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Tracing Equity: Realizing and Allocating Value in Chapter 11

Melissa B. Jacoby & Edward J. Janger*

Law and economics scholars have long argued that efficiency is best served when a firm's capital structure is arranged as a single hierarchical value waterfall. In such a regime, claimants with seniority are made whole before the next-junior stakeholders receive anything. To implement this single waterfall approach, those scholars envision a property-based mechanism: a blanket lien on all of a firm's assets, and therefore all of its value (including as a going-concern). This view informs a number of academic proposals for contractual bankruptcy and relative priority. Coincident with this scholarship, lawyers, scholars, and judges have largely accepted at face value the proposition that Article 9 of the Uniform Commercial Code implements the single waterfall. In other words, they assume that the law allows a secured lender to write contracts that enable it to capture all of a distressed company's going-concern value. This assumption has placed "senior" secured lenders firmly in the driver's seat when a firm falls into distress. So-called "senior" creditors claim priority in all of the value and control over all of the cash. They often push aggressively for a quick sale of the firm as a going concern, or liquidation of its assets, followed by distribution of all of the sale proceeds to the secured lender.

In this Article, we illustrate that neither Article 9 nor the federal Bankruptcy Code, in fact, implements the single waterfall. Instead, both maintain a distinction between claims with priority based on a property interest in the firm's assets and claims to the residual value of the firm. Whenever the firm continues in operation, there will always be two value waterfalls—one tied to assets, and the other not. The second waterfall consists of unencumbered assets, as well as the going-concern and other value of the firm that Chapter 11 preserves. The key legal (and often forgotten) concept that maintains this distinction is "equitable tracing"—required by both Article 9 and Chapter 11. The terms "equitable

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principles" in Article 9 and "equities of the case" in Chapter 11 refer to equitable tracing principles that, in turn, inform secured creditors' "fair and equitable" baseline entitlement under a Chapter 11 plan.

On the petition date, the value of the firm is therefore divided into two categories: value traceable to encumbered assets and other value. This relationship must then be managed over time, as the value of the firm changes. To accomplish this, Chapter 11 treats realization of value as a two-step process that we call "Equitable Realization." Equitable Realization uses tracing principles to allocate a firm's value between asset-based and firm-based claimants and to preserve that allocation over time. First, it fixes the relative positions of secured and unsecured claims when a bankruptcy petition is filed. Second, it delays the fixing of the value of secured claims until collateral is sold or a Chapter 11 plan is confirmed. The value of the secured creditor's collateral may increase, but the secured creditor's entitlement to any bankruptcy-created value extends only to "identifiable proceeds"—value that can be traced to assets encumbered on the petition date. As a result, increases in going-concern value of the company in this period, and other bankruptcy-created value more generally, are not within a lender's collateral package. Any going-concern value created or preserved by Chapter 11 is allocated to the bankruptcy estate for the benefit of all stakeholders—workers, retirees, customers, and more.

We then address whether Article 9 and the Bankruptcy Code took the right approach by choosing Equitable Realization over the single waterfall. Many scholars, all the way back to Grant Gilmore, have questioned the wisdom of the single waterfall. Joining and expanding on those scholars' concerns, we explain the benefits of Equitable Realization and how the concept resonates with a large family of corporate and commercial law rules that guard against undercapitalization and judgment proofing. Equitable Realization not only implements the Bankruptcy Code's core goal of equitable treatment of creditors, but, by properly identifying firms' residual claimants, limits a firm's ability to externalize risk and increases the prospect of reorganizing troubled companies.

The last task of this Article is to test our insights against the value-allocation proposals in the Final Report of the American Bankruptcy Institute Commission to Study the Reform of Chapter 11, *as well as priority-related proposals in academic scholarship. Many of the Commission's proposals are consistent with Equitable Realization. But one proposal in particular, redemption option priority, allocates too much to secured creditors relative to our interpretation of current law.*

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> [W]hy on earth should the fruits of a known insolvent's labors feed the assignee while all the other creditors starve? . . . [D]oes it make any sense to award everything to a secured party who stands idly by while a doomed enterprise goes down the slippery slope into bankruptcy? [1]
>
> —Grant Gilmore

Introduction

In General Motors' historic bankruptcy, investment bank J.P. Morgan learned a hard lesson about the effect of property law on contractual priority. Although the debtor promised the creditor an asset-based loan, with priority in particular assets, failure to provide public notice of the $1.5 billion secured loan transaction left J.P. Morgan largely unsecured.[2] While the contract between J.P. Morgan and General Motors said one thing, Delaware lien law dictated a different result. When there is not enough value to go around, private agreements between the debtor and a creditor about priority (contracts) affect other creditors (third parties) and are therefore governed by property law. Federal bankruptcy law derives rules about the enforceability of obligations and their priority from state and other nonbankruptcy law and then uses those entitlements to allocate the value realized in bankruptcy in a

1. Grant Gilmore, *The Good Faith Purchase Idea and the Uniform Commercial Code: Confessions of a Repentant Draftsman*, 15 GA. L. REV. 605, 627 (1981).

2. *In re* Motors Liquidation Co., 777 F.3d 100, 105 (2d Cir. 2015). As the case has developed, the ultimate fate of the lenders appears likely to turn on how much of the lenders' collateral can be characterized as "fixtures." Tiffany Kary, *GM Creditors' $1 Billion Fight Hangs on Fixture Definition*, BLOOMBERG (June 6, 2017), https://www.bloomberg.com/news/articles/2017-06-06/key-to-gm-creditors-1-billion-fight-lies-in-fixture-semantics [https://perma.cc/4DEQ-V2WP].

manner that is "fair and equitable."[3] These legal allocations may not, however, match the hopes of particular creditors.

The distributional stakes are high, and contested by claimants with varying levels of power, including private equity funds, tort claimants, inventory suppliers, customers, governmental units, workers, and retirees. A central goal of bankruptcy law is to ensure that disappointment is shared in a manner that is fair but that also facilitates value maximization. Value allocation also implicates governance; distributional rights determine who has decision-making power in a Chapter 11 bankruptcy case and can decide the fate of the firm, hopefully to maximize value.

The normative stakes are high as well. Douglas Baird, Thomas Jackson, Alan Schwartz, and others have long argued that economic efficiency is best served when the capital structures of companies are arranged as single, hierarchical value waterfalls.[4] The mechanism that these scholars advocate to implement this contractual waterfall—a blanket lien on all of a firm's assets—is, necessarily, property based. Otherwise, the subordination/priority would not bind third parties, such as employees, trade creditors, and tort claimants.

This view influenced the comprehensive revision to Article 9 of the Uniform Commercial Code in 2000.[5] Lawyers, scholars, and judges have, since then, largely accepted at face value the notion that a secured lender can write contracts that enable it to capture all of a distressed company's going-

3. 11 U.S.C. § 1129(b) (2012).

4. *See* Douglas G. Baird & Thomas H. Jackson, *Corporate Reorganizations and the Treatment of Diverse Ownership Interests: A Comment on Adequate Protection of Secured Creditors in Bankruptcy*, 51 U. CHI. L. REV. 97, 106–08 & n.40 (1984) ("Bankruptcy is, in short, a mechanism to make disparate owners act as one owner would act, and thereby to reduce the costs such dispersion would otherwise bring."); *id.* at n.52 ("Secured credit is to unsecured credit what unsecured credit is to equity interests . . . ."); Alan Schwartz, *A Theory of Loan Priorities*, 18 J. LEGAL STUD. 209, 211 (1989) ("[T]he optimal priority contract . . . would rank the initial financer first . . . ."); *cf.* Alan Schwartz, *The Fairness of Tender Offer Prices in Utilitarian Theory*, 17 J. LEGAL STUD. 165, 167–68 (1988) [hereinafter *Fairness*] (noting that the single-owner standard is widely accepted by courts and legal commentators). In Douglas G. Baird, *The Rights of Secured Creditors after* ResCap, 2015 U. ILL. L. REV. 849 (2015), Baird recognizes the asset-based nature of the secured claim but continues to assume the possibility of a blanket lien on going-concern value. *Id.* at 860 (The debate over "[w]hether one looks at a secured creditor as holding the discrete parts worth less than the going concern or whether it enjoys a right to the first cashflows of the firm . . . will undoubtedly continue. . . . Both sides cling to their views as if they were articles of religious faith.").

5. The assumption was that the positive externalities associated with reduced cost of credit would outweigh any negative externalities imposed on nonconsensual or nonadjusting creditors. *See* Steven L. Harris & Charles W. Mooney Jr., *How Successful Was the Revision of UCC Article 9: Reflections of the Reporters*, 74 CHI.-KENT L. REV. 1357, 1359 (1999) (suggesting that the Article 9 revision was motivated by "increase[d] awareness that the principal beneficiaries of secured credit" are borrowers *and* third parties); Lois R. Lupica, *The Impact of Revised Article 9*, 93 KY. L.J. 867, 870 (2004–2005) (explaining that purported efficiency grounds justified the expanded rights of secured creditors in the Article 9 revision).

concern value.[6] Lynn LoPucki, Elizabeth Warren, Lucian Bebchuk, and Jesse Fried—and, before them, Grant Gilmore—questioned the wisdom of this view, but not the efficacy of the chosen mechanism or the comprehensiveness of Article 9 as adopted.[7]

In this Article, we question not only the wisdom of the "single waterfall," but the accuracy of the view that it exists under current law. We first argue that both Article 9, as revised, and the Bankruptcy Code retain the distinction between asset-based claims of priority and value-based claims against firm value that cannot be traced to encumbered assets. We then join the single-waterfall skeptics as a normative matter, and reconceptualize this view—that asset-based priority must be traceable to pre-petition assets—as part of a broad family of laws that encourage adequate capitalization through a combination of governance rules and liability rules, but also through limitations on limited liability (veil piercing), and limitations on property rights (avoidance). Our positive argument proceeds as follows. First, we explain how the Bankruptcy Code allocates realized value and uses the term "equity" to police the line between asset-based claims and value-based claims.[8] Next, we show that equity has a temporal dimension; Chapter 11

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6. As we discuss later, the American Bankruptcy Institute Commission Report assumes a single waterfall when it seeks to allocate the reorganization value of a firm. D.J. BAKER ET AL., AM. BANKR. INST., COMMISSION TO STUDY THE REFORM OF CHAPTER 11: 2012–2014 FINAL REPORT AND RECOMMENDATIONS 213 (2014), http://commission.abi.org/full-report [https://perma.cc/X24X-LL3N] [hereinafter ABI FINAL REPORT] ("The absolute priority rule codified in section 1129(b) . . . continues the basic tenet that . . . secured creditors have a right to receive payment in full prior to junior creditors and interest-holders receiving any value."). Many commentators make the same assumption. *See* Douglas G. Baird, *Priority Matters: Absolute Priority, Relative Priority, and the Costs of Bankruptcy*, 165 U. PA. L. REV. 785, 797 n.39 (2017) ("As a matter of black-letter law, of course, unsecured claims are supposed to receive nothing if the secured creditors cannot be paid in full."); Anthony J. Casey, *The Creditors' Bargain and Option-Preservation Priority in Chapter 11*, 78 U. CHI. L. REV. 759, 763–64 (2011) ("[T]he 'absolute priority rule' provides that assets in bankruptcy must be distributed in strict adherence to the contractual priority that exists for liquidation outside bankruptcy. Thus, senior secured creditors must be paid in full before junior creditors recover a penny.").

7. Lucian Arye Bebchuk & Jesse M. Fried, *The Uneasy Case for the Priority of Secured Claims in Bankruptcy*, 105 YALE L.J. 857, 859 (1996); Gilmore, *supra* note 1, at 627; Lynn M. LoPucki, *The Unsecured Creditor's Bargain*, 80 VA. L. REV. 1887, 1939–40 (1994); Elizabeth Warren, *Making Policy with Imperfect Information: The Article 9 Full Priority Debates*, 82 CORNELL L. REV. 1373, 1390–91 (1997).

8. Much has been written about "equity" in the Bankruptcy Code and its impact on the treatment of creditors' claims. *See, e.g.*, Alan M. Ahart, *The Limited Scope of Implied Powers of a Bankruptcy Judge: A Statutory Court of Bankruptcy, Not A Court of Equity*, 79 AM. BANKR. L.J. 1, 1 (2005) ("[A] bankruptcy judge has scant prerogative to invoke inherent powers, formulate federal common law or imply private rights of action under the Bankruptcy Code."); Marcia S. Krieger, *"The Bankruptcy Court Is a Court of Equity": What Does That Mean?*, 50 S.C. L. REV. 275, 297 (1999) (discussing the history of the characterization of bankruptcy courts as "courts of equity"); Adam J. Levitin, *Toward a Federal Common Law of Bankruptcy: Judicial Lawmaking in a Statutory Regime*, 80 AM. BANKR. L.J. 1, 2–5 (2006); *see also* United States v. Sutton, 786 F.2d 1305, 1308 (5th Cir. 1986) ("While the bankruptcy courts have fashioned relief under [11 U.S.C.] Section 105(a) in a variety of situations, . . . [t]hat statute does not authorize the bankruptcy courts to create substantive

cases unfold over time and absolute value and relative allocation of value may change over the course of a case. We show how the Code's mechanism for value tracing and the Code's timing rules for realization interact over the course of a Chapter 11 case to freeze the relative position of asset-based and value-based claims as of the moment the bankruptcy petition is filed. This implements a concept we call "Equitable Realization." We then consider the implications of this concept for creditors when they claim to hold blanket liens encumbering the value of the firm as a whole.

Our interpretive argument rests on the meaning of the term *equity* as it is used in both Article 9 of the Uniform Commercial Code and the Bankruptcy Code with regard to collateral tracing. We discuss the use of this term in three statutory provisions:

- First, to confirm a Chapter 11 plan of reorganization over the objections of a class of impaired claims, the plan must be "fair and equitable" to the dissenting class;[9]
- Second and third, both Article 9 of the Uniform Commercial Code and the Bankruptcy Code invoke the term *equity* when a secured creditor's collateral has become commingled with other assets of the estate.[10]

Article 9, by its terms, mandates the application of "equitable principles" to determine the portion of commingled assets that should be treated as identifiable proceeds of the secured party's collateral.[11] Similarly, the Bankruptcy Code authorizes a court to use the "equities of the case" to limit a secured creditor's entitlement to identifiable proceeds.[12] These tracing principles, as interpreted and applied by courts, maintain an equitable distribution of firm value as it changes over time during a Chapter 11 case.

Our interpretation of equity as tracing is far from a "roving commission" to do justice.[13] Drawing from the language of the statute, and the history of bankruptcy law, our interpretation has bite that prior commentators have not sufficiently appreciated. It mandates a particular approach to allocating value among stakeholders in Chapter 11 cases. We show that the pool of assets entitled to asset-based priority is fixed on the petition date. Therefore, to the extent Chapter 11 creates or preserves the going-concern value of a firm, such value is not allocated to the secured lender, even one claiming a blanket lien

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rights that are otherwise unavailable under applicable law, or constitute a roving commission to do equity.").

9. 11 U.S.C. § 1129(b)(2) (2012).

10. The likelihood of commingling collateral and noncollateral is high when the security agreement includes an extensive list of tangible and intangible personal property interests as collateral.

11. U.C.C. § 9-315(b)(2) (2014).

12. 11 U.S.C. § 552(b).

13. *See Sutton*, 786 F.2d at 1308.

on all of the firm's assets. That value is allocated to the bankruptcy estate and, consequently, to the parties with a claim to the firm's value.

Having established that a single waterfall cannot be created through security interests under current law, we had to ask whether that is a problem that needs to be fixed. The debate over the efficiency of secured credit, and the related debate over a carve-out for nonconsensual creditors, ended at an empirical standoff in the 1990s.[14] Secured credit has both positive and negative externalities of relative sizes that have yet to be measured. The effort of creditors to obtain blanket liens, however, requires consideration here because the principle that a firm should not do business without maintaining capital reasonably sufficient to pay its debts has deep roots in tort, property law, and corporate law.[15] Reserving the going-concern increment for those harmed by the failure to maintain adequate capital sounds both in efficiency and in equity. It prevents secured credit from being used as a contractual end run around this legal norm.[16]

The timing has never been better for our consideration of these questions. The American Bankruptcy Institute (ABI) Commission on the Reform of Chapter 11 recently published an extensive report on the current state of Chapter 11 (the "ABI Commission Report" or the "Report").[17] The Report—a monumental example of cooperation amongst restructuring professionals and the academy—reveals agreement that the corporate-bankruptcy system is not working nearly as well as it should. In large part, the dysfunction stems from the control exercised by asset-based lenders that goes beyond what the original Bankruptcy Code drafters anticipated. Many of the Report's proposals relate to secured creditor entitlements, and often (but not always) seek to cabin those entitlements—an approach that has generated strenuous opposition.[18]

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14. As Janger has discussed elsewhere, the debate over the efficiency of secured credit foundered on the inability to measure and compare the relative size of secured credit's positive externalities (reduced credit cost) and its negative externalities (risk alteration and distorted investment incentives). *See* Edward J. Janger, *Predicting When the Uniform Law Process Will Fail: Article 9, Capture, and the Race to the Bottom*, 83 IOWA L. REV. 569, 606 & n.149, 608 (1998); *see also* Paul M. Shupack, *Solving the Puzzle of Secured Transactions*, 41 RUTGERS L. REV. 1067, 1068 (1989); *infra* section II(B)(3).

15. The scope of the debts to be protected under this principle (e.g., nonconsensual debt, ordinary trade debt, employment claims) is a separate question, but unless tort claims and the like are given priority, blanket liens will violate this principle whenever a firm becomes insolvent.

16. While in theory a firm that has encumbered all of its assets could be adequately capitalized, the value of the firm must exceed the amount of the debt secured by the lien. Reductions in the equity cushion shift all risk to operating and nonconsensual creditors.

17. *See* ABI FINAL REPORT, *supra* note 6.

18. *See* LOAN SYNDICATIONS & TRADING ASS'N, THE TROUBLE WITH UNNEEDED BANKRUPTCY REFORM: THE LSTA'S RESPONSE TO THE ABI CHAPTER 11 COMMISSION REPORT 13–37 (2015) (calling the ABI Report's approach "well-intentioned," but "misguided"). This resistance is neither new nor limited to the United States. For an assessment of the various ways secured creditors resist reforms perceived as restricting their scope and power in the UK, see Adrian J. Walters, *Statutory Erosion of Secured Creditors' Rights: Some Insights from the United Kingdom*,

The ABI Commission Report offers a vehicle to test our view of the realization rules and entitlements currently embedded in the Bankruptcy Code. We agree with much of the Chapter 11 Commission's articulation of problems in the current system. But the proposals lack a consistent conception of realization and entitlement, probably because of negotiation to achieve agreement about the reform package as a whole. In particular, some proposals cling to the assumption that a secured creditor can use its asset-based claim to become the residual owner of a firm—a view that this Article illustrates is neither justified by current law, nor inherently desirable.[19]

This Article proceeds in three parts. In Part I, we develop the concept of Equitable Realization in bankruptcy. We identify the moment(s) in time when the Bankruptcy Code fixes: (1) the relative positions of claimants against the estate and its assets, and (2) the value of those claims for distributional purposes (value realization). In addition to distinguishing between unsecured and secured claims, we show how fixed- and floating-lien collateral are treated differently as a practical matter.[20] In the process, we explain how the Bankruptcy Code seeks to ensure the equitable treatment of all creditors but does so differently depending on type. This analysis also specifies the allocation of bankruptcy-created value. The allocation we describe is facially similar to proposals for an option-preservation priority and a relative priority described in recent articles by Anthony Casey and Douglas Baird. However, failure to distinguish asset-based priority from claims against the value of the firm leads their proposals to considerably understate the extent to which bankruptcy-created value is allocated to the bankruptcy estate.

2015 U. ILL. L. REV. 543, 546–47 (2015). The Reporters to pre-revision Article 9 also lamented this fact and noted its long historical provenance in the Official Comment 2 to former 9-204:

> The widespread nineteenth century prejudice against the floating charge was based on a feeling, often inarticulate in the opinions, that a commercial borrower should not be allowed to encumber all his assets present and future, and that for the protection not only of the borrower but of his other creditors a cushion of free assets should be preserved. That inarticulate premise has much to recommend it. *This Article decisively rejects it not on the ground that it was wrong in policy but on the ground that it was not effective.*

U.C.C. § 9-204 cmt. 2 (1999) (emphasis added).

19. *Accord* Edward J. Janger, *The Logic and Limits of Liens*, 2015 U. ILL. L. REV. 589, 592 (2015).

20. A floating lien is known as a security interest in after-acquired property in the parlance of Article 9 of the Uniform Commercial Code. U.C.C. § 9-204. Article 9 permits parties to sign an agreement whereby a security interest will become effective against property the debtor does not yet own when the debtor acquires it in the future. *Id.* Absent floating liens, lenders and borrowers would have to execute and authenticate new agreements every time the debtor obtained a new property interest that the lender expected to encumber. Floating liens are often associated with property interests that turn over quickly, such as accounts receivable or inventory. *See* Stoumbos v. Kilimnik, 988 F.2d 949, 956 (9th Cir. 1993) (explaining that cases "discuss cyclically depleted and replenished assets such as inventory or accounts receivable").

Part II sets forth a normative argument for Equitable Realization. We show that this approach to value allocation combats judgment proofing, thereby limiting externalities, promoting good governance, and vindicating policies served by tort, contract, property, and corporate law. Indeed, even if Article 9 had validated blanket liens, it could not have created the "single waterfall." The anti-judgment proofing principle is often enforced by property based remedies that limit the ability of consensual lienors to obtain full priority over other creditors.

In Part III, we test drive our articulation of the positive law against recent proposals for Chapter 11 reform, primarily drawn from the ABI Commission Report.

I. The Concept of Realization and an Introduction to Questions of Timing

Among other things, Chapter 11 of the Bankruptcy Code seeks to accomplish two related goals: value maximization and fair distribution of that value. Fair distribution requires precision with regard to the scope of any claim of priority, and value maximization is not instantaneous. Value allocation therefore requires management of the relationship between high-priority and low-priority claims over time. Attention must, accordingly, be paid to the moment in time when those baseline entitlements become fixed—the moment of realization—to ensure that risk is borne by the appropriate party and benefits accrue to those risk-bearers.

In this Part, we examine how Article 9 and the Bankruptcy Code work together to manage the scope of security interests over time. We develop four propositions that appear obvious to us, but others might see as controversial or even revolutionary. If one pays close attention to state lien law and its integration into the Bankruptcy Code, (1) secured creditors' claimed blanket liens do not encumber as much property as is commonly assumed;[21] (2) the scope of collateral encumbered by a secured creditors' lien (blanket or not) is fixed on the petition date; (3) secured creditors' minimum distributional rights are also fixed on the petition date; but (4) their maximum (asset-based) distributional rights are determined upon disposition of their collateral.

