UNIVERSITY *of* PENNSYLVANIA
JOURNAL *of* LAW & PUBLIC AFFAIRS

Vol. 6 | December 2020 | No. 2

USING DATA ANALYTICS TO PREDICT AN INDIVIDUAL LAWYER'S LEGAL MALPRACTICE RISK PROFILE: BECOMING AN LPL "PRECOG"

Nancy B. Rapoport[*] *& Joseph R. Tiano, Jr.*[†]

John Anderton: Why'd you catch that?
Danny Witwer: Because it was going to fall.
John Anderton: You're certain?
Danny Witwer: Yeah.
John Anderton: But it didn't fall. You caught it. The fact that you prevented it from happening doesn't change the fact that it was *going* to happen.

— MINORITY REPORT (20th Century Fox 2002)[1]

---

[*] Garman Turner Gordon Professor of Law, William S. Boyd School of Law, University of Nevada, Las Vegas, and Affiliate Professor of Business Law & Ethics, Lee Business School, University of Nevada, Las Vegas. Professor Rapoport wants to thank Joe Tiano for bringing her into the world of legal analytics and for being a phenomenal writing partner and friend; Youngwoo Ban, the world's most patient and creative law librarian; Josh Nelson, our intrepid research assistant; and her go-to editors, Jeff Van Niel, Morris Rapoport, Bernie Burk, and Randy Gordon.

[†] Founder and Chief Executive Officer of Legal Decoder, Inc. After practicing law for nearly twenty years in Am Law 50 firms (most recently as a partner with Pillsbury Winthrop Shaw Pittman, LLP), Joe decided that it was time to start Legal Decoder, tackle new challenges, and solve problems for his legal industry peers and colleagues who are working hard in an industry that is changing its complexion. Joe wants to thank Nancy Rapoport for being a great friend and mentor. Joe also would like to thank his wife, Meredith, for her love and constant support throughout his entrepreneurial journey. He'd also like to thank his team at Legal Decoder, all of whom have been integral to the data-centric aspects of this article.

[1] MINORITY REPORT (20th Century Fox 2002) (emphasis added).

INTRODUCTION

In the movie *Minority Report*, Tom Cruise's character, Chief John Anderton, runs a "Pre-Crime" unit operating out of Washington, D.C. in the year 2054. Relying on three "Pre-Cogs" who can sense that a crime will be committed, Chief Anderton is convinced that the Pre-Cogs are making the nation safer—right up until the moment when the Pre-Cogs predict that Anderton himself will be committing murder in the next thirty-six hours. Anderton must find out why he's been identified as a future murderer. The "minority report" referenced in the movie's title is from the female Pre-Cog, who occasionally dissents from the other two Pre-Cogs' crime predictions. The movie's premise—what if we can predict the future risk of legal malpractice using data generated by an unlikely source to fuel our predictions?—provides us with a nice legal ethics question: What if we could pinpoint specific legal malpractice markers before they mature into actual malpractice?[2]

The practice of law is evolving at a breathtaking pace—true even before COVID-19, but especially true since the pandemic began. Big data, advanced technologies, and alternative legal service providers are revolutionizing how legal services are undertaken, delivered, priced, and evaluated.[3] Until recently, legal services have been almost entirely

---

[2] We use the terms "malpractice," "legal malpractice," "legal professional liability," and "LPL" interchangeably as the same concept. We also use the terms "insurance company," "insurer," and "carrier" interchangeably as the same concept.

[3] *See, e.g.*, Debra Cassens Weiss, *'Fundamental Shift' is Transforming the Delivery of Legal Services, New Report Concludes*, ABA J. (Jan. 6, 2020, 2:10 PM), http://www.abajournal.com/news/article/fundamental-shift-is-transforming-the-delivery-of-legal-services-report-concludes [https://perma.cc/3378-XYC9] (discussing the effect of technology on legal practice); Michele Gorman, *Despite Hype, AI Still Hasn't Caught on with Most Attorneys*, LAW360 (Oct. 23, 2019, 7:38 PM), www.law360.com/articles/1212702/despite-hype-ai-still-hasn-t-caught-on-with-most-attorneys (noting that attorneys say that artificial intelligence and other tools are "creating a generational shift" in legal service delivery); Aebra Coe, *Data Science No Longer a Luxury for Modern Law Practices*, LAW360 (Jan. 4, 2019, 4:07 PM), http://www.law360.com/articles/1105413/data-science-no-longer-a-luxury-for-modern-law-practices (arguing that "lawyers will need to know the basics of data analytics and statistics" to be competitive); Nancy B. Rapoport & Joseph R. Tiano, Jr., *Leveraging Legal Analytics and Spend Data as a Law Firm Self-Governance Tool*, 13 J. BUS., ENTREPRENEURSHIP & L. 171, 172–75 (2019) (discussing how firms are leveraging data to create a business development advantage); Nancy B. Rapoport & Joseph R. Tiano, Jr., *Legal Analytics, Social Science, and Legal Fees: Reimagining "Legal Spend" Decisions in an Evolving Industry*, 35 GA. ST. U. L. REV. 1269, 1269 (2019) [hereinafter Rapoport & Tiano, Jr., *Legal Analytics*] (discussing how data analytics tools are affecting legal service delivery); Aebra Coe, *Why More Law Firms Are Moving to the Cloud*, LAW360 (Mar. 20, 2017, 3:33 PM), https://www.law360.com/articles/903164/why-more-law-firms-are-moving-to-the-cloud (describing increased cloud usage at law firms); Julie Sobowale, *How Artificial Intelligence Is Transforming the Legal Profession*, ABA J. (Apr. 1, 2016, 12:10 AM), https://www.abajournal.com/magazine/article/how_artificial_intelligence_is_transforming_the_legal_profession [https://perma.cc/GPG7-QXER] (reporting that lawyers say artificial intelligence is changing how they think, work, and interact with clients); John S. Dzienkowski, *The Future of Big Law: Alternative Legal Service Providers to Corporate Clients*, 82 FORDHAM L. REV. 2995, 2995–96, 3017 (2014) (discussing the effect of innovative legal services models); John O. McGinnis & Russell G. Pearce, *The Great Disruption: How Machine Intelligence Will Transform the Role of Lawyers in the Delivery of Legal Services*, 82 FORDHAM L. REV. 3041, 3041, 3056 (2014) (arguing that information technology has begun to disrupt lawyers' market power in providing legal services); Daniel Martin Katz, *Quantitative Legal Prediction—or—How I Learned to Stop Worrying and Start Preparing for the Data-Driven Future of the Legal Services Industry*, 62 EMORY L.J. 909, 910–11, 949 (2013) (positing that legal

consultative, qualitative, and tailored in nature. Statistics and automation used to take a back seat to experience and human effort. In today's legal industry, there are two distinct offerings of "legal solutions": (1) the practice of law itself, and (2) the *business* of delivering legal services.[4] Clients now receive a hybrid qualitative/quantitative service mix where many aspects of law can be "mass customized,"[5] using innovative artificial intelligence tools to automate tasks formerly assigned to junior associates and paraprofessionals and providing "bespoke" services on complex issues to those clients who can afford them.[6] Moreover, the increasing use of legal analytics provided by third-party industry innovators can give both law firms and clients new perspectives on efficiency and value.[7]

These innovations affect how, when, and where attorneys practice (e.g., in BigLaw or elsewhere), thus contributing to heightened client expectations regarding speed and accuracy in the delivery of legal

---

information technology will help define the future of the legal services industry). Most of these changes are occurring in BigLaw or highly specialized boutiques, but many of the advances in artificial intelligence are likely used by lawyers in the other sectors of legal practice as well, from solos and small firms to mid-sized firms.

[4] In other words, the pricing of those legal services, which also includes reductions in client bills based on negotiations with clients and the overall budgeting process in which law firms engage.

[5] "Mass customization" is defined as "the mass production of individually customized products, goods, and services." Mass Customization, *MERRIAM-WEBSTER* https://www.merriam-webster.com/dictionary/mass%20customization [https://perma.cc/55YT-RNT6] *(last visited* July 11, 2020). For one of the seminal articles on the application of mass customization, see James H. Gilmore & B. Joseph Pine II, *The Four Faces of Mass Customization*, 75 HARV. BUS. REV. 91 (1997).

[6] For a wonderful article discussing the array of legal services options available to a Chief Legal Counsel, see Omari Scott Simmons, *Chief Legal Officer 5.0*, 88 FORDHAM L. REV. 1741, 1747–49 (2020). Other great articles include Joan C. Williams, Aaron Platt & Jessica Lee, *Disruptive Innovation: New Models of Legal Practice*, 67 HASTINGS L.J. 1 (2015); McGinnis & Pearce, *supra* note 3; Dzienkowski, *supra* note 3.

[7] Among the top disruptors, of course, is Legal Decoder. LEGAL DECODER https://www.legaldecoder.com/ [https://perma.cc/6566-H2QZ] (last visited Nov. 21, 2020). (Yes, we're both biased in favor of Legal Decoder.) Legal Decoder's mission is to revolutionize the way that legal services are priced and economically evaluated. Legal Decoder's software is capable of programmatically running the entire analysis of the Malpractice Markers. *See* discussion *infra* Section IV.B. Other companies that provide data about "legal spend" include LUMEN LEGAL, http://www.lumenlegal.com/legal-spend-analytics [https://perma.cc/VX7Q-KQ8B] (last visited Nov. 21, 2020); *LegalVIEW Analytics*, WOLTERS KLUWER, https://www.wolterskluwer.com/en/solutions/enterprise-legal-management/legalview-analytics) [https://perma.cc/BS5L-HSYF] (last visited Nov. 21, 2020); and BODHALA, (http://www.bodhala.com/legal-spend-analytics) [https://perma.cc/Q9RW-JKJK] (last visited Nov. 21, 2020).

services.[8] Today, law is unabashedly a business in which clients expect lawyers to deliver legal services better, faster, and cheaper, all without sacrificing quality. The old days of having only two degrees of service delivery freedom—fast and good, fast and cheap, slow and good—are gone. In addition, clients have become ultra cost-conscious, often characterizing much of the work performed by lawyers as routine, commoditized, and undeserving of ever-increasing hourly rates. The practice of law is no longer a genteel profession in which attorneys are viewed as skilled artisans, trusted advisors, and deep thinkers, who can take all the time needed to deliver a (near-)perfect work product. Feeling client pressure to be more efficient, legal professionals regularly use innovative technologies in order to meet client expectations.[9]

When those expectations aren't met, clients don't hesitate to sue their former attorneys for legal malpractice. For attorneys and malpractice insurers, legal malpractice claims can result in massive economic damages, resource drains, and reputational harm. Despite significant transformations in nearly every other aspect of the legal industry, the approach to preventing, predicting, assessing, and resolving malpractice claims hasn't really changed. Malpractice insurers and their law firm clients continue to take an old-fashioned approach when it comes to legal professional liability (LPL). LPL industry experts have confirmed that most legal malpractice insurers aren't yet leveraging advancements in technology and legal analytics to predict risk areas.[10] Instead, LPL carriers primarily react to actual events or use the broad brush of simple demographics to set rates. Consequently, the "all-in" malpractice costs for insurers and law firms continue to escalate, even though

[8] For a discussion of how chief legal officers can leverage new developments to keep legal fees reasonable, see generally Nancy B. Rapoport, *Using General Counsel to Set the Tone for Work in Large Chapter 11 Cases*, 88 FORDHAM L. REV. 1727 (2020); Nancy B. Rapoport, *Client-Focused Management of Expectations for Legal Fees in Large Chapter 11 Cases*, 28 AM. BANKR. INST. L. REV. 39 (2020).

[9] These innovative technologies include contract generation and review software; legal analytics tools; practice management platforms; document management systems; timekeeping and billing software; and eDiscovery tools, among others. For over two decades, Robert Ambrogi, an attorney and journalist, has been writing about the LegalTech industry on his website. LAWSITES, https://www.lawsitesblog.com/ [https://perma.cc/XD86-7LXD] (last visited Nov. 6, 2020). That website is an excellent resource to keep abreast of innovations in the LegalTech industry.

[10] As part of our research for this article, we conducted hour-long interviews with over a dozen executives directly involved in the LPL industry as LPL carrier executives, underwriting experts, claims executives, LPL brokers and consultants, and risk management partners at law firms. Special thanks go to David Bell, Steve Couch, Henry Dinger, Joe McCarthy, Douglas Richmond, Todd C. Scott, and Sharon Stuart, along with a few other interviewees who wished to remain anonymous.

risk and costs should be decreasing.[11] This is the wrong result for everyone directly or peripherally involved in the legal industry and, more specifically, the wrong result for the LPL industry as a whole.[12]

This paper posits that a data-driven approach to legal professional liability will reduce the overall cost of malpractice claims, thus helping law firms to recognize potential pressure points before those intimations of problems become full-blown blisters. Part I analyzes the underpinnings of malpractice claims. Part II discusses how malpractice insurers and their law firm clients have historically assessed, underwritten, and resolved malpractice claims. Part III explains why historical malpractice metrics fall short. And Part IV proposes a new data-driven analytic schema by which malpractice claims might be predicted, managed, assessed, and resolved.

