices, Construction Supplies, Company Handbook, Training, Operation Manuals, Technology Information, Techniques, Business Models
Product	92	28%	Software, Hardware, Purchasing Inventories, Equipment, Computer Files, Parts Lists, Tools, Technology
Financial Information	45	14%	Price Lists, Sales , Project Quotes, Business Forecasts, Financial Data, Material Costs, Cost of Goods, Compensation Plans
Marketing Information	37	11%	Strategies, Trends, Industry Trends

42% of the cases studied included multiple types of trade secrets as part of the allegedly misappropriated information

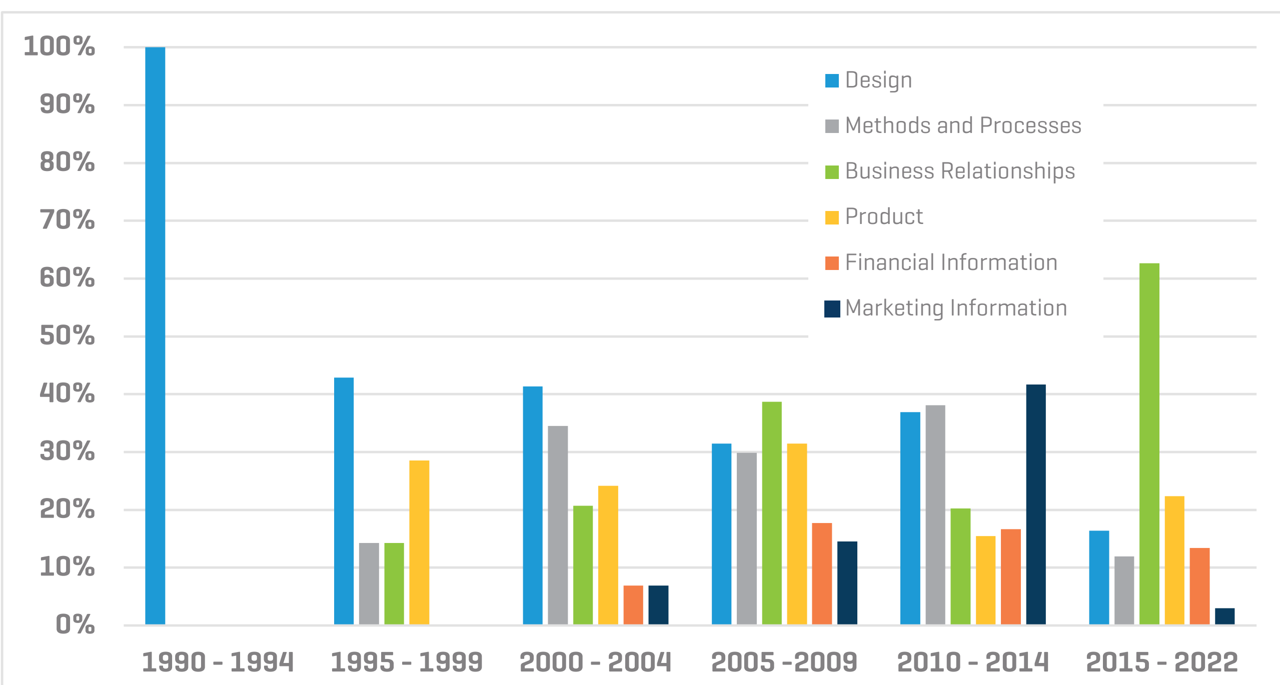
Business relationships represented the largest type of trade secrets at issue, occurring in 44% of all cases studied. These metrics align with our experience in trade secret litigation. Business relationship trade secret cases were followed by those pertaining to designs, methods/processes, and products, all at approximately 30%.

Also of note, in 42% of the cases studied, multiple types of trade secrets were included as part of the allegedly misappropriated information. Often, the categories of financial information and business relationships overlap, resulting in matters in which customer lists, proprietary pricing, and other marketing and financial records are at issue in some combination, and have contributed to the increase in litigation in these categories. Additionally, certain types of trade secret cases are on the rise, partially due to the trend of increasing employee mobility and reliance on technology (**Figure 3**). This distribution over time is consistent with the general assumption that most trade secret owners have historically chosen to protect their technical and clearly definable information through trade secrets. However, the various types of information being protected as trade secrets have significantly expanded during the last decade as companies shifted to greater reliance on electronically stored information.

FIGURE 3:

Portion of Cases by Type of Trade Secrets Over 32-Year Period

(Out of 328 Cases researched)



*Years grouped because of low volume of cases to be comparable with subsequent five-year intervals.

**Nine-year period.

TRENDS IN TRADE SECRET CLAIMS

Among other observations, misappropriation claims increasingly have not been the only claims at issue. Nearly all trade secret misappropriation claims we reviewed were accompanied by other claims, including breach of contract (such as confidentiality agreements and restrictive covenants), tortious interference, conversion, and/or other claims. Frequently, plaintiffs seek a temporary restraining order or preliminary injunction in addition to damages. As shown in **Figure 4**, the accompanying causes of action that most frequently appeared in these cases were contract claims, tortious interference, unfair/deceptive practices, fraud, and claims relating to other classes of IP, such as patents and trademarks.

Trade secret claims are also increasingly brought as companion claims in certain types of litigation beyond those related to breach of contract and/or labor and employment suits. One such area is franchisor/franchisee litigation. As discussed previously, certain states have pursued action or changed laws related to the enforceability of noncompetes for low-level employees, and in many instances franchises were the basis for such actions.[22] However, beyond this specific noncompete issue, when a franchisor terminates its franchisee or when a franchisee decides to leave the franchised system due to nonrenewal or other reasons, the opportunity for theft of trade secrets arises.

There have also been several instances where theft of trade secret claims are brought in conjunction with other IP-related claims, such as patent, trademark, and copyright infringement. The fact that this seems to occur most often in the technology and software industries is unsurprising. With the DTSA now in place, we expect it to occur more frequently in other industries as well.

22 James Witz and Abiman Rajadurai, "What Employers Should Know About New Ill. Noncompete Law," Littler Mendelson PC, *Law360*, September 2016.

FIGURE 4:

Claims Accompanying Trade Secret Misappropriation
(Out of 328 cases researched)

ACCOMPANYING CAUSE OF ACTION	NO. OF CASES	PERCENTAGE OF TOTAL
Contract Claims	237	72.5%
Tortious Interference	163	49.8%
Unfair/Deceptive Practices	119	36.4%
Fraud Claims	104	31.8%
Breach of Responsibility / Fiduciary Duty	104	31.8%
Conversion	70	21.4%
Infringement	77	23.5%
Unjust Enrichment	47	14.4%
Conspiracy	40	12.2%
Defamation/Disparagement	11	3.4%
Trespass	4	1.2%
Emotional/Mental Distress	1	0.3%
Other	93	28.4%

INDUSTRY TRENDS IN TRADE SECRET LITIGATION

Certain industries have experienced a higher degree of litigation pertaining to trade secrets than others. The nature of the companies involved in the lawsuit can illuminate the industries that are generating the largest quantity of trade secret litigation and resulting changes in trends. To assess this aspect of the population of cases, we used the Global Industry Classification Standard (GICS) codification system coupled with our research.

The following is a brief snapshot of trends in different sectors over the period studied.

Medical Device/Pharma Development

Companies developing medical device technology and pharmaceuticals are likewise experiencing an increase in claims of trade secret theft. These are often filed in conjunction with breach of restrictive covenants claims and frequently seek temporary restraining orders, as employees with deep technical knowledge and research are lured away by competitors.

Computer Technology/ Programmers/Developers

The same scenario applies with designers of computer technology platforms, programmers, and the like. Additionally, depending on when the theft of a trade secret is identified, the suit may only commence when it becomes known that the alleged thief has used similar source code in a product available in the marketplace. The suit then may be filed in conjunction with a patent or copyright claim.

Use of Outside Consultants

Additionally, a broader trend affecting multiple industries is the continued increase in matters related to the hiring of outside consultants. These are instances wherein a consultant advises a company on a specific proprietary project, then uses the information and trade secrets garnered from that project to consult with a completely unrelated company, often a direct competitor.

Automotive

In the automotive industry, there has been a significant increase in both trade secrets and breach of contract (for example, nondisclosure, nonuse, and noncompete agreements) litigation involving foreign suppliers to Tier 1 U.S. auto-parts manufacturers. Similarly, foreign-owned suppliers have been establishing U.S. sales and research and development centers that hire away talent (with the individuals' inherent knowledge of protected information and trade secrets) from domestic suppliers.