A. *Value Allocation and Timing: The Stakes*

This is not the first time that we have wrestled with the relationship between time, leverage, opportunism, and the assertion of a single-priority waterfall in Chapter 11 cases. Our inquiry began when we observed the opportunistic use of leverage, principally by senior creditors, to hurry a case

21. Melissa B. Jacoby & Edward J. Janger, *Ice Cube Bonds: Allocating the Price of Process in Chapter 11 Bankruptcy*, 123 YALE L.J. 862, 920–25 (2014) [hereinafter *Ice Cube Bonds*]; Janger, *supra* note 19, at 591.

through bankruptcy. Even before the much-discussed Chrysler and GM bankruptcies, many Chapter 11 cases had devolved into quick foreclosure-sale devices, used for the benefit of creditors asserting that a blanket lien entitled them to capture all of the value of the debtor firm.[22] We wrote that, for at least a decade, bankruptcy debtors had been routinely alleging that the firm was quickly losing value—a "melting ice cube"—to justify hurry-up going-concern sales without the procedural protections of a Chapter 11 plan. We argued that this strategy, when successful, placed increased risk of an erroneous valuation on the bankruptcy estate rather than on the proponent and beneficiary of the expedited sale. We further contended that the sale proponent often exploited the crisis to distort state-law entitlements and the Bankruptcy Code's distributional scheme.[23] We proposed a procedural device—the Ice Cube Bond—that would permit quick sales, while preserving issues of valuation and distributional priority (entitlement) for resolution through the plan process.[24]

A common response to our proposal was premised on the aforementioned single waterfall: why worry about unsecured creditors and other stakeholders when there's almost always an undersecured creditor with a "blanket lien" that encumbers all the assets?[25] In other words, if a dominant secured creditor is entitled to all of the value of the debtor, that creditor alone should have the right to dictate how to deal with the firm. What started as an inquiry into procedure became substantive, forcing us to consider how the Bankruptcy Code and the underlying state-law architecture allocate value amongst claimants against, and contributors to, a firm.

This widespread assumption that a blanket lien creates a single distributional waterfall led us to ask two questions: (1) exactly what assets or value does a secured creditor claiming a blanket lien actually encumber under state law, and (2) when does a secured creditor's allowed secured claim become realized (fixed) for various purposes under bankruptcy law? These two questions help us determine entitlements to any bankruptcy-created

22. Melissa B. Jacoby & Edward J. Janger, *Bankruptcy Sales*, *in* HANDBOOK ON CORPORATE BANKRUPTCY (B. Adler ed., forthcoming 2018) [hereinafter *Bankruptcy Sales*]; *Ice Cube Bonds*, *supra* note 21, at 901–02, 934; Janger, *supra* note 19, at 611–12. Jay Westbrook's important empirical work reminds us that quick secured-creditor-dominated sales are only part of a complete picture of Chapter 11. *See* Jay Lawrence Westbrook, *Secured Creditor Control and Bankruptcy Sales: An Empirical View*, 2015 U. ILL. L. REV. 831 (2015) (analyzing a cross section of Chapter 11 cases from 2006); *see also* Lynn M. LoPucki, *The Nature of the Bankrupt Firm: A Response to Baird and Rasmussen's* The End of Bankruptcy, 56 STAN. L. REV. 645 (2003) (disputing the scope of sale cases and demonstrating data showing the continuation of reorganization plans in Chapter 11).

23. *Ice Cube Bonds*, *supra* note 21, at 895.

24. *Id.* at 926, 931.

25. A blanket lien is the colloquial name for a security interest that purports to cover all or substantially all of the assets of a firm. Our prior work illustrates a variety of reasons for skepticism about the existence of blanket liens. *Ice Cube Bonds*, *supra* note 21, at 923; Janger, *supra* note 19, at 595.

value—value generated or preserved, after the petition date, solely by the existence of the federal bankruptcy process.[26]

The answers to these two questions are (1) a secured creditor's collateral is fixed on the petition date; and (2) the value of an allowed secured claim is fixed upon the disposition of the collateral. This timing rule has implications for the allocation of enterprise value that is preserved, or even created, by the federal bankruptcy process; it belies the single waterfall assumption.

Conventional wisdom suggests that secured-creditor entitlements can be coextensive with the bankruptcy estate, and that undersecured creditors often hold the fulcrum security in a Chapter 11 bankruptcy.[27] We show that the conventional wisdom is wrong as a matter of positive bankruptcy and non-bankruptcy law in that it ignores the distinction between asset-based claims and firm-based claims. The Bankruptcy Code embraces this distinction and contains a sophisticated and calibrated scheme to manage the relationship between these types of claims.

Simply put, prior to bankruptcy, a secured creditor could not realize on the enterprise value of a firm by exercising asset-based rights. Extra value that bankruptcy makes available by allowing the business to continue to operate, thereby facilitating a going-concern sale or recapitalization, is not necessarily tied to the encumbered assets and should be allocated to the value-based waterfall.

B. *Realization, Timing, and Equity*

Chapter 11 of the Bankruptcy Code demands that, in the absence of acceptance by all impaired classes, creditors and shareholders be treated in a manner that is fair and equitable. The concept of equity is inextricably linked to the concept of realization. In finance, realization occurs when an asset of uncertain value is converted into cash or a receivable of fixed value—usually when title to the asset is transferred from a seller to a buyer.[28] The moment of realization can be important for a variety of reasons. For example, capital gains are taxed at the moment of realization. A secured creditor realizes on the value of its collateral when it receives payment from a foreclosure sale. In a bankruptcy case, realization occurs when the value of the allowed secured claim is fixed.

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26. *See* Ronald J. Mann, *Bankruptcy and the Entitlements of the Government: Whose Money Is It Anyway?*, 70 N.Y.U. L. REV. 993, 1040 (1995) ("[T]he government's role in creating and preserving those gains gives it an entitlement to some share of any gains from reorganization.").

27. *See* ERIC E. SAGERMAN ET AL., CREDITORS' RIGHTS IN BANKRUPTCY § 17.17 (2d ed. 2016).

28. One dictionary definition of realization can be found here: *Realization*, BUSINESSDICTIONARY, http://www.businessdictionary.com/definition/realization.html [https://perma.cc/QFW5-D2AS].

Once a claim's value is fixed, the creditor is insulated from risk that the value of its investment might decrease, but also no longer benefits from a subsequent increase.

In Chapter 7 value realization is accomplished through liquidation. The filing of a Chapter 11 case complicates the relationship between realization and allocation, because the two cannot be addressed simultaneously. Chapter 11 cases take time, and realization of value can happen in a number of ways. Delayed realization is a key (and desirable) feature of reorganization. Chapter 11 is meant to stop a run on the firm's assets, fix a business, allow markets to stabilize, and then to realize the value of the firm through an orderly process of sale or recapitalization. Over time, and by design, the value of the firm, and the value of its constituent assets, will change, hopefully for the better. In a world where one wishes to buy low and sell high, both timing of realization and control over timing matter. We next disentangle how Chapter 11 allocates value by more precisely identifying the moments at which value is realized for asset-based and firm-based claims.

1. Timing of Realization Under State Law.—Outside of bankruptcy, the effect of timing on the interaction between realization and equal treatment gets relatively little attention for two reasons. First, secured lenders, at least, can control the timing of realization by choosing when to foreclose after a debtor defaults. And, second, because the typical remedy is liquidation, there are not as many decisions to make.[29]

If a business borrows money secured by collateral and later defaults on its obligations, the default triggers the secured party's right to liquidate assets—to realize the value of its collateral.[30] If the collateral is personal property governed by Article 9 of the Uniform Commercial Code, the secured party is supposed to exercise its judgment to dispose of the property at a reasonable time and in a commercially reasonable manner.[31] For real estate, nonuniform state law fixes the foreclosure timeline, but the lender can determine when to initiate the process.

For unsecured creditors to obtain interests in and realize on specific assets of a firm, the process is more cumbersome. They must become judgment creditors, levy on the debtor's assets, and sell them at a sheriff's

29. Some state laws provide for assignments for the benefit of creditors, including some that seek to replicate tools of federal bankruptcy law. Andrew B. Dawson, *Better than Bankruptcy?*, 69 RUTGERS U. L. REV. 137, 142 (2016). We do not address those laws in detail here—in part because, to the extent that these ABC statutes allow a secured creditor to capture value that is not traceable to their collateral, they may be subject to fraudulent conveyance challenge. Moreover, these laws may raise constitutional objections.

30. U.C.C. § 9-601 (2014).

31. *Id.* §§ 9-610, 9-611; *see also id.* § 9-627 (describing how to determine whether the conduct was commercially reasonable). For ways in which the revisions to Article 9 enhanced lenders' foreclosure rights, see Lupica, *supra* note 5, at 882 (observing that "collection and foreclosure remedies have been enhanced, both procedurally and substantively").

sale or whatever equivalent process state law establishes.[32] Either way, the sale is what fixes the value of asset-based claims. If the firm is wound up under state law and there are unencumbered assets, the residual value of the firm would be distributed to the unsecured creditors who would share pro rata. If they were paid in full, the remaining value would be distributed to the shareholders. In other words, the value of claims and interests in the firm would be realized upon disposition of the firm's assets.

It must be realized, however, that state-law remedies have limits. State law determines what assets are subject to levy. Article 9 enforcement rights are articulated on an "asset-by-asset basis,"[33] and commentators have questioned whether secured creditors are even entitled to repossess or foreclose on intangible property.[34] Even for tangible property, secured creditors may be hesitant to engage in self-help repossession due to concerns about breaching the peace.[35] That leaves them to pursue judicial processes, such as replevin or claim and delivery, the procedures of which may vary state by state.[36]

In addition, a secured creditor's foreclosure rights are limited to its own collateral.[37] Even if an asset could be sold for significantly more if coupled with noncollateral, the Article 9 process offers no such option. For real estate, even an unopposed foreclosure can be cumbersome, expensive, and time-consuming.[38] Selling multiple lots as a package would be out of the question. Having a mix of assets also means that different procedures apply, especially if the procedures are governed by more than one state's law. If the debtor is a company with many types of assets dispersed across multiple jurisdictions, the compulsory state-law options for realizing value are likely to be inefficient, expensive, and slow. The value realizable under state-law

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32. LoPucki, *supra* note 7, at 1939–40.

33. Juliet M. Moringiello, *False Categories in Commercial Law: The (Ir)relevance of (In)tangibility*, 35 FLA. ST. U. L. REV. 119, 125 (2007).

34. *See, e.g.*, *id.* at 125–27 (reviewing doubts about remedies for intangible collateral expressed in scholarship and case law); *id.* at 127 ("Article 9 provides no foreclosure remedy to a creditor holding a security interest in intangible property that is not a payment right, or a 'true' general intangible."); *id.* at 129 (discussing critiques of various states' garnishment laws that are sometimes used to enforce rights against intangible property, focusing on differences between those of Illinois and Massachusetts).

35. *See* U.C.C. § 9-609 cmt. 3 (2014) (explaining that "breach of peace" was left undefined and that secured parties are responsible for their own actions and those of their agents engaged in taking possession of the collateral).

36. For the relevance of assignments for the benefit of creditors, see Dawson, *supra* note 29, at 142.

37. *See* Janger, *supra* note 19, at 603–04 (illustrating the limited rights of creditors with an example).

38. *See* Melissa B. Jacoby, *The Value(s) of Foreclosure Law Reform*, 37 PEPP. L. REV. 511, 513–18 (2010) (reviewing standard critiques of state real property foreclosure-law processes). Although most reviews of foreclosure law focus on homes, many critiques, particularly those regarding valuation and timelines, apply to commercial property.

processes will not include or approximate the going-concern value of the firm.[39]

2. Timing of Realization Under Federal Bankruptcy Law, and Chapter 11 in Particular.—In a Chapter 7 bankruptcy case, the story is similar, except that the assets of the debtor can be addressed together and sold in a manner that maximizes value. Unsecured claimants of an insolvent company are treated as claimants against the residual value of the firm.[40] Assets are sold and their value is realized upon sale. The sale price of the collateral fixes the amount of that creditor's allowed secured claim.[41] The sale price of unencumbered property determines the amount available for unsecured creditors. The legal priority of claims against encumbered assets and the residual unencumbered value of the firm, respectively, determines how to distribute that value.[42]

As suggested above, Chapter 11 complicates the story by changing both the timing and manner of value realization. In Chapter 11, assets need not be sold piecemeal or at all.[43] Stakeholders in a firm can realize the value of their interests in the enterprise in other ways, such as reorganization or a going-concern sale of the entire enterprise. Both mechanisms allow creditors to realize the going-concern value of the firm, and neither would be possible (or at least would be greatly complicated) under state law.[44] Flexibility is crucial. An enterprise can be sold even if it bundles one secured creditor's collateral with that of another, or with unencumbered assets.[45]

Without a sale of a discrete asset at a legally determined time, however, the question of value disaggregation and allocation can be difficult. That complexity is magnified by the fact that the value of the firm and its constituent assets may change over time. Failure to disentangle these two

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39. In some jurisdictions, an assignment for the benefit of creditors may allow for a sale of substantially all of a debtor's assets. Usually, such assignments are liquidations, and the procedures do not provide for assumption and assignment of contracts or sales free and clear. Nonetheless, it is sometimes possible to conduct a going-concern sale under state law. This does not, however, resolve the question of priority of distribution. The secured creditor is still entitled only to value that can be traced to its collateral. Carly Landon, *Making Assignments For the Benefit of Creditors as Easy as A-B-C*, 41 FORD. URB. L.J. 1451, 1476 (2014) ("California has a complex priority scheme that includes giving priorities for unsecured claims for up to $4,300 for each individual priority for consumer deposit claims, and priority treatment of claims for wages, salaries, commissions, and employee benefit contributions.").

40. *See* COLLIER ON BANKRUPTCY ¶ 726.01 (Alan N. Resnick & Henry J. Sommer eds., 16th ed. 2009) (discussing the importance of the Code's priority scheme).

41. 11 U.S.C. §§ 363, 506 (2012).

42. *Id.* § 726.

43. *See* COLLIER ON BANKRUPTCY, *supra* note 40, ¶ 1100.01 (asserting that Chapter 11 provides an opportunity for debtors to continue to operate and reorganize rather than simply liquidating the business).

44. *Ice Cube Bonds*, *supra* note 21, at 894.

45. *Id.* at 875–76.

questions—timing of valuation and value allocation—explain much of the conceptual chaos and controversy in modern bankruptcy.

The fault for this confusion does not lie in the positive law, but in a failure to apply it precisely. The Bankruptcy Code has well-articulated realization rules that, when properly applied, simplify, or at least clarify, many of Chapter 11 bankruptcy's hardest questions about the timing of valuation. We start first with principles that are frequently overlooked.

C. *The Equitable-Snapshot Principle and Equitable Realization: How They Work*

Confusion about the scope of so-called blanket liens and an imprecise understanding of the timing of realization in Chapter 11 obscure an architectural principle in the Bankruptcy Code that we call Equitable Realization. In this section we show how the Bankruptcy Code uses Equitable Realization to clarify both the scope of a secured creditor's claim to priority, and the time when the amount of its claim is fixed.

Equitable Realization bifurcates the process of value allocation to allow for delayed realization of value. An "Equitable Snapshot" establishes the relative position of creditors as of the petition date. The Snapshot fixes, as of the petition date, the relative positions of unsecured creditors in relation to one another for purposes of *pari passu* distribution. It also establishes the relationship between secured (asset-based) and unsecured (firm-based) claims by fixing the pool of collateral that is encumbered.

Chapter 11 delays realization of the value of the claims themselves until the value of the estate (or the collateral) can be maximized. We call this Value Realization. Full realization of value does not occur until later disposition of collateral or the entire estate through a sale or plan. That value is allocated by reference to the Equitable Snapshot taken on the petition date. In between the Snapshot and Value Realization, *equitable tracing preserves the relationship between asset-based and value-based claims against the estate*.

This two-step realization process fixes the scope of a secured creditor's lien on the petition date. The secured creditor receives any appreciation of its original collateral during the case until disposition through sale or plan. Upon Value Realization, the priority claim associated with that asset has been fixed, even though the lien will continue in identifiable proceeds subject to tracing. Bankruptcy-created value not traceable to the disposition of a specific encumbered asset is allocated to the estate, not to a lienholder–even one claiming to hold a blanket lien.

State law does not give secured lenders' deficiency claims priority over other claims to this unencumbered value. Bankruptcy does not change that outcome. These creditors may have deficiency claims that share pro rata with other unsecured claims, but otherwise do not stand in the firm-based priority line. Thus, an undersecured creditor cannot use its secured claim to become

the sole residual owners or so-called fulcrum security of the entire company.

1. Distinguishing Firm-Based and Asset-Based Claims: The "Fair and Equitable" Standard(s).—In the real multiple-waterfall world, Equitable Realization is necessary because a firm creates and faces two broadly different types of stakeholders: those with claims against the firm's assets, and those holding rights to the firm's residual value. For solvent entities, equity holders have the residual claim to the firm's value after debt has been paid.[46] All creditors take priority over equity holders, but not all creditors are created equal as against each other. Some creditors may have claims against distinct assets of the firm that others do not. Asset-based claims are often voluntary, based on an enforceable contract under which the debtor grants a security interest or mortgage in specific collateral. Others are involuntary, arising because an unsecured creditor pursued its collection rights through becoming a judgment lien creditor in court or through specific statutes. Asset-based creditors take priority over non-asset-based creditors only to the extent of the specific assets that their liens encumber. Their priority is realized by foreclosing on and selling assets within the scope of their lien.

When a firm becomes insolvent, these differences among creditors matter.[47] A firm need not prove it is insolvent to file a voluntary bankruptcy petition,[48] but most firms are insolvent when they file.[49] Secured creditors continue to hold rights against specific assets of the firm.[50] Unsecured creditors get whatever is left over.[51] They have claims against the residual value of the firm.[52] Their once-fixed claims become variable, subject to fluctuations in the value of the firm. In short, in bankruptcy, the unsecured creditors' claims are value-based—against the value of the firm not represented by encumbered assets—while the secured creditors' claims are asset-based—against particular assets owned by the firm.

The Bankruptcy Code shows its respect for the difference early in the case. For example, it gives secured creditors, but not unsecured creditors, a right to adequate protection and the power to lift the automatic stay if adequate protection is not provided.[53] But if adequate protection is provided,

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46. CONTESTED VALUATION IN CORPORATE BANKRUPTCY: A COLLIER MONOGRAPH ¶ 9.04[1] (Robert J. Stark et al. eds., 2011).

47. Our discussion primarily focuses on Chapter 11. As we note later, in Chapter 7, like under state law, proceeds from the sale of specific assets are distributed to entities with liens on those assets. Leftover value is distributed to claimants against the firm.

48. *See* 11 U.S.C. § 109(d) (2012) (enumerating the eligibility requirements for Chapter 11 bankruptcy, which do not include insolvency).

49. *See* Thomas E. Plank, *The Security of Securitization and the Future of Security*, 25 CARDOZO L. REV. 1655, 1729 (2004).

50. 11 U.S.C. §§ 361, 362(d), 506, 1129(b)(2)(A).

51. *Id.* §§ 1129(a)(7), 1129(b)(2)(B).

52. *Id.* § 1129(b)(2)(B).

53. *See id.* §§ 361, 362(d)(1).

incumbent management continues to operate the firm and maximizes its value for the benefit of the residual claimants.

But it is when value is being distributed, that the distinction matters most, and where it is necessary to map pre-bankruptcy entitlements onto distributions. When a class of creditors rejects a proposed Chapter 11 plan, we encounter a statutory use of the term "equity" to define creditors' statutory entitlements. The overarching requirement for this so-called cramdown of a dissenting class is that the plan be fair and equitable.[54] The fair and equitable standard is not discretionary. It mandates in precise detail the mapping of pre-petition entitlements onto plan distributions. In successive subsections of § 1129, the entitlements of secured creditors ((b)(2)(A)), unsecured creditors ((b)(2)(B)), and interests ((b)(2)(C)) are described.[55] The standard for secured claims is asset-based, guaranteeing the creditor a lien and a distribution equal to the value of its collateral,[56] while the provisions that apply to unsecured creditors and interests—the so-called absolute-priority rule—are firm-based, ensuring creditors' priority over equity and mandating respect for any distributional priority among shareholders.[57]

It is here that another single waterfall colloquialism causes confusion in the literature and in practice. The fair and equitable standard is sometimes shorthanded as the "absolute-priority rule." There are, however, really two distinct standards. For secured creditors, their payment priority is based on, and limited to, the value of their collateral on the effective date of the plan—not the value of the firm.[58] Therefore, when collateral is worth less than the

54. *See id.* § 1129(b)(1). In addition, a nonconsensual plan must not discriminate unfairly against a dissenting class. *Id.*

55. *Id.* § 1129(b)(2).

56. *Id.* § 1129(b)(2)(A). Under this section, the secured creditor may insist on retaining a lien (limited to the value of the collateral on the effective date of the plan) and payments (with a present value equal to the value of the collateral on the effective date of the plan).

57. *Id.* § 1129(b)(2)(B)–(C). This is the well-known absolute-priority rule that requires distributional priorities to be respected. Senior unsecured creditors must be paid in full before junior unsecured claimants, and debt takes priority over equity. Distributional priorities among shareholders must similarly be respected.

58. *Id.* § 1129(b)(2)(A). That section provides:

> With respect to a class of secured claims, the plan provides—
>
> (i) (I) that the holders of such claims *retain the liens* securing such claims, whether the property subject to such liens is retained by the debtor or transferred to another entity, *to the extent of the allowed amount* of such claims; and (II) that each holder of a claim of such class *receive* on account of such claim deferred cash *payments totaling* at least *the allowed amount* of such claim, *of a value, as of the effective date* of the plan, of *at least the value of such holder's interest in the estate's interest in such property* . . . .

Id. (emphasis added). Crucially, the "allowed amount" refers to the allowed secured claim as determined, for an undersecured creditor by 11 U.S.C. § 506(a)(1), which provides:

> An allowed claim of a creditor secured by a lien on property in which the estate has an interest . . . is a secured claim to the extent of the value of such creditor's interest in the estate's interest in such property . . . , and is an unsecured claim to the extent that

amount of debt owed to an asset-based creditor, that creditor becomes both an asset-based and a firm-based creditor: it has an allowed secured claim plus an unsecured deficiency claim.[59] Nothing in state law or the Bankruptcy Code gives a deficiency claim priority over the claims of other unsecured creditors in the value of the firm, and to do so would be neither fair nor equitable.[60] As a claimant against the residual value of the firm, the holder of the deficiency shares equally with other unsecured creditors, while remaining senior to holders of equity interests.[61]

2. Timing of Realization.—These examples from the front (adequate protection) and back (cram-down) of a Chapter 11 case reveal the importance of distinguishing between asset-based and firm-based claims over time. The assets may be worth different amounts at the end of the case than at the beginning. The same is true of the value of the firm. Moreover, the two need not move in tandem. Statutory use of the term "fair and equitable," referenced above, enlists Equitable Realization to reconcile mandatory distributions at the end of the case with the Snapshot at the beginning, in the service of the two core bankruptcy principles: value maximization and equitable treatment.