---

[11] To make matters worse for LPL carriers, many LPL industry experts indicated that the underwriting profit margin for LPL carriers is razor-thin, often as low as five percent (5.0%), leaving them with the challenge of having to rely predominantly on investment income to generate their desired economic results. *See supra* note 10.

[12] *See, e.g.*, *Lawyers Professional Liability Insurance Claims Grow in Severity, Complexity, Cost*, INS. J. (May 31, 2019), https://www.insurancejournal.com/news/national/2019/05/31/527978.htm [https://perma.cc/8K5V-VUDB] (discussing the growing complexity and higher costs associated with defending legal malpractice claims); HERBERT M. KRITZER & NEIL VIDMAR, WHEN LAWYERS SCREW UP IMPROVING ACCESS TO JUSTICE FOR LEGAL MALPRACTICE VICTIMS 71 (2018) (showing, in Figure 4.1, that the annual claim rate for large firms is approximately 7.5 out of every 1,000 lawyers); *id.* at 121–22 (estimating that large firms spend $570 million per year to pay and defend malpractice claims). As Kritzer and Vidmar note,

> ALAS [Attorneys Liability Assurance Society] offers its members policies with per-claim limits starting at $10 million and going as high as $75 million. Premiums are not experienced based. Rather, all members of ALAS pay the same rate per lawyer for a policy with a specific limit and a specific "self-insured retention" (SIR). A[ ] SIR operates similarly to a deductible with one key difference. The insured must expend the SIR before the insurer steps in and starts to pay; in a contract with a deductible, the norm in the solo/small firm market, the insurer usually will recoup the deductible from the insured after paying the claim and the defense costs. The per-claim SIR with ALAS ranges from a minimum of $175,000 up to a maximum of $5 million. In 2015, a policy with the lowest claim limit had a premium of $5,075 per lawyer if the SIR was $175,000' the premium declined to $3,128 with a $1 million SIR and to $1,450 with a $5 million SIR. The comparable figures for a policy with a claim limit of $50 million were $9,398, $6,444, and $4,128, respectively; for a policy with the maximum claim limit of $75 million, the figures were $10,664, $7,594, and $5,225, respectively.

Id. at 45. *See generally* Attorneys Liability Assurance Society, https://alas.com [https://perma.cc/EYZ5-FDMK] (last visited Nov. 27, 2020).

I. UNDERPINNINGS OF MALPRACTICE ACTIONS

As with virtually every other aspect of the law, the basis for a legal malpractice claim requires the application of law to a set of facts. We will first discuss the types of errors and fact patterns giving rise to a legal malpractice claim and then address how several theories of law determine malpractice liability.

A. Legal Malpractice Errors

An infinite number of fact patterns could form the factual underpinnings of a legal malpractice claim. We've distilled all of these fact patterns into three types of errors indicating breaches of duties owed to clients by their lawyers. First, there are substantive legal errors, such as giving incorrect legal advice, doing exceptionally sloppy work (like missing a statute of limitations or other important deadline), and engaging in other actions that fall below the standard of care. Most substantive legal errors will reflect on an attorney's competence and diligence. Next, there are administrative legal errors, which include failing to identify and resolve conflicts of interest, faulty withdrawal from representation, failure to transfer client files, and improper commingling of funds. Administrative errors usually relate to poor workflow processes at law firms, insufficient client communications, and ineffective internal controls and governance measures. Worst of all are intentional wrongdoings, such as billing fraud, misappropriation of client funds, frivolous litigation, and outright dishonesty, all of which will trigger malpractice claims or worse.

B. Malpractice Theories of Liability

In countless cases and treatises, courts and legal experts have explained the complicated principles of professional ethics and legal professional liability, and we're not going to rehash them here.[13] For purposes of this article, we'll offer a highly simplified and abbreviated version of the elements of a legal malpractice action under several different legal theories. Whether a claim is grounded in professional negligence, the law of fiduciaries, or contract law, there are four fundamental elements required to establish a *prima facie* malpractice action:[14]

---

[13] For an in-depth discussion of the law of legal professional liability, see RONALD E. MALLEN, LEGAL MALPRACTICE (2020 ed.), a five-volume, 9088-page treatise viewed as the leading authority on the topic.

[14] *See, e.g.*, *In re* 35th & Morgan Dev. Corp., 510 B.R. 832, 848 (Bankr. N.D. Ill. 2014) ("In an action for legal malpractice the plaintiff must plead and prove that: the defendant attorney

- **Duty Owed.** A lawyer-client relationship has been established, giving rise to a legal duty owed by the lawyer to the client.[15] In nearly every jurisdiction, the lawyer-client relationship triggering a lawyer's duty arises when a client seeks legal representation and advice or has formally engaged counsel.[16]

- **Violation.** Not every error made by a lawyer equates to malpractice. There must be a violation of a standard of professional conduct that is the baseline for acceptable professional behavior.

- **Causation.** For a legal malpractice claim to be valid, an aggrieved client must prove that the lawyer's violation or error caused the damages.[17]

- **Damages.** An aggrieved client must prove actual damages.[18]

1. Civil liability for professional negligence

Against this backdrop, it's important to understand what does and doesn't "count" to establish a standard of care associated with civil liability for professional negligence or legal malpractice. A state's ethics rules provide standards for professional discipline by the entity regulating lawyer conduct.[19] The violation of a state's ethics rules can't form the basis of a

---

owed the plaintiff a duty of due care arising from the attorney-client relationship; that the defendant breached that duty; and that as a proximate result, the plaintiff suffered injury in the form of actual damages. Even if negligence on the part of the attorney is established, no action will lie against the attorney unless that negligence proximately caused damage to the client.") (quoting Governmental Interinsurance Exch. v. Judge, 850 N.E.2d 183, 187 (Ill. 2006)).

[15] 1 MALLEN, *supra* note 13, § 8:12.

[16] *Id.* Note that there are some ethical duties owed to potential clients. *See* MODEL RULES OF PRO. CONDUCT r. 1.18 (AM. BAR ASS'N 2020) ("Even when no client-lawyer relationship ensues, a lawyer who has learned information from a prospective client shall not use or reveal that information . . . ."). Other duties flow to former clients. *See, e.g.*, *id.* r. 1.9 (discussing how lawyers and their present or former firms are constrained in using information about former clients).

[17] *See* 1 MALLEN, *supra* note 13, § 8:20 ("A basic tenet of any cause of action, no matter the legal theory, is that the alleged wrongful conduct of the attorney must be a cause of the plaintiff's injury.").

[18] *See* 3 *id.* § 21:1 ("Although damages are an essential element of a cause of action for legal malpractice, there are jurisdictional differences about whether nominal damages will suffice. If actual damages are required, the courts agree that the fact of damage cannot be left to speculation.").

[19] *See, e.g.*, NEV. RULES OF PRO. CONDUCT r. 1.0A(c) (2019) ("Failure to comply with an obligation or prohibition imposed by a Rule is a basis for invoking the disciplinary process."); *id.* r. 1.0A(d) ("Violation of a Rule should not itself give rise to a cause of action

client's malpractice action: State ethics rules only relate to the state's own ability to discipline those licensed to practice in the jurisdiction. A state's licensing authority can reprimand, suspend, or even disbar a lawyer who has violated the ethics rules.[20] Even though a violation of the state's ethics rules doesn't give a plaintiff a free pass for winning a malpractice suit, a violation of the ethics rules "may be evidence of breach of the applicable standard of conduct" as they provide industry accepted evidence of the standard of care.[21]

2. Breach of fiduciary duty[22]

Not only may a lawyer be disciplined for a violation of the ethics rules or sued for negligence, but she may also be sued for a breach of her fiduciary duty to her client. As CJS explains:

> The relationship of client and attorney is one of trust, binding an attorney to the utmost good faith in fair dealing with the client and obligating the attorney to discharge that trust with complete fairness, honor, honesty, loyalty, and fidelity. The nature of the relationship between attorney and client is highly fiduciary as it consists of a very delicate,

against a lawyer nor should it create any presumption in such a case that a legal duty has been breached. In addition, violation of a Rule does not necessarily warrant any other nondisciplinary remedy, such as disqualification of a lawyer in pending litigation. The Rules are designed to provide guidance to lawyers and to provide a structure for regulating conduct through disciplinary agencies. They are not designed to be a basis for civil liability. Furthermore, the purpose of the Rules can be subverted when they are invoked by opposing parties as procedural weapons. The fact that a Rule is a just basis for a lawyer's self-assessment, or for sanctioning a lawyer under the administration of a disciplinary authority, does not imply that an antagonist in a collateral proceeding or transaction has standing to seek enforcement of the Rule. Nevertheless, since the Rules do establish standards of conduct by lawyers, a lawyer's violation of a Rule may be evidence of breach of the applicable standard of conduct.") For a more general version of the ethics rules, see the guidance of the MODEL RULES OF PRO. CONDUCT (AM. BAR ASS'N 2020).

[20] *See, e.g.*, *Ethics FAQs*, ST. BAR OF NEV., https://www.nvbar.org/member-services-3895/ethics-discipline/ethics-faqs/ [https://perma.cc/9NHP-KMNU] (last visited Nov. 22, 2020) (listing forms of discipline that Nevada lawyers face for violating state ethics rules).

[21] NEV. RULES OF PRO. CONDUCT r. 1.0A(d) (2019); MODEL RULES OF PRO. CONDUCT pmbl. [20] (AM. BAR ASS'N 2020).

[22] Claims for breach of fiduciary duty closely resemble professional negligence claims, but they differ when it comes to procedural requirements (*e.g.*, statutes of limitations) as well as available remedies. For instance, "[a] lawyer who has acted with reasonable care is not liable in damages for breach of fiduciary duty, but *other remedies* such as disqualification, restitution, and injunctive or declaratory relief may be available." RESTATEMENT (THIRD) OF THE LAW GOVERNING LAWYERS § 49 cmt. d (AM. L. INST. 1998) (emphasis added). As a result of the legal distinction between breach of fiduciary duty and professional negligence, our proposed "Malpractice Markers," *infra* Section IV.C., likewise acknowledges the distinction, separating out a unique "Fiduciary Risk" marker.

> exacting, and confidential character and requires the highest degree of fidelity and good faith. The fiduciary duty of an attorney extends both to current clients and former clients and is broader in scope than a cause of action for legal malpractice. Fiduciary duties created by an attorney-client relationship may be breached even though the formal representation has ended.[23]

In fulfilling a fiduciary duty to her client, an attorney "must serve the client's interests with the utmost loyalty and devotion."[24]

As with malpractice cases, plaintiffs can't link the violations of the ethics rules directly to the violation of the lawyer's fiduciary duties, but again, the ethics rules "may evidence standards of care, and thus, the court may look to the rules to determine whether an attorney failed to adhere to a particular standard of care and thus breached . . . her fiduciary duty to a client."[25]

3. Breach of contract

Add to all of these potential repercussions the garden-variety breach of contract claim, which seeks a remedy for a failure to perform in accordance with the client-lawyer engagement letter. For example, if the engagement letter promises to let the client know of impending budget overruns and the lawyer doesn't do so, that's a breach of contract.[26] If the engagement letter promises "best efforts,"[27] then attorney sloppiness is a breach as well. Our brief survey of the potential consequences for bad lawyer behavior gives you a feel for how that misbehavior can lead to devastating consequences, not just for the lawyer, but also for her law firm.[28]

---

[23] 7A C.J.S. *Attorney & Client* § 344 (2020) (footnotes omitted).

[24] *Id.*

[25] *Id.*

[26] *See, e.g.*, *Sample Engagement Letters*, S.C. B., www.scbar.org/media/filer_public/d6/08/d6083090-d65d-4f6a-b64a-8b08ef359836/sample_engagement_letters_sample_1.pdf [https://perma.cc/GG6C-K2X9] (last visited Nov. 7, 2020) ("We will advise you if fees will be significantly higher than this estimate. At such time, you may decide to restrict the scope of our efforts or we may make other adjustments.").

[27] *See id.* ("You will appreciate we can make no guarantee of a successful conclusion in any case. However, the attorneys of this firm will use their best efforts on your behalf.").

[28] For the quintessential tale of the consequences flowing to a major law firm for the failure of one of its partners, see generally Nancy B. Rapoport, *The Curious Incident of the Law Firm That Did Nothing in the Night-Time*, 10 LEGAL ETHICS 98 (2007) (reviewing MILTON C. REGAN, JR., EAT WHAT YOU KILL: THE FALL OF A WALL STREET LAWYER (2004)). Law firms must supervise their attorneys (and their non-attorney staff); see, for example, MODEL RULES OF PRO. CONDUCT r. 5.1, 5.3 (AM. BAR ASS'N 2020). For an example of a lawsuit encompassing, among other things, malpractice, breach of contract, and breach of fiduciary duty, see Debra Cassens Weiss, *Lawsuit Accuses Morrison & Foerster of a 'Billing Feeding*

II. BIG DATA AND STATISTICAL SCIENCE IN THE INSURANCE INDUSTRY

A. Overview

For decades, the insurance industry has run on internal data generated from customer application forms, claims data, emails, and internal notes.[29] Insurers are now mining externally commissioned data from third-party research organizations and are finding a treasure trove of information from the public record (bankruptcies, judgments, foreclosures, and criminal records) and even from social media sources in order to generate new underwriting metrics.[30] Without question, unstructured raw data abounds. A daily challenge for insurers is transforming raw data into structured data and, ultimately, into viable business intelligence.