Professional Services Industries

The largest increase in theft of trade secret claims is among professional services. Often these are companion claims to breach of contract claims related to restrictive covenants dealing with nonsolicitation of customers, suppliers, or employees. Frequently, customer pricing, volume, and other proprietary information is also involved. Within these industries, sales personnel are the most commonly alleged offenders. Other service professions subject to frequent trade secret claims include insurance brokers (involving multiple types of insurance), wealth managers/financial advisors, marketing and advertising professionals, engineers, and architects.

Healthcare

The healthcare industry has experienced many claims relative to sales professionals in the medical equipment and supplies, medical devices, and pharmaceuticals sectors, as well as physicians.

As illustrated in **Figure 5,** 24% of trade secret cases reviewed involved companies in the industrials sector. This is not unexpected, as the GICS codification system includes many diverse industry groups under the industrials sector code, such as aerospace and defense, building products, construction and engineering, machinery, and transportation infrastructure.[23] Other notable industries with high percentages of the overall caseload included the information technology, consumer discretionary, and healthcare sectors.

However, the industrials sector has seen a marked decline over time. Alternatively, the information technology, consumer discretionary, and healthcare sectors experienced steep increases in the number of cases in the 2005-2009 timeframe and have become relatively stable thereafter (see **Figure 6**). In recent years, the lines between sectors have become less distinct as information technology becomes more integrated with other sectors. We expect this reliance on information technology to result in increased federal trade secret litigation in the sector in upcoming years.

FIGURE 5:

Case Activity by Industry Sector
(Out of 328 Cases researched)

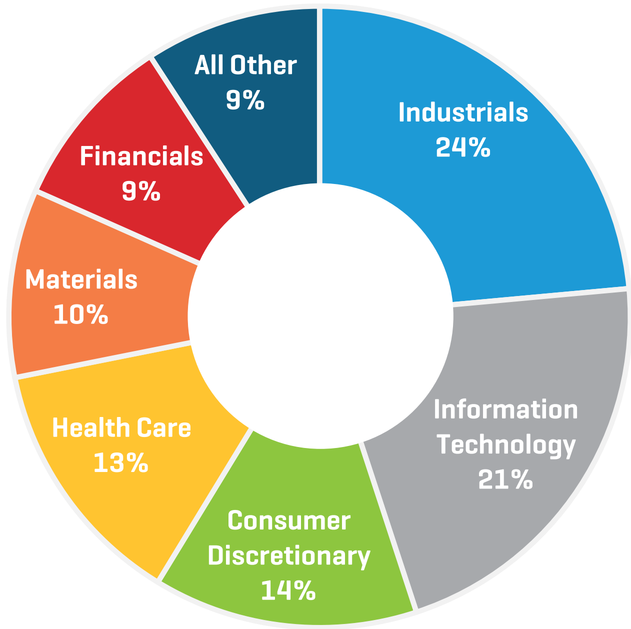
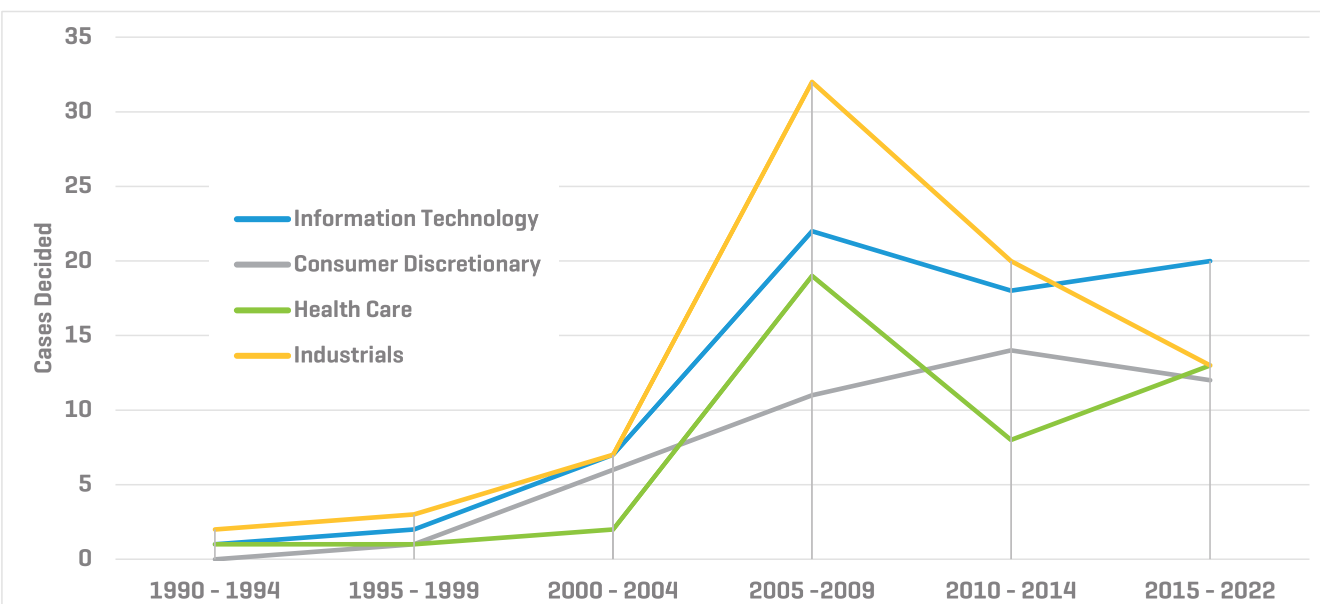


FIGURE 6:

Growth of Selected Industry Sectors Over 25-Year Period
(Out of 328 Cases researched)



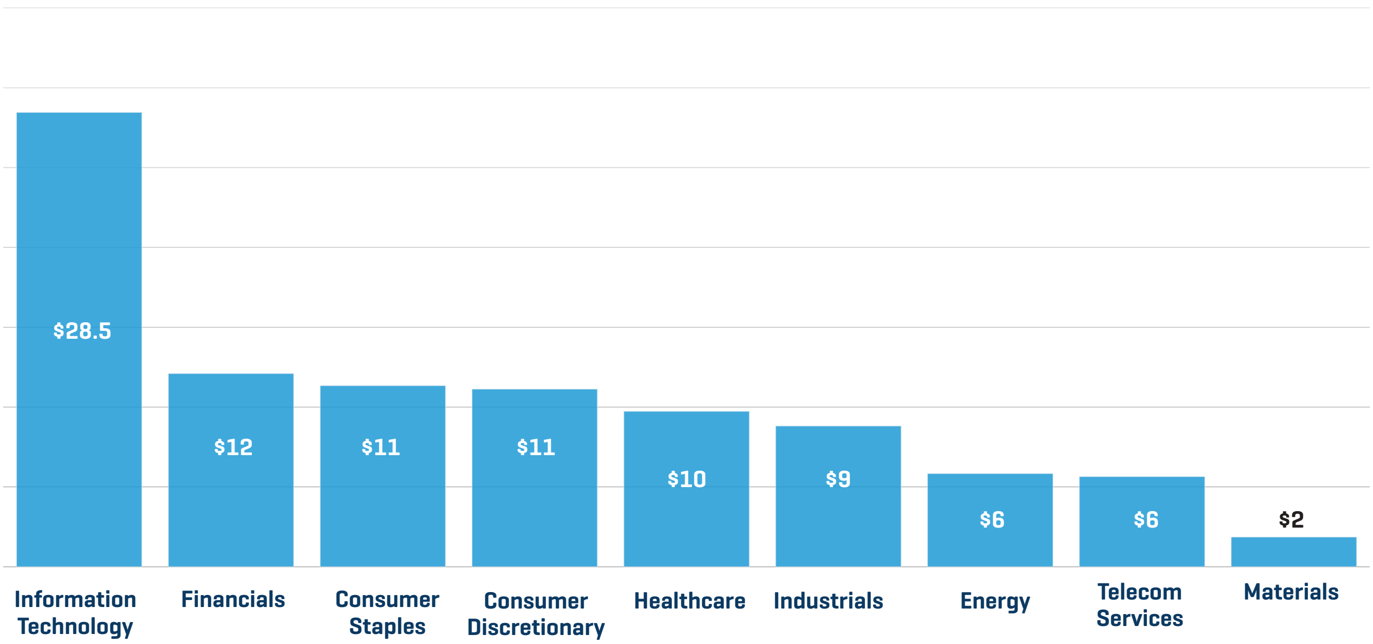
**2016 through 2019 excluded due to limited sample size.*

23 These include capital goods, commercial and professional services, and transportation companies.

FIGURE 7:

Mean Damage Awards by Industry

($ in millions USD)



*Data range 2018-2022

*These represent the aggregate awards for all causes of action -- rather than solely trade secret misappropriation -- resulting from cases with a trade secret claim.