To vindicate both principles, Chapter 11 distinguishes between the petition date and the disposition date. This is where Equitable Realization comes into play. On the petition date, the Bankruptcy Code takes an Equitable Snapshot that fixes the relative position of creditors. The relative positions of claimants are frozen when the bankruptcy petition is filed. On the disposition date, the Bankruptcy Code establishes the value of the particular claim either through sale or under a plan. For value-based claims, Value Realization occurs upon disposition of the residual estate, either through a plan or through sale of the firm as a going concern.

3. Fixing the Relative Position of Creditors Through Equitable Realization.—In Chapter 7, the Equitable Snapshot takes care of itself. Bankruptcy law stops the so-called race to the courthouse among creditors by implementing a principle of equal treatment. A Chapter 7 trustee usually sells property promptly, and the Equitable Snapshot and the realization of value merge as a practical matter.

> the value of such creditor's interest or the amount so subject to setoff is less than the amount of such allowed claim.

Id. § 506(a)(1). If the creditor makes the § 1111(b)(2) election, the lien is not stripped, but the distributional priority is still limited to the value of the collateral on the effective date of the plan. This is discussed below. *See infra* note 78 and accompanying text.

59. *Id.* § 506(a); U.C.C. §§ 9-610, 9-626 (2014).

60. Richard Squire, *The Case for Symmetry in Creditors' Rights*, 118 YALE L.J. 808, 846–48 (2009).

61. That deficiency claim does not, however, make the undersecured creditor the residual owner of the firm.

In Chapter 11, however, Value Realization is delayed, and the entitlements of asset-based claims and firm-based claims may shift relative to each other, even as the value of the estate increases. The petition date provides a point of reference—again, an Equitable Snapshot of those entitlements. Through Equitable Realization, Chapter 11 then fixes the relative position of pre-petition claimants, though not their claims' monetary value. We next explore how the Code implements Equitable Realization for firm-based and asset-based claims, respectively.

a. Firm-Based Claims.—Section 502 of the Bankruptcy Code establishes that an unsecured creditor's claim is determined by that creditor's nonbankruptcy entitlement on the petition date and excludes interest that would otherwise accrue after the bankruptcy filing.[62] The value of the assets to be distributed is unknown, but the relative position and proportional entitlement of each unsecured creditor is fixed. Each nonpriority unsecured creditor will be entitled to a pro rata share of whatever is distributed to firm-based claimants.

b. Asset-Based Claims.—Secured creditors base their assertions of priority on a property interest in particular assets of the debtor. The property interest in the collateral, rather than amount of the debt, fixes secured creditors' position as of the date of the petition.[63] After the petition is filed, a pre-petition secured creditor cannot assert an entitlement to entirely new collateral.[64] This result—locking in place the secured creditor's relative asset petitions vis-à-vis each other and the unsecured creditors—flows from four key Bankruptcy Code provisions related to equitable treatment:

- First, § 552(a) invalidates after-acquired property clauses in security agreements.[65] This provision cuts off floating liens as of the bankruptcy filing. For example, a security interest in a debtor's accounts receivable, including after-acquired accounts, does not extend to accounts receivable generated after a petition is filed. This provision is one of the most explicit examples of the lock-in concept.
- Second, § 552(b) complements § 552(a) by preserving the interest that the secured party had in its original collateral. If the secured creditor's original collateral is sold or otherwise disposed of, the security continues in identifiable proceeds to the extent consistent

62. 11 U.S.C. § 502(b)(2) (excluding unmatured interest). The reason for this piece of the rule is generally said to be that allowing post-petition interest would alter the relative position of creditors over time. Patrick Darby, Southeast *and* New England *Mean New York: The Rule of Explicitness and Post-Bankruptcy Interest on Senior Unsecured Debt*, 38 CUMB. L. REV. 467, 475–76 (2007).

63. 11 U.S.C. §§ 361, 362(d), 506(a).

64. 11 U.S.C. § 552(a). For now we leave to the side the question of a pre-petition secured lender's picking up new collateral by extending new credit post-petition. *See infra* note 207 and accompanying text.

65. 11 U.S.C. § 552(a).

with the equities of the case.[66] As we discuss later, state law protects secured creditors against diminution of their collateral by encumbering other property interests of the debtor if they are identifiable proceeds of that creditor's collateral.[67] Bankruptcy law honors that concept, but "the equities" reference explicitly recognizes that the interest in proceeds should not fundamentally alter the relative position of creditors. In other words, it does not permit the secured creditor's interest in "proceeds" to expand such that it encompasses all of the unencumbered value of the debtor.

- Third, § 549 gives the trustee the power to avoid and unwind any unauthorized transfer of property of the estate that arises after the date of the filing of the petition.[68] This power further polices the Snapshot principle by ensuring that the debtor does not transfer the estate's property rights to a creditor.
- Fourth, and relatedly, § 551 preserves any avoided transfer for the benefit of the estate,[69] preventing junior claimants from improving their priority post-petition. Again, this preservation maintains the relative positions of creditors.

In other words—and this point is key to much of the analysis that follows—the assets to which secured creditors' interests extend are identified, and the implications for intercreditor priority are frozen, as of the petition date. *This is so even if the amount of debt chargeable against particular collateral or the value of the collateral changes, and even if the collateral itself is sold.*

4. Summary.—So far, this discussion should be uncontroversial. The collateral pool available to the secured creditor on the petition date establishes the scope of asset-based priority, and the rules for unsecured claim allowance establish the relative position of unsecured creditors as of the petition date. The unsecured creditors cannot change their relative pro rata share of the unencumbered value that remains. And, while the value of encumbered collateral and the value of the firm may change, a secured creditor cannot increase the value of its claim by expanding the assets that form the basis for the claim.

D. *Timing of Value Realization: Relatively Easy Questions*

Once the assets subject to liens have been identified, and the relative positions of unsecured creditors have been fixed as of the petition date, it is

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66. *Id.* § 552(b).

67. U.C.C. §§ 9-102(a)(12), 9-203 (2014).

68. 11 U.S.C. § 549(a).

69. *Id.* § 551 ("Any transfer avoided under section . . . 549 . . . of this title . . . is preserved for the benefit of the estate but only with respect to property of the estate.").

necessary to determine the value of these claims. The pace and duration of modern Chapter 11 cases vary greatly, so the timing of valuation must accommodate that variability.[70] In this subpart we seek to determine the moment of value realization for unsecured creditors and creditors with fixed collateral. We then turn to creditors with floating liens.

1. Realization on the Value of Fixed Collateral: Adequate Protection and Option Value.—For some types of secured loans, the encumbered collateral remains constant throughout the life of the loan or the case. Examples include manufacturing equipment and real estate. For these kinds of collateral, the timing rules are simple, but Value Realization still happens in two stages. The secured creditor is entitled to at least what it would have received had the collateral been sold outside of bankruptcy on the petition date.[71] That entitlement is embodied in the concept of adequate protection, which protects against a decline in the value of collateral during the period when the secured creditor is prevented from exercising state-law collection rights.[72] Courts disagree on whether the value entitled to adequate protection should be measured on the petition date or on the date the creditor requests adequate protection, but the key point is that, for downside purposes, the secured creditor's claim is fixed as of the petition date at the value of the collateral that could have actually been realized.[73]

The Bankruptcy Code could have treated the petition date as a firm realization event for secured creditors for all purposes, but its rules are more complex. The Value Realization on that date is only partial—for downside purposes. If the secured creditor's collateral is sold on a stand-alone basis at a later date (the sale having been delayed in the interest of reorganization) and the collateral has increased in value since the petition date, the secured creditor is entitled to the upside. Realization happens upon sale,[74] and to the extent that the secured creditor is forced to wait to receive its collateral, it is entitled to the value of that option.

70. *See Ice Cube Bonds*, *supra* note 21, at 904–05 ("Judges are faced with the Hobson's choice of permitting a potentially opportunistic sale or possibly overseeing the destruction of value by insisting on the diagnostic process that would reveal the truth. Although the purchaser might be bluffing about time being of the essence, the risk associated with calling that bluff is considerable.").

71. *Id.* at 925.

72. *See* 11 U.S.C. § 361 (defining ways to provide adequate protection when it is lacking).

73. *Id.* § 361, 362. For a discussion of the importance of using "realizable" value as the measure of adequate protection, see text accompanying note 189. The importance of using a realizable value standard is explored in more detail in Janger, *supra* note 19, at 602 ("[E]xtending the . . . rights embodied in 'adequate protection,' or the 'allowed secured claim,' beyond . . . realizable value gives the holder . . . the power to bargain for . . . greater value than . . . would have [been] achieved using . . . prebankruptcy state law . . . .").

74. 11 U.S.C. § 363.

In a traditional reorganization, valuation of assets remains an issue because the debtor retains the collateral rather than selling it.[75] In this context, the Bankruptcy Code provides that Value Realization occurs on the date a confirmed Chapter 11 plan becomes effective; the secured creditor is entitled to the value of its collateral as of that date.[76] In short, secured creditors realize the value of their collateral on plan confirmation or collateral disposition.[77]

There is an important exception to this principle, but it is an exception that proves the rule. Under § 1111(b), if the debtor is retaining collateral under the plan of reorganization, the secured creditor is similarly permitted to delay Value Realization beyond the confirmation date of the plan. The creditor may make this election because it believes that its collateral is appreciating in value and is likely to be sold by the debtor before its lien is satisfied. But delayed Value Realization comes at a cost; the creditor must waive its right to a deficiency claim.[78] Thus, absent an § 1111(b) election, plan confirmation serves as a realization of the value of the secured claim. If secured creditors wish alternative treatment, they must give up any claim to the residual value of the firm beyond their collateral.

There is nothing "inequitable" about allocating to the secured creditor an increase in the value of its collateral upon disposition because there is no change in the relative position of creditors or between secured creditors and the bankruptcy estate. Tracing is not an issue because the identity of the collateral has remained constant. While the secured creditor's right to liquidate its collateral upon default is cut off at the bankruptcy filing, adequate protection ensures that the creditor is not harmed by the delay imposed by the automatic stay. But, if the collateral has increased in value as of the effective date of the plan, then absent the bankruptcy the creditor could have realized on that increased value by liquidating at that point—timing would have been at the creditor's option. The realization rules are, therefore, equitable, reflecting the asset-based nature of the claim and both protecting the creditor's downside as of the petition date, and preserving the right of the secured creditor to realize the value of its collateral when sold.

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75. Instead, the debtor continues to operate the business, 11 U.S.C. § 1108, and to use and sell collateral in the ordinary course of the business. 11 U.S.C. § 363(c).

76. 11 U.S.C. § 1129(b)(2)(A).

77. *Id.*; 11 U.S.C. § 363; *see* Janger, *supra* note 19, at 601–02 (discussing the importance of focusing on realizable or realized value).

78. Even if a secured creditor elects alternative treatment under § 1111(b)(2), the secured creditor is guaranteed only the value of the collateral on the effective date of the plan. 11 U.S.C. § 1111(b); *see, e.g.*, *In re* Transwest Resort Props., Inc., 801 F.3d 1161, 1165 & n.3 (9th Cir. 2015) (lender retains lien of $247 million on property worth only $92 million, but forgoes deficiency claim). Moreover, even though, over the course of the case, the secured creditor's lien may have attached to proceeds, the tracing rules and the "equities," discussed later, prevent the security interest from expanding to cover the value of the firm.

2. Value Realization for Firm-Based Claimants (Unsecured Creditors).—Unsecured creditors come in all shapes and sizes, but have in common that they lack property rights in any particular asset of the debtor unless and until they go through the state-law collection process and become judgment lien creditors. Unsecured creditors short of that stage are left with a claim against the residual unencumbered assets—the residual value—of the firm.[79] In bankruptcy, realization does not occur for unsecured creditors until they receive a distribution, whether through a confirmed Chapter 11 plan or after liquidation of unencumbered assets.

Again, the potential outcomes of Chapter 11 add complexity to an otherwise simple story. If a firm is liquidated in Chapter 7, the residual value of the firm will be distributed as cash generated by the sale of assets.[80] In reorganization, however, the distribution can take any number of forms—from cash to debt instruments to stock.[81] If the plan issues debt instruments, value will be uncertain until the debt is repaid. If stock is distributed, the value of the distribution will remain uncertain until the stock is sold. But overall, the secured creditor, as an asset-based claimant, is a fixed claimant with regard to the value of its collateral as of the petition date, but is entitled to any upward variation in the value on its collateral during the case. Unsecured creditors are entitled to the residual value of the firm, whatever that may be. These residual firm-based claimants bear the downside risks and are entitled to the benefits of increases in value of the firm during the Chapter 11 case, at least to the extent that the increase is not attributable to appreciation of the value of encumbered assets themselves.

In the next subpart, we show that current practices, premised on the notion that undersecured, so-called blanket lien creditors are entitled to all residual firm value, do not comply with either the basic structure and principles of state law or the Bankruptcy Code.

E. *Value Realization: Harder Questions—Floating Lien Collateral and Tracing*

Article 9 of the Uniform Commercial Code allows a secured creditor to write a security agreement that will encumber property a debtor does not yet own. A lien on after-acquired property[82] is often referred to as a floating lien. The right to encumber identifiable proceeds of collateral also is a form of

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79. 11 U.S.C. § 726(a). If that residual value is sufficient to pay unsecured creditors in full, then holders of equity "interests" will be treated as the residual claimants. 11 U.S.C. § 1129(b)(2)(C). This doesn't happen all that often.

80. *Id.*

81. *Id.* § 1123(a)(3).

82. U.C.C. § 9-204 (2014); *see also supra* note 20 and accompanying text (defining after-acquired property).

floating lien.[83] This is where the statutory uses of the term "equity" encounter our architectural principle of Equitable Realization. The complexity of a timing rule for realization on floating lien collateral arises from the nesting of federal and state definitions of several statutory terms: proceeds, equitable principles, and the equities. We must therefore consider how our understanding of Article 9 intersects with § 552 of the Bankruptcy Code. The two together fix the *value* of a secured creditor's claim with regard to post-petition collateral (preserved as an interest in proceeds), for both upside and downside purposes, when the original collateral is sold.

1. Identifiable Proceeds Under Article 9 and the Concept of Equitable Tracing.—An Article 9 security interest in after-acquired property "attaches" to (i.e., becomes effective against) property only if the contract between the parties so provides, and only at the point the debtor acquires rights in it.[84] As noted, assets also float into the lien and become collateral if they are identifiable proceeds of collateral, even if the contract between the parties does not say so. Thus, if a debtor sells inventory for cash, that cash will become collateral as proceeds (assuming it can be traced).[85] Article 9's proceeds doctrine thereby prevents the harm to a secured creditor that otherwise might arise if a debtor sold a creditor's collateral without permission. It preserves the benefit of the secured creditor's bargain.

The comprehensive revision to Article 9 of the Uniform Commercial Code in 2001 expanded the definition of proceeds to include "whatever is collected on, or distributed on account of, collateral" and "rights arising out of collateral."[86] Although it has always been true that an interest in proceeds

83. The term "floating lien" is used to refer to a security agreement that covers property that was acquired by the debtor after the agreement was entered into. Article 9 specifically authorizes such liens. U.C.C. § 9-204(a). If a security agreement covers proceeds (which most security agreements do, pursuant to § 9-203(f)), then the proceeds will "float" into the lien. *See id.* § 9-203(f) ("The attachment of a security interest in collateral gives the secured party the rights to proceeds . . . .").

84. *Id.* §§ 9-203, 9-204. At that point, the secured creditor benefits from the "first to file or perfect" rule, providing that priority relates back to the date on which the secured creditor filed an authorized financing statement that covers the collateral. *Id.* § 9-322(a).

85. *Id.* §§ 9-203(f), 9-315(a). If the debtor sells collateral to a buyer in the seller's ordinary course of business, the buyer purchases the collateral free and clear of the security interest. *See id.* § 9-324(a) (providing that, as a general rule, a "perfected purchase-money security interest in goods other than inventory or livestock has priority over a conflicting security interest in the same goods"); *id.* § 1-201(b)(9) (defining "ordinary course of business"). If the secured party authorizes any other sale free and clear of the security interest, the security interest does not continue with the property into the hands of the buyer. *Id.* § 9-315(a). These scenarios cover many, if not most, commercial situations.

86. *Id.* § 9-102(a)(64) (defining proceeds as "whatever is acquired upon . . . disposition of collateral [or] . . . on account of[] collateral," and "rights arising out of collateral," including "claims arising out of . . . loss, . . . defects . . . , or damage to[] the collateral" and "insurance payable by reason of . . . loss . . . or damage to[] the collateral"); *see also In re* Bumper Sales, Inc., 907 F.2d

can expand the collateral beyond the scope of the original security agreement, these changes led some observers to worry that a secured creditor might button up virtually all of the assets owned by the debtor at any given moment.[87]

a. Defining the Scope of Proceeds.—Notwithstanding the intentions of the drafters or the worries of observers mentioned above, § 9-102(a)(64)'s definition of proceeds is not unlimited, and courts are hesitant to embrace an interpretation of this provision wholly untethered to the concept of disposition of collateral. First, the drafters did not abandon the requirement that proceeds be identifiable. Second, there are limits to what Article 9 security interests can cover. Third, and perhaps most notably, proceeds do not arise simply because business operations were conducted using the collateral.

For example, the U.S. Court of Appeals for the Sixth Circuit has held that accounts receivable are not proceeds of encumbered tractors and trailers used to provide the services that generated those accounts.[88] The court adopted the logic of the district court decision that, "in order for rights to 'arise out of collateral,' they must have been obtained as a result of some loss or dispossession of the party's interest in that collateral, not simply by its use."[89] The Sixth Circuit decision noted further that "[c]ases interpreting the UCC and the associated state statutes in other jurisdictions likewise uniformly support the proposition that revenues earned through the use of collateral are not proceeds."[90]

Also, the U.S. Court of Appeals for the Seventh Circuit has held that a negligence claim for failure to obtain business-loss insurance does not include proceeds of equipment (the original collateral).[91] The unanimous decision explained:

> [T]he claim against Rothschild *was* for failure to obtain business-loss insurance, and we do not see how compensation for that failure can be considered proceeds of collateral. The usual proceeds of collateral are the money obtained from selling it. By a modest extension, as we have just seen, they are money obtained in compensation for a diminution

1430, 1437 (4th Cir. 1990) ("[T]he UCC's definition and treatment of proceeds applies to Section 552 of the Bankruptcy Code."); Lupica, *supra* note 5, at 880–81.

87. Jonathan C. Lipson, *Remote Control: Revised Article 9 and the Negotiability of Information*, 63 OHIO ST. L.J. 1327, 1372–74 (2002) (discussing predicted implications of the expansion of proceeds definition); Lupica, *supra* note 5, at 881; G. Ray Warner, *Article 9's Bankrupt Proceeds Rule: Amending Bankruptcy Code Section 552 Through the UCC Proceeds Definition*, 46 GONZ. L. REV. 521, 528 (2011).

88. 1st Source Bank v. Wilson Bank & Tr., 735 F.3d 500, 501–02, 505 (6th Cir. 2013).

89. *Id.* at 504.

90. *Id.* at 504–05 (citing cases from Ohio, Nevada, and Arkansas).

91. Helms v. Certified Packaging Corp., 551 F.3d 675, 678 (7th Cir. 2008).

> in the value of the collateral. But replacing a business loss is not restoring the value of damaged collateral.[92]

The decision distinguishes between these circumstances and the circumstances under which a commercial tort claim would more likely fit the proceeds definition in § 9-102(a)(64).[93] Here, however, "the business losses exceeded the impairment of the value of the collateral ninefold."[94]

In the Gamma Center bankruptcy, a secured creditor claimed that receivables of a medical diagnostic center were proceeds of a nuclear-stress-test camera and related equipment.[95] The judge rejected the bank's effort to claim the accounts receivable as property "collected on account of" the collateral, namely the camera, in part because:

> [t]o the extent that the accounts receivable include the value of services rendered by the physicians, and are from an indistinguishable mixture of services and other assets of the business operation, they were not exclusively generated by the Camera. The record is also silent as to whether the Camera was the only camera or equipment that was used by Debtor's medical practice.[96]

Factual uncertainties aside, the court rejected the legal argument that accounts receivable should be considered proceeds of the camera in any event. Noting that "it strains the statutory language to conclude that Debtor's accounts receivable constitute something that is 'collected on' the Camera," the court held that "there is no right to payment that is generated by, or arises out of, the Camera itself."[97] The court likewise rejected the argument that accounts receivable and funds collected thereon were "products" of the camera.[98]

Even outside of bankruptcy, these summaries suggest, courts are understandably reluctant to expand proceeds doctrine, to the detriment of other stakeholders, beyond the value-tracing function the proceeds doctrine historically served.[99]

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92. *Id.*

93. *Id.* (describing a situation in which equipment damage was the cause of action, and the damage award restored the original value of the collateral, whereas with business-loss insurance, "[t]here is no necessary relation between the value of collateral and a business loss that results from its being destroyed or damaged").

94. *Id.* at 678–79.

95. *In re* Gamma Ctr., Inc., 489 B.R. 688, 695 (Bankr. N.D. Ohio 2013).

96. *Id.* at 695–96 (emphasis omitted).

97. *Id.* at 696. The court uses pre-2001 Permanent Editorial Board commentary, albeit commentary that sought an expanded definition, to bolster the court's position. *Id.*

98. *Id.* at 697.

99. For example, using the pre-2001 proceeds definition, the Iowa Supreme Court had held that the consumption of feed (the collateral) by pigs did not make the pigs proceeds encumbered by the security interest. Farmers Coop. Elevator Co. v. Union State Bank, 409 N.W.2d 178, 180 (Iowa 1987) (agreeing with the Colorado Court of Appeals that "[i]ngestion and biological transformation of feed is not a type of 'other disposition' within the contemplation of [former 9-306]. For UCC

b. Tracing Identifiable Proceeds.—Crucially, the broader definition of proceeds adopted in 2001 does not change the identifiability requirement in Article 9.[100] To be considered identifiable, the statute mandates that proceeds must be traceable.[101] The burden of establishing the entitlement to proceeds lies with the party asserting that entitlement.[102]

How does a secured creditor prove that proceeds are traceable if they are commingled with other property? The first step to answering that question can be found in § 9-315(b), which discusses two categories of identifiable proceeds:

> [UCC § 9-315](b) . . . Proceeds that are commingled with other property are identifiable proceeds:
>
> (1) if the proceeds are goods, to the extent provided by § 9-336; and
>
> (2) if the proceeds are not goods, to the extent that the secured party identifies the proceeds by a method of tracing, including application of equitable principles, that is permitted under law other than this article with respect to commingled property of the type involved.[103]

For proceeds taking a form other than goods (subsection (b)(2) above), Article 9 essentially incorporates legal or equitable tracing rules from elsewhere in state law.[104] The *Oriental Rug Warehouse*[105] case illustrates this principle. A consignment seller of rugs (deemed to be a secured creditor) sought to claim the debtor/consignee's inventory as proceeds of its collateral. The court explained that the secured creditor could have used the lowest intermediate balance rule to indicate the money in a bank account that was then used to buy more rugs. But, fatal to the claim to proceeds, the secured creditor had made no effort to connect the current inventory to the original collateral.[106]

Similarly, the Arkansas Supreme Court has held that crops are not identifiable proceeds of seeds and other farming supplies (the collateral).[107]

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purposes, the hogs are not proceeds of the feed."). For a discussion of disputes over the purpose of the proceeds definition under pre-2001 law, see Lipson, *supra* note 87, at 1377–78.