One can add to the volume and variety of primary data that are actively sought by insurers even *more* data that are being passively captured via telematics,[31] monitoring equipment, and other technological applications; indeed, the possibilities for data usage in the insurance industry seem endless. In most lines of coverage, insurers have been leveraging data to better understand consumer behavior, to anticipate preferences and risks, to expedite the application process, to improve claims management and

---

Frenzy,' A.B.A. J. (Feb. 20, 2019, 12:05 PM), www.abajournal.com/news/article/suit-accuses-morrison-foerster-of-a-billing-feeding-frenzy [https://perma.cc/24M4-59VL].

29 Ins. Nexus, *External Data in Insurance – Part 1*, REUTERS EVENTS: INS., https://www.reutersevents.com/insurance/analytics/external-data-insurance-part-1 [https://perma.cc/VP2R-5Z9S] (last visited Nov. 22, 2020).

30 *See, e.g.*, Herb Weisbaum, *Data Mining Is Now Used to Set Insurance Rates; Critics Cry Foul*, CNBC (Apr. 16, 2014, 11:29 AM), https://www.cnbc.com/2014/04/16/data-mining-is-now-used-to-set-insurance-rates-critics-cry-fowl.html [https://perma.cc/26QC-WNG4] (describing "price optimization," which is the insurance industry's practice of using customer data to raise rates for individuals likely to accept a rate increase but not for those who are more likely to shop around than to pay a higher rate).

31 The term

> [t]elematics refers to the use of wireless devices and "black box" technologies to transmit data in real time back to an organization. Typically, it's used in the context of automobiles, whereby installed or after-factory boxes collect and transmit data on vehicle use, maintenance requirements or automotive servicing. Telematics can also provide real-time information on air bag deployments or car crashes and locate stolen vehicles by using GPS technology. In addition, telematics can serve as the platform for usage-based insurance, pay-per-use insurance, pay as you drive (PAYD) insurance, pay how you drive (PHYD) programs for fleet insurance, or teen driving programs for retail business.

Telematics, GARTNER: INFORMATION TECHNOLOGY GLOSSARY, https://www.gartner.com/en/information-technology/glossary/telematics [https://perma.cc/6APQ-VJPH] (last visited Nov. 7, 2020).

"market[] effectiveness by tailoring products to individual preferences,"[32] and to reduce claims leakage, which is the difference between what a carrier should have spent on a claim if that claim had been managed efficiently and what the carrier actually spent resolving the claim.[33]

"Big data" provides insurers with invaluable insights into all facets of their business operations. From an operational perspective, data are helping insurers identify trends, anomalies, competitive edges, and business challenges so that insurance executives can craft strategic plans and implement cutting-edge operational tactics for their organizations.[34] In many coverage lines, insurers have leveraged big data in their underwriting operations to more accurately price and incentivize risk-reducing behaviors. For example, insurers calculate smoker vs. non-smoker rates for health and life insurance, offer "safe driver" discounts for auto insurance premiums, and reduce homeowner's insurance premiums for residences with a connected home security system.[35] As a result of its commitment to data, the insurance industry benefits from improved profitability via more accurately assessed risk.[36]

The big data trend shows no signs of slowing in the insurance industry. The insurance industry spent roughly $2.4 billion annually on gathering and using big data in 2018, and that amount is expected to

---

[32] *Big Data*, NAT'L ASS'N INS. COMM'RS: CTR. FOR INS. POL'Y & RSCH. (Mar. 27, 2020), https://content.naic.org/cipr_topics/topic_big_data.htm [https://perma.cc/N7KW-9WYX].
[33] VIJAI GANESH, INFOSYS, BIG DATA ANALYTICS: IT'S TRANSFORMATIONAL IMPACT ON THE INSURANCE INDUSTRY 2 (2018), www.infosys.com/industries/insurance/white-papers/documents/big-data-analytics.pdf [https://perma.cc/M38E-FWZ5].
[34] Christopher Henry, *How Big Data Is Changing the Insurance Industry*, MEDIUM (Mar. 12, 2020), https://medium.com/@chrishtopher.henry_38679/how-big-data-is-changing-the-insurance-industry-293bb243a820 [https://perma.cc/UT4M-3V9Z].
[35] Barbara Marquand, *Life Insurance for Smokers vs. Quitters: When Are You a Nonsmoker?*, NERDWALLET (Apr. 30, 2015), https://www.nerdwallet.com/blog/insurance/life-insurance-nonsmoker/ [https://perma.cc/92U3-NPTF]; Paul Stenquist, *Letting Your Insurer Ride Shotgun, for a Discounted Rate*, N.Y. TIMES, (July 16, 2020), https://www.nytimes.com/2020/07/16/business/car-insurance-app-discounts.html [https://perma.cc/T9R6-NT3K]; *Insurance Discounts for Using Alarm Systems to Protect Your Home*, SAFETY.COM (Jan. 13, 2020), https://www.safety.com/insurance-discounts-for-using-alarm-systems-to-protect-your-home/ [https://perma.cc/9DFU-KR6A].
[36] As our friend Bernie Burk put it,

> In the ordinary course of competition . . . that ought to translate to a very significant degree to lower rates for lower-risk insureds. And . . . better understanding in the legal industry can lead to better risk management, in the sense of policies and practices that should tend to reduce the number, severity, and cost of claims. How much of those savings end up in the insurers' pockets vs. the insureds' pockets is one of those things [that] economists debate long after everyone else has dozed off.

Comment from Bernard A. Burk, Consultant, to authors on an earlier draft of this article (Sept. 28, 2020) (on file with authors).

skyrocket to $3.6 billion by next year.[37] For anyone doubting the effect of big data on the insurance industry, the emergence of an entire vertical segment in the information technology industry called "InsurTech" affirms that innovative technologies, particularly data analytics tools, will be a cornerstone of the insurance industry for years to come.[38] The appetite for data in the insurance industry is insatiable.

B. Amplifying Demographic Data with Behavioral Data

Policy holder segmentation is one of the most fundamental practices in the insurance underwriting world. It enables insurers to accurately and cost-effectively gauge an insured's risk profile.[39] Until just recently, segmentation methodologies used by insurance underwriters have focused on demographic factors (age, gender, marital status, income, geography, and so forth) as the stalwart metrics guiding the evaluation of underwriting risk.[40] Demographic data was the best (and only) way for insurers to establish a risk profile. But as most insurers will attest, it is not uncommon for insureds who have identical demographic criteria to behave in a radically different manner. Such behavioral differences do not invalidate the use of demographics for underwriting purposes. Demographics are an excellent starting point. But the limitations, variables, and unpredictability inherently associated with relying solely on demographics have underscored the need for insurers to find a more sophisticated solution, using underwriting factors tailored to specific current and potential policyholders. Today, underwriting experts understand the limitations of demographic segmentation and seek best-in-class solutions.

Enter behavioral data.[41] Behavioral data are data generated by, or in response to, an individual's activities, reactions, preferences, and habits.[42] By uncovering how individuals act and why, behavioral data enables insurers to predict more accurately how their policyholders are likely to act in the future and to assess the risks posed by those behaviors. Sources of behavioral data

---

37 *Big Data*, *supra* note 32.

38 *This is InsurTech's Moment. Will Insurers Seize the Opportunity?*, PwC, https://www.pwc.com/us/en/industries/financial-services/library/insurtech-innovation.html [https://perma.cc/85XT-LAQS] (last visited Nov. 7, 2020).

39 DELOITTE, ADVANCED ANALYTICS AND THE ART OF UNDERWRITING: TRANSFORMING THE INSURANCE INDUSTRY 4 (2007), www.the-digital-insurer.com/wp-content/uploads/2014/09/326-Deloitte_FSI_AdvancedAnalytics.pdf [https://perma.cc/9984-BVS2].

40 MARK CARR, SOUTH STREET STRATEGY GROUP & AMY MODINI, CHADWICK MARTIN BAILEY, A NEW APPROACH TO SEGMENTATION FOR THE CHANGING INSURANCE INDUSTRY 2 (2012), https://www.cmbinfo.com/cmb-cms/wp-content/uploads/2012/03/HealthDoc_FINAL.pdf [https://perma.cc/GEE6-CGVW].

41 ERIC BENJAMIN SEUFERT, FREEMIUM ECONOMICS: LEVERAGING ANALYTICS AND USER SEGMENTATION TO DRIVE REVENUE 47–82 (Andrea Dierna ed., 2014).

42 Shane Greenstein, *Behind the Buzz of Behavioral Data*, 35 IEEE MICRO 88, 88 (2015).

include websites, mobile devices, software systems, marketing automation systems, medical equipment, call centers, help desks, and billing systems. Behavioral data can be generated from individuals, businesses, or individuals within a business, but behavioral data can always be tied back to a single end-user and is typically captured as an "event." For underwriting purposes, insurers now supplement historical, internal demographic data with behavioral data from external, technologically enabled data sources. Behavioral data can be used to generate better coverage solutions because insurers have better predictive insights into the relative risk of underwriting an individual policy in the future policy term. Many lines of coverage already are capturing and leveraging behavior data in ways never before imagined.

C. The Auto Insurance Paradigm – Behavioral Data Comes to the Forefront

To acquaint readers with a close analog for how behavioral data, fueled by innovative technology, could be used in the legal malpractice context, let's examine the underwriting process for automobile insurance and how it's evolved. It used to be that automobile insurance and the related premiums were largely based on simple factors.[43] Historically, the information used by auto insurers to gauge underwriting risk included only the application information, driver demographics, driver history, and vehicle history.[44] This information was fed into the insurer's rating system to produce an underwriting rating or score, and then the insurance company would use those variables to determine insurability and the size of the premium.[45]

Even as we have moved into the big data era, the information embodying "legacy" auto insurance underwriting factors surely remains relevant; however, innovative technologies, like telematics,[46] that surface behavioral trends have revolutionized the underwriting criteria for auto

[43] *Cf.* Josh Anish, *11 Things Car Insurance Companies Don't Want You to Know*, MARKETWATCH (Nov. 2, 2019, 1:42 PM), www.marketwatch.com/story/11-things-car-insurance-companies-dont-want-you-to-know-2019-10-29 [https://perma.cc/4DXZ-GB3M] (demonstrating that legacy driver-based criteria have expanded to include prior claims, credit score, marital status, job status, and education level).

[44] *Insurance Experts Explain the Main Demographic Factors That Influence Car Insurance Rates*, BUS. INSIDER: MKTS. INSIDER (Nov. 19, 2018, 8:00 AM), https://markets.businessinsider.com/news/stocks/insurance-experts-explain-the-main-demographic-factors-that-influence-car-insurance-rates-1027738423 [https://perma.cc/PH48-YQW3]; *Insider Information: How Insurance Companies Measure Risk*, INSURANCECOMPANIES.COM, https://www.insurancecompanies.com/insider-information-how-insurance-companies-measure-risk/ [https://perma.cc/L8KU-6TZP] (last visited Nov. 22, 2020).

[45] *Insurance Experts Explain*, *supra* note 44.

[46] *See Big Data*, *supra* note 32 (discussing the use of telematics).

insurance.[47] For the past decade or so, our vehicles have been running on a plethora of advanced sensors and other data-collecting and data-transmitting technologies that allow for real-time communications and data sharing. Advanced technologies have transformed what used to be a moving bucket of bolts into a data sponge. These new telematic technologies monitor and report on an automobile's mechanical performance, augmenting significantly the "vehicle history" part of the underwriting equation.[48] More important for purposes of auto insurance underwriting, premiums, and claims, these technologies also monitor driver behavior, driving patterns, and automobile usage trends.[49] Sensors capture a car's speed, brake application, airbag deployment, seatbelt use, steering angles, A/V usage, and similar factors.[50] The captured data is not just limited to vehicle performance but includes personal information, too, such as driver weight, music tastes, and places visited, including fast-food drive-throughs.[51] Rather than relying solely on demographic data (application forms and driving history), insurers can leverage behavioral data by "watching" a driver operate a vehicle for a little bit and determining an underwriting score based upon the driver's actual driving history.[52] Then, in a more fulsome underwriting exercise, insurers can take a single driver's metrics and compare an individual's driving behavior with a larger pool of data to correlate behavior and risk. Newfangled underwriting

[47] *See, e.g.*, Stenquist, *supra* note 35 (describing telematics as "like the Elf on the Shelf, but for car insurance. Call it the mole on the console.").

[48] *How Telematics May Help You Save Money on Car Insurance*, ALLSTATE (last updated Aug. 2020), https://www.allstate.com/tr/car-insurance/telematics-device.aspx [https://perma.cc/KSA8-U3BZ]; *How Does Telematics Work?*, VERIZON CONNECT (last updated Oct. 29, 2019), https://www.verizonconnect.com/resources/article/what-is-telematics/ [https://perma.cc/P9NV-HRJU].

[49] *How Telematics May Help You*, *supra* note 48.