Other than geographical stratification, we also assessed the damages based on industry sector. As illustrated in **Figure 7**, the sector with the largest mean damages award, at $28.5 million, was information technology, which was also one of the most frequently litigated sectors, as discussed previously (though median awards differ materially in some industries).

Following information technology, a cluster of industries, with average awards between $10 million and $12 million, includes financials, consumer staples, consumer discretionary, and healthcare.

Our examination of the average damages awards by industry aligns with our experience that rapidly growing industries, particularly information technology, have seen increasing damages awards. As this sector has gradually favored trade secret litigation as a means to preserve its private business information over other forms of IP protection, more trade secret lawsuits are filed. Consequently, high-profile, high-stakes cases arise out of the increased filings, leading to higher damages awards.

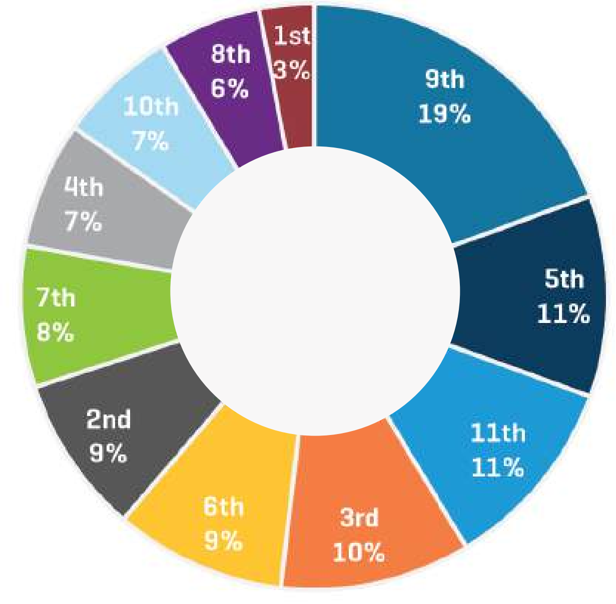
The continued success of companies in this sector to claim sizable trade secret victories, coupled with the more consistent litigation process of the federal court system, may spur further growth in trade secret litigation in the information technology sector in coming year.

TRENDS IN FILING JURISDICTIONS

When examining the jurisdictions of claims, trade secret filings have historically been concentrated in a small number of jurisdictions. For example, over half of the cases in our research came out of just four circuits, the 5th, 9th, 10th, and 11th (see **Figure 8**). This trend remains consistent both before and after the passing of the DTSA.

FIGURE 8:

Case Activity by Court Circuit (Post-DTSA)



GEOGRAPHIC LOCATION OF CIRCUIT COURT

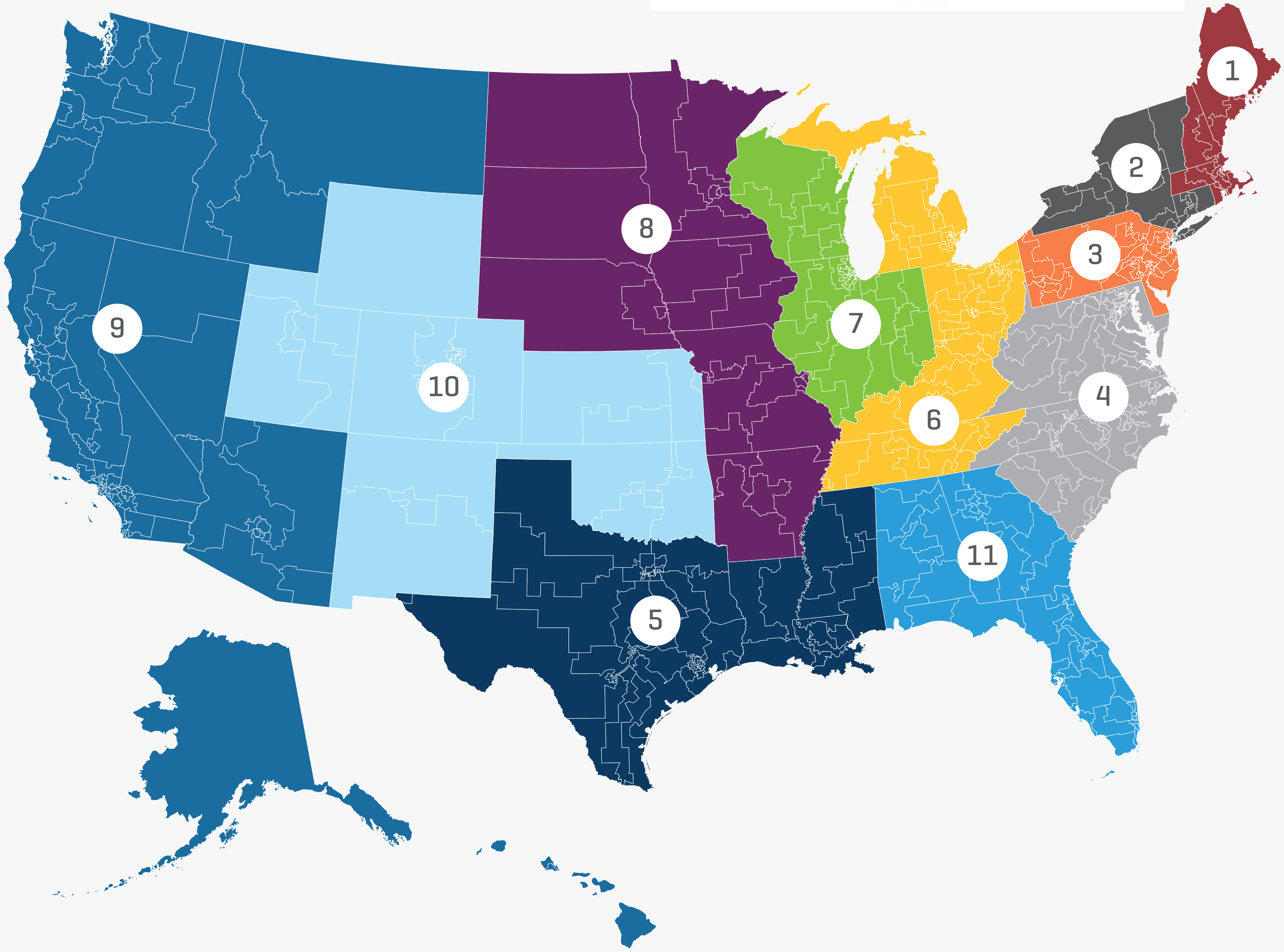


Figure 9 further breaks down jurisdictions into district courts and identifies the top 15 district courts by case filings. The results reinforce the perception that the vast majority of federal trade secret cases are filed in a concentrated group of district courts. For instance, 23% of the cases were handled by just five individual district courts. The state of California alone was responsible for nearly 12% of trade secret case filings (approximately 10% in the Central and Northern Districts, as shown below, and the balance in the Southern District), with Texas, New York, Florida, Illinois, and Pennsylvania rounding out the top 50%, each with between 5% and 9%.

Historically, plaintiffs in federal trade secret cases were perhaps favoring certain jurisdictions, such as the Eastern District of Texas, Northern District of Illinois, and the District of Colorado. This apparent targeting of certain venues is called "forum shopping," which also occurred frequently in other IP-related matters when a plaintiff selects a venue based on factors including speed to trial, the court's experience with the type of litigation, and the perception of probable outcomes.[24] It is possible that forum shopping may have historically occurred in federal trade secret matters. However, based on analysis of cases filed after the DTSA, trade secret case filings are occurring more around large population centers including California, Illinois, and New York.