100. U.C.C. § 9-315(a)(2) (2014).

101. *Id.* § 9-315(b).

102. *Id.* § 9-103(g).

103. *Id.* § 9-315(b).

104. *In re* Patio & Porch Sys., Inc., 194 B.R. 569, 575 (Bankr. D. Md. 1996) (citing the use of the lowest intermediate balance rule as "well settled").

105. *In re* Oriental Rug Warehouse Club, Inc., 205 B.R. 407 (Bankr. D. Minn. 1997). Although the Oriental Rug Warehouse dispute was adjudicated in bankruptcy court, resolution of this issue turned entirely on state law. *See id.* at 411–14 (stating that U.C.C. § 9-306(4)(d) "eliminates the use of common law tracing theory" and substitutes relevant state law instead).

106. *Id.* at 413.

107. Searcy Farm Supply, LLC v. Merch. & Planters Bank, 256 S.W.3d 496, 502–03 (Ark. 2007). The transaction was in 2001 and, per the court decision, is governed by the version of Article 9 that became effective that year. *Id.* at 503.

The court noted that "[a]ppellants fail to cite any case law or statutory authority that defines crops as the identifiable proceeds of seeds, and without such authority, we decline to do so."[108] Insofar as the court found that a corn stalk is not traceable to the seed that was planted, the court's science may be bad, but the implication is that tracing requires more than a mere formal or logical connection as the value, especially to the extent that the corn traceable to the seeds (as opposed to land, water, and labor) is likely to be relatively small.

The rule for commingled goods in § 9-315(b)(1), excerpted earlier, offers some guidance. It refers to § 9-336, which contains complex rules for goods that are commingled.[109] Under that provision, the perfected security interest in goods continues in the commingled mass as a whole rather than just in the original collateral, but the secured creditor will share pro rata with a conflicting security interest that was perfected at the time the goods were commingled, in proportion to the extent they contributed to its value.[110] This section does not address the key issue with which we wrestle, how a secured creditor (asset-based claimant) fares against firm-based claimants, including judgment creditors, but it illustrates how the value of commingled proceeds can be assessed by reference to inputs. In the case of the corn, the seed would make up a relatively small portion of the value of the ripened stalk.

We explain below how an input-based approach should be used to value proceeds once the debtor files for bankruptcy, even if 100% of the inventory were encumbered under state law.

2. Floating Lien Collateral in Bankruptcy Under Equitable Realization.—To the extent the Article 9 tracing rule has a gap in guidance, § 552 of the Bankruptcy Code fills it by giving effect to Equitable Realization. Bankruptcy does not limit the scope of security interests in original collateral prior to the filing of the bankruptcy petition. However, once a bankruptcy petition is filed, § 552 of the Bankruptcy Code cuts off floating liens and limits a secured creditor's right to after-acquired property to identifiable proceeds of collateral encumbered on the petition date. Subsections 552(a) and (b) work together to address squarely the threat of collateral expansion relative to firm-based claimants that § 9-336 leaves unaddressed outside of bankruptcy. It is here that the term "equities of the case" comes into the picture.

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108. *Id.* at 502.

109. Under U.C.C. § 9-336(a), goods are commingled if they "are physically united with other goods in such a manner that their identity is lost in a product or mass." Goods that are physically united with other goods but maintain their identity are accessions, § 9-102(a)(1), and are governed by a separate priority rule found in § 9-335. *See also* Lipson, *supra* note 87, at 1375–78 (discussing commingled goods rules in Article 9).

110. U.C.C. § 9-336(c), (f).

To reconcile §§ 552(a) and (b), it is necessary to understand how equitable tracing is required to prevent an interest in proceeds under § 552(b) from frustrating the purpose of § 552(a) by swallowing the entire value of the firm. Consider a security interest in existing and after-acquired inventory outside of bankruptcy. The security interest encumbers new inventory when the debtor acquires rights in it. When the debtor sells that inventory, the identifiable proceeds of that sale become collateral.[111] If the secured creditor can show that those proceeds are used to buy more inventory, the security interest will encumber that new inventory. If the secured creditor can show the debtor used inventory-sale proceeds to buy equipment, then the security interest also encumbers that equipment as identifiable proceeds, even though the security agreement's collateral description does not include equipment.[112] If the debtor uses identifiable proceeds to buy materials for a work in progress, the value of which is also expanded through workers' labor, the secured creditor may try to assert an interest in the finished work.[113] Although entitled only to a single satisfaction of the debt, a well-advised lender can use an after-acquired property clause and the proceeds doctrine to assert a security interest over a substantial percentage of the assets of the business—at least until the debtor files for bankruptcy.

If this process were allowed to continue uninterrupted after a debtor filed for bankruptcy, the secured creditor might continue to assert an interest in more and more unencumbered assets of the bankruptcy estate in an effort to encumber all of the value of the firm as proceeds. Indeed, some secured creditor representatives argue that they are entitled to the encumbrance of any firm value created post-petition by the estate. We do not agree with this assertion in any event, but their position would be stronger if the Bankruptcy Code did not include § 552.

Section 552, instead, implements and preserves the Equitable Snapshot principle. A secured creditor's floating lien in bankruptcy is limited to the proceeds of collateral actually owned on the petition date subject to any further limitations imposed by the court based on the equities of the case.[114] The effect of § 552,[115] read together with Article 9, is to fix the collateral at the petition date and to fix its value (subject to adequate protection) upon disposition.

The legal principle that effectuates that timing rule is the concept of equitable tracing, found in both Article 9 and in the Bankruptcy Code. The

111. On the possibility that the security interest may continue in the original inventory even after it is sold to a third party, see *supra* note 85.

112. This example is arguably distinguishable from the facts of *1st Source Bank v. Wilson Bank & Tr.*, 735 F.3d 500, 504 (6th Cir. 2013), discussed *supra* note 88.

113. But only to the extent the encumbered assets to which it has an interest contributed to the final product. *See infra* notes 124–25 and accompanying text.

114. 11 U.S.C. § 552(b)(1) (2012).

115. As noted earlier, 11 U.S.C. §§ 549 and 551 amplify the effect. *See supra* notes 68–69.

value protected by the interest in proceeds is the value realized upon disposition of the original collateral, and not more. Thus, while the collateral securing the creditor's allowed secured claim may expand, the value of the claim will not once the original collateral is sold. The estate and firm-based claimants are entitled to any going-concern increment created by the Bankruptcy Code. Asset-based claimants (secured creditors) are not. Although we cannot promise that courts will consistently interpret the law along the lines we suggest, we contend it is the most accurate reading of the current Bankruptcy Code.

3. The "Equities of the Case" in Bankruptcy.—It is against this background that one must interpret the term "equities of the case" in § 552(b) of the Bankruptcy Code. Although § 552(a) stops floating liens from extending to after-acquired property once the debtor files for bankruptcy, the security interest continues to attach to identifiable proceeds, albeit with an important limitation:

> [I]f the security interest created by such security agreement extends to property of the debtor acquired before the commencement of the case and to proceeds, products, offspring, or profits of such property, then such security interest extends to such *proceeds*, products, offspring, or profits acquired by the estate after the commencement of the case *to the extent provided by such security agreement and by applicable nonbankruptcy law, except to any extent that the court, after notice and a hearing and based on the equities of the case*, orders otherwise.[116]

This language imposes multiple hurdles on a secured creditor seeking to identify property of the bankruptcy estate as proceeds of its collateral after a bankruptcy filing. First, as indicated by the language "to the extent provided by the security agreement and by applicable nonbankruptcy law," the secured creditor must show its interest would have attached under state law. As explained earlier, Article 9 honors the encumbrance only if the proceeds can be traced.[117]

In addition to Article 9's tracing requirement, § 552(b) contains its own tracing rule, allowing a court to limit an interest in proceeds "based on the equities of the case."[118] The somewhat sparse decisional law on the equities

116. 11 U.S.C. § 552(b)(1) (emphasis added).

117. *See In re* Oriental Rug Warehouse Club, Inc., 205 B.R. 407, 411 (Bankr. D. Minn. 1997) (explaining that to establish identifiable proceeds, "the secured party must 'trace' the claimed proceeds back to the original collateral"); U.C.C. §§ 9-315(a)(2), (b) (2014) (imposing the "identifiable" requirement and explaining identifiability); *supra* notes 96–98 and accompanying text. Although § 552 is less explicit on this point, provisions elsewhere in the Bankruptcy Code allocate to the secured party the burden of proof to show the validity, priority, and extent of such interest. *E.g.*, 11 U.S.C. § 363(p) (establishing this point for purposes of disputes over the use, sale, and lease of property of the estate).

118. 11 U.S.C. § 552(b)(1).

of the case is not uniform,[119] but it generally allows, and indeed requires, that a court determine the value of proceeds of pre-petition collateral that have become commingled with other assets and inputs of the bankruptcy estate that are not subject to the security interest. This provision could be rooted in a heightened sensitivity to state law's tracing requirement when a debtor is in bankruptcy, as well as the need for greater attention to relative inputs in this context.

The resulting limit on the scope of collateral is also situated in the concept of an allowed secured claim. Generally, the value of a secured party's collateral is determined when it is sold.[120] That determines the allowed secured claim, and therefore the amount of debt secured by the interest in proceeds.[121]

Courts have interpreted this provision as requiring value tracing to determine a secured creditor's entitlement. For example, when a restaurant's inventory was encumbered by a security interest and that restaurant served food to customers after being transformed in the kitchen, the restaurant's revenue was deemed to be untraceable—not a product of the creditor's collateral.[122] Value added by slicing, dicing, and cooking string beans, or by the wait staff carrying and serving, is not collateral. Similarly, where a farmer's cows were collateral, the resulting milk was deemed proceeds, but the secured creditor's interest in proceeds was limited to the amount attributable to the cow, and not to (1) feed, (2) farmer's labor, (3) the barn and pasture, etc., value added to milk by other inputs is not proceeds of the cow.[123] Value added to inventory as a result of store rent, advertising, and employee labor is not itself collateral. Court decisions along these lines reflect how the Bankruptcy Code takes tracing seriously, carrying forward the requirements state law already imposes, but adding an additional limit—§ 552(a) and (b)—to prevent collateral expansion.

What are the implications of this discussion, and the "equities of the case" language, for the timing of realization for floating-lien collateral? For downside purposes, the rule is the same as for fixed collateral; set the value of inventory and other floating collateral as of the petition date. What happens while the debtor uses inventory to continue to operate during the case? The lien attaches to any cash or accounts created as proceeds. At this point, one

119. *In re* Terrestar Networks, Inc., 457 B.R. 254, 271–72 (Bankr. S.D.N.Y. 2011) (collecting cases); *Ice Cube Bonds*, *supra* note 21, at 921 n.213.

120. 11 U.S.C. §§ 363, 506(a).

121. *Id.* § 506.

122. *In re* Cafeteria Operators, L.P., 299 B.R. 400, 409–10 (Bankr. N.D. Tex. 2003).

123. *In re* Delbridge, 61 B.R. 484, 491–92 (Bankr. E.D. Mich. 1986) (holding that when a cow encumbered by security interest produces milk post-petition, the milk is proceeds of the lender's collateral in proportion to the extent that the cow's depreciation contributed value to the milk); *see also In re* Package Design & Supply Co., 217 B.R. 422, 425–26 (Bankr. W.D.N.Y. 1998) (describing the "paradigmatic" value-added argument as it relates to milk as proceeds).

of two things will happen. Particularly during bankruptcy, one would expect that the cash will remain traceable, the secured creditor's interest will remain protected, and there will be no valuation problem.[124] By contrast, if the proceeds are untraceable, then the secured party continues to be protected by the requirement of adequate protection, but only for the value of its collateral as of the petition date.[125]

To the extent that the value of the proceeds is greater than the price received for the original collateral, because of, say, value added by employees or by other assets, the equitable-realization principle would be violated by allowing the secured creditor to capture that excess, as it would reallocate unencumbered property to the secured creditor's lien. That, in our view, is what is meant by the equities of the case in § 552(b).

Other provisions of the Bankruptcy Code are consistent with this approach. Section 551 further implements the Equitable Snapshot by preserving the value of an avoided lien for the bankruptcy estate; an undersecured junior lien cannot get a windfall simply because a senior lien is avoided.[126] Sections 551 and 552 thus have an important interaction. Because § 552(a) invalidates after-acquired property clauses as of the bankruptcy petition date,[127] continued operation of an after-acquired property clause in a security agreement would be an unauthorized transfer in violation of § 549, which prohibits unauthorized post-petition transfers of property of the estate.[128] Nothing in the Bankruptcy Code authorizes new collateral (other than traceable proceeds under § 552(b)) to float into the pre-petition security interest. Thus, the collateral expansion would never become part of the "allowed secured claim," and any increase in value would be preserved for the benefit of the estate.[129]

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124. The most common methods would be through a lock box or segregated account, but recall that U.C.C. § 9-315(b)(2) deems even commingled proceeds identifiable through a rule such as the lowest intermediate balance rule, although the secured party bears the burden of that tracing.

125. *In re* Residential Capital, LLC, 501 B.R. 549, 592 (Bankr. S.D.N.Y. 2013); *cf. In re* Granda, 144 B.R. 697, 698–99 (Bankr. W.D. Pa. 1992) (distinguishing *United Va. Bank v. Slab Fork Coal Co.*, 784 F.2d 1188 (4th Cir. 1986), and concluding that "the contract had no intrinsic value when the bankruptcy was filed . . . and therefore, there [was] no value upon which Marine Bank [could] have a lien"); Kenneth Ayotte & David A. Skeel, Jr., *Bankruptcy Law as a Liquidity Provider*, 80 U. CHI. L. REV. 1557, 1591–92, 1606–08, 1613 (2013) (discussing the liquidity-enhancing effect of § 552, noting that "[t]he focus in the case law on fairness and preventing windfalls obscures the true efficiency benefit of the equities-of-the-case exception, which is the prevention of debt overhang," and concluding that "courts should apply the exception more expansively" in some cases).

126. 11 U.S.C. § 551.

127. *Id.* § 552(a).

128. *Id.* § 549.

129. This interpretation gives meaning to the reference in § 551 to § 506(d), though one might have to overlook the Supreme Court's tortured (and widely criticized) reading of that section in another context, in *Dewsnup v. Timm*, 502 U.S. 410 (1992).

4. Summary.—We have developed an asset-based version of the Equitable Realization as it applies to secured creditors with floating liens. It comes largely from a careful reading of §§ 549, 551, and 552 of the Bankruptcy Code, along with § 9-315(b) of the Uniform Commercial Code. A floating-lien creditor's entitlement to adequate protection of the value of its interest in collateral is fixed on the petition date. To the extent that there is appreciation of original collateral, the secured creditor is entitled to such appreciation up to the earlier of disposition of the collateral or the effective date of the Chapter 11 plan. The secured creditor is not, however, entitled to the value of proceeds unless the creditor can satisfy the state law and bankruptcy law tracing requirements. And, once collateral is sold, the allowed secured claim is fixed at the sale price. *Therefore, even if a secured creditor claims a perfected security interest in all of a debtor's hard assets on the petition date, the creditor is not entitled to claim post-petition income from operations unless it can be traced to a post-petition disposition of original collateral, owned on the petition date.*

F. *Bankruptcy-Created Value*

Chapter 11 is designed to preserve value that would otherwise be destroyed by liquidation. In *Ice Cube Bonds*, we explained that federal bankruptcy laws create or preserve enterprise value in a variety of ways that are not available under nonbankruptcy law.[130] Federal bankruptcy law respects properly executed security interests and, as prior sections discuss, sets forth different distributional rules for asset-based and firm-based claims. As such, the Bankruptcy Code distinguishes between the preserved value that inheres in the firm's encumbered assets and value that does not. Other elements of value are left to be allocated, via negotiation, through the Chapter 11 plan confirmation process.[131] Here, we review forms of bankruptcy-created value and discuss the existing statutory allocation of that value based on our analysis earlier in this Article.

1. The State-Law Baseline.—As both a legal and practical matter, bankruptcy law exists against the background of the value that could be realized under state-law compulsory remedies. As noted above, those procedures are individualistic, limited in scope, and in many cases cumbersome.[132] Even if creditors write contracts that seek blanket liens, we see little evidence that they are able to comprehensively foreclose on such

130. *Ice Cube Bonds*, *supra* note 21, at 919–20.

131. *Id.* at 916.

132. *Id.* at 893–94; *see also* Jacoby, *supra* note 38, at 513–18 (reviewing critiques of state real property foreclosure law processes).

interests unless the debtor simply hands over the keys.[133] To the extent that federal bankruptcy law allows creditors to realize more than they would if limited to state-law remedies, the excess is value created or preserved by the federal bankruptcy mechanism itself.

2. Potential Contributors to the Bankruptcy Premium

a. The Going-Concern Premium.—Federal bankruptcy law enhances state-law remedies in a variety of ways. If an operating business is worth more than the sum of its parts, Chapter 11 makes it possible to preserve that value for any and all stakeholders. When used to sell assets, nationwide service of process and the ability to sell assets free and clear of claims and interests are just the beginning of the advantages offered by the federal bankruptcy system.[134] Because the entire bankruptcy estate is under the jurisdiction of a single court, it is possible to bundle assets in packages that maximize value, in stark contrast to compulsory sales governed by state law. In bankruptcy, one can have a sale of encumbered plus unencumbered assets, a sale of two properties encumbered by different lenders, or, as has become increasingly common, a sale of the entire firm as a going concern. The ability that bankruptcy law offers to capitalize on asset synergies, reorganize, sell off business units, or sell the whole enterprise is the going-concern premium.[135]

b. The Speed Premium.—In addition, going-concern sales in bankruptcy can happen quickly. We have criticized opportunistic hurry-up sales.[136] In some situations, though, value can be preserved best by moving expeditiously. Again, bankruptcy allows this to happen where state process would not.[137]

c. The Governance Premium.—Outside of bankruptcy, general default by a debtor can trigger an involuntary liquidation—sometimes at fire-sale prices. The timing of the sale is not driven by value maximization.[138] The

133. Even then it is not so simple. For example, if they used a so-called "deed-in-lieu" transaction, the doctrine of equitable merger would allow junior interests to ride through. *See infra* text accompanying note 166.

134. *Ice Cube Bonds*, *supra* note 21, at 919–22.

135. One could separately characterize the ability to capitalize on asset synergies—where two assets sold together are worth more than the same assets sold separately—as an "assemblage" premium. Here, for simplicity's sake, we conceptualize that as part of the going-concern premium given that bankruptcy law increases value by creating the opportunity to keep assets together.

136. *Ice Cube Bonds*, *supra* note 21, at 895.

137. *Id.* at 910–11.

138. Although Article 9 of the Uniform Commercial Code tries to deal with this issue by requiring that the timing of the sale be commercially reasonable, U.C.C. §§ 9-610, 9-627 (2014), a secured lender's incentive on timing may not align with what would maximize the value of the firm as a whole, and a court would not rule on the transaction's compliance with the law unless challenged *ex post*. In addition, Article 9's flexibility cannot solve the problem if a lender is trying to sell a mix of real-property collateral, Article 9 collateral, and collateral excluded from both regimes.

ability to operate the business in Chapter 11 creates the going-concern premium described above. Law and economics scholars have traditionally viewed Chapter 11 as giving the decision to a class of residual owners whether, when, and how to reorganize or liquidate.[139] In this regard, Chapter 11 also allows the stakeholders to postpone realization, whether through reorganization (perhaps business conditions will improve) or sale (perhaps stabilizing the business will increase its sale price).[140] In that respect, the Governance Premium is a limited option. It gives stakeholders the opportunity to determine how to dispose of the firm within the confines of the case. In the absence of federal bankruptcy law, the value of that limited option would be lost, particularly if the debtor was already in default.[141]

3. Value Allocation, Tracing, and Timing: A Review.—The Equitable Snapshot principle and Equitable Realization serve important roles in allocating value in a bankruptcy case. Unsecured creditors' pro rata share is fixed on the bankruptcy petition date, but the value of the firm remains variable. Secured creditors' relative asset positions, vis-à-vis each other and vis-à-vis the bankruptcy estate as a whole, are also fixed on the petition date even as the value of their collateral remains variable. Any increase in bankruptcy-created value not tied to specific collateral is allocated to the estate.

Implementation of Equitable Realization for secured creditors, thus, has three components: value, timing, and tracing. Secured creditors' downside risk is fixed at the realizable value of their collateral on the petition date by their entitlement to adequate protection. Secured creditors can capture the upside if the value of their original collateral increases during the case. A slightly different timing rule is necessary for collateral that is liquidated during the case. In that instance, value is determined at the time of, and by, the sale. The security interest continues in identifiable proceeds of the collateral received as the purchase price, but the creditor's allowed secured

139. *See, e.g.*, Lynn M. LoPucki, *The Myth of the Residual Owner: An Empirical Study*, 82 WASH. U. L.Q. 1341, 1341–42 (2004) (highlighting law and economics scholars' idea to give residual owners, who have an economic interest in the firm, responsibilities concerning the fate of the bankrupt firm). This construct has long been understood to be imperfect. The first objection is empirical. Particularly in large public company bankruptcies, it will not be clear exactly which class of claims or interests is the residual owner and, thus, in the optimal position to make the best decisions on the fate of the company. *Id.* at 1361. The second objection is doctrinal. The Bankruptcy Code gives a new set of governance rights to creditors, such as in the form of voting, that do not exist under state law. *See, e.g.*, 11 U.S.C. §§ 1126, 1129 (2012) (setting forth voting requirements and plan-confirmation requirements that depend on creditor support). But, at least formally, the law still leaves significant control in the hands of debtor management to propose whether to reorganize, liquidate, or something in between. LoPucki, *supra* note 7, at 1368. The fact that secured creditors might use contracting devices and financial incentives to sway debtor management in its exercise of governance rights is a different issue.

140. *Ice Cube Bonds*, *supra* note 21, at 920.