[50] Stenquist, *supra* note 35; *How Does Telematics Work?*, *supra* note 48.

[51] Geoffrey A. Fowler, *What Does Your Car Know About You? We Hacked a Chevy to Find Out*, WASH. POST (Dec. 17, 2019), https://www.washingtonpost.com/technology/2019/12/17/what-does-your-car-know-about-you-we-hacked-chevy-find-out/ [https://perma.cc/J3AA-56D3]; Stephanie Voelker, Debunking the Top 10 Vehicle Tracking Myths, GEOTAB (Nov. 9, 2017), https://www.geotab.com/blog/top-myths-misconceptions-related-to-telematics/ [https://perma-cc/M8MT-LH84]. A car can generate 20 to 200 gigabytes a day, according to some estimates. The data trove in the hands of car makers could be worth as much as $750 billion by 2030, the consulting firm McKinsey has estimated. But consumer groups, aftermarket repair shops and privacy advocates say the data belongs to the car's owners and the information should be subject to data privacy laws. Stephen Gossett, *IoT in Vehicles: A Brief Overview*, BUILT IN (Dec. 13, 2019), builtin.com/internet-things/iot-in-vehicles [https://perma.cc/H7TQ-R3FJ].

[52] *Snapshot Privacy Statement*, PROGRESSIVE (last updated July 21, 2020), www.progressive.com/support/legal/snapshot-privacy-statement/ [https://perma.cc/7UPF-8EEF]; *Privacy Policy*, ROOT INS. (last updated Apr. 1, 2020), www.joinroot.com/privacy-policy [https://perma.cc/QZ24-7ZQZ].

scores emanating out of driving behavior, mileage, and other metrics are realities in this highly innovative arena.[53]

In the context of auto insurance, insurers have augmented and improved the "old school" approach with new technologies that unearth behavioral trends. It stands to reason that it is only a matter of time before the insurance industry implements the "connected car" paradigm across all lines of business. Like the auto insurance line of coverage, underwriting metrics are becoming significantly more individualized, sophisticated, and data-driven in property and casualty insurance, health insurance, and life insurance, among others. We think that LPL coverage is a prime area for mimicking the approach seen in auto insurance underwriting, but the LPL area is sorely lagging behind underwriting advances in other insurance lines. We don't just think that it's a good business idea to bring LPL into the modern era; we think that it's vital to the survival of the LPL industry and its lawyer-customers. In the next sections, we trace the current state of play in the legal malpractice underwriting scene and explain how smart data analytics tools can drive better LPL underwriting metrics by individualizing an attorney's malpractice risk profile.

D. Data Usage in the LPL Segment

> **Iris**: Sometimes in order to see the light, you have to risk the dark.
>
> — MINORITY REPORT (20th Century Fox 2002)[54]

Given that the insurance industry uses ultra-sophisticated data analytics to inform most of its business lines, it boggles our minds that industry hasn't brought a sophisticated level of behavioral data analysis into the mix to illuminate the legal malpractice line of business. We're not willing to go so far as to say that legal malpractice underwriting metrics are stuck entirely in the

---

[53] In the vehicle insurance context, driving-related data captured via telematics is far from perfect but far better than nothing. For instance, a driver with a lead foot may not excessively exceed the speed limit during the week because she may live in a congested metropolitan area with a ton of traffic and never has a chance to drive fast during weekday rush hour like she does on weekends. A smoothing effect may blur her weekend speeding habit. Likewise, telematics cannot meaningfully account for the senior partner who stops at the club for a drink or two after work before heading home but, miraculously, never had his inexcusable behavior behind the wheel of a car detected (yet . . .) by telematic means. Without question, the partner's behavior, in additional to being illegal, surely results in greater risk of motor vehicle collisions but could remain largely undetected. So, data analytics in the insurance realm is not a 100% accurate silver bullet, but it surely goes a long way to point insurers in the right direction when it comes to gauging underwriting risk posed by its insured.

[54] MINORITY REPORT (20th Century Fox 2002).

dark ages or that the legacy demographic metrics can't shed some light on legal malpractice risk, but the approach that LPL underwriters are using today is akin to the underwriting approach in auto insurance lines from the late 1900s. Much like in the auto insurance context, the "*real"* underwriting risk is mostly derived from behavioral data, not demographic data.

Indeed, the metrics used to calculate legal malpractice underwriting risk, assess claims exposure, and settle LPL claims seem shockingly unsophisticated. Fewer than a dozen factors are considered, and that paucity of data affords legal malpractice insurance little more than a perfunctory evaluation of risk.[55] For insurers, the baseline for evaluating a law firm's underwriting risk starts with an application that captures primarily, if not exclusively, demographic data. [56] The LPL application[57] captures little to no meaningful behavioral data, and in the big-data age, that gap strikes us as woefully inadequate.

None of the factors used to evaluate legal malpractice risk is *per se* wrong, and all of them should continue to be used. But as we discuss below, these factors have inherent predictive limitations, allowing for only broad conjecture. Indeed, this demographic data is a poor proxy for behavioral data, borne of guesswork and presumptions about behavioral patterns. We discuss below the demographic data being used by LPL insurers and why we think that such data have limited predictive value.

1. Practice area

As we studied how LPL insurers envisage risk factors, we discovered that they maintain a fairly consistent categorization of areas of practice that tend to produce the most claims. The riskiest practice areas are mergers and acquisitions, trusts and estates, tax opinions, patent law, securities, plaintiff-side medical malpractice, environmental law, and real estate.[58] The industry

---

[55] Susan Saab Fortney, *Legal Malpractice Insurance: Surviving the Perfect Storm*, 28 J. LEGAL PRO. 41, 58–59 (2004).

[56] NANCY R. KORNEGAY & DAVID H. BROWN, PURCHASING LEGAL MALPRACTICE INSURANCE 3 (2011), http://www.texasbarcle.com/Materials/Events/10357/137641_01.pdf [https://perma.cc/J2UA-DF9F].

[57] Per our interviews, LPL industry experts have said that the typical application can be as little as five pages or as much as forty pages long. Several of them also indicated that LPL carriers struggle with striking a balance between wanting to know everything in the LPL application and causing applicants to want to walk away because of too many questions.

[58] Based on interviews; *see supra* note 10. *See also* MAGGIE WELK, KIMBERLE WILLIAMS & CRAIG GREUEL, ARGONAUT INS. CO., ARGO PRO PROFESSIONAL LIABILITY SERFF FILING 3 (2017) (SERFF Tracking Number ARGN-130932892) (explaining that Argo's insurance rates for attorneys are based in part on an "Area of Practice Factor" that can increase rates based on the frequency and severity of claims generally arising out of that practice area);

clearly views the type of practice area as relevant to legal malpractice risk, particularly when claims are predicated on substantive errors.[59] At first blush, one might be inclined to conclude that the "riskiest" areas of law are the most sophisticated, most complicated, and most prone to misapprehension of the law. This conclusion, though aspirational, simply is not true.

A lawyer's natural hope is that LPL insurers look, in proper context, to the competence and behavior of an insured attorney when evaluating her legal malpractice risk profile.[60] They want legal malpractice risks and premiums to be based on actual competence and specifically observed behaviors, not on behavioral risk that is inferred from generalized information with no inherent predictive value. In reality, the degree of LPL risk ascribed to "high-risk" practice areas has little to do with legal complexity or professional competence required by a discipline of law. Indeed, risk ascribed to a practice area is based upon the industry-wide number of claims made in that area of law and the severity of those claims. There are certain fields of law where clients have proven to be more inclined to make a malpractice claim and seek comparatively higher damages than in other practice areas.[61]

News Release, Ames & Gough, Rising U.S. Legal Malpractice Claims Continue to Plague Law Firms (May 20, 2020), https://www.amesgough.com/sites/default/files/A%26G%20News%20Release%20-%202020%20LPLI%20Claims%20Survey%20-%205-20-20.pdf [https://perma-cc/AQ2U-SDBQ] (describing that, based on a survey of lawyers' professional liability claims, business transactions and corporate and securities were the two practice areas experiencing the largest number of legal malpractice claims in 2019).

[59] According to several LPL industry experts, the risk profile of "boutique" law firms that specialize in a single area of practice is considerably lower than the risk profile for general practice law firms. When different attorneys in a single law firm practice in multiple areas of law, LPL carriers typically evaluate each "pocket" of practice area practitioners during the underwriting process. They are asking whether those practice groups represent a high combined level of expertise or are comprised of "dabblers" who are new entrants into the particular practice area. Similarly, a lawyer with a broad breadth of practice areas might be a prototypical "small town lawyer" or a dabbler looking for a more remunerative practice area. LPL carriers are now also grappling with the complicated issue of how to assign risk to attorneys who engage in a multi-jurisdictional practice.

[60] Almost universally, the LPL industry experts shared the view that their lawyer-insureds have only a superficial understanding of the LPL evaluation process.

[61] *Top Practice Areas for Lawyers' Malpractice Claims*, INS. J. (June 28, 2018) https://www.insurancejournal.com/news/national/2018/06/28/493458.htm [https://perma.cc/V3DJ-YG67]. As an example of severity of claims in a "high risk" area of law, consider the purchase and sale of a warehouse. Recording a deed of transfer or mortgage on the land records is far from complex. However, if a mistake is made during recording, that mistake more often than not jeopardizes the entire value sought by a client buying or selling the property and it's not a mistake easily overlooked by the client given the magnitude of the harm. The substantive error did not materialize because of legal complexity. However, it did trigger a claim mainly because the error completely subverted a client's objective and the resultant harm was catastrophic.

Additionally, the "area of law" factor assumes that attorneys always stay in their lane, practicing only within their area of expertise. That assumption is flat-out wrong. Dabbling in an area of law that falls outside of an attorney's core competence gives rise to a significant number of claims and can run afoul of a lawyer's professional duties.[62] According to the American Bar Association's "Profile of Legal Malpractice Claims: 2012–2015," over 60% of all malpractice claims pertain to a practice area in which the accused attorney works for less than 20% of his or her time.[63] To put a finer point on matters, only about 7% of all legal malpractice claims are made against attorneys who practice in a single area of the law.[64] When attorneys dabble in non-core areas of law, the behavioral tendencies of those dabblers will skew underwriting data—to the detriment of attorneys who *do* stay in their lane as a specialized practitioner and to the detriment of those LPL insurers who insure them. Moreover, using the area of law as a factor is less meaningful when the legal malpractice results not from substantive errors but from administrative errors or intentionally wrongful behavior.[65] Those two categories account for one third of all malpractice claims.[66]

2. Firm size

Unlike other professions, whose annual malpractice premiums are determined based on the firm's annual revenue, malpractice premiums for law firms are calculated on a per-lawyer basis and depend on the number of attorneys in the firm.[67] There is some variation among insurers, but typically law firms are segmented into anywhere between five and nine size categories.[68] Some LPL carriers even evaluate the lawyer-to-support staff

---

[62] American Bar Association Rules and every state impose a duty that "a lawyer shall provide competent representation to a client. Competent representation requires the legal knowledge, skill, thoroughness and preparation reasonably necessary for the representation." MODEL RULES OF PRO. CONDUCT r 1.1 (AM. BAR ASS'N 2020).

[63] William F. McDevitt, *Dabbling: A Dangerous Practice Even for Accomplished Attorneys*, LAW.COM (June 9, 2016, 12:00 AM), https://www.law.com/thelegalintelligencer/almID/1202759657347/?slreturn=20201011113526 [https://perma.cc/BR6R-Z7Y7].

[64] *Id.*

[65] ABA STANDING COMM'N ON LAWYERS' PRO. LIAB., PROFILE OF LEGAL PRACTICE CLAIMS 2012–2015, at 18 (2016) [hereinafter ABA STANDING COMM'N].

[66] *Id.*

[67] *See, e.g.*, WELK ET AL., *supra* note 58, at 1 (making the point that Argo's insurance rates for attorneys are based in part on the "Size of Firm Factor").

[68] *See, e.g.*, ARCH INS. CO., LAWYERS PROFESSIONAL LIABILITY PROGRAM: GENERAL RATING RULES 4, 6 (2014) (segmenting firms into one of nine size categories); LAW*GOLD*, RATING GUIDELINES LAW*GOLD* LPL (ARIZONA) 4 (2010) (segmenting firms into one of six size categories).

ratio in an attempt to gain further insights into a firm's risk profile.[69] Solo practitioners and small firms (up to ten attorneys) account for over 75% of malpractice claims and thus pay the highest premiums per capita.[70] LPL insurers infer certain law firm and attorney behaviors based on law firm size. For instance, the LPL carrier metrics assume that larger law firms with more resources have better internal risk management controls[71] and more reliable administrative procedures than do smaller firms.[72] LPL insurers also assume that larger law firms will have attorneys whose expertise covers a sweeping range of practice areas, thereby reducing the instances of lawyers dabbling outside their core practice areas.[73] LPL insurers further assume that the behaviors of the overwhelming majority of lawyers in an Am Law 400 law firm risk mimic each other or, at least, do not vary significantly. Moreover, LPL insurers assume that larger firms are less risky because fewer claims are made against them than are made against smaller firms. In the eyes of the actuaries at LPL insurers, these size-based assumptions and the concomitant inferences about lawyer behavior are "true enough" to rely on firm size as an underwriting metric.[74]

The assumptions may be correct or mostly correct, but they also have their limitations because the assumption that larger organizations pose a lower risk profile is far from unassailable. Certainly, larger law firms have the resources to implement greater risk controls, but firm politics and economics—and organizational bureaucracy—can undermine even the best risk mitigation initiatives. The "competence of large numbers" assumption also seems to be misguided. With throngs of people working on a high volume of matters and lots of task handoffs from professional to professional, mistakes inevitably happen. Indeed, it is just as possible that having more

---

[69] Per our interviews, the LPL experts indicated that a well-trained support staff is viewed positively in the LPL underwriting process (presumably because of their ability to curtail administrative risk) until the attorney-to-support staff ratio crosses a certain threshold, at which point LPL carriers presume that excessive support staff personnel are poorly trained and/or inadequately supervised.