FIGURE 9:

15 Most Active District Courts (Trade Secret Decisions)

			NO. OF CASES			
DISTRICT COURT		CIRCUIT	PRE-DTSA	POST-DTSA	TOTAL	% OF TOTAL
Central District of California	●	9th	420	490	910	5.9%
Northern District of Illinois	●	7th	326	424	750	4.9%
Southern District of New York	●	2nd	255	427	682	4.5%
Northern District of California	●	9th	226	376	602	3.9%
District of New Jersey	●	3rd	239	317	556	3.6%
Middle District of Florida	●	11th	226	290	516	3.4%
Eastern District of Pennsylvania	●	3rd	233	270	503	3.3%
Southern District of Texas	●	5th	204	295	499	3.3%
Southern District of Florida	●	11th	203	289	492	3.2%
Northern District of Georgia	●	11th	188	229	417	2.7%
Southern District of Ohio	●	6th	167	240	407	2.7%
Northern District of Texas	●	5th	175	211	386	2.5%
Eastern District of Virginia	●	4th	168	199	367	2.4%
District of Colorado	●	10th	133	234	367	2.4%
District of Massachusetts	●	1st	141	191	332	2.2%
All Other Districts			3,295	4,221	7,516	49.1%
Total Cases			**6,599**	**8,703**	**15,302**	

24 Forum shopping in patent litigation has been diminished due to changes in case law (*TC Heartland LLC v. Kraft Food Brands Group LLC*, Supreme Court of the United States, May 22, 2017, No. 16-341).

TRENDS IN TRADE SECRET DAMAGES

Damages were awarded in 86% of trade secret cases that went to trial, with monetary damages totaling approximately $5.4 billion from 2017 to 2022. The thirteen largest awards for cases that included a trade secret claim were all over $100 million each. Three awards included trade secret-specific damages components in excess of $100 million, while ten cases that included trade secret damages awarded aggregate damages of over $100 million.

We note that these awards do not include any data for state court cases. For example, in *Pegasystems Inc. v. Appian Corporation,* Appain was awarded $2 billion in damages. (Details of this case and other trade secret cases with large damages award can be found in Appendix II.)

We found extensive trade secret damages awarded after the implementation of the DTSA. The $5.4 billion in total damages cited above resulted from just 189 monetary award rulings, with a damange award mean of $28 million.

The states with the largest damages award mean are shown in **Figure 12**. Among the top 15 states, only three states, Illinois, Arkansas, and Texas, had a mean damages award above the national mean post the enactment of the DTSA (Figure 12).

In our last trade secret report issued in 2020, we found that the damages award mean for trade secret cases was $21.4 million. The damages award mean increased to $28 million from 2017 to 2020. Overall, our data suggests that while on average trade secret cases have increased, these means are being driven by a handful of large verdicts. We also recognize that large verdicts, over a $100 million, are becoming more frequent.

Note: median awards differ materially in some states

FIGURE 10:

10 Largest Federal Trade Secret Awards (2017-2022)

Case	Trade Secret Damages				Additional Causes of Action		Enhanced Damages*	Total Damages
	Unjust Enrichment	Lost Profits	Reasonable Royalty	Total	Copyright Damages	Contract Damages	Total	
Syntel Sterling Best Shores Mauritius Limited v. The Trizetto Group, Inc. et al	$ 284,855,192			$ 284,855,192			$ -	**$ 284,855,192**
Epic Systems Corporation v. Tata Consultancy Services Limited et al	$ 140,000,000			$ 140,000,000			$ 721,646	**$ 140,721,646**
Motorola Solutions, Inc. et al v. Hytera Communications Corporation Ltd. et al	$ 135,800,000			$ 135,800,000	$ 136,300,000		$ 359,647,992	**$ 631,747,992**
Miller UK Ltd. et al v. Caterpillar, Inc.	$ 49,700,000	$ 24,900,000		$ 74,600,000		$ 1,000,000	$ -	**$ 75,600,000**
CardiAQ Valve Technologies, Inc. v. Neovasc Inc. et al			$ 70,000,000	$ 70,000,000		$ 2,950	$ 41,675,154	**$ 111,678,104**
Zest Labs Inc et al v. Wal-Mart Inc			$ 60,000,000	$ 60,000,000		$ 5,000,000	$ 50,000,000	**$ 115,000,000**
Patriot Rail Corp. v. Sierra Railroad Company		$ 22,282,000		$ 22,282,000			$ 30,544,465	**$ 52,826,465**
ResMan, LLC v. Karya Property Management, LLC et al			$ 20,800,000	$ 20,800,000		$ 11,490,000	$ 120,000,000	**$ 152,290,000**
Comet Technologies USA Inc. et al v. XP Power LLC	$ 20,000,000			$ 20,000,000			$ 20,000,000	**$ 40,000,000**
Proofpoint, Inc. et al v. Vade Secure, Incorporated et al	$ 13,495,659			$ 13,495,659		$ 480,000	$ 100,004	**$ 14,075,663**
Total	**$ 643,850,851**	**$ 47,182,000**	**$ 150,800,000**	**$ 841,832,851**	**$ 136,300,000**	**$ 17,972,950**	**$ 622,689,261**	**$ 1,618,795,062**
Share of Total TS Damages by Recovery Type	*76%*	*6%*	*18%*	*100%*				
Share of All Damages by Recovery Type	*40%*	*3%*	*9%*	*52%*	*8%*	*1.1%*	*38%*	*100%*

*Enhanced Damages Includes Attorney Fees, Punitive Damages, Enhancements for Willfulness, and Pre-Judgment Interest

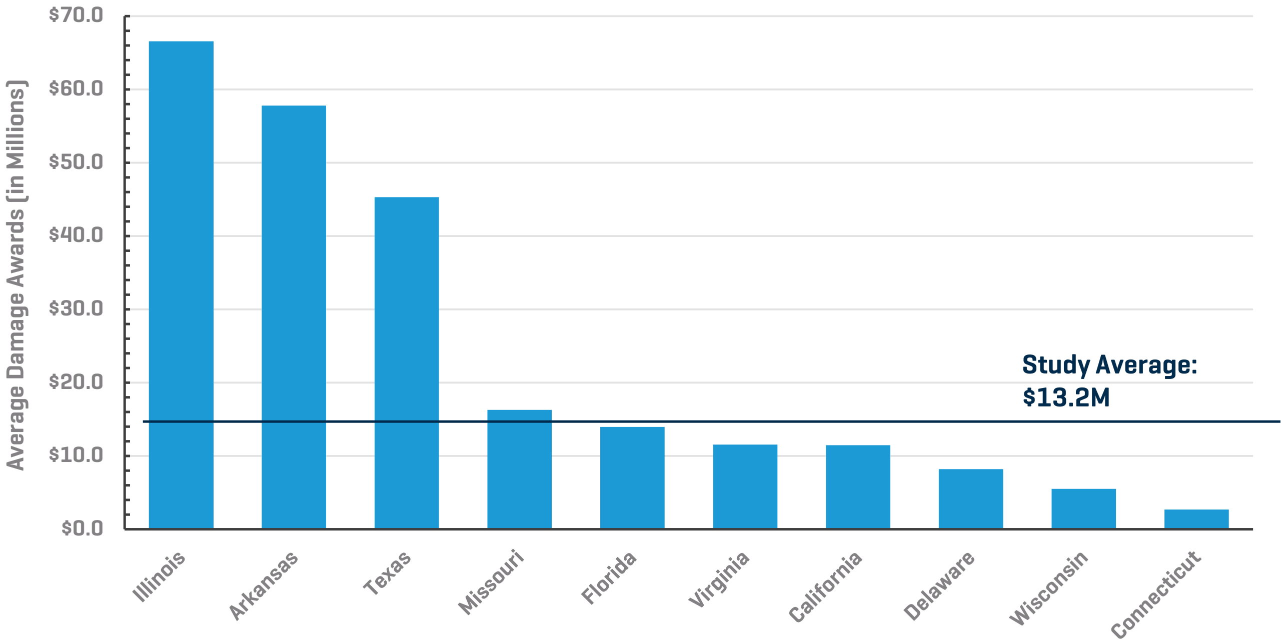
FIGURE 11:

Top 10 Damage Awards (2017-2022) - Cases with Trade Secret Claims

Case	Total Damages Awarded	Trade Secret Damages Awarded	State (Division)
BMC Software, Inc. v. International Business Machines Corporation	$ 1,624,088,184	$ -	Texas (Southern)
Motorola Solutions, Inc. et al v. Hytera Communications Corporation Ltd. et al	$ 631,747,992	$ 135,800,000	Illinois (Northern)
Taxinet, Corp. v. Leon	$ 300,015,000	$ -	Florida (Southern)
Monster Energy Company v. Vital Pharmaceuticals, Inc. et al	$ 293,079,761	$ 3,155,587	California (Central)
Syntel Sterling Best Shores Mauritius Limited v. The Trizetto Group, Inc. et al	$ 284,855,192	$ 284,855,192	New York (Southern)
Zenimax Media Inc et al v. Oculus VR Inc et al	$ 250,000,000	$ -	Texas (Northern)
ResMan, LLC v. Karya Property Management, LLC et al	$ 152,290,000	$ 20,800,000	Texas (Southern)
Epic Systems Corporation v. Tata Consultancy Services Limited et al	$ 140,721,646	$ 140,000,000	Wisconsin (Western)
Steves and Sons, Inc. v. Jeld-Wen, Inc.	$ 135,493,675	$ 1,200,000	Virginia (Eastern)
Quantlab Technologies Ltd. (BVI) et al v. Godlevsky et al	$ 123,240,410	$ 12,200,000	Texas (Southern)

FIGURE 12:

Average Damage Awards by State (Post-DTSA)



TRENDS IN TIME TO RESOLUTION

One area of interest was the mean time to resolution (MTTR) for the cases that resulted in trials (**Figure 13**). Based on the cases studied, the time required to resolve federal trade secret lawsuits averaged 3.6 years from the initial filing of a complaint to the eventual outcome at trial.[25] This MTTR was rather consistent from 2012 through 2018, with the yearly mean varying between three years and three years, seven months. However, since 2018, the mean has spiked, reaching its peak of over four and a half years in 2022. This recent increase in the length of cases may be due to the increasing complexity of the trade secret issues being adjudicated (the effects of the COVID-19 pandemic on court activity may also have played a role in this increase). It is important to note that the MTTR declined slightly toward the average in 2021.