141. *Id.* at 920–21.

claim, and hence its interest in any proceeds, is fixed by the price realized on disposition of its collateral.

4. Equitable Realization and the Single Waterfall.— The implications of this analysis are far reaching for those who would claim that value should be distributed in bankruptcy according to a single waterfall. A careful analysis of the way in which the Bankruptcy Code administers the line between secured claims and unsecured claims—asset-based and firm-based priority—ensures that any time that a debtor delays realization in Chapter 11 there will be two value waterfalls, one for value traceable to assets owned on the petition date, and the other for going-concern and other bankruptcy-created value. Indeed, this will be true even if a secured creditor asserts a blanket lien on the firm's assets. Indeed, it would be true even if it were actually possible to encumber all of the firm's "value" as of the petition date.

II. The (Positively) Normative Case for Equitable Realization

In Part I, we showed that existing law distinguishes between asset-based claims and firm-based claims against an insolvent debtor—even when the debtor and its secured lenders intend otherwise. Part III will explore how the ABI Commission Report, while not entirely consistent on this point, recommends that this distinction be maintained, and even reinforced. Here, in Part II, we confront the prescriptive question of whether this interpretation and outcome is desirable. In other words, should the secured creditor's priority be limited to the realized or realizable value of its assets? And, consequently, should the going-concern or other bankruptcy-created increment of value be allocated to the estate and treated, in effect, as equity, owned by the firm-based claimants? More importantly, should such an equity cushion be mandatory—imposed even if a careful secured party perfectly executes a comprehensive security interest and meticulously tracks identifiable proceeds?

We conclude that secured creditors *should not* be able to encumber all of a company's value.[142] Limiting the scope of entitlements of asset-based creditors reflects and instantiates the long-standing principle, manifested in current tort, property, corporate, and commercial law, that a debtor ought to maintain adequate capital to satisfy its obligations, whether they arise as a matter of contract, tort or otherwise; if they do not, complicit owners may

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142. As the text indicates, we write here to justify the limits that exist under current law. But this position connects us to a conversation that one of us has been through before. *See* Janger, *supra* note 14, at 606 (reviewing the "efficiency of secured credit" debate to that point). The conversation has deep historical roots, going back at one level to the year 1603 and *Twyne's Case*, (1601) 76 Eng. Rep. 809, 816; to Grant Gilmore, Gilmore, *supra* note 1, at 624–28, and, more recently, to reform proposals to limit the scope of security interests floated when Article 9 was being revised in the late 1990s. Elizabeth Warren, *Making Policy with Imperfect Information: The Article 9 Full Priority Debates*, 82 CORNELL L. REV. 1373, 1388–89 (1997).

lose the benefit of limited liability,[143] the officers might be liable for breach of fiduciary duty,[144] and, as we will discuss below, asset-based claimants may have their liens or other property rights invalidated. Maintaining the distinction between asset-based and firm-based claims enforces this principle when the debtor becomes insolvent. The implicit and explicit inalienability rules we observe above, and the principles justifying these rules, share a common anti-judgment-proofing theme from which we derive the normative case for limiting the scope of security interests. Those rules and principles reinforce our view that, as a positive matter, current law already imposes such limits, even outside of bankruptcy. Perhaps more significantly, the rules and principles (that exist outside of lien law) suggest that changing the law to permit encumbrance of a firm's entire value is not so easy as adding a few discrete amendments to either Article 9 or the Bankruptcy Code.

Legal remedies outside of bankruptcy law are calibrated based on the assumption that the debtor is solvent.[145] Contracting parties are entitled to the benefit of their bargain and tort claimants are entitled to compensation for harm. In this regard, the limits of property law must be evaluated more broadly in the context of debtor–creditor law, corporate law, and basic principles of contract and tort damages. Insolvency law must address the moral hazard that emerges in, and on the precipice of, bankruptcy, due to insufficient "skin in the game." But insolvency law is not the only game in town. In our view, two sets of legal principles operating well beyond the insolvency sphere push back against judgment proofing and the resulting moral hazard.[146] Our case for limiting the scope of blanket liens fits comfortably within these normative principles, and gives them effect in bankruptcy—when it matters.

One set of policies aims to prevent externalities both within and outside of a firm, including a requirement that an operating entity maintain reasonable capital (externalizing risk) and a prohibition on contractual

143. *See, e.g.*, Trs. of the Nat'l Elevator Indus. Pension v. Lutyk, 140 F. Supp. 2d 447, 458 (E.D. Pa. 2001) ("Whether a corporation is grossly undercapitalized for the purposes of the corporate undertaking is of particular importance in a veil-piercing analysis . . . ."); West v. Costen, 558 F. Supp. 564, 586 (W.D. Va. 1983) ("[U]ndercapitalization is a ground for piercing the corporate veil . . . .").

144. Albeit subject to the business judgment rule.

145. This point is implicit in the "make whole" goals of contract and tort damages. *See* U.C.C. § 1-305 (2014) (calling for the Code's remedies to be "liberally administered to the end that the aggrieved party may be put in as good a position as if the other party had fully performed"); RESTATEMENT (SECOND) OF TORTS § 903 (AM. LAW INST. & UNIF. LAW COMM'N 1979) (defining "compensatory damages" with reference to restoring the damaged person to his or her original position).

146. *See* Lynn M. LoPucki, *The Death of Liability*, 106 YALE L.J. 1, 4–5 (1996) (showing that modern technology and lending practices, including secured credit, facilitate judgment proofing and undercut the effectiveness of traditional liability rules); Gilmore, *supra* note 1, at 627 (advocating the financing assignee be incentivized to "investigate, supervise, and control" its transactions); Janger, *supra* note 14, at 606 (reviewing the "efficiency" literature).

claimants agreeing to "squeeze out" claimants absent from the negotiating table (altering risk or subordinating particular claimants within the firm). A second set of policies, rooted in corporate finance and corporate governance theory, seek to limit principal–agent problems through implementing governance by the residual claimant (an agency principle). Again, bankruptcy law's governance and distributional principles do not create these concepts anew; they emanate from, and are embodied in, *non-bankruptcy* law. Bankruptcy law enforces them to a greater extent than is commonly realized by distinguishing between asset-based and value-based claims in the way we established in Part I.

A. Externalities, Agency, and the Judgment-Proof Problem: The Normative Case for Limiting Liens

1. Externality: Undercapitalization, Wrongful Trading, Deepening Insolvency.—A family of existing doctrine imposes a duty on a firm to maintain reasonable capital. Sometimes the doctrine does so by imposing liability, while other times it invalidates transfers of property. One principle behind these rules is that a firm's owners should bear the risk of its activities vis-à-vis both consensual and nonconsensual creditors. Moreover, the owner should not be able to manipulate asset allocations or capital structure to shift risk from equity to debt. Insolvency and undercapitalization undercut that risk-bearing goal.

We start with what has been recently renamed the Uniform Voidable Transactions Act but was long known as fraudulent transfer law.[147] Transfers of property (including the creation of a security interest) can be avoided if made with the actual intent to hinder, delay, or defraud creditors.[148] A transfer of property also may be avoided, even in the absence of ill intent, if at the time of or after the transfer the debtor has "unreasonably small capital" and the transfer is for less than reasonably equivalent value.[149] As a practical matter, financial vulnerability operates as a limit on the free alienability of property—including granting a security interest. If you are in serious financial trouble, "[you] must be just before you are generous."[150] The fraudulent conveyance concept has been part of the law for hundreds of years, both implicitly and explicitly.[151] It sets a baseline and longstanding principle

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147. Kenneth C. Kettering, *The Uniform Voidable Transactions Act; or, the 2014 Amendments to the Uniform Fraudulent Transfer Act*, 70 BUS. LAW. 777, 778–79 (2015).

148. UNIF. VOIDABLE TRANSACTIONS ACT § 4(a)(1) (UNIF. LAW COMM'N 2014).

149. *Id.* § 4(a)(2), § 4 cmt.5.

150. Bentley v. N.Y. Life Ins. Co., 488 N.W.2d 77, 81 (S.D. 1992) (Henderson, J., dissenting) (describing the phrase as an "old legal maxim").

151. Transferring property while insolvent was always a "badge of fraud." *See* Twyne's Case (1601) 76 Eng. Rep. 809, 816; 3 Co. Rep. 80 a, 82 b (declaring that all feoffments, gifts, and grants to delay, hinder, or defraud creditors shall be void); UNIF. FRAUDULENT CONVEYANCE ACT § 7

in favor of solvency as a prerequisite to free alienability of property rights, including security interests. As such, it has powerful implications for our analysis of the scope of secured creditors' rights in bankruptcy.

More generally, capital requirements are pervasive. Banks are subject to capital rules.[152] Accounting rules require officers and directors to maintain reasonable reserves against anticipated liabilities, and officers and directors are subject to a duty of reasonable care in this regard.[153] The duty is stated starkly outside of the United States. In the U.K., officers and directors must refrain from "wrongful trading"—continuing to do business while insolvent.[154] In civil-law countries, officers and directors may be found criminally liable if they fail to commence a bankruptcy case in a timely fashion; firms must immediately commence a public proceeding when they become insolvent.[155]

As these examples suggest, while some countries implement the concept as a rule, U.S. law lacks an explicit duty to commence insolvency proceedings. The principle is instead implemented through theories such as equitable subordination and fiduciary duties.

Equitable subordination empowers courts to subordinate the claim and invalidate the lien of a creditor that has engaged in some form of inequitable conduct plus advantage taking.[156] Classic examples occur when an insider of an insolvent firm loans money to the firm rather than making an equity contribution. Again, the theory is that an owner of an insolvent company ought to be contributing equity to keep the firm in business rather than subordinating or diluting existing creditors without consulting them. If a loan

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(NAT'L CON'F OF COMM'RS ON UNIF. STATE LAWS 1918) (stating that conveyances made with actual intent to hinder, delay, or defraud creditors is fraudulent). Constructive fraud has been with us for close to 100 years. For more history, see generally Jonathan C. Lipson, *Secrets and Liens: The End of Notice in Commercial Finance Law*, 21 EMORY BANKR. DEV. J. 421, 437–39 (2005).

152. *See* Julie Andersen Hill, *Bank Capital Regulation by Enforcement: An Empirical Study*, 87 IND. L.J. 645, 647 (2012) (explaining that banks are required by law to maintain specific ratios of capital to assets).

153. *See, e.g.*, DIV. OF SUPERVISION AND REGULATION, BD. OF GOVERNORS OF THE FED. RESERVE SYS., COMMERCIAL BANK EXAMINATION MANUAL § 5000.1 (2013) ("A board of directors has the responsibility for maintaining its bank on a sufficiently capitalized basis.").

154. *See, e.g.*, Grant v. Ralls [2016] EWHC (Ch) 1812, [14] (Eng.) (describing a party's argument that since the justice had found that trading occurred after there was no reasonable prospect of avoiding insolvency that there had been "wrongful trading").

155. For a helpful discussion of the duties of officers and directors when a firm is in the zone of insolvency, see U.N. COMM'N ON INT'L TRADE LAW, UNCITRAL LEGISLATIVE GUIDE ON INSOLVENCY LAW—PART FOUR: DIRECTORS' OBLIGATIONS IN THE PERIOD APPROACHING INSOLVENCY, at 9, U.N. Sales No. E.13.V.10 (2013), http://www.uncitral.org/pdf/english/texts/insolven/Leg-Guide-Insol-Part4-ebook-E.pdf [https://perma.cc/N7HS-TMLM].

156. *See In re* AutoStyle Plastics, Inc., 269 F.3d 726, 744 (6th Cir. 2001) (discussing the three-part standard for establishing equitable subordination). *See generally* Juliet M. Moringiello, *Mortgage Modification, Equitable Subordination, and the Honest but Unfortunate Creditor*, 79 FORDHAM L. REV. 1599, 1621–38 (2011) (reviewing the history of equitable subordination doctrine use in bankruptcy and its implications for current lending arrangements).

facilitates actions that harm the other creditors, courts have, in effect, converted those debts to equity, subordinating the obligation to other creditors.[157] Indeed, while it remains controversial, some courts have found an independent cause of action under a theory of deepening insolvency, where a creditor prolongs the debtor's obligations for the purpose of recovering its own claim to the detriment of others.[158]

As noted above, common to these doctrines is the principle that a party capturing the benefits of ownership should bear the risk.[159] The corporate form limits liability, but capital must be adequate. Owners and favored creditors should not be able to gamble with investors' (and nonconsensual creditors') money without internalizing the cost of resulting harms. Capitalization rules guard against owners imposing risks on consensual creditors as well as on nonconsensual creditors by elevating their own interests (or the interests of preferred creditors) over those claimants for whom repayment is already in jeopardy. Regarding consensual creditors, these rules protect the contractual priority of debt over equity. With respect to nonconsensual creditors, they guard against owners imposing risk beyond the boundaries of the firm. Taken together, these remedies guard against judgment proofing, "moral hazard created by insolvency," and, in Lynn LoPucki's terms, the "death of liability."[160]

By functionally establishing a requirement of adequate capitalization,[161] and enforcing it with lien avoidance or subordination, the above-mentioned doctrines recognize that in insolvency situations, nonconsensual liability should have priority over certain property interests. In this regard, Lynn LoPucki has argued for a "tort-first regime."[162] To the extent that adequate capitalization includes the ability to pay operating creditors as well, the point may not be so limited. Indeed, the legal doctrines we have described above

157. *See Autostyle Plastics*, 269 F.3d at 744.

158. Some courts recognize a "deepening insolvency" cause of action or theory of damages, alleging that creditors prolong a corporation's insolvency by permitting the corporation to continue to incur bad debt. *See, e.g.*, Official Comm. of Unsecured Creditors v. R.F. Lafferty & Co., 267 F.3d 340, 344 (3d Cir. 2001) (defining deepening insolvency as "the fraudulent expansion of corporate debt and prolongation of corporate life."). Courts are split on whether to recognize an independent cause of action or a measure of damages based on deepening insolvency. *See, e.g.*, *In re* CitX Corp., 448 F.3d 672, 677 (3d Cir. 2006) ("Although we did describe deepening insolvency as a 'type of injury,' and a 'theory of injury,' we never held that it was a valid theory of damages for an independent cause of action." (citations omitted)); *Official Comm. of Unsecured Creditors*, 267 F.3d at 344 ("We conclude that 'deepening insolvency' constitutes a valid cause of action under Pennsylvania state law . . . ."); *In re* Amcast Indus. Corp., 365 B.R. 91, 119 n.19 (Bankr. S.D. Ohio 2007) ("While declining to recognize deepening insolvency as a valid cause of action, the court believes that the concept may be useful as a measure of damages for breach of fiduciary duty or commission of an actionable tort."). Some courts have rejected the theory entirely. *See, e.g.*, *In re* Glob. Serv. Grp., 316 B.R. 451, 458 (Bankr. S.D.N.Y. 2004).

159. *See supra* section I(D)(2).

160. LoPucki, *supra* note 146, at 6–7.

161. Indeed, functionally a tort of undercapitalization.

162. LoPucki, *supra* note 32, at 1913.

do not single out tort claims, nor do they constitute a clean and simple capital requirement. Nonetheless, they protect debt claims generally against judgment proofing, and are similar to proposals by Bebchuk and Fried,[163] and separately by Elizabeth Warren,[164] that secured creditor collateral be limited to preserve an equity cushion. We approvingly suggest, indeed we claim, that existing law (including Equitable Realization) already imposes such a cushion.[165]

2. Intrafirm Externality: Anti-Roll-Up, Merger.—A second family of doctrines deals more directly with externalities within a firm. Under the doctrine of merger, if a secured creditor becomes the owner of liened property through a deed in lieu of foreclosure, the lien merges into the "fee" interest, and the right to foreclose on the lien is extinguished.[166] Thus, if other liens exist on the property, the merger "elevates" these subordinate liens.[167] The problem with this doctrine for the secured creditor is that gaining title prevents the foreclosure of any junior interests encumbering the property.[168] If the debtor offers the secured creditor a deed in lieu of foreclosure, and the

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163. Lucian Arye Bebchuk & Jesse M. Fried, *The Uneasy Case for the Priority of Secured Claims in Bankruptcy*, 105 YALE L.J. 857, 866 (1996).

164. Warren, *supra* note 142, at 1388–89.

165. Barry Adler has argued in favor of both torts-first priority and blanket liens, suggesting that one solves the problem of the other. *See* Barry E. Adler, *Financial and Political Theories of American Corporate Bankruptcy*, 45 STAN. L. REV. 311, 340 (1993) ("Ideally, nonconsensual claimants would have highest priority in any sort of firm."); Adler, *supra* note 6, at 814 (arguing that nonconsensual claimants ideally would have higher priority—or, torts-first priority—to overcome inefficient administrative and monitoring costs, but that these gains would not overcome the efficiency of robust priority for secured creditors; knowing this, bankruptcy law should not hinder debtors from granting blanket liens). We agree, but suggest that a requirement of adequate capitalization might work as well. *See* Bebchuk & Fried, *supra* note 163, at 861 & n.14, 911–12; Kenneth N. Klee, *Barbarians at the Trough: Riposte in Defense of the Warren Carve-Out Proposal*, 82 CORNELL L. REV. 1466, 1469–71 (1997).

166. 4 POWELL ON REAL PROPERTY § 37.32[1] (Michael Allan Wolf ed., 2016); *see also id.*:

> There is a merger whenever the mortgagor transfers its equity of redemption to the mortgagee, as in the case of a settlement involving transfer of a deed to the property as a substitute for foreclosure, commonly called a "deed in lieu of foreclosure" . . . . The doctrine of merger arises from the fact that normally there is no purpose in separately recognizing two parts of the entire bundle of ownership rights when all of these rights are held by one owner. Accordingly, the law courts have followed the rule of extinction of the lesser right whenever the requisite facts are present.

The question of whether a merger occurs depends on the intent of the parties. *In re* Apex Carpet Finishers, Inc., 585 F.2d 1323, 1325 (5th Cir. 1978); Downstate Nat'l Bank v. Elmore, 587 N.E.2d 90, 94 (Ill. App. Ct. 1992).

167. POWELL ON REAL PROPERTY, *supra* note 166 § 37.32[2].

168. *See* John A. Walker, Jr., *Simple Real Estate Foreclosures Made Complex: The Byzantine Tennessee Process*, 62 TENN. L. REV. 231, 261 (1995) ("[I]f the mortgagee accepts a deed in lieu of foreclosure and there is a junior lien on the property, the mortgagee may well be confronted by the merger doctrine."). Some courts have questioned whether the result of merger is desirable, in that it may prevent the fee owner from foreclosing junior liens. Ann M. Burkhart, *Freeing Mortgages of Merger*, 40 VAND. L. REV. 283, 301–02 (1987). But, as discussed above, there is a strong case that the effect of the doctrine is to protect the equitable interests of the junior claimants.

creditor takes the offered title, a junior interest (whether a consensual secured claim or judgment lien) will survive, and the secured creditor will lose the ability to foreclose on the junior interest.[169]

Looking at the doctrine from another perspective, however, shows its virtue and relevance to our discussion. Merger protects junior lien holders whose interests might "be in the money" from a deal between the senior creditor and the debtor that squeezes out the junior creditor's interest without compensation or process. Indeed, the doctrine serves the same function for competing secured creditors that the absolute-priority rule accomplishes for unsecured creditors and equity holders.[170]

The doctrine has stark implications when considering the entitlements of creditors claiming blanket liens against a company in bankruptcy. Outside of bankruptcy, the doctrine of merger requires that the lender foreclose to address the junior lien. In modern bankruptcy, though, blanket-lien creditors often assert the right to control the bankruptcy process, sell the debtor's assets free and clear of junior interests or credit bid and take title to them free of junior interests.[171] They seek, in effect, to use the bankruptcy-sale process to override the doctrine of merger. Such an override should not be permitted lightly. The merger doctrine calls into question whether a blanket-lien creditor should be permitted to foreclose those junior liens without complying with the process for confirming a Chapter 11 plan.

Another doctrine addressing intrafirm externality is the doctrine of true sale, or sale intended as security. Under this doctrine, a sale of an asset will be treated as a mortgage or secured transaction, regardless of what the parties labeled the transaction, if, in substance, the transaction was entered into for the purpose of securing a debt obligation.[172] The true-sale doctrine, and the associated right of redemption, protects the debtor's equity from a secured

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169. *See* PATRICK J. ROHAN, REAL ESTATE FINANCING: TEXT, FORMS, TAX ANALYSIS § 31.40 (2016):

> [T]he deed in lieu [of foreclosure] does not cut off junior liens. The mortgagee becomes owner, but the property remains subject to the junior lien. The mortgagee may also need to defend against junior mortgagee assertions that the merger doctrine applies, *i.e.*, that the fee title and mortgage have merged in the mortgagee, thus putting the junior mortgagee in first priority.

170. If there is equity in the property, the junior lienholder is protected by its ability to bid at the foreclosure sale and by outbidding the senior foreclosing creditor.

171. *See Ice Cube Bonds*, *supra* note 21, at 869–70, 917.

172. *See* Kenneth C. Kettering, *True Sale of Receivables: A Purposive Analysis*, 16 AM. BANKR. INST. L. REV. 511, 512 (2008) ("This paper analyzes the doctrine of true sale as it relates to sales of receivables—or, to say the same thing in another way, the doctrine that calls for a court in some circumstances to recharacterize a sale of receivables as a loan secured by those receivables."); John A. Pearce II & Ilya A. Lipin, *Special Purpose Vehicles in Bankruptcy Litigation*, 40 HOFSTRA L. REV. 177, 197–99 (2011) (discussing how courts determine whether a transfer of a financial asset is a "true sale" or a loan); *see also* Edward J. Janger, *The Death of Secured Lending*, 25 CARDOZO L. REV. 1759, 1762–67 (2004) (discussing the importance of the true-sale doctrine in connection with asset-backed securitization).

creditor who might try to short-circuit the procedural protections of foreclosure law and use a default as an opportunity to grab property value beyond the amount of the debt. In addition to protecting the debtor, the doctrine preserves assets for junior claimants, including unsecured creditors, in the event of the debtor's insolvency.

Some readers might not be satisfied with these externality-based reasons for limiting a debtor's ability to fully encumber its value. If a debtor can sell property for any price to raise money, why can't the debtor fully encumber its later value? Two responses come to mind. First, the implications of a debtor's decision-making process at the moment of borrowing are different for a sale and for a secured transaction. A debtor engaging in a true sale of an asset transfers any upside (option value), as well as any downside risk associated with the asset, to the buyer. A debtor engaging in a borrowing transaction and thus encumbering an asset with a security interest retains any value of the property in excess of the secured debt. And, even if the secured creditor is undersecured, the debtor also retains the option value—the possibility that the value will increase—on the collateral until it is sold. However, when the collateral is sold, if there is a deficiency, that claim shares with the unsecured creditors. Secured credit (or a sale intended as security) distorts investment incentives in ways that true sales do not. Debtors can conspire with secured creditors to have their cake (upside) and eat it too, while shifting downside risk onto other creditors.[173]

Conceptualized this way, the doctrine of true sale can be understood as a desirable creditor and stakeholder protection that limits negative externalities. In this respect it is consistent with the other commercial- and corporate-law doctrines and policies that justify restricting the ability of a debtor to precommit bankruptcy-created value to a secured creditor.