[70] ABA STANDING COMM'N, *supra* note 65, at 14.

[71] In reading an earlier draft, Nancy's friend Randy Gordon pointed out that risk management can, itself, create risk. As Randy explains, "every risk management form that is supposed to get filled out and/or signed by the client is evidence of malpractice when it doesn't get filled out or returned." E-mail from Randy Gordon, Partner, Barnes & Thornburg, to Nancy B. Rapoport, (Sept. 7, 2020, 6:52 PM) (on file with authors).

[72] Randy Gordon also observed that the compensation systems in large law firms can cause "sometimes perverse incentives." *Id.* We agree wholeheartedly, and one of our future studies will compare the behavior in firms that use lockstep partner compensation with the behavior in firms that use an "eat what you kill" compensation system.

[73] As Bernie Burk reminded us, even BigLaw lawyers can dabble. They just have more people at the firm to help them think through issues that "dabblers" might face. Comment from Bernie Burk, *supra* note 36.

[74] Information gathered from author interviews. *See supra* note 10.

people in the equation creates a greater risk of malpractice errors rather than acting as a check and balance against malpractice.[75] The resources of larger law firms allow them to tamp down or mute problems so that they don't register on the radar screens of LPL insurers (or, more specifically, the insurers' actuaries). Finally, many solo practitioners are uninsured, which could mean that those solo practitioners who pose no malpractice risk are not counted in the actuarial analysis.[76] Simply put, the assumptions underlying the "size of firm" factor as an underwriting metric may not be as determinative as LPL insurers have assumed.

3. Geography

The state in which a law firm practices, as well as different locations within the state, contributes to a firm's malpractice risk profile.[77] Geography *per se* is a red herring because the real factor measured is the hourly rate that a firm charges for services rendered. Statistics show that firms that charge higher rates (usually in metro areas) typically see claims with a higher dollar value, but this correlation doesn't pertain to the frequency of claims made or the underlying basis for the claim.[78] In other words, LPL insurers are not focusing on the error/violation or causation elements of a malpractice claim but instead are focusing on the damages element.[79] We sympathize, because damages affect the magnitude of the payouts, but preventing the malpractice in the first place will also affect the magnitude of the payout. We see little, if

[75] It makes logical sense that more professionals in a law firm handling more matters increases the risk of something going wrong. With ethical rules imposing a duty of supervision and vicarious liability on law firm partners for the misdeeds and professional malpractice of colleagues, legal malpractice underwriters for larger law firms are keen to know how throngs of associates are supervised and whether a management committee or peer-review system exist. These types of management control measures are a baby step in the right direction towards the use of behavioral, not just demographic, data.

[76] *See* Scott R. Schaffer & Kyle P. Barrett, *Bare Naked Lawyers: Practicing Without LPL Insurance May Leave Attorneys Overexposed*, AON ATTORNEYS ADVANTAGE, https://www.attorneys-advantage.com/Risk-Management/Bare-Naked-Lawyers [https://perma.cc/R6FJ-E9TS] (last visited Nov. 7, 2020) (stating that, for example, "a 2005 Texas survey found that . . . 63% of solo practitioners were uninsured"); Susan Humiston, *Practicing Law Without Liability Insurance*, MINN. ST. B. ASS'N: BENCH & B. MINN. https://www.mnbar.org/resources/publications/bench-bar/columns/2019/10/02/practicing-law-without-liability-insurance [https://perma.cc/95B6-T6DJ] (last visited Nov. 7, 2020) ("Illinois estimates that as many as 40 percent of solo lawyers are uninsured. In a 2017 survey in Washington, 28 percent of solo practitioners reported being uninsured.").

[77] *See, e.g.*, WELK ET AL., *supra* note 58 (stating that professional liability insurance rates will vary based on state).

[78] Information gathered from author interviews. *See supra* note 10.

[79] An attorney practicing in Dallas, Texas is going to pay more than an attorney practicing in rural Nebraska. Some states, like New York, have multiple underwriting territories, with law firms in New York City paying more than attorneys in upstate New York.

any, correlation between geography and those behaviors that are likely to trigger a legal malpractice claim.

4. Claims history/step rating

"Claims made"[80] history is widely viewed as the most accurate predictor of future claims.[81] Although claims history has undertones of behavioral data, it is almost entirely a quantitative criterion using, in most instances, a multivariate analysis. Typically, a "claim" will include any event reported to any insurance company with an incurred loss amount of $5,001 or more.[82] Claims history is segmented primarily by firm size,[83] number of claims over the past five years,[84] and total dollar amounts of all claims over the past five years.[85] Each of these claims history factors is ascribed a value

---

[80] An "occurrence" policy provides coverage for alleged incidents that occurred during the policy year irrespective of when the claim is reported to the carrier. A "claims-made" policy provides coverage for an incident that occurred during the policy period and was reported as a claim when the policy was in effect. When a claims-made policy becomes effective, the effective date, also known as the retroactive date, becomes a permanent part of the claims-made policy and remains the same each year the policy is renewed. A claims-made policy, when renewed, covers claims that come in during the policy year for incidents that occurred on or after the retroactive date. This is how an attorney can be covered for prior acts or incidents that are several years old.

[81] Past and pending claims can affect not only the cost of a firm's policy, but also eligibility for coverage.

[82] "Incurred amount" includes reserve and payment for indemnity and expenses. When a claim has been reported but the claims reserve is unknown, five-twenty five percent of the demand amount may be used as the best estimate for the claim value. *See, e.g.*, ARCH INS. CO., *supra* note 68, at 4 *(*"For purposes of the additional charge, a 'claim(s)' [sic] means: any claim reported to any insurance company with an incurred loss amount of $5,001 or more. Incurred amount includes reserve and payment for indemnity and expenses."); LAW*GOLD*, *supra* note 68, at 4 ("For the purposes of the adjustment, losses will only be considered 'claims' if: i) loss and/or expense payments have been made in excess of $5,000; or ii) an insurer has established a claim file and carries an open reserve in excess of $5,000.").

[83] *See* discussion *supra* note 68 and accompanying text.

[84] *See* ARCH INS. CO., *supra* note 68, at 4; LAW*GOLD*, *supra* note 68, at 4. Certain LPL insurers flatly deny coverage to firms with over five prior claims in the past five years.

[85] *See* ARCH INS. CO. *supra* note 68, at 5; LAW*GOLD*, *supra* note 68, at 4. One insurer has categorized claims liability into the following categories:

> **Severe** Account has already experienced at least one loss with total case reported losses (including defense expenses) exceeding deductible by more than $100,000.
>
> **Significant** There is a possibility of payout exceeding the deductible by $10,000 but not by more than $100,000.
>
> **Material** While there are established reserves for this account and payout may exceed the deductible, it is not anticipated to exceed the deductible by more than $10,000.

that may increase or decrease an LPL carrier's so-called base rate. For example, a law firm that has had no claims made against it may receive a "claim-free" credit that decreases the base rate. Conversely, a law firm that has been the subject of many legal malpractice claims will see its base rate increased by a multiple based on "claims made."[86] A final quantitative wrinkle that arises in the context of the claim history is the "step rating" attributed to a lawyer.[87] A lawyer's step rating recognizes that newly minted attorneys generally have fewer clients and fewer prior acts, as compared to more seasoned attorneys. This makes the "prior acts" risk concomitantly lower.[88] Typically, an insurance carrier that uses the "step rating" methodology offers a reduced rate in the first five or six years of an LPL policy, after which time the attorney malpractice profile has reached maturity, ripening into the "typical" risk profile.[89]

A considerable amount of quantitative analysis goes into "claims history," but we think that "claims" are misrepresented when the insurer relies solely on demographic data. First, there are unmade claims that could have or should have been made based on actual attorney (mis)behavior, but that were never counted because clients were unaware of the potential claim.[90] Second, in circumstances in which a client has become aware of a potential claim, many clients may choose not to pursue their claim against the law firm. Third, in circumstances in which a client has become aware of a potential claim and has opted to pursue it, the law firm and client may have agreed to resolve

---

Minimal There have either been no claims reported or claims reported have had no payout or a low possibility of ultimate payout.

VIRGINIA PUTZU & TONIA BURLEIGH, QBA INSURANCE CORP., LAWYERGUARD SERFF FILING Flex-8 (2018) (SERFF Tracking Number QBEC-131630592.)

86 Even a high number of claims might not mean a high risk of large payouts. One LPL industry expert estimated that 75–80% of claims reported by lawyers to LPL carriers ended up with no action by the aggrieved party.

87 In determining how to price the first year of coverage and succeeding renewals, the claims-made insurers' actuaries closely monitor statistical data reflecting the lag time between occurrences which create liability and the reporting of claims arising out of those occurrences. In addition, they study the impact of various economic factors on the value of claims during this lag time. From this data, they draw conclusions about the number of years likely to elapse before all of the claims arising out of any one "occurrence year" are reported and settled and the ultimate cost of defending and settling those claims. Then, they use these conclusions to establish rating factors to determine the cost of a claims-made policy as it renews each year. These rating factors are commonly referred to as "step rates" because they evolve in a stair-step pattern. *See, e.g.*, *How Legal Malpractice Insurance is Priced*, OKLA. ATT'YS MUTUAL INS. CO., https://oamic.com/step-ratings/ [https://perma.cc/NCQ9-LCGN] (last visited June 17, 2020) (discussing what step ratings are and how they work).

88 On the other hand, the risk of a newer lawyer actually committing malpractice is likely to be higher. We both made many mistakes at the beginning of our careers.

89 Information gathered from author interviews. *See supra* note 10.

90 *See supra* note 82 (noting that it might not be immediately apparent that there is enough value to make a claim due to the concept of "incurred amount").

the claim without putting the LPL carrier on notice. Underreporting of claims strikes us as a meaningful limitation on the factor's accuracy.

Besides underreporting, claims history does not look to the underlying behavior giving rise to the claim. Except for the damages calculation ascribed to a claim, the actuarial methodology seems to treat all claims more or less identically. That can't be correct. By ignoring lawyer behavior, the merits of a claim, and its factual underpinnings as part of claims history, LPL insurers are using a blunt instrument to assess a complex problem when a surgical tool that considers behavior in the context of claims history would yield better risk assessments.

5. Client roster

A law firm's client roster can create additional malpractice risk. Clients that have unreasonable expectations for an attorney or for the outcome of their matter are more likely to make a malpractice claim. Client size and sophistication, as well as a client's proclivity to challenge its law firm's bill, alters the risk profile. Similarly, the number of law firms that have been previously employed by the client on the same matter is viewed as a high indicator of risk. *That* factor, we believe, is reasonably accurate, though sometimes the frequent switching of firms stems not from client dissatisfaction at all, but rather from a client's desire to keep her lawyer even after her lawyer has changed firms. Lateral movement of attorneys from firm to firm is commonplace today. It is not clear to us whether the firm turnover calculus accounts for a client who follows the same lateral lawyer from firm to firm.

6. Miscellaneous considerations

Malpractice risk is viewed as being higher (or lower) as a result of the absence (or presence) of loss-prevention programs, use of risk management practices, docket control measures, conflict of interest avoidance policies, and law-firm-imposed continuing legal education requirements.[91] We agree that a systems approach to managing risk is a necessary underpinning, but having a good system in place is not the same thing as using that system.[92]

Without question, LPL underwriters should continue to use the quantitative/demographic factors discussed above as indicia of risk. These factors are time-tested, and insurers will affirm that they have meaningful

---

[91] Other factors not related to the risk posed by a lawyer or law firm that affect the cost of a policy include policy limits, deductibles, self-retention obligations, and additional claim defense expenses paid *outside* the policy limits.

[92] One of us can't resist pointing to the "gate fails" of FAIL Blog: CHEEZBURGER: FAIL BLOG, https://cheezburger.com/4882611968/security-fail [https://perma.cc/BW7X-SGQ2] (last visited Nov. 22, 2020). The other one of us is indulging her here.

correlations to risk. That said, we're in the age of big data and must therefore ask: Are there other big-data-driven behavioral metrics that can better pinpoint LPL risk and that can be used to augment or even outweigh the legacy metrics? We think so.