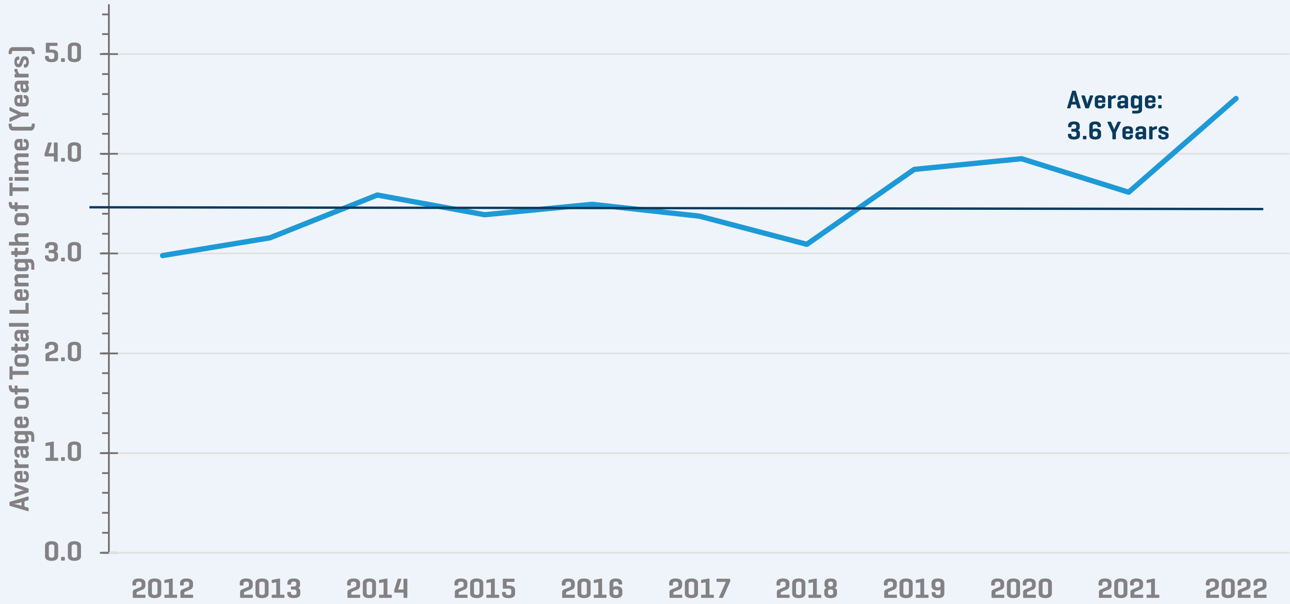
This is an area to watch in the coming years to determine if there will be a return to the three-year, seven-month norm, or if trade secret litigators should expect four or more years to be the new standard. One of the hallmarks of the DTSA is to have readily applicable and consistent federal court decisions, which should theoretically shorten the MTTR of matters, but the data does not reflect this result.

From case to case, the time to resolution varies widely, ranging from one year to over ten years, including appeals. Similar to damage awards, there does not appear to be a clear link between state-wide caseload and MTTR. In our study, many of the states with the largest caseloads had shorter means than the national mean, implying that even when a court handles a disproportionate number of cases, time to trial is not adversely affected. For example, as illustrated in **Figure 14**, trade secret cases tried in Texas were resolved 6% faster, 3.4 years on average, than the national average of 3.6 years. California had an average of 3.3 years, and Florida had an average of about 2.7 years. In fact, of the five most active districts, only New York, at 3.7 years, experienced a longer average than the national mean.

25 This analysis does not incorporate additional time due to appeals.

FIGURE 13:

Average Length of Case by Year Terminated

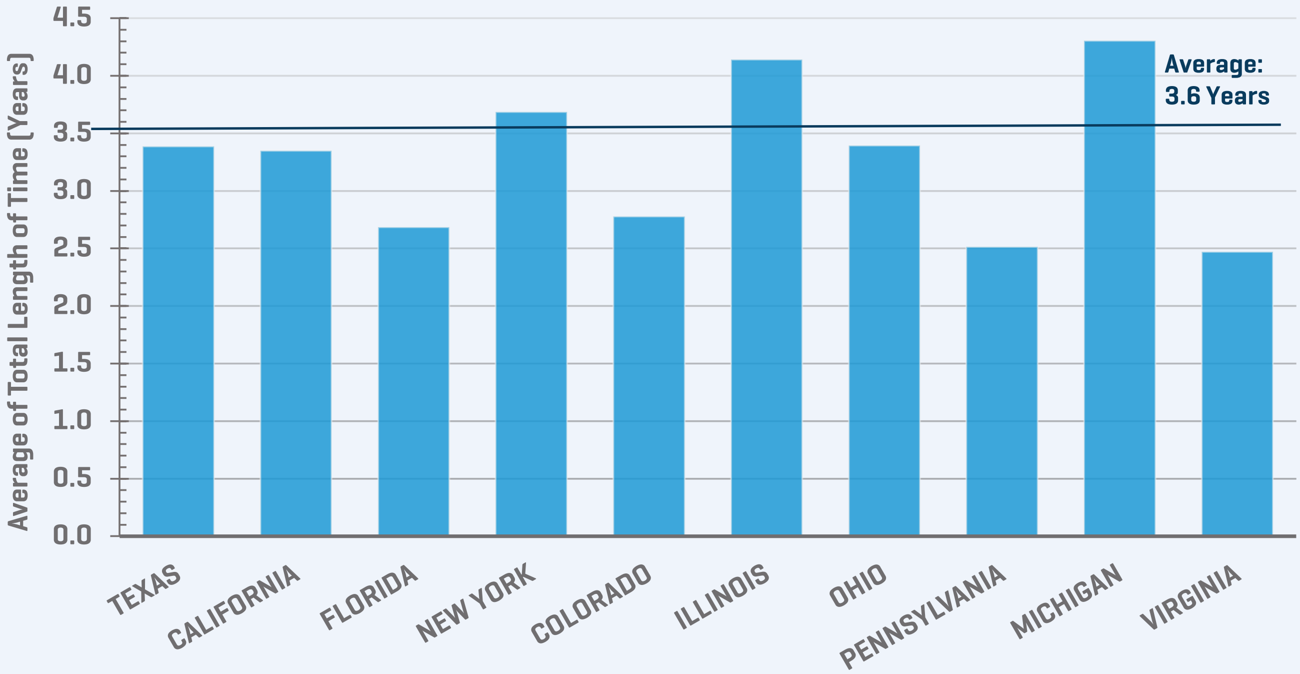


**Only includes cases that resulted in a trial*

FIGURE 14:

Average Time to Resolution for Most Active States

(Cases Terminated 2010-2022)