As already reviewed, fraudulent-transfer (now voidable-transactions) law also prevents property transactions from creating externalities.[174] If a debtor is insolvent or has unreasonably small capital, conveying an asset without receiving reasonably equivalent value shifts risk from one set of claimants to another, and the transaction can be avoided.[175] Although solvent individuals and entities generally can do what they want with their assets, creditors and courts have the power to police and claw back transactions of financially distressed debtors.

Taken together, the merger, true-sale, and fraudulent-transfer doctrines ensure that when an insolvent debtor conveys an interest in property, including a security interest, the transfer does not increase the risk faced by other creditors.

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173. Danielle D'Onfro, *Limited Liability Property*, 38 CARDOZO L. REV. (forthcoming 2018) (manuscript on file with authors).

174. *See supra* notes 148–51 and accompanying text.

175. UNIF. VOIDABLE TRANSACTIONS ACT § 4(a)(2) (UNIF. LAW COMM'N 2014).

3. Value Maximization: Governance/Principal–Agent.—The preceding discussion shows that maintaining a distinction between asset-based claims and firm-based claims forces the firm to internalize externalities and preserves intrafirm priorities. The distinction has important governance implications as well. Corporate finance theory tells us that decision-making authority ought to be situated with the residual claimants.[176] Decision makers need to have capital at risk. In a hierarchical capital structure, the junior-most claimant will garner the benefits of success and bear the costs of failure.[177] This is sometimes referred to as the single-owner theory of corporate governance.[178] When a company becomes insolvent, unsecured creditors can, and often do, become the residual claimants.[179] The absolute-priority rule in Chapter 11 enforces that concept, as do various nonbankruptcy legal doctrines discussed above. In that regard, it becomes especially important to maintain the distinction between asset-based and firm-based claims, the former of which is never residual with respect to the firm.

The key point, embodied in the concept of the allowed secured claim, is that a property-based claim is not variable. It is tied to the value of the collateral but does not change with the value of the firm. A deficiency claim may be variable, but is treated like any other unsecured claim. As such, the secured portion of the undersecured creditor's claim should not be entitled to firm governance rights. More importantly, the secured creditor should not be able to piggyback its secured claim onto its deficiency claim, lest it exercise more power than its at-risk portion warrants.

B. *The Puzzle of Secured Credit Revisited—Liens versus Blanket Liens*

1. Secured Credit Efficiency: The Early Debate.—This analysis raises a larger question: why does the U.S. legal system allow and incentivize secured lending at all? Is asset-based lending efficient?[180] We ask this question for two reasons: (1) to justify some degree of asset-based lending; and (2) to

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176. *See* ADOLF A. BERLE JR. & GARDINER C. MEANS, THE MODERN CORPORATION AND PRIVATE PROPERTY 123 (1932) (explaining the principal/agent problem that arises with dispersed ownership of shares).

177. *See* Alan J. Meese, *The Team Production Theory of Corporate Law: A Critical Assessment*, 43 WM. & MARY L. REV. 1629, 1631 (2002) (explaining how the separation of ownership exposes shareholders to both costs and benefits).

178. *See id.* at 1631, 1634 (describing the single-owner approach as an account of corporate governance that implies a recognition that directors and managers run a corporation to maximize the wealth of a single owner).

179. Frederick Tung, *The New Death of Contract: Creeping Corporate Fiduciary Duties for Creditors*, 57 EMORY L.J. 809, 831–32 (2008).

180. This question has been called the "puzzle of secured transactions." Paul M. Shupack, *Solving the Puzzle of Secured Transactions*, 41 RUTGERS L. REV. 1067, 1068 (1989); *see also* Lois R. Lupica, *Asset Securitization: The Unsecured Creditor's Perspective*, 76 TEXAS L. REV. 595, 619–21 (1998) (reviewing literature considering secured credit efficiency).

determine whether efficiency justifications for secured credit might imply limitations to its scope.

The classic efficiency-based justification is that secured credit facilitates trading patterns that capitalize on monitoring advantages of particular lenders.[181] Such a rationale may justify priority for factors (buyers of receivables), equipment lenders, and other specialized secured lenders. Indeed, this explanation fits hand in glove with the secured credit system prior to the adoption of Article 9. The explanation does not, however, justify allowing a creditor to take a blanket lien on all of a debtor's assets, or on the overall value of a firm, particularly in today's secured credit system. We do not see why a blanket-lien holder would have a monitoring advantage over an unsecured lender—a point to which we return below.

Another efficiency-based justification for secured credit, and particularly blanket liens, takes us back to the alleged single waterfall and also falls short: to impose a hierarchical capital structure and allow a senior creditor to serve as a "sole owner" in the event of debtor insolvency.[182] To advocates of this position, the Bankruptcy Code's default rules are second-best options when compared to a prenegotiated bankruptcy scheme.[183] The link is perhaps best explained by Jay Westbrook's observation that any such prearranged bankruptcy scheme requires all of the value of the firm to be committed.[184] By necessity, this approach would harm nonconsensual creditors, later creditors, and probably employees. In addition, for the reasons we have discussed above, this sole-control-by-a-senior-creditor model flies in the face of nonbankruptcy liability, agency, and governance principles. Indeed, the very purpose of such schemes may lie not in value creation, but rather in risk alteration and negative externality.[185]

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181. *See* Thomas H. Jackson & Anthony T. Kronman, *Secured Financing and Priorities Among Creditors*, 88 YALE L.J. 1143, 1153–54 (1979) (arguing that the monitoring required for secured loans is likely less than for unsecured loans); Saul Levmore, *Monitors and Freeriders in Commercial and Corporate Settings*, 92 YALE L.J. 49, 49, 56 (1982) (asserting that the required monitoring for secured debt largely solves freeriding); Robert E. Scott, *The Truth About Secured Financing*, 82 CORNELL L. REV. 1436, 1448 n.18 (1997) (portraying early work on agency costs in secured debt as focused on reduced monitoring costs); *see generally* Lupica, *supra* note 180, at 619–21 (framing and reviewing the arguments for and against the efficiency of secured debt since 1979).

182. This is the position taken by Baird and Jackson, as well as by Alan Schwartz. Douglas G. Baird & Thomas H. Jackson, *Corporate Reorganizations and the Treatment of Diverse Ownership Interests: A Comment on Adequate Protection of Secured Creditors in Bankruptcy*, 51 U. CHI. L. REV. 97, 104–06 (1984); *Fairness*, *supra* note 4, at 166–67. It is important to recognize that a hierarchical structure can be accomplished without any secured credit. Secured credit is an exception to, rather than an essential feature of, this ideal hierarchical capital structure.

183. *See, e.g.*, Robert K. Rasmussen, *Debtor's Choice: A Menu Approach to Corporate Bankruptcy*, *in* CORPORATE BANKRUPTCY: ECONOMIC AND LEGAL PERSPECTIVES 395–407 (Jagdeep S. Bhandari & Lawrence A. Weiss eds., 1996).

184. Jay Lawrence Westbrook, *The Control of Wealth in Bankruptcy*, 82 TEXAS L. REV. 795, 799 (2004).

185. *See* Janger, *supra* note 14, at 604–06; Shupack, *supra* note 14, at 1069 (explaining "the creditor to whom the collateral is assigned will reduce the charges made for a loan" due to the

It also has been suggested that lenders are risk averse—absent security, credit might be constrained. Some argue that secured credit primes the pump and creates a positive externality in increased liquidity of debt and reduced credit cost.[186] Given the absence of data to determine the sizes of the negative and positive externalities of secured credit relative to each other and to other credit enhancements, we find it difficult to see this as anything but a subsidy-based argument rather than an efficiency argument. As such, the debate over the efficiency of secured credit remains at an uncomfortable equipoise.

2. Secured Credit Efficiency: The Behavioral/Institutional Overlay.— Another reason to be concerned about asset-based lending, including all-asset lending, lies in concerns about bargaining *ex ante*. At the time of borrowing, the debtor may bargain away the value of the firm too cheaply.[187] The "puzzle of secured credit" literature largely preceded the institutional/behavioral concerns embedded in this point. The efficiency-based arguments for blanket liens assume that the parties know best at the time they make the deal.[188] Yet, more recent behavioral research suggests this is not always true.[189] Even in the absence of the distortions created by the ability to externalize risk, reallocate firm value, and distort governance structures, all described above, there are also informational and decisional costs associated with deciding at the time of borrowing to give the secured creditor complete control in the event of default.

The first problem is intertemporal externality. A firm's deals are done at one time, T1, but those deals' successes are measured at a later time, T2. The people who engineered a deal may no longer be responsible or even employed by the firm when the deal is evaluated *ex post*. Those who managed the deal may be compensated based on expectations shortly after the deal is executed and may not bear costs if the deal fails or generates losses down the road. Even if the same person is responsible at both times, intertemporal discounting may come into play. Firms, like people, may privilege the need

security interest); Ronald J. Mann, *Explaining the Pattern of Secured Credit*, 110 HARV. L. REV. 625, 633 (1997) (noting a grant of collateral can affect transaction costs and incentives).

186. Steven L. Harris & Charles W. Mooney, Jr., *A Property-Based Theory of Security Interests: Taking Debtors' Choices Seriously*, 80 VA. L. REV. 2021, 2022–24 (1994) (criticizing efficiency theories and arguing that secured transactions may be wealth enhancing).

187. For a discussion of individual decision-making, see Susan Block-Lieb & Edward J. Janger, *The Myth of the Rational Borrower: Rationality, Behavioralism, and the Misguided "Reform" of Bankruptcy Law*, 84 TEXAS L. REV. 1481, 1558–59 (2006).

188. Harris & Mooney, *supra* note 186, at 2049.

189. *Compare* Sanjai Bhagat & Roberta Romano, *Reforming Executive Compensation: Focusing and Committing to the Long-Term*, 26 YALE J. ON REG. 359, 363 (2009) (suggesting that firms should adopt incentivizing compensation packages for executives that nudge them to favor long-term interests), *with* Jesse M. Fried, *The Uneasy Case for Favoring Long-Term Shareholders*, 124 YALE L.J. 1554, 1557–58 (2015) (contending that executives favoring long-term interests are no better at promoting wealth creation than those favoring short-term interests and may paradoxically reduce the size of the pie).

to obtain credit now over the potential costs in future periods. Whether the problem is cognitive or institutional, the result is likely to be the same.

Bargaining dynamics also contribute to the problem. Some borrowers are at their lenders' mercy *ex ante*, particularly when a firm is initially capitalized. Keen to signal that it will be compliant, cooperative, low risk, and flush with optimism bias, the borrower might offer the initial lender the most powerful remedies permitted by law that the lender requests. Just as the dynamics of *ex ante* credit negotiations may lead a debtor to trade risk faced by future creditors for money now, the debtor may cede control too easily. In her important article, *The Logic and Limits of Contract Bankruptcy*, Susan Block-Lieb articulated these key informational and decisional costs the debtor faces at T1.[190]

In conclusion, deciding *ex ante* precisely what decisions will be made at the time of default may not be efficient. At the time of default, there may be more information about the business, the reason for default, and the possible options. Tying the debtor's hands earlier may impose significant costs later.

3. Operations vs. Assets.—Up to this point, we have (1) interpreted existing law to limit the scope of security interests when they leave a firm undercapitalized; (2) argued that limiting the scope of security interests may curb principal–agent problems; and (3) recognized that secured credit may generate negative externalities both inside and outside the firm. Together, these concerns justify limiting the scope of security interests. We need to go further, though, to support our claim that fixed-asset value and any appreciation during a bankruptcy case should be allocated to the secured creditor, but income and upside from operations should be allocated to the unsecured claims (including any deficiency claims).[191] The answer lies in updating the aforementioned monitoring story to justify the distinction between asset-based financial claims and claims rooted in the operation of the business.

First, in the real world, firms often have multiple stakeholders. In addition to financial creditors, there are suppliers, employees, tort claimants, taxing authorities, and many more. Picking up on the theme in the efficiency debates but taking it in a different direction, many of these parties are "closer to the ground" than financial creditors. In addition, maintaining relations with these stakeholders is critical to restructuring a distressed but viable company. Allocating a variable claim to these stakeholders gives them skin in the game and may serve the interests of the continued operation of the firm.[192] To the

190. Susan Block-Lieb, *The Logic and Limits of Contract Bankruptcy*, 2001 U. ILL. L. REV. 503, 522–23 (2001).

191. *See supra* Part I.

192. Commentators sometimes suggest that these stakeholders are indifferent to the restructuring because they routinely get paid, for business reasons, in any event. *E.g.*, Douglas G. Baird, *Priority Matters: Absolute Priority, Relative Priority, and the Costs of Bankruptcy*, 165 U.

extent that suppliers, employees, and others have continued transactions and interactions with the debtor, they may have considerable monitoring advantages as compared to financial creditors. Even nonconsensual claimants have incentives to monitor once they know they have a claim.

Second, blanket liens in particular turn the secured-lender-monitoring story on its head. To the extent lenders try to take blanket liens, they are not monitoring specific assets over which they have expertise. Moreover, in modern financial markets, the lender is more likely to be a syndicate of participants than a single entity.[193] Berle and Means wrote about disbursed shareholders, but in insolvency, Berle/Means shareholders have now been replaced by Berle/Means bondholders. To the extent there is an agency problem, it might be controlled better by unsecured creditors closer to the operational realities—suppliers and employees. The realities of modern finance alter the implications of the "comparative monitoring" rationale.

Although much more could be said, this relatively brief tour reveals a coherent set of justifications for both the Equitable Snapshot and Equitable Realization, as well as the inalienabilty rule that they enforce. Our assessment vindicates principles that encourage the proper capitalization of firms and reinforce incentives within the firm to maximize value. As with any debate about the efficiency of legal rules, empirical questions remain about whether the costs of this inalienability rule outweigh the benefits. And, though we cannot answer that question definitively at this time, we believe the burden should lie with those arguing for a change to the existing baseline—the advocates of the single waterfall.

III. Testing Recent Reform Proposals

Our analysis in Part I suggests that many complaints about contemporary Chapter 11 practices are a function of insufficient adherence to the principles and, indeed, plain language of the Bankruptcy Code and state law—a failure of advocacy, rather than a shortcoming in the law itself. Neither Article 9 nor the Bankruptcy Code support the common assumption that secured creditors are routinely the residual owner of bankrupt companies and thus have the unfettered right to "run the show." In Part II, we demonstrated the desirability of limiting the scope of security interests consistent with longstanding corporate and commercial principles and behavioral arguments. Here, in Part III, we turn to recent Chapter 11 reform proposals.

PA. L. REV. 785, 795–97 (2017). Even if that were true for the slice of corporate Chapter 11s on which Baird focuses (large cases that continue as a going concern), *id.* at 789, it does not reflect the fate of most Chapter 11 cases today.

193. William H. Widen, *Lord of the Liens: Towards Greater Efficiency in Secured Syndicated Lending*, 25 CARDOZO L. REV. 1577, 1581 (2004).

Our examination of creditor entitlements comes on the heels of a comprehensive study of Chapter 11 by a commission created by the field's largest professional organization.[194] The proposals in the ABI Final Report and the views we expressed in *Ice Cube Bonds* and here, in Part I, share common ground. But several of the Report's key recommendations addressing value allocation do not honor the distinction between asset-based and firm-based claims and lose track of the need to maintain the relative position of creditors over time through Equitable Realization. We discuss relevant proposals below.

A. Adequate Protection

The Report's recommendations regarding adequate protection are generally consistent with Equitable Realization. Indeed, they reinforce the importance of distinguishing asset-based from firm-based priority.

1. Foreclosure Value.—For secured creditors, Equitable Realization starts with fixing the value of the collateral as of the petition date for adequate protection purposes.[195] The standard developed in *The Logic and Limits of Liens* and in Part I of this Article is based on the value that was actually realizable in the absence of bankruptcy.[196] Consistent with this view, the Report recommends using foreclosure value of a secured creditor's collateral, for adequate-protection purposes, on the date the creditor seeks adequate protection.[197]

Notwithstanding our focus on the petition date above, we are not troubled by the proposal's use of the date on which the creditor seeks adequate protection. At least as to fixed assets, secured creditors have the power to choose the moment that collateral value will be realized for downside purposes, just as they would have been able to choose the moment to foreclose outside of bankruptcy. So, we see little problem with preserving this option in bankruptcy to the extent possible. Between the filing and the date adequate protection is sought, the value might go up or down.

194. *About Us*, AM. BANKR. INST., http://www.abi.org/about-us [https://perma.cc/H3HK-EL3T] ("[ABI] is the nation's largest association of bankruptcy professionals, made up of over 12,000 members in multi-disciplinary roles, including attorneys, auctioneers, bankers, judges, lenders, professors, turnaround specialists, accountants and others.").

195. *See supra* section I(C)(2).

196. *See* Janger, *supra* note 19, at 606; *supra* section I(D)(1).

197. ABI FINAL REPORT, *supra* note 6, at 71. The Report distinguishes foreclosure value from going-concern value, as well as from liquidation value. *Id.* For personal property, foreclosure value is theoretically higher than liquidation value because Article 9 dispositions are supposed to yield prices greater than would be received in a distress sale. *See id.* at 71 ("The foreclosure value should be determined case by case based on the evidence presented at the adequate protection hearing, taking into account the realities of the applicable foreclosure markets and legal schemes."); U.C.C. §§ 9-610, 9-626 (2014) (describing flexible procedures for disposition after default).

For floating-lien collateral, the picture is more complicated than the Report appears to acknowledge.[198] To the extent the court grants adequate protection for collateral that has already been disposed of, the value has already been realized, and the allowed secured claim fixed. The option to sell has already been exercised. Therefore, the value entitled to adequate protection should be the sale price of the original collateral.[199] The Report does not specify this approach but says nothing inconsistent with this view.

There is one place, however, where the Report deviates from the concept of realizable value. If a creditor can establish that the collateral would have yielded more than the state-law foreclosure value upon disposition, then the Report proposes that this "value differential" can be claimed as the baseline for adequate protection.[200] That approach insufficiently appreciates the question of who should bear the risk of value changes during the case. The Report offers the following:

> In granting adequate protection to a secured creditor under section 361(3), the court should be able to consider evidence that the net cash value that a secured creditor would realize upon a hypothetical sale of the secured creditor's collateral under section 363 exceeds the collateral's foreclosure value (a "value differential"). If the court makes a finding based on the evidence presented at the adequate protection hearing that a value differential exists, the court should be able to premise adequate protection under section 361, in whole or in part, on such value differential.[201]

Taken literally, this language misconstrues the nature of adequate protection. The value-differential concept allows the secured creditor to ask, at the beginning of the case, to protect value that will not be realizable, if at all, until the end of the case. It is, of course, possible that collateral may appreciate, or, if the debtor reorganizes, the creditor may be entitled to the "reorganization value" of its collateral. In other words, the creditor might be able to argue that something greater than state-law foreclosure value would have been realizable in a going-concern sale or a Chapter 11 reorganization. This may well turn out to be true, as a factual matter, but they are not entitled to a guaranty of that amount as adequate protection. We do not object to allocating collateral appreciation to the secured creditor to the extent that it is actually realized as a result of the case, but there is no reason that the unsecured creditors should be forced to act as guarantors early in the case.[202]

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198. Proceeds must be discussed separately, as the recommendation should apply only to original collateral and not to proceeds.

199. As we will discuss later, the sale price should also be the limit for distributional purposes.

200. ABI FINAL REPORT, *supra* note 6, at 67–68.

201. *Id.* (emphasis omitted).

202. Janger, *supra* note 19, at 590–91, 606.

2. Valuation for Adequate Protection vs. Valuation in Reorganization.— The report, like Equitable Realization, allocates appreciation of original collateral during the case to the secured creditor. The Report differentiates between valuation for adequate-protection purposes and distributional purposes. It calculates the latter slightly differently from the way we do. The Report recognizes that at the end of a case, the secured creditor should be able to insist on the "reorganization" or "going-concern" value of the collateral. In Part I, we focused on asset appreciation without specifying a valuation standard other than realizable value. The two approaches should, however, lead to the same result in practice.

The following thought exercise illustrates why the Commission's approach is plausible, if not mandated. If the collateral is sold piecemeal under ordinary commercial conditions, it will produce a market-based value. If, by contrast, the debtor is reorganizing, but it were possible to require that each item of collateral be auctioned individually, the debtor would bid on each piece of property deemed essential to the operation of the business. In each case, the maximum bid of the debtor should be the cost to replace, although, where the asset is firm specific, that might be quite a lot. Section 506(a) of the Bankruptcy Code currently states that determination of the allowed secured claim should consider the intended disposition of the collateral. If the debtor reorganizes without selling property that is collateral for a secured debt, the collateral is revalued as of the effective date, but necessarily based on an estimation of "realizable" or "reorganization" value. Under either formulation, it is appropriate to focus on the value of the collateral to the reorganizing debtor.

For some types of collateral, however, using reorganization value may be inappropriate. For example, creditors sometimes claim to have a security interest in goodwill.[203] For goodwill, or technical know-how, the realizable value at the petition date may very well be zero.[204] It is also hard to argue that goodwill on the post-petition sale date, existing only because bankruptcy law

203. Whether goodwill is a distinct property interest that a debtor can encumber and on which a lender can foreclose is a far-from-simple question. The Uniform Commercial Code has never defined property, leaving that question to other law. Moringiello, *supra* note 33, at 132. The North Carolina Supreme Court has held that goodwill is not a stand-alone property right that can be owned and sold apart from a property right "to which it is incident," such as a trademark. Maola Ice Cream Co. of N.C. v. Maola Milk & Ice Cream Co., 77 S.E.2d 910, 914 (N.C. 1953); *see also* Poore v. Poore, 331 S.E.2d 266, 271–73 (N.C. Ct. App. 1985) (permitting goodwill to be part of the valuation of a professional practice but finding that the professional association's goodwill had no significant value because its liabilities were approximately equal to the value of its assets, thus vacating the trial court's valuation); Craver v. Nakagama, 379 S.E.2d 658, 659–60 (N.C. Ct. App. 1989) (holding that, while goodwill is normally a valuable asset of a partnership, the goodwill of a "professional partnership whose reputation rests solely on the individual skill of the partners" cannot be distributed since its services are performed based on "the individual skill, judgment and reputation of the partner").