III. WHY LEGAL MALPRACTICE METRICS NEED TO EVOLVE

> **Iris**: It's funny how all living organisms are alike . . . when the chips are down, when the pressure is on, every creature on the face of the Earth is interested in one thing and one thing only. Its own survival.
>
> — MINORITY REPORT (20th Century Fox 2002)[93]

The prior two Parts paint a starkly contrasting picture between the sophisticated risk assessment data and metrics used in auto insurance underwriting and the rudimentary data and metrics used in LPL underwriting. At the risk of stating the obvious,[94] overlaying qualitative, behavioral data into the underwriting mix has brought auto insurance underwriting into the twenty-first century of big data. LPL insurance underwriting, on the other hand, seems to be stuck in the twentieth century, with antiquated risk assessments using only large-scale quantitative, demographic data.[95] For both the LPL segment of the insurance industry and for the legal industry as a whole, the use of unsophisticated underwriting metrics is a suboptimal approach. There are significant business imperatives and competitive drivers for both LPL insurers and law firms that should prompt legal malpractice insurers to begin to incorporate behavioral data into underwriting guidelines. Each segment has been given the mandate by clients to innovate and deliver greater client value.[96]

In the insurance industry today, customers are the most disruptive force.[97] The leading insurers have found that their paramount mission must

---

93 MINORITY REPORT (20th Century Fox 2002).

94 Which has never stopped us.

95 The specifics as to the operational and financial effect of using a combination of demographic data and behavioral data across the entire industry as a whole extends well beyond the scope of this article.

96 *See e.g.*, *Collaborative Defense for Your Legal Malpractice Claims*, ATT'Y PROTECTIVE, https://www.attorneyprotective.com/legal-malpractice-claims [https://perma.cc/8KG9-NUCH] (last visited Nov. 22, 2020) (providing an example of innovative products in the legal malpractice insurance sector).

97 *See* JORDI MONTALBO & DAVID RUSH, DELOITTE LLP, A DEMANDING FUTURE: THE FOUR TRENDS THAT DEFINE INSURANCE IN 2020, at 3–4 (2019), www2.deloitte.com/content/dam/

be to emphasize policyholders' needs, preferences, and perceptions in nearly all aspects of their business and at every touchpoint throughout the customer's journey. The customer experience must be hyper-personalized because buyers of insurance—especially sophisticated, commercial buyers such as law firms—have never been more informed, more adept at comparative shopping, and more exacting. As we discuss below, hyper-personalization is now a customer prerequisite to be achieved through detailed data analysis, innovation, and modern digital capabilities.

As ironic as it may seem, the legal industry, which itself has been slow to change, is likely to drive the change in LPL underwriting metrics. The same pressure that law firms are feeling from their clients will undoubtedly funnel down to LPL insurers, who will feel change pressures from their own law firm clients. Clients are strongly pushing back on law firms with respect to their legal fees. Those legal fees have, in turn, been embedded within LPL coverage and rate cost structure. With the clients of law firms monitoring fees more closely, it is reasonable to expect law firms also to be more cost-conscious when it comes to the fixed cost associated with LPL premiums. If a law firm can urge an LPL carrier to use a more accurate and hyper-personalized set of underwriting metrics to lessen the malpractice risk profile and thus reduce premiums, it does not take a severe strain of logic to conclude that law firms will eventually do just that.[98]

Financial transparency and clarity have been the rallying cry in the legal industry for several decades now. Its value holds true in the LPL industry as well. LPL underwriting guidelines and the weighting of the factors varies widely from carrier to carrier. Often, the underwriting guidelines are not published, and law firms have no way of truly understanding those guidelines.[99] Understandably, LPL insurers must set the price of premiums at a level that compensates them for the risk taken, but also at a level that fits within the budget of their law firm customer. Otherwise, the law firm will go elsewhere for coverage. Law firms surely deserve better guidance and information on how their risk profile is calculated, how they can reduce their malpractice risk profile, and how they can use enhanced self-governance to improve their LPL risk profile. When malpractice underwriting guidelines are a black box, risky law firms get lumped in with

---

Deloitte/uk/Documents/financial-services/deloitte-uk-insurance-trends-2019.pdf [https://perma.cc/55JH-YM9X] (describing why customers are the most disruptive force in the insurance business).

[98] Especially if the result is more money in partners' pockets because of the savings on LPL insurance premiums, because of fewer claim payouts, and because of improving the risk factors overall.

[99] *See supra* note 60 ("Almost universally, the LPL industry experts shared the view that their lawyer-insureds have only a superficial understanding of the LPL evaluation process.").

less-risky law firms, creating a tremendous amount of premium disparity. The less risky law firms are subsidizing the behavior of their riskier counterparts.

But how much data will law firms be willing to give their insurers? After all, bad drivers probably don't want the "mole on the console"[100] exposing their lead feet, their tailgating, or their other bad habits to insurers because their rates will go up. Law firms probably don't want their bad habits laid bare to LPL insurers, either. But the risks don't go away just because LPL insurers don't know about them. And those risks are expensive. Reducing the risk of malpractice can save law firms big bucks in the ordinary course of business, but especially when a law firm is in a transformative mode where, for instance, it is looking to grow attorney headcount, expand into new practice areas or geographies, or pursue the next "tier" of clients.[101] In this regard, consider a law firm with a strategic growth initiative through lateral partner acquisitions. For that firm, it would be highly beneficial to know in advance how risky the addition of lateral lawyers will be for the firm.[102] The epic bankruptcy case of Dewey & LeBeouf demonstrated the risk of adding laterals whose promises were mere fantasies.[103] And then, of course, there are the advantages to the clients.

As law firms are being pressured by clients to use technology and data to make the delivery of legal service better, faster, and cheaper, the firms are responding by leveraging their knowledge management repositories, document management systems, and billing data warehouses to deliver service offerings (and even product offerings) that involve mass customization and incorporate their clients' demands for efficiency and innovation.[104] So, too, will law firms demand this heightened standard from providers of LPL coverage. The trickle-down effect will come into play. When a law firm is uninsured, underinsured, or overcharged because premiums are not based on hyper-personalized malpractice risk factors, then

---

[100] Stenquist, *supra* note 35.

[101] In just those cases that the two of us have reviewed, we've seen exposure in the hundreds of thousands of dollars *per firm*. That's not chump change.

[102] Some firms are making data-driven choices in terms of adding laterals. In particular, Duane Morris has a process for gathering information about a lateral partner's book of business and has a deliberate onboarding plan to integrate lateral partners into the culture of the firm. HEIDI K. GARDNER & ANNELENA LOBB, *Collaborating for Growth: Duane Morris in a Turbulent Legal Sector*, HARV. BUS. SCH. CASE STUD. 9-414-022, at 12–13 (July 26, 2013).

[103] For a great read on the Dewey & LeBeouf debacle, see James B. Stewart, *The Collapse*, NEW YORKER (Oct. 7, 2013).

[104] *See* Caryn Devens, Teppo Felin, Stuart Kauffman & Roger Koppl, *The Law and Big Data*, 27 CORNELL J.L. & PUB. POL'Y, 357, 366 (2017) (describing new client services and tools enabled by the use of big data, including tools that "predict legal costs and case outcomes, manage data for regulatory compliance, and reduce document review costs").

the law firm's clients suffer.[105] Legal malpractice simply doesn't stop at the law firm level. Real money and the real lives of clients and other third parties are at stake when legitimate malpractice claims arise. LPL insurers and law firms must acknowledge the reality that their financial interests depend on clients who buy legal services. Thus, it is imperative to bring LPL underwriting into the twenty-first century. The next Part discusses the new data-driven, behavior-driven playbook on how to modernize LPL underwriting metrics.

IV. A NEW DATA-DRIVEN SCHEMA

> **Iris**: The Pre-Cogs are never wrong. But, occasionally . . . they do disagree.
>
> — MINORITY REPORT (20th Century Fox 2002)[106]

The auto insurance paradigm affirms that powerful new data analytics technologies and novel uses of existing technologies enable insurers to leverage raw data in ways never before imaginable. Auto insurers use a driver's media system not just as road trip entertainment and the driver's GPS system not just as a map but also as a means to capture and extrapolate driver behavior, revolutionizing underwriting risk for every driver seeking auto insurance. Auto insurers have realized that raw data captured from disparate information sources and a multitude of technologies can be synthesized and transformed into meaningful behavioral data, which in turn can highlight predictive trends upon which new underwriting metrics can be built. For the auto insurance industry, the keys to success have involved recognizing the existence of the raw data and having the creative vision to repurpose technologies to surface behavioral trends and supplement demographic data. Every LPL industry expert that we interviewed craved additional data, particularly behavioral data, that could amplify the current criteria used in the LPL underwriting process.[107] For the LPL insurance industry, the keys to success likewise involve leveraging next-generation technology to transform raw data into hyper-personalized, behavioral underwriting metrics. This section discusses the raw data sources and how that raw data can transform the LPL underwriting process.

---

[105] For a cash-based business like a law firm, an inflated premium or an underinsured claim can have serious ramifications for the financial performance of the law firm. With more accurate underwriting metrics come greater fiscal predictability and better operational results for law firms.
[106] MINORITY REPORT (20th Century Fox 2002).
[107] Information gathered from author interviews. *See supra* note 10.

A. The Raw Data

In order to form a good foundation for a next-generation legal malpractice underwriting metric, raw data must have three vital qualities: (i) raw data should have independent usefulness and validity,[108] (ii) raw data should be accessible at scale,[109] and (iii) raw data should be capable of personalization or individualization. Legal billing data fit all of these qualities and form much of the foundation for our proposed LPL underwriting schema.

Each year in the United States alone, lawyers bill clients over $300 billion.[110] Until the early 1990s, when timekeeping and billing software became commonplace, law firms sent invoices to clients in paper format.[111] Whether in paper form or submitted through a digital platform, legal invoices are rich with raw, semi-structured data. In each invoice, a lawyer reflects, in a narrative entry, every task that he or she completes, typically in segments of one-tenth of an hour. For anyone who hasn't had the misfortune of reading a legal invoice, here's a sample time entry:

Date	Timekeeper	Hours	Rate	Description	Total
6/9/2020	E. Afferton	2.3	$520	Analyze US 9,949,302 re: patent eligibility (0.4); Draft "Legal Analysis" part of Section 101 Alice Motion (1.6); Review curriculum vitae re: plaintiff's expert (0.3)	$1,196.00

This is an example of a "good" invoice line item entry. It is clear, concise, (presumably) reflects accurately recorded time, and amply informs the client as to what tasks were undertaken and by whom, along with the associated cost. Sometimes, line-item narrative descriptions contain much more detail, which can be good until they become so wordy that they obfuscate what work has actually been performed.[112] Other line-item narrative descriptions may contain considerably less detail (e.g., "attention to file"), to the point that it is impossible to determine what task the attorney

[108] We think that independent usefulness and validity is important because these factors negate the possibility of bias in the data and further helps to ensure accuracy.
[109] We believe that there is a tipping point where raw data is sufficiently voluminous to provide statistical relevance and scientific value. In an industry that generates at least $300 billion in annual invoice data, volume and accessibility at scale pose no issue.
[110] *Industry Revenue of Legal Services in the U.S. from 2011 to 2023*, STATISTA, https://www.statista.com/forecasts/311177/legal-services-revenue-in-the-us [https://perma.cc/ZF4U-YD4B] (last visited June 17, 2020).
[111] Stephen J. Sturgill, *New System Offers Easier and More Exact Billing*, NATIONAL L.J., October 17, 1994, at 13. Currently, we estimate that over $300 billion in legal billing data is processed by law firm time and billing platforms and/or clients' e-billing platforms.
[112] *See infra* Section IV.B.2 and Section IV.B.3.

performed. Regardless of the clarity and quality of the narrative, every invoice line item offers data points that shine a light on what the lawyers and other billing professionals are doing. Those data also form the foundation of a legal professional's behavioral patterns.[113]

The sample invoice line item entry reflects a total charge of $1,196 for three items of work performed by E. Afferton, all of which total 2.3 hours. This is just a *single* invoiced time entry for a single client by a single law firm timekeeper for, possibly, one-fourth of one timekeeper's workday.[114] These data points scale quickly. Right now, there are probably more than 950,000 attorneys in private practice in the United States[115] who are recording and billing time in a similar manner in approximately 1,300,000,000 to 1,500,000,000 line-item entries that can be analyzed every year.[116] Most of these data can be easily accessed, because timesheets "live" in digital format on billing and e-billing platforms.

This invoice line-item data, which is inherently timekeeper-specific, is capable of even further individualization with the assistance of "legal spend" data analytics tools. When an individual timekeeper's professional biographical data, such as title, seniority, specialty, educational background, prior employers, and so forth are incorporated into an invoice line-item analysis, the results are hyper-personalized and powerful.

In essence, invoice line-item data, coupled with a timekeeper's professional biographical data, is transformed into something akin to the DNA of a matter or a legal professional. Out of this invoice-level DNA, hyper-personalized behavioral data can become a next-generation LPL

---

[113] As we discuss below in Section IV.B.3, a vague, cryptically written narrative entry, such as "Analyze outstanding issues," "Attention to case strategy and client communications," or "Review file," informs our proposed LPL underwriting schema because while it sheds no light on what a legal professional did, it evidences a potential tendency for sloppy billing hygiene practices or even possible Rule 1.5 violations.