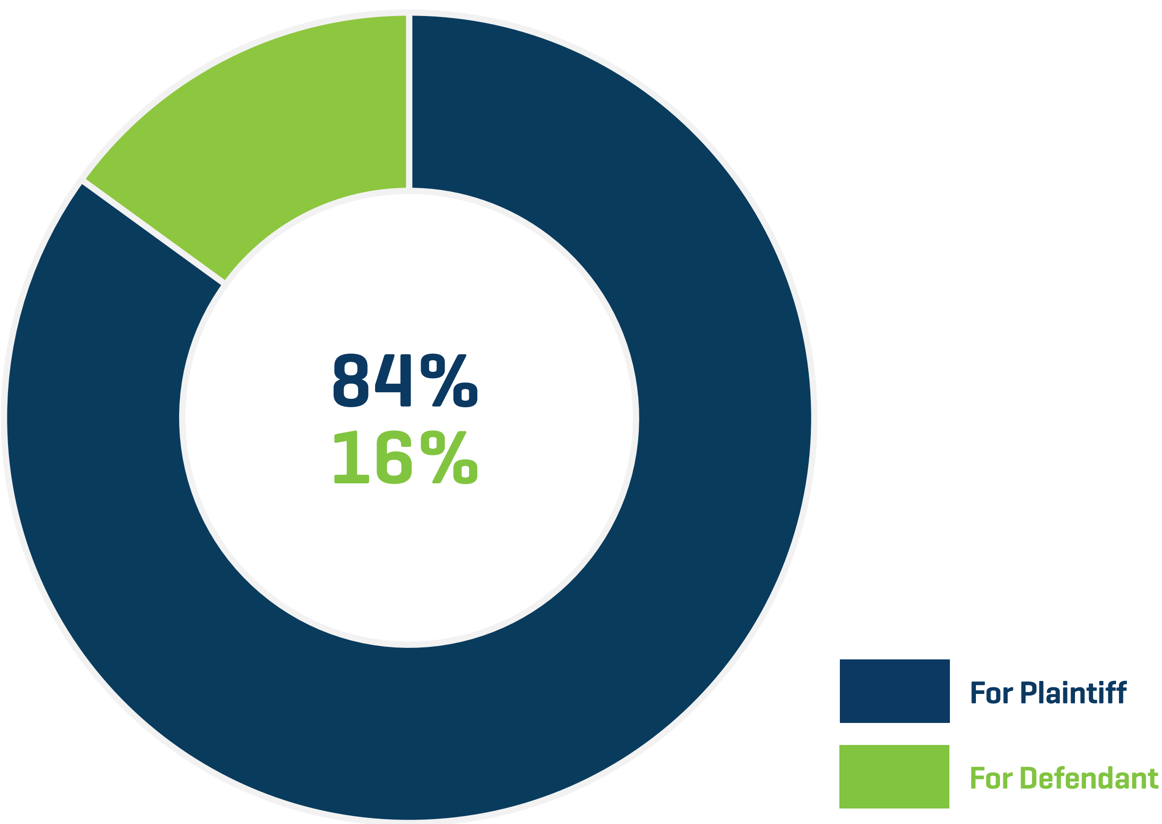
TRENDS IN CASE RESOLUTIONS

One interesting finding to emerge from this study was the proportion of trade secret judgments in favor of the plaintiffs. As portrayed by **Figure 15**, plaintiffs fared well when bringing trade secret claims to trial, earning a judgment in their favor 85% of the time. Defendants received a favorable verdict in only 15% of cases. This ratio has increased since the last time we issued this report in 2020, when our findings showed that 68% of cases were found in favor of the plaintiff.

Furthermore, trade secret cases were judged in favor of the plaintiffs more often than in other IP cases such as patent trials. When looking at patent cases tried over the same period, plaintiffs were successful at trial 73% of the time, much more often than Defendants, but less often than in trade secret trials.

FIGURE 15:

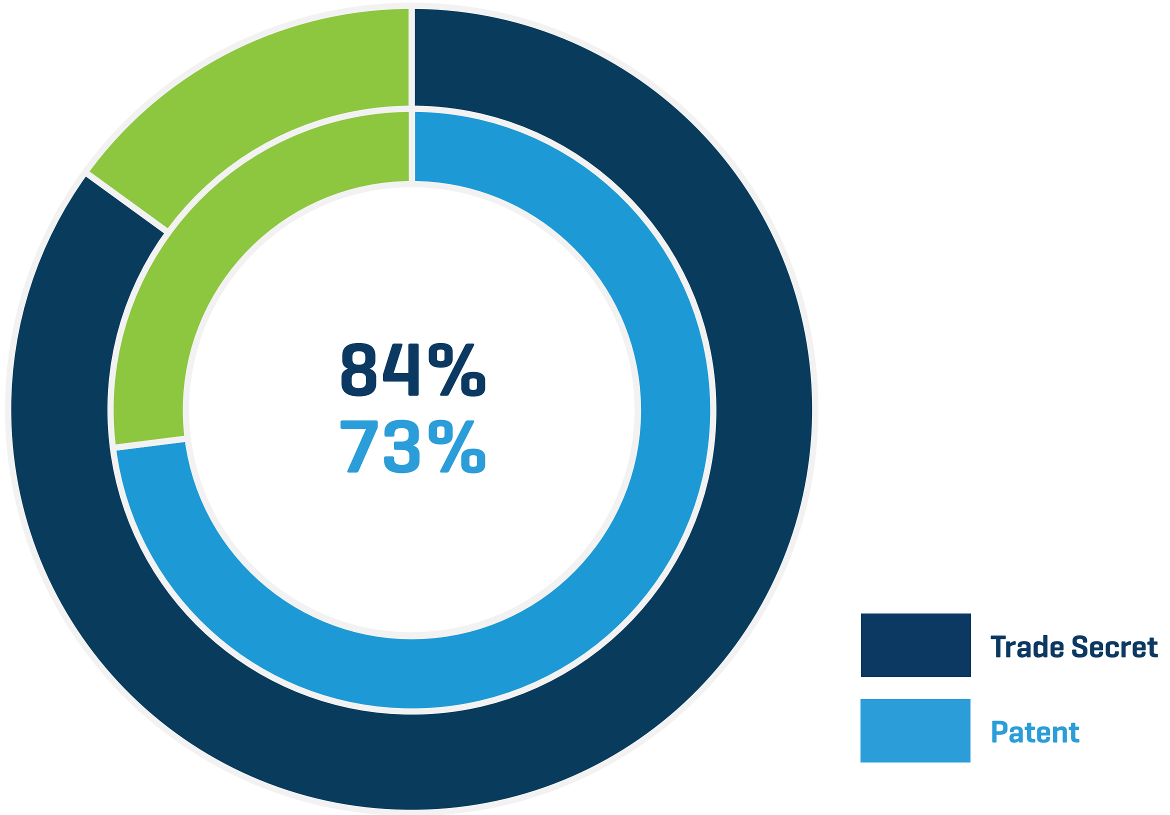
Proportion of Trade Secret Court Rulings by Prevailing Party



*This figure excludes cases resulting in a settlement.

FIGURE 16:

Patent Cases v. Trade Secret Cases - Percent of Trials Won by Plaintiff



APPEALS TRENDS

The decision of the district court is rarely the final stage of a trade secret case. Often, trade secret decisions are appealed. Of the trial cases that resulted in large damages award in the district courts, many were later appealed. In addition, many of the top ten damages award cases were lowered or overturned. Thus, the largest awards may not stand up to the scrutiny of higher courts.

APPENDIX I:

RESEARCH METHODOLOGY AND LIMITATIONS

Stout's analysis for this report includes federal trade secret cases decided during the 1990-2022 period.[26]

For the prior versions of this report, we conducted a search using the Lexis Advance® database for U.S. district court cases identified by Lexis as those pertaining to trade secret claims.[27] This resulted in a population of over 10,800 cases filed in the 29-year period between January 1, 1990, and June 30, 2019. As this population contained cases at every stage of the litigation process from initial complaint filing to final court rulings, we narrowed the study to only those cases that had advanced far enough to have a measurable outcome.

We used Lexis Advance's Jury Verdicts and Settlements database, a comprehensive summary of reported judicial decisions, resulting in 639 cases, and focused on this set of cases to examine. Our analysis was performed on a standardized and comparable basis, demonstrating observable trends and unique findings in federal court trade secret litigation for matters in which a verdict or publicly available settlement information was found over the 29-year period.

In this report, we have expanded our data sets to include cases that went to trial through December 31, 2022, through the use of Lex Machina. Similar to previously collected data, we reviewed corresponding dockets in order to eliminate duplicate cases and those cases that did not truly relate to trade secret claims or counterclaims, resulting in 327 unique trade secret cases in the final study. Removing cases that resulted in a settlement with no publicly disclosed data resulted in a population of 217 cases making up the damages and nonmonetary awards section of our analysis, other than in certain instances where a different sample was considered for a particular reason as previously described.

In addition to the analysis of specific cases, we also used Lex Machina to research trade secret cases filed from 2010 through 2022. This data allows us to analyze certain case characteristics for the over 15,000 cases filed during that period. While we have relied heavily on the accuracy of information as coded by these data providers due to the large volume of cases, we have also analyzed motions, orders, verdict forms, and other qualitative primary sources to provide further insights on certain cases as previously described. Where our interpretation of such cases has deviated from coded information, we have relied upon our own interpretations.