204. *In re* Residential Capital, LLC, 501 B.R. 549, 610–11 (Bankr. S.D.N.Y. 2013) (finding that the creditor failed to show that the goodwill on the petition date was worth more than $0).

postponed realization, is identifiable proceeds of the secured creditor's collateral.[205] More importantly, if the collateral was sold prior to the effective date of the plan, the value for distributional purposes should be the price actually realized when the original collateral was sold—not the reorganization value of the proceeds.[206]

3. Cross-Collateralization as Adequate Protection.—The Report further reflects the principle of Equitable Realization in its discussion of cross-collateralization in connection with debtor-in-possession financing. Courts will sometimes grant debtors' requests to give lenders post-petition liens on unencumbered and/or post-petition collateral as a form of adequate protection of their pre-petition secured loans. While the granting of a replacement lien is expressly contemplated as a form of adequate protection,[207] cross-collateralization creates problems if it increases the level of security on a pre-petition claim. Often called "Texlon-type cross-collateralization,"[208] this arrangement transfers value to the secured creditor to which it was not entitled on the petition date.

The Report proposes to limit the ability of a pre-petition secured creditor to cross-collateralize, "to the extent that such cross-collateralization would protect against the decrease in the value of the secured creditor's interest in the debtor's property."[209] This restriction correctly implements the Equitable Snapshot principle. The scope of the post-petition lien would be limited to the amount necessary to protect the value of the pre-petition collateral. That refinement properly effectuates the view that the value of floating-lien collateral, for downside and upside purposes, should be fixed as of the petition date.

205. *Id.* at 612; *Bankruptcy Sales*, *supra* note 22 (discussing *In re Residential Capital (ResCap)* and entitlement to post-petition goodwill). In other words, to the extent goodwill is an interest in property at all, it may be realizable in bankruptcy only because bankruptcy provides a mechanism for preserving the business entity as a whole, and thus part of the bankruptcy premium rather than strictly collateral of the secured creditor. Janger, *supra* note 19, at 611–12 (criticizing the ruling in *Buffets Holdings*).

206. For thoughtful discussions of this question, see Ralph Brubaker, *The Post-RadLAX Ghosts of Pacific Lumber and Philly News (Part I): Is Reorganization Surplus Subject to a Secured Creditor's Pre-Petition Lien?*, Bankruptcy Law Letter at 1 (June 2014); Ralph Brubaker, *The Post-RadLAX Ghosts of Pacific Lumber and Philly News (Part II): Limiting Credit Bidding*, Bankruptcy Law Letter at 1 (July 2014).

207. 11 U.S.C. § 361(2) (2012).

208. This practice, which is named after the case in which it originated, refers to granting a lien to a pre-petition lender on assets that first arose post-petition in order to secure pre-petition debt owed to the lender. *See Ice Cube Bonds*, *supra* note 21, at 908; Gerald F. Munitz, *Treatment of Real Property Liens in Bankruptcy Cases*, 38 J. MARSHALL L. REV. 171, 198–99 (2004).

209. ABI FINAL REPORT, *supra* note 6, at 72.

B. *The Scope of Post-Petition Proceeds of Pre-Petition Collateral: Section 552(b), Tracing, and the Equities of the Case*

The Report offers a number of recommendations with regard to the attachment of a security interest to identifiable proceeds. As we reviewed in Part I, the Bankruptcy Code allows a secured creditor to encumber post-petition proceeds of pre-petition collateral to the extent it could have done so under state law, but courts may limit the encumbrance based on the equities of the case.[210] Although we have cited court decisions applying this rule, our sense is that this limitation is imposed relatively rarely and that secured creditors routinely seek to define their proceeds expansively. The Commission seems to share our concern that current practices undercut the existing statute and the principles supporting it. First, the Report notes a practice of secured creditors conditioning some benefit on the debtor in possession waiving the right to argue that proceeds should be limited by the equities of the case, contrary to § 552(b)(1).[211] The Report proposes invalidating such waivers.[212] We agree.

Second, the Report responds to concerns that imposing a high burden of proof on the debtor's use of the equities-of-the-case exception may prevent § 552(b) from striking the intended balance between the secured creditor and the estate. Specifically, the Report states that the debtor does not necessarily need to show an expenditure of other funds with regard to the collateral to limit the secured creditor's interest in proceeds.[213] The evidence can be in a variety of forms, "whether through time, effort, money, property, other resources, or cost savings."[214] Again, we agree.

Third, the Report considers the definition of proceeds as used in the Bankruptcy Code. The Bankruptcy Code does not define the term proceeds, and the Article 9 definition of proceeds at the time the Bankruptcy Code was drafted was more limited than it is today.[215] The Report indicates that, in light of diverse views on the matter, the Commission declined to propose a federal definition of proceeds for purposes of § 552, retaining the current Article 9 definition.[216] The downside of the Article 9 definition is its potential to strip value from firm-based claimants. As we already explored, however, that

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210. 11 U.S.C. § 552(b)(1).

211. ABI FINAL REPORT, *supra* note 6, at 232. The Report also notes that such waivers may help explain why there is so little case law interpreting § 552(b)(1). *Id.*

212. *Id.* at 230.

213. *Id.* at 234.

214. *Id.*

215. Lupica, *supra* note 5, at 904–06 (discussing diverging court opinions on the definition of proceeds for bankruptcy purposes); Warner, *supra* note 87, at 521–22.

216. ABI FINAL REPORT, *supra* note 6, at 233; *cf.* Juliet M. Moringiello, *(Mis)use of State Law in Bankruptcy: The Hanging Paragraph Story*, 2012 WIS. L. REV. 963, 1003–08 (2012) (applying Supreme Court decisions in *Butner* and *Kimbell Foods*, and determining the Article 9 definition of "purchase money security interest" should not be used in Chapter 13 bankruptcy cases).

definition, as interpreted by courts, is far from limitless.[217] In addition, as we have seen, Article 9 proceeds doctrine requires identifiability and tracing and imposes those burdens on the secured party.[218] Those requirements, when combined with the Bankruptcy Code's equities-of-the-case limitation, can be interpreted consistently with the Equitable Snapshot principle set forth in Part I.

The associated commentary to the Commission's § 552(b) proposals contains helpful insights consistent with our approach to allocating entitlements and value among asset-based and firm-based claimants. Looking to the legislative history, the Report notes that Congress intended § 552(b) to "prevent windfalls" to the secured creditor and "to compensate the estate for use of unencumbered property or expenditures that enhanced the value of the secured creditor's lien and to protect the rehabilitative purposes of the Bankruptcy Code."[219] Further, it favorably cites the *ResCap* ruling that post-petition goodwill is not proceeds of pre-petition goodwill.[220] Overall, the Report's proceeds discussion is consistent with the Snapshot Principle and the tracing requirements described above, as well as with the Commission's position on cross-collateralization.[221]

Rigorous enforcement of the limits on a secured creditor's claim to proceeds under § 552(b) helps to ensure the secured creditor's interest remains stable post-petition and does not expand. The effect is to allocate virtually all going-concern surplus, created by the bankruptcy process itself, to the estate rather than to asset-based creditors. As Parts I and II illustrate, we think this is right as a matter of positive law,[222] as well as normatively.[223] But the Report does not explicitly acknowledge that impact. In addition, as we discuss later, it includes a proposal inconsistent with that outcome.[224]

C. *Sales of All Assets Outside of a Chapter 11 Plan*

The Report expresses considerable concern about the speed and prevalence of going-concern sales of substantially all of a debtor's assets through § 363 rather than a plan, and the implications for Chapter 11's traditional goals. On timing, the Report proposes a sixty-day moratorium running from the filing of the petition on all-asset sales absent a showing, by

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217. *See supra* section I(E)(1)(a).

218. *See supra* section I(E)(1)(b) (discussing U.C.C. § 9-315(a)(2), (b)).

219. ABI FINAL REPORT, *supra* note 6, at 231.

220. *Id.* at 233 (citing *In re* Residential Capital, LLC, 501 B.R. 549, 612 (Bankr. S.D.N.Y. 2013)); *see also* sources cited in *supra* note 203.

221. *See supra* section III(A)(3) (discussing cross-collateralization in debtor-in-possession financing).

222. *See supra* Part I.

223. *See supra* Part II.

224. *See infra* subpart III(D) (discussing redemption option).

clear and convincing evidence, that a quicker sale is necessary.[225] On substance, the Report sets forth a list of requirements, drawn from the Chapter 11-plan process, necessary to obtain court approval of all-asset sales (§ 363x).[226] And the Report would prohibit the entry of dismissal orders following such sales that rearrange creditor entitlements inconsistently with the Bankruptcy Code.[227]

We share the concern that hurry-up sales have become unduly common in Chapter 11 in a wide range of cases, with deleterious consequences for both value maximization and distribution.[228] We are less certain that a still-flexible moratorium will effectively put the brakes on breathless proposals for quick sales. It would continue to put courts in the impossible position of calling the bluff of advocates for a speedy sale.[229] After all, in some subset of cases, the debtor really is a melting ice cube. In such circumstances, requiring an extensive process—proving necessity by clear and convincing evidence as well as all of the new § 363x requirements up front—may undercut the value-preservation goal. Similarly, the sixty-day limit can be manipulated by altering the timing of the request. For example, a short-fuse request for an all-asset sale made on the forty-fifth day after filing may raise many of the same issues as a similar motion made earlier in the case. Thus, we continue to see our *Ice Cube Bonds* proposal as more likely to bolster the objectives of Chapter 11.[230]

At the same time, the Report's proposed abolition of court orders dismissing Chapter 11 cases with various strings attached, often called structured dismissal orders. This is consistent with our Part I analysis. Indeed, the Supreme Court recently held that the Bankruptcy Code does not permit dismissal orders that contravene bankruptcy's priority rules without consent of the affected parties.[231] The Supreme Court did not, however, ban all structured dismissals. Especially when coupled with all-asset sales, structured dismissals may enhance the leverage of a dominant secured creditor to capture enterprise value to which it is not legally entitled.

225. ABI FINAL REPORT, *supra* note 6, at 83, 87.

226. *Id.* at 201.

227. *Id.* at 272 ("The Commissioners believed that the recommended principles for section 363x sales should render the use of structured dismissals unnecessary. Accordingly, the Commission recommended strict compliance with the Bankruptcy Code in terms of orders ending the Chapter 11 case.").

228. *Ice Cube Bonds*, *supra* note 21, at 895. Again, however, the overall frequency of Chapter 11 cases involving such sales should not be overstated. Westbrook, *supra* note 22, at 843 (in a sample of 2006 Chapter 11 filings, "[s]lightly less than thirty percent of the cases had *any* sales sufficiently important and out of the ordinary course to make an appearance in the court files" (emphasis in original)).

229. *Ice Cube Bonds*, *supra* note 21, at 886–89.

230. *Id.* at 926–35.

231. Czyzewski v. Jevic Holding Corp., 137 S. Ct. 973 (2017).

D. The "Redemption Option Value" Proposal and Its Limitations

Perhaps the most noteworthy portion of the Report is its proposal regarding redemption option value.[232] Consistent with our analysis in Part I, the redemption-option-value proposal is a remarkable and important recognition that even a creditor claiming a blanket lien on the debtor's assets does not own all of the enterprise value of a firm. According to the Report, plan confirmation should not deprive unsecured creditors of the value of an option on the future value of the firm. The option proposed by the Commission would be "in the money" if the business produces sufficient value to repay the secured creditor in full. The Report argues that this value should be protected through the creation of a redemption-option-preservation priority:[233]

> A distribution of redemption option value, if any, would be made to an immediately junior class to reflect the possibility that, between the plan effective date or sale order date and the third anniversary of the petition date (the "redemption period"), the value of the firm might have been sufficient to pay the senior class in full with interest and provide incremental value to such immediately junior class.[234]

We applaud this proposal for its recognition that a secured creditor asserting a blanket lien does not have a lien on the entire value of the firm. We are concerned, however, because it is premised on the single waterfall approach, and conflates asset-based and firm-based priority, ignoring the principle of Equitable Realization. If one accepts our analysis in Part I, then secured creditors' entitlements should be determined by reference to the value of assets that serve as collateral, not the going-concern value of the firm as a whole. Therefore the secured creditor's claim, and hence the strike price of the option, should be the value of the collateral on the effective date of the plan, not payment in full of the face amount of the secured creditor's debt.

Equitable Realization excludes from the secured creditor's entitlement the fruits of employees' post-petition labor, or increases in firm value due to operations rather than asset appreciation. As demonstrated in Part I, the Bankruptcy Code goes to great lengths to protect the secured creditor from being harmed by bankruptcy and gives the secured creditor the upside value on its assets, but only until they are disposed of during the case or under a plan. Section 1129(b)(2)(A), the back-end baseline, entitles the secured party to the value upon disposition of its pre-petition assets, or their appreciated value if still owned on the effective date of the plan.[235] The Code does not,

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232. *See* ABI FINAL REPORT, *supra* note 6, at 218 (describing the mechanics of the redemption-option-value proposal).

233. *Id.* (explaining the proposal). The proposal bears some similarity to option-preservation priority discussed earlier. Casey, *supra* note 6, at 764–65.

234. ABI FINAL REPORT, *supra* note 6, at 208 (emphasis omitted).

235. 11 U.S.C. § 1129(b) (2012).

however, allocate "going concern" or operations-based upside to an asset-based secured creditor.[236] As a consequence, the entire going-concern premium is, and should be, allocated to firm-based claimants, not the asset-based secured lender.[237]

The concept of redemption option value, therefore, gets it half right. It recognizes that, at any given moment in time, the value of an enterprise has two components: the current value of the firm (based on saleable-asset value or discounted cash flow) and the value of a bet that the value of the firm may increase in the future. This second element is sometimes called optionality or option value. Although it sometimes is shorthanded as upside, option value must also take into account the possibility that the value of the firm may go down and the option may be out of the money.

The Report is undoubtedly correct that redemption option value exists. This possibility can be quantified at the time of plan confirmation as the price of an option on the value of the firm.[238] A bankrupt company may return to health and be able to pay more of its creditors and debts. The Report overlooks, however, the existence of two forms of option value: asset-based (the chance that the value of encumbered assets may go up) and firm-based (the possibility that the value of the going-concern increment may increase). Under Equitable Realization, the secured creditor is entitled to asset-based but not firm-based option value. By allocating both asset-based and firm-based option value to the secured creditor, the Report sets the strike price of the redemption option too high—at the full amount of the secured creditor's debt.

Our disagreement with this approach goes to the heart of the "single waterfall" question. If there are two separate waterfalls, as we contend, then one must always ask: "How much of the firm's value is tied to assets, and how much to operations?" The Report's redemption option value proposal assumes that secured creditors encumber the whole firm's value, leaving only a sliver of this bankruptcy-created value for the estate.

This not only assumes that a blanket lien is possible, but also that the lien gives the secured creditor a priority claim to income from the debtor company's operations. Both assertions are inconsistent with the principles regarding timing and realization found in a careful reading of the Bankruptcy Code.

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236. *Supra* subparts I(C), (D) (discussing state-law baseline combined with restrictions that inhere in §§ 549, 551, and 552 of the Bankruptcy Code).

237. *Supra* subpart I(E) (describing bankruptcy premia).

238. Bank of Am. Nat'l Tr. & Sav. Ass'n v. 203 N. LaSalle St. P'ship, 526 U.S. 434, 455 (1999) (noting in dicta that equity securities of an insolvent company still trade at a positive value).

Although the Commission models its formulation on the absolute-priority rule,[239] the absolute-priority rule applies to unsecured claims and their relationship with equity interests, not asset-based claims. For secured claims, the Bankruptcy Code gives a different meaning to the term "fair and equitable."[240] As observed in *Ice Cube Bonds*, that entitlement does not establish a distributional priority with respect to the value of the firm.[241] By treating the secured creditor's rights as a senior claim to firm value and confusing asset-based priority with firm-based priority, the Report's redemption option priority proposal would give unsecured creditors considerably less than they should receive under current law.

Indeed, where the concept of redemption appears in the current Bankruptcy Code, the approach is more consistent with Part I of this Article than the Report. An individual Chapter 7 debtor may redeem abandoned personal property from the secured creditor's lien by paying the current market value of the asset rather than the entire debt.[242] Similarly, a Chapter 13 debtor can redeem most collateral by paying the stripped-down value of the lien in installments.[243]

To put it another way, the Commission does not sufficiently distinguish the redemption option from the other forms of bankruptcy-created value that are not asset-based and that the secured creditor does not own.[244] Bankruptcy-created value—the product of giving the firm breathing space to determine how to maximize the firm's value—is related to, but distinct from, option value itself. Bankruptcy-created value is value that is created by the various aspects of the bankruptcy process. Optionality is but one component of firm value that is preserved by Chapter 11—the value of a right to delay realization of the firm's value until some date in the future. Selling the firm or one's interest in the firm, however, shifts that option value to the purchaser.

Bankruptcy preserves the firm's value of this option by delaying realization and permits it to be allocated over a number of different time frames. During the case, option value is preserved for the estate by delaying Value Realization. Crucially, disposition of the firm, either by selling the firm

239. *See* 11 U.S.C. § 1129(b)(2)(B) (2012) (establishing the absolute-priority rule for unsecured claims).

240. *Id.* § 1129(b)(2)(A).

241. *Ice Cube Bonds*, *supra* note 21, at 921.

242. 11 U.S.C. § 722.

243. 11 U.S.C. § 1325(a)(4). The Bankruptcy Code contains exceptions to this rule, such as the "hanging paragraph" of § 1325(a), which exempts certain purchase money loans from this treatment, but the default position for the redemption price of a secured creditor's collateral is consistent across the Bankruptcy Code.

244. For example, if the value of the debtor is maximized via a going-concern sale, then the upside or optionality would be allocated to the purchaser. The purchase price should reflect the value of that upside. If creditors take stock as their distribution in a traditional reorganization, the option value stays with them as shareholders of the reorganized company. The redemption option value is part of the value of the firm.

or confirming a reorganization plan, allocates, but does not destroy, any future option value. The same can be said of disposition of an asset. A sale transfers the upside to the purchaser. The option is sold, not destroyed.

But different allocations of the upside can be built into any disposition. For example, selling the firm but taking part of the purchase price as stock leaves a portion of the upside with the seller. Reorganizing the firm through a plan of reorganization and distributing the firm's value as stock similarly allocates post-confirmation option value to the claimants who take their distribution in that form. Value is preserved in bankruptcy by keeping the firm in business or engaging in an otherwise value-maximizing disposition. But optionality is simply an incident of the going-concern premium and other forms of bankruptcy-created value. Valuing the possible options becomes an issue only when a party seeks to transfer or preserve the post-confirmation option value separately from the other value of the firm or assets.

This distinction is crucial to understanding how our analysis relates to the Commission's proposed option-preservation priority, as well as Anthony Casey's similar proposal, and Douglas Baird's proposal to use relative priority in nonconsensual Chapter 11 plans instead of absolute priority. All rest on the single waterfall approach that we reject. They are only necessary if one accepts that a senior secured lender can hold a blanket lien on all firm value, and therefore owns all of the postbankruptcy upside until paid in full.[245] Our discussion above demonstrates that secured claims have no place in the hierarchical firm-value waterfall under current law. Instead, the secured creditor is entitled only to the value of the assets encumbered on the petition date and any appreciation on those assets until disposition. Upside from continued operation of the firm goes to unsecured creditors (including the secured creditor's deficiency claim).

In other words, the distinction between asset-based claims and firm-based claims, embodied in the Bankruptcy Code's protection of firm value for the bankruptcy estate based on the equities of the case, and Article 9's equitable tracing requirement, render the Baird, Casey, and Report proposals largely irrelevant where secured creditors are involved. The secured creditor's entitlement is based on assets that actually exist, not on a guess about the future.

To the extent unsecured creditors wish to preserve optionality for themselves post-reorganization, they can take their distribution in stock in the reorganized company. If they wish to cash out the option value, they can

245. We are opining neither on the utility of option-preservation priority in the event of disputes between unsecured creditors and equity holders, nor on whether relative or absolute priority are correct approaches to drawing that line. Our point is that the concept is inapposite where secured creditors are involved.

take their distribution as debt. Again, nothing is destroyed. It is simply allocated.[246]

For us, the redemption option is the tail on the dog.[247] If, as we argue, secured claims are realized on the disposition date or the effective date of the plan, then the key exercise is calculating the value of the secured creditor's existing collateral, not the hypothetical value of a bet on the future value of the firm. The rest, including the upside, belongs to the bankruptcy estate. Allocation of bankruptcy-created value, including firm-based option value, is a governance question. The firm-based claimants must decide how they wish to realize that value; the court need not value it.[248]

Thus, although the redemption-option-preservation-priority proposal reflects an important recognition that a firm's enterprise value is not inexorably collateral of secured creditors, the resulting proposed allocation of value reflects a profound shift in favor of the secured creditor relative to the current Bankruptcy Code, and a crabbed view of unsecured-creditor entitlements.[249]

E. *Summary*

The ABI Chapter 11 Commission Report offers insight into the current operation of corporate bankruptcy and identifies serious problems in the current bankruptcy system, many of which coalesce around the theme of secured creditor overreach. Most of its proposals are consistent with our analysis and with Equitable Realization. Two places where the Report goes awry, however, are the value differential for calculating adequate protection and the redemption-option-preservation priority. They rest on continued conflation of asset-based and firm-based priority, and do not distinguish

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246. The absolute-priority rule currently embedded in 11 U.S.C. § 1129(b)(2)(B)(ii) potentially allocates option value to dissenting classes of unsecured claims at the expense of equity. The so-called "new value corollary" of the absolute-priority rule allows existing equity holders to purchase the equity of the reorganized firm under certain circumstances. *See* Bank of Am. Nat'l Tr. & Sav. Ass'n v. 203 N. LaSalle St. P'ship, 526 U.S. 434, 449 (1999) ("Although there is no literal reference to 'new value' in the phrase 'on account of such junior claim,' the phrase could arguably carry such an implication in modifying the prohibition against receipt by junior claimants of any interest under a plan while a senior class of unconsenting creditors goes less than fully paid." (quoting 11 U.S.C. § 1129(b)(2)(B)(ii))). *But see id.* at 458 (holding that "plans providing junior interest holders with exclusive opportunities free from competition and without benefit of market valuation fall within the prohibition of § 1129(b)(2)(B)(ii)").

247. *See supra* subsection I(E)(2)(d) (distinguishing optionality in discussion of bankruptcy premia).

248. For example, if the value of the debtor is maximized via a going-concern sale, then the upside or optionality would be allocated to the purchaser. The purchase price should reflect the value of that upside. If creditors take their distribution in stock in a traditional reorganization, the option value stays with them as shareholders of the reorganized company. The redemption option value is part of the value of the firm.

249. *See supra* notes 56–57 and accompanying text (explaining how the fair and equitable standard for confirmation of a Chapter 11 plan over the objection of dissenting secured claimants is explicitly asset-based as distinguished from the absolute-priority iteration for unsecured creditors).

Equitable Realization on the petition date from Value Realization upon disposition of the collateral. The result is a windfall to secured creditors to the detriment of other creditors and stakeholders, as well as to the Chapter 11 process.