[114] At some law firms, 2.3 hours is perhaps 1/6 of a person's workday.

[115] *See* Sally Kane, *Working in a Private Practice Law Firm*, BALANCE CAREERS (Jan. 12, 2019) https://www.thebalancecareers.com/law-firm-life-2164667 [https://perma.cc/N3PD-P73P] ("About 75 percent of the 1.3 million-plus licensed attorneys in the U.S. work in private practice. Lawyers are considered to work in private practice when they're part of a firm with two or more attorneys, or they have a solo practice.").

[116] Let's extrapolate upon this type of invoice line item to understand the potential and power of raw billing data, even before it gets programmatically transformed into LPL malpractice risk factors. There are several ways to extrapolate. First, let's calculate based on an "hours worked" basis. Based on our industry statistics, the average hours worked per line-item entry is 1.1 hours. Assuming an annual 1,800 billable target, each of the 950,000 attorneys in private practice will record 1,636 time entries for a total of over 1,500,000,000 narrative entries just for the year 2020. If we assume that $300 billion was billed by law firms on an hourly basis using line-item invoices where the average value per line item is $225, then there are over 1,300,000,000 narrative entries that can be analyzed every year. Calculations on industry averages were made using Legal Decoder's data pool.

underwriting metric that examines risk not just by firm size or practice area but also by the type of lawsuit or specific transaction, calculates risk with respect to an individual or to groups of individuals within a law firm, and ties the risk to behavioral patterns.

B. Using Legal Analytics to Calculate Risk: The Six Malpractice Markers

Just as automobile insurers are using behavioral data to supplement demographic data, LPL underwriting will benefit by using, as part of its underwriting evaluation, our proposed analytic framework, which generates behavioral data from legal spend data. We're basing our proposed framework on our own experience, having reviewed millions of line-item entries in legal invoices from thousands of law firms and hundreds of thousands of legal professionals.

Although we know that every client matter is different, as are the invoices attached to each matter, we can mine a law firm's billing records for patterns of good or bad practices. Our analytic framework is meant to augment and amplify existing LPL underwriting standards, not to displace them. Indeed, there's no need for a wholesale change in business process or methods. The new behavioral metrics, which we'll call "malpractice markers," are simply an evolutionary step forward. We understand that this step is a giant step, not a baby step, but it's a necessary step. So, in a "pre-cog" world, what does our proposed analytic framework look like? How can insurers mine and categorize timesheet entries for predictive risk analysis, to help both the malpractice insurers and their insureds identify serious malpractice concerns before those concerns mature into full-blown problems?

We've identified the six major malpractice markers, in addition to some minor ones, that could help catch potential malpractice before it happens. Our proposed analytics framework employs a weighting methodology similar to that used by LPL insurers in their existing demographic risk factors.

1. Staffing efficiency

Malpractice risk increases when the wrong staffing is used on a project. In an optimally functioning legal environment, a legal professional handles tasks appropriate for his or her skill set in an industry-benchmarked amount of time. There are many dimensions to the concept of staffing efficiency.[117]

---

[117] As a strategic priority, clients are identifying those tasks that are "commoditizable" in order to divert low-value, high-volume work from law firms to lower-cost alternative legal services providers.

One dimension relates to the seniority of a legal professional. We've encountered many situations in which the wrong level of professional performed a task: for example, senior partners performing tasks below their paygrade such as basic legal research[118] or the converse, where very junior lawyers, without ample supervision, are handling tasks for which they are underqualified, such as taking a key 30(b)(6) deposition or negotiating the contract language on a complicated tax indemnity provision.[119] In the case of the senior partner's research, it raises valid questions: What senior-level work has been cast aside in favor of the basic research? If a senior partner handles basic research below her paygrade, does that work comport with the Rule 1.5 ethical obligation regarding reasonable fees?[120] For the junior associate, the lack of experience on a sophisticated task clearly implicates the junior lawyer's (and her law firm's) duty to provide competent representation.[121]

We suspect that one of the problems with staffing inefficiency is that the partner in charge of a particular representation isn't monitoring, in real time, the cost of who's doing which tasks. That partner is aware of the assignments of various professionals to tasks that must be completed, but likely isn't aware—at least not until the time comes to review the bill—of how much time each professional spent on each task. Another dimension of staffing efficiency relates to a lawyer dabbling outside of her primary area of practice. In almost every imaginable instance, an intellectual property attorney should not be handling a living trust document for a high net-worth client, and a trusts and estates attorney should not be handling a trademark for a start-up technology client. Invoice data, when evaluated with sophisticated legal data analytics tools, very quickly surfaces trends where attorneys are practicing at the wrong skill set level or in the wrong area of law. Both are red flags for LPL risk purposes

---

[118] And the explanations tend to range from "I needed it immediately, and there was no one else around" to "I can do it faster." We absolutely believe that senior partners can do *complicated* legal research faster, but simple research belongs in a junior professional's wheelhouse.

[119] The failure to assign the right level of work to the right level of lawyer implicates various ethics rules, and law firms should have systems for ensuring that the right work goes to the right people. *See* MODEL RULES OF PRO. RESPONSIBILITY r. 5.1 (AM. BAR ASS'N 2020) (describing the obligations that lawyers who supervise or give orders to other lawyers have to ensure that they are conforming to ethical rules, including rules of competence and diligence in legal work); *see also id.* r. 5.2 (stating that lawyers are bound even if they are acting at the direction of another, but that they may rely on supervisory lawyers' reasonable interpretations of professional responsibility); *id.* r. 5.3 (outlining lawyers' duties to ensure that "nonlawyer[s]" are acting ethically and not impeding on lawyers' ethical obligations).

[120] *See id.* r. 1.5 (requiring that fees be reasonable with respect to "the experience, reputation, and ability of the lawyer or lawyers performing the services" and "the skill requisite to perform the legal service properly," among other factors).

[121] *See id.* r. 1.1 cmt. 2, cmt. 4 (detailing the basic obligations of competence and noting that "[a] newly admitted lawyer can be as competent as a practitioner with long experience" but that lawyers should only take matters where competence is obtainable "by reasonable preparation").

2. Workflow efficiency

When clients pay their lawyers by the hour, they expect their lawyers to work efficiently without wasted effort, unneeded redundancy in personnel, or duplication of work. Inefficiencies in a lawyer's workflow process quickly drive up the cost of legal services. Few things can sour the attorney-client relationship as deeply as when a client opens an invoice and sees a legal professional doing the same work over and over again (without increased efficiency), or multiple lawyers at the same level handling the same task at the same time, or throngs of legal professionals attending meetings or hearings. Invoices containing these types of inefficiencies leave the client questioning outside counsel's competence and her fiduciary duty of candor, and the client starts worrying about whether the professional provided real value for each hour billed.

Although one might think that having multiple tiers of professionals working on a task would increase the odds for competent,[122] diligent[123] representation, that's not necessarily true. Having that many bodies requires massive coordination in order to avoid problems with client communication[124] and unreasonably high fees.[125] More is not always better, and too many professionals assigned to a single workflow matter can create confusion and duplication of effort, as different layers of lawyers change documents to their preferred individual styles as a draft moves through the process.[126] As we have said before, in order to dissipate the fear of accidental malpractice, lawyers will justify bringing many people to a hearing or a meeting, instead of a few. After all, a diversity of experience will best serve the client, and having top-notch knowledge on hand will provide better service than having to wait for someone back at the office to provide an answer to a particular question. Lawyers who work their way up the law firm ladder often have very specialized expertise, so having both Partner A (with expertise in one area of tax law) and Partner B (with a different expertise in tax law) in a meeting will catch any errors and help to come up with a better work product. For lawyers who are still working their way through the associate ranks, someone more senior must supervise their work. Junior Associate X's research will get supervised by mid-level Associate Y, who will do the first draft of a document, only to have senior Associate Z revise

---

[122] *Id.* r. 1.1.
[123] *Id.* r. 1.3.
[124] *See id.* r. 1.4 (describing obligations to keep clients apprised of the status of their legal matters, including information necessary to facilitate informed consent and decision-making).
[125] *See id.* r. 1.5 (noting that reasonable fees consider "the time and labor required" as well as "[t]he scope of representation" previously communicated to the client).
[126] As an example, one of us worked with a partner who eschewed middle initials on pleadings and spent time editing out those offending initials.

the document before handing it to a partner for final revisions. One lawyer in an office will pop into another lawyer's office to get some advice on a matter, and those pop-in meetings can span large blocks of time as the professionals spitball ideas. "Even filing a pleading that simply states that one party agrees with some other party's position can result in significant billed time if more than one professional has to set eyes on the draft before it gets filed."[127]

Ironically, those multiple layers of review ultimately can raise the specter of malpractice. After all, it is more efficient to put all of the main professionals in a room for a half hour, at the beginning of a representation, to communicate what's going on and who will handle which issues than it is to have separate conversations with each professional, and it is more efficient to update a workgroup by quick emails (and be allowed to bill for the time drafting and reading those emails) than it is to have a series of cascading meetings or phone calls. But it is not particularly efficient to schedule all-hands weekly meetings in which people who don't need to be at the meeting show up because it was too much trouble to cull the invite list. As these workflow inefficiencies snowball and intensify, a client's initial dismay becomes frustration; frustration then becomes anger; and anger can quickly transform into a malpractice claim.

All of the activities suggesting workflow inefficiencies (internal office conferences, multi-attorney meetings, repeated tasks, and so on) have been memorialized in invoice line-item data. When we analyze tens (or hundreds) of thousands of line items recorded by a timekeeper or massive volumes of line items from innumerable timekeepers, we can surface behavioral patterns of workflow inefficiencies. Once surfaced, workflow inefficiency trends can be correlated to malpractice risk.

3. Billing hygiene

We define exemplary billing hygiene as "recording clear, concise, informative narrative entries linked to the time to complete an individual task."[128] The goal of billing hygiene is to explain who did what and for how long, so that those paying hourly-rate bills understand the components of the legal fees.[129] Billing hygiene problems come in a wide variety of flavors,

---

[127] Rapoport & Tiano, Jr., *Legal Analytics*, *supra* note 3, at 1276.

[128] *Id.* at 1293. And, as we said in that article, "[t]he time entry 'Attention to file—2.1 hours' is unhelpful today and even less helpful tomorrow when trying to price legal services with certainty." *Id.*; *see also* Nancy B. Rapoport, *''Nudging'' Better Lawyer Behavior: Using Default Rules and Incentives to Change Behavior in Law Firms*, 4 ST. MARY'S J. ON LEGAL MAL. & ETHICS 42, 86 (2014) ("'[A]ttention to file' has never told a single client what the biller actually did . . . .").

[129] We're actually fans of alternative billing methods, and legal analytics can help lawyers price fees that are based on metrics other than time multiplied by hourly rate.

ranging from vague, cryptically written narrative entries to overly verbose narrative entries that obfuscate any inkling of the work performed. "Block-billing" is the practice of lumping together many tasks spanning several hours into a single narrative description. "Round-hour" billing is where a statistically improbable number of time entries end in a zero (1.0, 2.0, 3.0, etc.). Both block-billing and round-hour billing can eventually trigger a client's ire, which may lead to full-blown malpractice lawsuits. Admittedly, there are many reasons that lawyers might not write clear time entries. For the types of work for which bills are part of the public record,[130] lawyers might not want to signal their strategy.[131] Moreover, lawyers who don't record their time contemporaneously might not remember in detail what they did.[132] Those lawyers who are on our side of the bifocal divide might not have been trained to provide clear time entries.[133]

When billing hygiene is poor, malpractice risk is high. First, poor billing hygiene is an indication that a firm's lawyer and paraprofessional training program and its administrative controls are weak. Second, poor billing hygiene, even when it results from sloppiness or laziness rather than from maliciousness, runs afoul of a lawyer's Rule 1.5 obligation regarding reasonableness of fees and the Rule 8.4(c) obligation not to lie.[134] Finally, poor billing hygiene will irritate even the most patient and cooperative client, and if the lawyer-client relationship deteriorates, poor billing hygiene can form the basis for allegations of billing fraud.

4. Institutional governance

Having gotten into the habit of chronicling their workdays in one-tenth of an hour segments of billable time, most legal professionals also account for their non-billable time in a similar manner. Typical categories of non-billable activities include *pro bono* work, business development, firm management committees, attorney mentorship, client billing, and continuing

---

[130] Such as fee applications in chapter 11 cases.

[131] *See, e.g.*, Rapoport, *supra* note 8, at 47, n.33 (2020) (providing sources that describe what happened when two law firms—Kirkland & Ellis and Jones Day—scrutinized each other's timesheets as part of a larger skirmish).

[132] We think that making up the entries later violates MODEL RULES OF PRO. CONDUCT r. 1.5 (Am. Bar Ass'n 2020) (regarding fees), r. 1.4 (regarding communications), r. 5.1 (regarding supervisory lawyer responsibilities), and r. 8.4(c) (prohibiting "conduct involving dishonesty, fraud, deceit or misrepresentation"), not to mention the overarching fiduciary duty to the client.