CASE STATISTICS

For each case in the study, we identified and tracked over 45 different characteristics across multiple informational categories of the lawsuit. This includes items such as jurisdictional information, background of the parties, the nature of the trade secret(s) at issue, and related causes of action or counterclaims.

Our research also captured information pertaining to the use of experts, settlements and judgments, damages and other awards, and post-trial results. In this report, our research and results have been summarized to highlight notable observations and augment our ongoing monitoring of the trends in trade secret litigation. In this report, our research and results have been summarized to highlight notable observations and augment our ongoing monitoring of the trends in trade secret litigation, and augment our ongoing monitoring of the trends in trade secret litigation.

26 Although there have historically been some significant trade secret decisions made at the state level, the current condition of the state court databases and availability of complete information varies widely state to state and is not consistent. Our focus on federal court cases allowed for a more uniform and comparable analysis than inclusion of cases on state court dockets.

27 As the dataset is an extract from the third-party LexisNexis databases, the findings herein are limited to any inherent limitations on LexisNexis regarding identifying cases and attributing them as relating to trade secrets.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APPENDIX II:

RECENT LARGE VERDICTS IN TRADE SECRET CASES

The below summarizes various large damages cases in which verdicts were received after the issuance of Stout's previous 2020 trade secret report.

***VERSATA SOFTWARE INC. V. FORD MOTOR CO.,* NO. 2:15-CV-10628 (E.D. MICH. OCT. 26, 2022)**

In 2004, Versata Software, Inc. entered into a 15-year license agreement with Ford Motor Co. in which Versata licensed Ford software to manage the configuration of vehicle components during assembly. In 2014, Ford ended the contract, saying it had developed its own software. In 2015, Versata filed a complaint against Ford, and on October 27, 2022, a federal jury ruled in favor of Versata Software Inc., finding Ford Motor Company guilty of misusing and disclosing confidential information, reverse-engineering the software for its own use, using the software without a license, and misappropriating Versata's trade secrets. The jury awarded Versata $82.3 million for breach of contract and $22.4 million for misappropriation. The case is currently pending appeal.

ZEST LABS, INC. ET AL. V. WAL-MART INC E.D.ARK. 4:18-CV-00500-JM

Zest Labs began developing its "Zest Fresh" solution, a solution for reducing fresh food waste. Over the course of multiple years, ending in 2017, Zest Lab worked with Walmart to demonstrate the Zest Fresh solution. During this time, Zest Labs shared its proprietary information with Walmart. Months after Walmart ended the relationship, it announced a similar system to Zest Fresh. Zest Labos claimed that Walmart misappropriated trade secrets, proprietary information, and know-how related to its Zest Fresh technology for Walmart's own benefit. On August 1, 2018, Zest Labs filed misappropriation of trade secrets and breach of contract claims against Walmart. On April 9, 2021, a federal jury ruled in favor of Zest Labs, ordering Walmart to pay $60 million in reasonable royalties for trade secret misappropriation, $50 million for punitive/willfulness damages, and $5 million for breach of contract.

RESMAN, LLC V. KARYA PROPERTY MANAGEMENT, LLC ET AL. E.D.TEX. 4:19-CV-00402-ALM

ResMan is a property management software company whose customer, Karya Property Management, LLC, in breach of its contractual obligation to ResMan, provided a third-party software consultant, Scarlet InfoTech, Inc. d/b/a Expedien, Inc., unauthorized access to ResMan's proprietary software platform for the purpose of copying ResMan's platform and creating a directly competitive software product. On June 3, 2019, ResMan filed a complaint against Karya and Expedien for breach of contract, tortious interference with contract, violation of the Computer Fraud and Abuse Act (CFAA), and declaratory judgment pursuant to 28 U.S.C. § 2201. On October 1, 2019, ResMan amended the complaint to include violation of the Defend Trade Secrets Act (DTSA) and violation of the Texas Uniform Trade Secrets Act (TUTSA). On March 18, 2021, a federal jury ordered Karya and Expedien each to pay ResMan $45,000 for contract damages, Expedien to pay ResMan $11.4 million and Karya to pay ResMan $9.4 million in lost profits damages, and Expedien to pay ResMan $50 million and Karya to pay ResMan $40 million in punitive/willfulness damages.

PEGASYSTEMS INC. V. APPIAN CORPORATION ET AL. D.MASS. 1:19-CV-11461-PBS

In May 2020, Appian Corp., a cloud computing firm located in McLean, Virginia, filed suit against Pegasystems Inc., a Massachusetts-based software firm, and an individual, Youyong Zou, alleging that beginning in 2012, over the span of eight years, Pegasystems utilized multiple methods to gain access to Appian's trade secrets to better compete against it. Specifically, Appian alleges that Pegasystems paid Zou, an employee of a government contractor using Appian software, for access to the back end of Appian software. Additionally, Appian alleges that Pegasystems employees used false identities to gain access to trial versions of Appian's software and that Pegasystems obtained further access through its partners in India. Appian brought claims under the Virginia Computer Crimes Act and the Virginia Uniform Trade Secrets Act. A Fairfax County jury ruled against Pegasystems for violating both the Virginia Uniform Trade Secrets Act and the Virginia Computer Crimes Act and awarded Appian $2.0 billion in damages. The jury also ruled that Zou owed Appian $5,000 in damages for computer fraud in violation of the Virginia Computer Crimes Act. This is estimated to be the largest amount in Virginia State Court history. Pegasystems appealed the decision to the Court of Appeals of Virginia.

The damages award was overturned on appeal in July 2024, though Appian has indicated that it plans to file its own appeal.

COMET TECHNOLOGIES USA INC. ET AL. V. XP POWER LLC

This case was filed on September 11, 2020, in the U.S. District Court for the Northern District of California. Comet claimed that XP Power had stolen trade secrets related to technology like radio frequency generators and matching networks, technology which Comet sells to customers in the semiconductor industry. The complaint alleged that XP Power began working on similar technology in 2017, hiring away key personnel from Comet who had access to the company's trade secrets. A jury awarded Comet compensatory damages on two of the four trade secrets for a total of $40 million in damages, split evenly between $20 million in compensatory damages and $20 million in punitive damages.

MOTOROLA SOLUTIONS, INC. ET AL. V. HYTERA COMMUNICATIONS CORPORATION LTD. ET AL.)

This case was filed on March 14, 2017, in the U.S. District Court for the Northern District of Illinois. Motorola claimed that Hytera, a Chinese competitor of Motorola, stole trade secrets related to its digital two-way communication systems, which Motorola sells to thousands of public safety organizations, emergency response teams, transportation and logistics organizations, and others in the U.S. and worldwide. The complaint alleged that Hytera hired personnel from Motorola who had access to and extensive knowledge of Motorola's proprietary technologies. In this matter, Motorola was ultimately awarded $135.8 million in compensatory damages under the DTSA, $136.3 million in compensatory damages under the Copyright Act, and $271.6 million – the maximum available – in punitive damages.

CODA DEVELOPMENT S.R.O. ET AL. V. GOODYEAR TIRE & RUBBER COMPANY ET AL.

This case was filed on August 9, 2015, in the U.S. District Court for the Northern District of Ohio. Coda alleged misappropriation of trade secrets related to Coda's Self-Inflating Tire (SIT) technology, among other claims. Coda claimed the parties had discussed confidential and proprietary information related to the SIT technology in the interest of potentially pursuing a joint project, at which point Goodyear proceeded to patent the SIT technology without Coda's knowledge or consent. The jury ruled in favor of Goodyear on five out of 12 trade secrets on which Coda alleged misappropriation. Goodyear was awarded $2.8 million in compensatory damages and $61.2 million in punitive damages. The $2.8 million amount was notably less than the between $89 million and $246 million that Coda's lawyers asked for. Additionally, the $62.1 million in punitive damages was expected to be significantly limited to $8.4 million under Ohio law.

Coda filed for appeal on October 6, 2017. The Court of Appeals vacated and remanded the trial on February 22, 2019. On March 31, 2023, Goodyear won a reversal of the $64 million verdict. Judge Sara Lioi ruled that four of the five trade secrets for which damages had previously been awarded were not specific enough to be considered protectable trade secrets, and that the fifth was "no secret at all" because the concept was not new in 2009. Counsel for Coda said that Coda was disappointed with the decision and plans to appeal.

SYNTEL STERLING BEST SHORES MAURITIUS LTD. V. TRIZETTO GROUP, INC.

Plaintiff Syntel filed a breach of contract claim against defendant TriZetto, a software developer and design company focused in heathcare administration software, in the Southern District of New York. TriZetto then countersued, alleging that Syntel misappropriated trade secrets and infringed copyrights related to TriZetto's Facets, a software geared specifically to health plan administration.

In October 2020, the jury found in favor of TriZetto on all claims. With respect to TriZetto's counterclaims, the jury found that TriZetto possessed trade secrets that were misappropriate by Syntel in violation of federal law and New York state law and that Syntel infringed on TriZetto's copyrights.

Trizetto proposed two damages theories for the trade secret claims: (1) Syntel's unjust enrichment in the form of "avoided costs" and (2) TriZetto's "lost profits" in the form of a reasonable royalty.

The jury awarded TriZetto $285 million for misappropriation of trade secrets under federal law; $142 million for misappropriation of trade secrets under New York Law; and $59 million for copyright infringement. It also awarded $570 million in punitive damages, which was not apportioned.

After trial, Syntel filed a motion for Judgement as a Matter of Law and a new trial. In May 2021, the District Court issued a final judgment denying Syntel's motion and awarding TriZetto the entire amount listed in the jury's verdict.

The jury's verdict was appealed to the Second Circuit. On June 1, 2023, the Second Circuit affirmed the District Court in part and reversed in part and remanded. The Second Circuit reversed the unjust enrichment award of avoided costs because its gain was fully "addressed in computing damages for its calculation of actual loss." It stated that avoided costs (a form of unjust enrichment damages) is not available in addition to lost profits, absent evidence that the value of the trade secrets was diminished as a result of the misappropriation. Interestingly, the Second Circuit held that avoided costs is still available for future cases concerning a defendant who has realized only modest profits from its misappropriation of trade secrets but has nevertheless been enriched by avoided costs in a larger amount at the expense of the trade secret holder.

The Second Circuit remanded the remaining issue as to the award based on TriZetto's reasonable royalty back to the District Court. The Second Circuit approved the District Court's rulings on pretrial motions, confirming that an award of development costs is not available in addition to lost profits without evidence that the misappropriation diminished the trade secrets' value.

APPENDIX III:
COMPARING THE UTSA AND DTSA

Much has been written about the DTSA and its specific provisions since its introduction in 2016. Our focus is not to reiterate what has already been published on the topic, but to provide insight into how the DTSA is, and can be, used by companies seeking trade secret remedies. We have summarized certain key differences between the UTSA and DTSA below.[28]

- The DTSA is less specific than the UTSA regarding the "proper means" to obtain a trade secret
- Damages can be trebled under the DTSA, as opposed to doubled under the UTSA
- Preliminary Injunction can occur under both the DTSA and UTSA, but under the DTSA it cannot prevent someone from entering into an employment relationship and cannot be in conflict with state law
- Ex parte civil seizure rights are available under the DTSA in extraordinary circumstances; they are not available under the UTSA
- Under the DTSA, attorney's fees can be awarded based on "circumstantial evidence" that the trade secret litigation was filed in bad faith; the UTSA does not reference "circumstantial evidence"

STATE VS. FEDERAL JURISDICTION

Prior to the UTSA, trade secret law had been primarily governed by state law. However, the UTSA was adopted (in some form) by 47 states in addition to the District of Columbia and Puerto Rico.[29] Thus, differing historical state governing laws and UTSA adoption at the state level have resulted in varying interpretations of trade secret law between jurisdictions.

For the three states that have not adopted the UTSA in some form, New York trade secret law is based on case law, court decisions, and precedents, rather than by statute. In Massachusetts, trade secrets are protected by a blend of statutory and common law. North Carolina enacted its own trade secret statute in July 1981 – the North Carolina Trade Secrets Protection Act (NCTSPA), which is based largely on the UTSA.[30] The NCTSPA defines trade secret misappropriation as "acquisition, disclosure, or use of a trade secret of another without express or implied authority or consent, unless such trade secret was arrived at by independent development, reverse engineering, or was obtained from another person with a right to disclose the trade secret." As with the DTSA, reverse engineering is lawful under the North Carolina statute. In contrast to the DTSA, the NCTSPA does not make "knowledge or reason to know that the information is a trade secret" an element of misappropriation. However, "knowledge or reason to know" significantly impacts the remedies available under the state's statute.[31]

Additionally, while both the NCTSPA and federal statutes provide for injunctive relief to prevent the use or disclosure of trade secrets, the NCTSPA states: "If the court determines that it would be unreasonable to enjoin use after a judgment finding misappropriation, an injunction may condition such use upon payment of a reasonable royalty for any period the court may deem just."[32]

28 For additional comparison and contrasts between the DTSA and UTSA, see John Carson and Cameron Cushman, Lewis Roca Rothgerber Christie, "DTSA Versus UTSA: A Comparison of Major Provisions," *Law 360*, 2016; "Trade Secrets Laws and the UTSA: 50 State and Federal Law Survey," Beck Reed Riden LLP, October 30, 2016.

29 Massachusetts, New York, and North Carolina did not adopt the UTSA in any form; "Trade Secrets Laws and the UTSA: 50 State and Federal Law Survey," Beck Reed Riden LLP, October 30, 2016.

30 N.C. GEN. STAT. §§ 66-152 to -157 (Supp. 1981).

31 Bob Meynardie, "Comparing Federal and North Carolina Trade Secret Protection," Meynardie & Nanney, PLLC, May 9, 2016.

32 North Carolina Trade Secrets Protection Act; Article 24, § 66-154.

The "knowledge or reason to know" requirement under the NCTSPA also impacts potential damages. For instance, no damages are available for use prior to the time the defendant knew or had reason to know it was a trade secret. If the defendant has materially changed its position prior to knowledge, then it cannot be enjoined, but it may be required to pay a royalty.[33]

While these are just a few examples comparing the law in a state that did not follow the UTSA, these differences attest to the continued relevancy of state law and the important role the UTSA and individual state laws continue to play in determining what constitutes a trade secret and remedies regarding the misappropriation of trade secrets. It is also worth noting that in many states, trade secret case law differs by county, creating increased complexity.

TRADE SECRET MISAPPROPRIATION

Another subtle but noteworthy difference between the UTSA and DTSA concerns the misappropriation of trade secrets. While the definitions of trade secret misappropriation under the UTSA and the DTSA are substantively identical,[34] with both defining "improper means" as "theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, or espionage through electronic or other means,"[35] they differ when it comes to which actions are included under improper means.

Section 1(1) of the UTSA provides that *proper means* include:

1 | Discovery by independent invention

2 | Discovery by "reverse engineering," that is, by starting with the known product and working backward to find the method by which it was developed; the acquisition of the known product must, of course, also be by a fair and honest means, such as the purchase of the item on the open market for reverse engineering to be lawful

3 | Discovery under a license from the owner of the trade secret

4 | Observation of the item in public use or on public display

5 | Obtaining the trade secret from published literature

Whereas DTSA § 2(b)(6) is broader, it is also less specific, providing that improper means "does not include reverse engineering, independent derivation, or any other lawful means of acquisition."[36]

33 Bob Meynardie, "Comparing Federal and North Carolina Trade Secret Protection," Meynardie & Nanney, PLLC, May 9, 2016.

34 "Trade Secrets Laws and the UTSA: 50 State and Federal Law Survey," Beck Reed Riden LLP, October 30, 2016.

35 UTSA § 1(1); DTSA § 2(b)(6)(A).

36 James Morrison, "Comparing the Defend Trade Secrets Act and the Uniform Trade Secrets Act," Baker & Hostetler, LLP, May 17, 2016.

Stout's Trade Secret Experience

At Stout, we focus on the damages aspects of trade secret litigation, which includes ongoing analysis of the trade secrets landscape with particular attention to current and evolving trends. Stout experts are leading authorities on quantifying financial damages related to violations of restrictive covenants and trade secret misappropriation. We bring an independent point of view, deep technical expertise, and a track record of credible and compelling testimony in such matters. Our experts regularly work with in-house and outside counsel, government agencies, and courts and mediators to provide analysis and expert testimony on issues including:

- Lost profits resulting from lost sales, convoyed sales, and price erosion
- Financial gains due to alleged misappropriation
- Gains due to saved cost of development and head start
- Reasonable royalties, including the determination of the proper royalty base and rate
- Forensic accounting and analysis pertaining to causational issues
- Economic market analyses
- Irreparable harm analyses
- Mitigation assessments

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