[133] Being on our side of the bifocal divide may explain that behavior, but it doesn't excuse it.

[134] *See* MODEL RULES OF PRO. CONDUCT. r. 1.5 (Am. Bar Ass'n 2020) (providing that a lawyer "shall not make an agreement for, charge, or collect an unreasonable fee or an unreasonable amount"); r. 8.4 (noting that dishonesty and deceit constitute professional misconduct).

legal education.[135] Insofar as legal professionals capture their tasks and activities within these categories of non-billable work, we think that such organizational governance/non-billable data can have a major effect on malpractice risk.

If a partner with a $1,500,000 book of business spends fewer than 30 minutes per month on billing activities, it calls into question whether the partner is adequately reviewing the invoices that he or she is sending to clients, again bucking up against the ethics rule on the reasonableness of fees.[136] If an inconsequential amount of non-billable time is recorded to firm management committees, which are established to streamline processes and mitigate risks, that signals inattention to risk mitigation procedures that can reduce malpractice risk. Conversely, where attorneys' timekeeping records indicate that they've taught or attended more than the required amount of continuing legal education programs, that might bode well for lowering malpractice risk.[137] Just as with the other malpractice markers, even non-billable activities can be relevant to LPL underwriting risk.[138]

5. Matter oversight

Any lawyer charged with overseeing a matter should meet the standard of care requiring her to use and manage "people, processes, and technology" effectively and efficiently. When an attorney who is the "lead"

---

[135] Most larger law firms set up a "dummy" client/matter account where the client is reflected as "non-billable time" and a matter is reflected as "pro bono," or "management committee work" or "CLE." Contrary to popular opinion, law firms do care what their legal professionals are doing when they are not handling billable work.

[136] MODEL RULES OF PRO. CONDUCT. r. 1.5 (Am. Bar Ass'n 2020) (discussing reasonableness of fees).

[137] This assumes the attorneys actually pay attention during the CLEs, rather than just multitasking. Sitting in a room playing on one's smart phone isn't the same thing as listening to the presentation.

[138] Staffing efficiency, workflow efficiency, billing hygiene, and organizational governance are certainly our four candidates for the most likely predictors of potential malpractice problems, but presumably there are several others as well. For example, we might be able to catch those types of behaviors that are typically associated with competency and diligence risks by paying attention to how upcoming deadlines get docketed on a lawyer's calendar. If a paralegal dockets an upcoming filing deadline for, say, a summary judgment motion, then there should be concomitant calendar entries for starting the drafting process and assembling all of the necessary components. If a paralegal dockets an upcoming motion with a filing deadline of December 1, and nothing happens on the drafting side until perhaps a few days before December 1, then the odds of a well-written, well-argued motion go way down. We can conceive of an internal system that nags lawyers to start the drafting process earlier. Perhaps a poorly drafted motion won't rise to the level of malpractice, but why not reduce the risk by advance (and automated) planning?

attorney on a matter falls short of the mark on her matter-oversight responsibilities, that failure poses a malpractice risk.

In terms of the people component, a properly managed matter should be staffed with an appropriate number of legal professionals with the right mix of seniority and skill sets, as dictated by the scope and complexity of a matter. Understaffing a matter with too few legal professionals can be as problematic as overstaffing it. Likewise, staffing a matter with too few senior attorneys and too many junior legal professionals can pose a competence issue. Using too many "drive-by" billers who breeze in and out of the matter and who are not fully committed to it can foster ineffective communication, failed accountability, and a shallow understanding of the legal and factual issues of the matter. Managing people, particularly legal professionals, is tricky for the attorney leading the matter. She must deftly use different people's skills at the right time and in the right manner and scope, all while ensuring effective team communications with minimal waste and redundancy. At bottom, poor personnel management increases malpractice risk.

Designing and managing a well-thought-through process is equally important when it comes to matter oversight. Without a good process, things simply can fall through the cracks. For example, a faulty process will cause professionals to miss deadlines or do sloppy, rushed work.

In the current tech-enabled world, the effective use of technology in a matter is critical to good matter oversight. In fact, 38 state bar associations have indicated that part of a lawyer's duty of competence includes a duty of technological competence.[139] Lead attorneys on a matter need know to how and when to use case management technologies, virtual data rooms, eDiscovery tools, and legal research platforms. No longer is technological competence a role solely for the information technology (IT) department, knowledge management experts, or librarians. These tech skills must be arrows in the lead attorney's quiver. If a lead attorney can't draw back the bow, or the arrows consistently fly wide of the mark, these shortcomings can materialize into a significant malpractice risk.

When invoice data for a particular matter is reconstructed using advanced legal spend data analytics tools, it is tantamount to the genetic roadmap for that matter: people, process and technology can be examined in a multi-dimensional analysis. It is possible to identify appropriate partner/associate leverage ratios, transient timekeepers, matter advancement,

---

[139] *See id.* r. 1.1 cmt. 8 (emphasis added) ("To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, *including the benefits and risks associated with relevant technology*, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject."); *see also Tech Competence*, LAWSITES https://www.lawsitesblog.com/tech-competence [https://perma.cc/TW99-QUQE] (last visited Nov. 23, 2020) (depicting the states that recognize a lawyer's duty to maintain technological competence).

task allocations and flow, communications patterns, and technology usage. It's then easy to compare those metrics on a single matter against comparable matters on an industry-wide basis to establish the relevant standard of care and related matter oversight markers.

6. Fiduciary risk

Every lawyer owes a fiduciary duty to her client.[140] At all times, a lawyer must use her professional skills and energy to act in her client's best interest and to disclose any interest—economic or otherwise—that could conflict with her client's interest. Lawyers must adhere to the duty of loyalty, the duty of confidentiality, the duty of competence, and the duty to communicate. A proven breach of any of these duties will likely trigger malpractice liability.

As we've studied invoice data across multiple cases, we've discovered that the "fiduciary risk" malpractice marker requires an evaluation of not just what happened based on invoice data, but also what *didn't* happen. An analysis of a lawyer's non-billable time entry data could surface times when she engages in activities that are harbingers of malpractice, such as interactions with her law firm's risk management partner(s) or state bar officials; legal research on ethics issues; or communications putting a carrier on notice. In theory, some of these activities will evidence a fiduciary duty breach. The absence of certain categories of activities in invoice data, such as a paucity of attorney/client communications, will also raise legitimate questions on whether a lawyer is discharging her fiduciary duties properly.

C. Creating the LPL Malpractice Risk Score

> **Rufus Riley:** [to Agatha] Are you reading my mind right now?
> **John Anderton:** Get up.

---

[140] Some lines of jurisprudence surrounding a lawyer's fiduciary duty include only the duty of loyalty and the duty of confidentiality as comprising a lawyer's fiduciary duty whereas other lines also include the duty of competence and duty to communicate. *See, e.g.*, Bank of Hartford, Inc. v. Bultron, NO. SP-H-9296-65684, 1992 Conn. Super. LEXIS 3551, at *20–21 (Conn. Super. Ct. Dec. 21, 1992) (describing the duties of an attorney as "competence, loyalty, confidentiality and communication"). We acknowledge that aspects of our Fiduciary Risk marker could be viewed as overlapping with aspects of the other five markers, much like a breach of fiduciary duty action can overlap with actions under other theories of liability. The duty of competence and duty to communicate are subsumed by another malpractice marker. Accordingly, the "Fiduciary Risk" marker centers on the duty of loyalty and duty of confidentiality.

> **Rufus Riley:** [to Agatha] I'm sorry for whatever I'm going to do and I swear I didn't do any of that stuff that I did.
>
> — MINORITY REPORT (20th Century Fox 2002)[141]

We know that there is a sufficient quantum of valuable data that can be analyzed to show legal professional behavioral patterns. We also know that there are legal data analytics tools that can analyze and categorize the legal spend data in a manner that surfaces behavioral trends. No longer are LPL actuaries relegated to generalizations, inferences, and conjecture when it comes to behavioral data. Behavioral data can allow lawyers and their LPL insurers to forecast, in a pre-cog-like manner, malpractice.

Out of the complex stew of LPL application data, LPL claims data, invoice data, biographical data, and LPL actuarial analyses, we think that there should emerge an LPL malpractice behavioral scoring metric. Today's technology easily can analyze and synthesize terabytes (or even petabytes or exabytes) of complex data and transform the data into a lawyer-by-lawyer, simple, individualized/hyper-personalized LPL Malpractice Risk Score, akin to an A.M. Best rating, FICO score, Moody's rating, or similar industry-accepted standard.

With advanced data analytics tools, legal invoice data can be analyzed on a line-item-by-line-item basis. When a line item contains one or more data points that tie to one or more of the six malpractice markers, that line item can be flagged and assigned to a malpractice marker category. When this flagging and assignment exercise is done at scale, evidence of LPL behavioral risk naturally follows. The law firm, or the attorney herself, or both could monitor the Malpractice Risk Score over time, with the hope of improvement, in the same way that people now monitor their credit scores. Moreover, the Malpractice Risk Score could be combined with the existing demographic data to amplify existing LPL underwriting guidelines: The Malpractice Risk Score could be compared against peers; the score could even be rolled up with data from other professionals in the same firm to provide an overall firm score. Simply put, the Malpractice Risk Score, which transforms an attorney's own time entries into *behavioral* data, brings twenty-first century big-data insights to legacy LPL underwriting metrics that came from the late 1900s.[142]

---

[141] MINORITY REPORT (20th Century Fox 2002).

[142] Our intrepid research assistant, Joshua Nelson, asked us an important question while he was helping us with this article: Wouldn't law firms, knowing what comprised the Malpractice Risk Score, game the system to keep their perceived risk down? That's absolutely a possibility: After all, law schools game the U.S. NEWS rankings all the time. *See, e.g.*, Darren Bush & Jessica Peterson, *Jukin' the Stats: The Gaming of Law School*

CONCLUSION

The legal industry and the insurance industry, particularly the LPL Insurance segment, can experience a renaissance by using behavioral data and our Malpractice Risk Score. Real malpractice risk can be individualized so that the less risky insureds don't wind up subsidizing their higher-risk counterparts. LPL insurers can develop new coverage options that protect more lawyers (and more risks) at a more affordable price, and those insurers could predict malpractice risk with greater accuracy. Most important, catching potential risk early allows a professional to find ways to reduce that risk, thereby reducing the likelihood and severity of actual malpractice claims. Risk prevention measures can be tailored to the risky behaviors of individual legal professionals. Underwriting costs and claim exposure and severity should decrease, in part because aggrieved clients will be able to point to concrete metrics to support their legitimate claims and in part because professionals with good systems and habits in place should be able to leverage the metrics to avoid or refute frivolous malpractice claims. Much

---

Rankings and How to Stop It, 45 CONN. L. REV. 1235, 1238 (2013) (discussing pressure on law schools to "juke the stats" to gain a competitive advantage); Nancy B. Rapoport, *Managing* U.S. News & World Report*—The Enron Way,* 48 GONZ. L. REV. 423, 423 n.1 (2013) (providing examples of data misrepresentation and manipulation at Illinois Law, Villanova, and the University of St. Thomas); Alex Wellen, *The $8.78 Million Maneuver,* N.Y. TIMES (July 31, 2005), https://www.nytimes.com/2005/07/31/us/education/the-878-million-maneuver.html [https://perma.cc/8CUG-ZC9N] (describing the odd incentives and choices posed to law schools as a result of the importance of *U.S. News & World Report* rankings). We're of two minds about Josh's question: We think that some of the gaming that goes on is wasteful (for example, the glossy brochures that law schools mail—or used to mail, at least—touting how great they are in time for the voting for *U.S. News*'s reputational scores). These brochures are known colloquially as "law porn." *See, e.g.,* Doug Litowitz, *Law Porn and its Discontents,* 6 CRIT: CRITICAL LEGAL STUD. J. 14, 15 (2012) ("'Law porn' is an epithet that refers to professional-looking, glossy publications commissioned by law schools . . . often attributed to attempts by law school administrators to influence the U.S. News & World Report annual ranking of law schools."). We can also point to the almost fanatical scrutiny of LSATs and undergraduate GPAs that law schools use to manipulate the 25th and 75th percentiles of those two factors. But we also think that the reason that many law schools game the rankings relates to how little the rankings reflect actual differences among law schools. *See* Nancy B. Rapoport, *Ratings, Not Rankings: Why* U.S. News & World Report *Shouldn't Want to Be Compared to* Time *and* Newsweek*—or* The New Yorker, 60 OHIO ST. L.J. 1097, 1099 (1999) (describing portions of the *U.S. News* ranking system as a "dartboard" approach or as a "glorified coin toss at best"); *see also id.* at 1101 & 1101 n.17 (suggesting that *U.S. News* could also rank law schools by faculty height—or inverse height—but that ranking wouldn't reflect quality, either). If we're right that the Malpractice Risk Score reflects actual risk, then the gaming actually lowers risk, which is a good thing. If we're wrong, though, then we'd need to titrate the score until it more accurately reflects risk.

like their counterparts in the auto insurance lines, behavioral data promises to be the next-generation differentiator for LPL insurers. LPL insurers that leverage behavioral data will flourish; those that fail to leverage behavior data will do so at their peril.