Conclusion

The single waterfall metaphor has dominated both the theory and practice of Chapter 11 for much of the last twenty years. Practitioners have assumed that it exists, and academics have argued that it is desirable. Challenging both assumptions, we have argued that the Bankruptcy Code and Article 9 of the Uniform Commercial Code should be viewed as creating a dual waterfall that distinguishes asset-based claims of priority from claims to the value of the firm. We further argued that delayed realization of value in Chapter 11 requires the Code to manage the relationship between these two types of claims over time and does so using tracing rules, through the process we call Equitable Realization.

This Article derived the principle of Equitable Realization from the terms "fair and equitable," "equities of the case," and "equitable principles," as they are used in the Bankruptcy Code and Article 9. It explored the impact of these terms on secured creditors' entitlements and the allocation of an insolvent firm's going-concern value. In an exercise of purposive statutory interpretation, we merged a careful analysis of state law, as applied by modern courts, with a close reading of the Bankruptcy Code's timing rules for realization of the value of those state-law rights.

This analysis allowed us to explain how the Bankruptcy Code implements the equitable treatment of creditors over time in Chapter 11. We described a two-step process. Equitable Realization locks in the relative positions of creditors as of the petition date, taking an Equitable Snapshot that freezes the relationship between asset-based claims and those with claims against the estate more generally. Value Realization happens upon disposition of the collateral or the estate. The result is an inalienability rule: the debtor cannot use pre-petition security interests to encumber bankruptcy-created value beyond that which is specifically tied to collateral owned on the petition date.

We then argued that Equitable Realization vindicates well-recognized efficiency goals underlying commercial and corporate law: (1) limiting the ability of firms to externalize risk; (2) restraining certain investors from shifting the burden of risk within a firm; (3) reducing agency costs and encouraging value-maximizing governance within a firm; and (4) facilitating efficient monitoring of the firm's operations. Although the resulting inalienability rule may have countervailing costs, the burden of shifting the legal status quo always lies with those seeking legal change. We look forward to that conversation.

The final portion measured our analysis against the ABI Commission Report on the Reform of Chapter 11, and we found broad areas of agreement. Yet, our understanding of Equitable Realization led us to question the assumptions underlying the proposed option-preservation priority. Under our understanding of equitable value allocation, this proposal is unnecessary, given that option value already is included within the bankruptcy-created value allocated by the statute to firm-based claimants.

While our claims may seem technical, the implications of this Article are far reaching. A legal and normative mistake has dominated practice and the academy. A hierarchical capital structure, favoring early creditors over later, may make sense for financial creditors or single-asset firms. But when other firms head into a messy world to conduct business, all types of creditors of the operating entity should be able to assume that there will be capital available to pay their claims. The dual waterfall of Equitable Realization not only recognizes and preserves this objective, but has an important advantage over other proposals: it is already present under existing law, waiting to be recognized.

* * *

Risk and Anxiety: A Theory of Data-Breach Harms

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In lawsuits about data breaches, the issue of harm has confounded courts. Harm is central to whether plaintiffs have standing to sue in federal court and whether their legal claims are viable. Plaintiffs have argued that data breaches create a risk of future injury, such as identity theft, fraud, or damaged reputations, and that breaches cause them to experience anxiety about this risk. Courts have been reaching wildly inconsistent conclusions on the issue of harm, with most courts dismissing data-breach lawsuits for failure to allege harm. A sound and principled approach to harm has yet to emerge.

In the past five years, the U.S. Supreme Court has contributed to the confusion. In 2013, the Court, in Clapper v. Amnesty International, *concluded that fear and anxiety about surveillance—and the cost of taking measures to protect against it—were too speculative to satisfy the "injury in fact" requirement to warrant standing. This past term, the U.S. Supreme Court stated in* Spokeo v. Robins *that "intangible" injury, including the "risk" of injury, could be sufficient to establish harm. When does an increased risk of future injury and anxiety constitute harm? The answer remains unclear. Little progress has been made to harmonize this troubled body of law, and there is no coherent theory or approach.*

In this Article, we examine why courts have struggled to conceptualize harms caused by data breaches. The difficulty largely stems from the fact that data-breach harms are intangible, risk-oriented, and diffuse. Harms with these characteristics need not confound courts; the judicial system has been recognizing intangible, risk-oriented, and diffuse injuries in other areas of law. We argue that courts are far too dismissive of certain forms of data-breach harm and can and should find cognizable harms. We demonstrate how courts can

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assess risk and anxiety in a concrete and coherent way, drawing upon existing legal precedent.

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Introduction

Suppose that Company X fails to adequately secure its clients' personal data. Imagine the company knows that hackers previously accessed its system yet does nothing about it. This time, hackers have little difficulty accessing the company's computer network to steal sensitive personal data about thousands of individuals. In the hackers' hands are now the keys to those individuals' credit and bank accounts: Social Security numbers, birth dates, and financial information. The company's clients bring suit, seeking

compensation for their increased risk of identity theft, the money they spent monitoring credit activity, and the ensuing emotional distress.

The defining issue in this lawsuit will be harm. If plaintiffs bring suit in federal court, they will have to demonstrate that they suffered harm sufficient to establish Article III standing.[1] Beyond the hurdle of standing, plaintiffs will have to establish harm to recover under tort, contract, or other claims in both federal and state courts.

In the past two decades, plaintiffs in hundreds of cases have sought redress for data breaches caused by inadequate data security.[2] In most instances, there is evidence that the defendants failed to use reasonable care in securing plaintiffs' data. The majority of the cases, however, have not turned on whether the defendants were at fault. Instead, the cases have been bogged down with the issue of harm. No matter how derelict defendants might be with regard to security, no matter how much warning defendants have about prior hacks and breaches, if plaintiffs cannot show harm, they cannot succeed in their lawsuits.

The concept of harm stemming from a data breach has confounded the lower courts. There has been no consistent or coherent judicial approach to data-breach harms. More often than not, a plaintiff's increased risk of financial injury and anxiety is deemed insufficient to warrant recognition of harm,[3] even though the law has evolved in other areas to redress such injuries.

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1. Gladstone Realtors v. Village of Bellwood, 441 U.S. 91, 99 (1979). The issue of standing also comes up in state courts adjudicating data-breach claims. *See, e.g.*, Maglio v. Advocate Health & Hosps. Corp., 40 N.E.3d 746, 753–55 (Ill. App. Ct. 2015) (explaining that federal standing principles are similar to those in Illinois and in turn dismissing data-breach claims under Illinois law because the risk of identity theft and emotional distress did not amount to injury in fact sufficient to support standing).

2. *See* Sasha Romanosky et al., *Empirical Analysis of Data Breach Litigation*, 11 J. EMPIRICAL LEGAL STUD. 74, 93 (2014) (noting the 231 federal data-breach lawsuits from 2000–2011).

3. *See* Reilly v. Ceridian Corp., 664 F.3d 38, 40, 43 (3d Cir. 2011) (finding that increased risk of identity theft is too speculative a harm in a case involving the theft of personal data); Peters v. St. Joseph Servs. Corp., 74 F. Supp. 3d 847, 849–50, 854–55 (S.D. Tex. 2015) (same); Storm v. Paytime, Inc., 90 F. Supp. 3d 359, 366 (M.D. Pa. 2015) (same); *In re* Sci. Applications Int'l Corp. (SAIC) Backup Tape Data Theft Litig., 45 F. Supp. 3d 14, 25, 28 (D.D.C. 2014) (same); Polanco v. Omnicell, Inc., 988 F. Supp. 2d 451, 470–71 (D.N.J. 2013) (same). *But see* Galaria v. Nationwide Mut. Ins., 663 Fed. App'x 384, 388 (6th Cir. 2016) (recognizing that increased risk of identity theft and reasonably incurred mitigation costs to avoid future harm were sufficient for standing because hackers allegedly had stolen plaintiffs' information and the defendant offered free credit monitoring services to help consumers mitigate danger); Lewert v. P.F. Chang's China Bistro, Inc., 819 F.3d 963, 967, 969 (7th Cir. 2016) (concluding that there was a substantial risk of harm and mitigation costs to suffice as injury for standing); Krottner v. Starbucks Corp., 628 F.3d 1139, 1143 (9th Cir. 2010) (stating that increasing the future risk of harm can be sufficient for injury in fact); *In re* Home Depot Customer Data Sec. Breach Litig., No. 1:14-md-2583-TWT, 2016 WL 2897520, at *1, *3 (N.D. Ga. May 17, 2016) (finding harm to the plaintiffs (financial institutions) to warrant standing in a case concerning hackers' breach of Home Depot's databases because the plaintiffs incurred costs to avoid future harm including costs to cancel and reissue cards, costs to investigate fraudulent charges, costs for customer fraud monitoring, and costs due to lost interest and fees due to reduced card usage).

The courts' refusal to recognize data-breach harms is, in no small part, due to confusion created by the Supreme Court decision in *Clapper v. Amnesty International USA*.[4] In *Clapper*, attorneys, journalists, and human-rights activists challenged the constitutionality of a provision of the Foreign Intelligence Surveillance Act (FISA), which expanded the government's authority to conduct surveillance over suspected terrorists.[5] Because the plaintiffs' work involved communicating with foreign individuals who might be deemed suspicious by the government, the plaintiffs believed that their communications would be monitored.[6] They spent significant money and time protecting the confidentiality of these communications, such as traveling abroad to speak with clients rather than talking to them on the phone.[7]

As the Court in *Clapper* explained, standing requires plaintiffs to have suffered an "injury in fact"—injury that is concrete, particularized, and actual or imminent (as opposed to hypothetically possible).[8] The Court acknowledged that the plaintiffs' theory of harm might be correct, but found that there was no proof that surveillance had, in fact, happened or was about to occur (or even that there was a substantial risk of its occurring in the future).[9] The proof sought by the Court was absent because, according to the government, the surveillance program had to be kept secret.[10] Thus, because the plaintiffs had no definitive way to find out about the surveillance until Edward Snowden forced the government's hand months later, the harm was merely conjectural.[11] The Court held that the plaintiffs lacked standing to sue because they could not show that the actual injury of government surveillance was underway or "certainly impending."[12] The plaintiffs' case was remanded because the plaintiffs could only speculate about whether their communications were under surveillance.[13]

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4. 568 U.S. 398 (2013).

5. *Id.* at 401, 427.

6. *Id.* at 401.

7. *Id.* at 406–07. For a thoughtful analysis of *Clapper*, see Neil M. Richards, *The Dangers of Surveillance*, 126 HARV. L. REV. 1934, 1935, 1963 (2013) (criticizing the Supreme Court's decision in *Clapper* and arguing for the adoption of principles to guide the future development of surveillance law in order to balance the costs and benefits of government surveillance).

8. *Clapper*, 568 U.S. at 409.

9. *Id.* at 421–22.

10. Brief for Petitioner at 35, Clapper v. Amnesty Int'l USA, 568 U.S. 398 (2013) (No. 11-1025); *see Clapper*, 568 U.S. at 412 & n.4 (insisting the burden to plead specific facts remained on plaintiffs despite the secrecy of those facts).

11. *See id.* at 412 ("Moreover, because § 1881a at most *authorizes*—but does not *mandate* or *direct*—the surveillance that respondents fear, respondents' allegations are necessarily conjectural.").

12. *Id.* at 422.

13. The *Clapper* case comes with a dose of cruel irony. Although the government diminished the plaintiffs' concerns about surveillance by arguing that the plaintiffs could not prove that they were subject to it, the government knew the answer all along, and because the program was classified as a state secret, the plaintiffs did not and could not know for sure that they were being subjected to surveillance. *See* Seth F. Kreimer, *"Spooky Action at a Distance": Intangible Injury in*

Although the *Clapper* Court focused on the fact that the plaintiffs could not show that government surveillance was imminent or certainly impending, it stated in a footnote that "[i]n some instances," a "substantial risk that the harm will occur" would be sufficient to confer standing upon a plaintiff.[14] The Court failed to elaborate more on this point.

In decision after decision, courts have relied on *Clapper* to dismiss data-breach cases. For example, in *Reilly v. Ceridian Corp.*,[15] the case upon which the opening hypothetical is based, the Third Circuit held that the plaintiffs did not suffer harm because their "conjectures" about being victimized by identity theft or fraud had not yet "come true."[16] Plaintiffs' concerns about increased risk of identity theft and their outlay of money to protect against such theft were based "on entirely speculative, future actions of an unknown third-party."[17] Because thieves had not yet misused the plaintiffs' data, there was no "actual" harm to warrant standing or redress.[18] The court summarily rejected the plaintiffs' emotional distress claims for lack of standing.[19]

Much like *Reilly*, the majority of courts have ruled that injuries from data breaches are too speculative and hypothetical, too reliant on subjective fears and anxieties, and not concrete or significant enough to warrant recognition.[20] Courts have held that the "mere increased risk of identity theft or identity fraud alone does not constitute a cognizable injury."[21] They have refused to find harm even in cases where hackers used malware to steal personal data and there was evidence of misuse of the data.[22] Claims have

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Fact in the Information Age, 18 U. PA. J. CONST. L. 745, 757 (2016) (describing the government's strategy to avoid public judicial review of secret surveillance by combining secrecy with justiciability and standing).

14. *Clapper*, 568 U.S. at 414–15 n.5. In *Susan B. Anthony List v. Driehaus*, the Court, quoting *Clapper*, held that "[a]n allegation of future injury may suffice if the threatened injury is 'certainly impending,' or there is a '"substantial risk" that the harm will occur.'" 134 S. Ct. 2334, 2341 (2014).

15. 664 F.3d 38 (3d Cir. 2011).

16. *Id.* at 42.

17. *Id.*

18. *Id.* at 43.

19. *Id.* at 46.

20. *See, e.g.*, Peters v. St. Joseph Servs. Corp., 74 F. Supp. 3d 847, 854 (S.D. Tex. 2015) (holding that the increased risk of future identity theft or fraud stemming from a data breach was not sufficient to constitute imminent injury); Storm v. Paytime, Inc., 90 F. Supp. 3d 359, 363, 365–66 (M.D. Pa. 2015) (reasserting *Reilly* by agreeing that increasing the risk of identity theft does not suffice as injury); *In re* Horizon Healthcare Servs., Inc. Data Breach Litig., No. 13-7418 (CCC), 2015 WL 1472483, at *1, *5–6 (D.N.J. Mar. 31, 2015), *vacated*, 846 F.3d 625 (3d Cir. 2017) (holding that plaintiffs did not have standing in a case alleging imminent risk and harm of fraud stemming from the theft of several computers containing personal information that were held by defendants; plaintiffs were not able to show actual harm and could only speculate that future fraud may occur).

21. Green v. eBay Inc., No. 14-1688, 2015 WL 2066531, at *3 (E.D. La. May 4, 2015).

22. *E.g.*, Bradix v. Advance Stores Co., No. 16-4902, 2016 WL 3617717, *1–4 (E.D. La. July 6, 2016) (dismissing claims for lack of injury in fact in a case where the plaintiff alleged that one of defendant's employees gave employees' names, Social Security numbers, and gross wages to a hacker who used the information in unauthorized attempts to secure vehicle financing that appeared

been summarily dismissed on the grounds that plaintiffs have not suffered identity theft or could not show an imminent threat of financial injury.[23]

Some courts, however, have pushed back against the trend and have found harm. The Sixth, Seventh, and Ninth Circuits have found standing for victims of data breaches based on the increased risk of identity theft.[24] In those cases, plaintiffs were found to have suffered actual, not hypothetical, injuries where hackers stole personal data from inadequately secured systems.[25] In *Remijas v. Neiman Marcus Group*, the Seventh Circuit reasoned, "Why else would hackers break into a store's database and steal consumers' private information? Presumably, the purpose of the hack is, sooner or later, to make fraudulent charges or assume those consumers' identities."[26] Courts have also held that plaintiffs faced a substantial risk of harm, sufficient to support standing, where the stolen data was posted on file-sharing websites for identity thieves.[27]

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on the plaintiff's credit report because there was no proof that the attempts at fraud damaged the plaintiff's credit score); *In re* SuperValu, Inc., Customer Data Sec. Breach Litig., No. 14-MD-2586, 2016 WL 81792 (D. Minn. Jan. 7, 2016) (finding no harm to support standing even though plaintiffs alleged that defendants released malicious software and disclosed payment card names and PINs because the only alleged misuse of personal data was a single unauthorized charge on one plaintiff's credit card).

23. *E.g.*, *In re* Zappos.com, Inc., Customer Data Sec. Breach Litig., 108 F. Supp. 3d 949, 958–59 (D. Nev. 2015) (declining to find standing where partial credit card numbers of 24 million customers were stolen because there were no allegations of misuse or unauthorized purchases); *Storm*, 90 F. Supp. 3d at 366 (finding no standing because the plaintiffs did not allege that they "actually suffered any form of identity theft as a result of the data breach," even though hackers had breached a payroll company's computer system and accessed confidential, personal information).

24. Galaria v. Nationwide Mut. Ins., 663 F. App'x 384, 385–86 (6th Cir. 2016); Remijas v. Neiman Marcus Grp., 794 F.3d 688, 693–94 (7th Cir. 2015); Krottner v. Starbucks Corp., 628 F.3d 1139, 1140 (9th Cir. 2010); *In re* Target Corp. Customer Data Sec. Breach Litig., 66 F. Supp. 3d 1154, 1159 (D. Minn. 2014).

25. *See Galaria*, 663 F. App'x at 385–86 (holding that substantial risk of harm, coupled with reasonably incurred mitigation costs, supported standing in a data-breach case because theft of personal data by ill-intentioned criminals placed them at continuing, increased risk of fraud and identity theft and the plaintiff suffered three unauthorized attempts to open credit cards in his name); *Remijas*, 794 F.3d at 693–94 (holding that the plaintiffs had standing to sue in the wake of breach even though they had not experienced fraudulent charges on their credit cards because those plaintiffs knew from the fact that other plaintiffs' cards had been used fraudulently that their personal information had been stolen by individuals who intended to misuse it); *Krottner*, 628 F.3d at 1143 (holding increased risk of identity theft constituted an injury in fact where someone had attempted to open a bank account using stolen personal data because plaintiffs had alleged a "credible threat of real and immediate harm stemming from the theft of the laptop" with the unencrypted names, addresses, and Social Security numbers of 97,000 employees); *In re Target Corp.*, 66 F. Supp. 3d at 1157–59 (holding that unlawful charges, restricted or blocked access to bank accounts, inability to pay bills, and late payment charges or new card fees incurred by the plaintiffs constituted injuries in fact in the wake of the theft of credit card and personal data of 110 million customers).

26. *Remijas*, 794 F.3d at 693.

27. *E.g.*, Corona v. Sony Pictures Entm't, Inc., No. 14-CV-09600, 2015 WL 3916744, at *3 (C.D. Cal. June 15, 2017) (holding allegations that stolen data had been posted on file-sharing websites, alongside allegations that the data had been used by actors to send threatening emails, was "alone sufficient" to establish standing); *see also Galaria*, 663 F. App'x at 385–86 (finding standing

Despite these decisions, the weight of authority has leaned against finding harm. Data-breach lawsuits remained an area of unease, with courts struggling to develop a consistent and coherent approach. In data-breach cases, the nature of the injury has seemingly befuddled the courts.

In 2016, the U.S. Supreme Court in *Spokeo, Inc. v. Robins*[28] attempted to clarify the harm required for standing when injuries result from the mishandling of personal data. Yet far from providing guidance, the opinion fostered even more confusion about informational harms. In *Spokeo*, the plaintiff alleged that the defendant, a "people search engine," violated the federal Fair Credit Reporting Act (FCRA) when it published false information about him.[29] The defendant's dossier asserted that the plaintiff was wealthy, married with children, and worked in a professional field though he was none of those things.[30] The plaintiff alleged that the inaccuracies in the defendant's dossier damaged his employment chances by suggesting that he was overqualified and that he might be unwilling to relocate because of responsibilities to his nonexistent family.[31] The district court found that the plaintiff lacked standing to sue under Article III because the alleged injury—the defendant's publication of inaccurate information—was not an injury in fact.[32]

After the Ninth Circuit reinstated the plaintiff's case on the grounds that an inaccurate credit report, allegedly violating a statutory right, amounted to a particularized injury sufficient to support standing,[33] the Supreme Court granted the defendant's writ for certiorari.[34] In an opinion authored by Justice Alito, the Court instructed the Ninth Circuit to reconsider the standing question. The Court declared that the harm required for standing must be "concrete," yet it suggested that "intangible harm," and even the "risk" of harm, could be sufficient to establish a concrete harm if intangible injury has a "close relationship to a harm that has traditionally been regarded as providing a basis for a lawsuit in English or American courts."[35]

The Court failed to elaborate on how all this added up. It said nothing about the relationship between the concreteness of harm and the need for at least a substantial risk of harm as discussed in *Clapper*. When will increased risk of injury constitute a "substantial risk of harm"? Why are some

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where plaintiffs alleged, among other things, that an "illicit international market for stolen data" exists).

28. 136 S. Ct. 1540 (2016).

29. *Id.* at 1544.

30. *Id.* at 1546.

31. *Id.* at 1556 (Ginsburg, J., dissenting).

32. *Id.* at 1546 (majority opinion).

33. Robins v. Spokeo, Inc., 742 F.3d 409, 411–14 (9th Cir. 2014), *vacated* 136 S. Ct. 1540 (2016).

34. *Spokeo*, 136 S. Ct. at 1546.

35. *Id.* at 1549.

intangible injuries sufficient for standing while others are not? *Spokeo* did little to clear up the confusion about harms related to the mishandling of personal data.

Clapper and *Spokeo* have led to confusion about how harms involving personal data should be conceptualized. To many judges and policymakers, recognizing data-breach harms is akin to attempting to tap dance on quicksand, with the safest approach being to retreat to the safety of the most traditional notions of harm. Unfortunately, public conversation about data-breach harms rarely delves into the muddy conceptual waters. With some noted exceptions, scholarship has not given the issue sufficient attention.[36] Ryan Calo has thoughtfully laid out historical and conceptual support for treating anxiety as privacy harm.[37] In our view, anxiety and risk, together and alone, deserve recognition as compensable harms.

This issue cries out for attention. The number of people affected by data breaches continues to rise as companies collect more and more personal data in inadequately secured data reservoirs.[38] Risk and anxiety are injuries in the

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36. Ryan Calo has done theoretically rich work on privacy harm, as has Paul Ohm. *See, e.g.*, M. Ryan Calo, *The Boundaries of Privacy Harm*, 86 IND. L.J. 1131, 1133 (2011) [hereinafter *Boundaries*] (making the case that the boundaries of privacy harms can be distilled to objective harms and subjective harms); Ryan Calo, *Privacy Harm Exceptionalism*, 12 J. TELECOMM. & HIGH TECH. L. 361, 361, 364 (2014) [hereinafter *Exceptionalism*] (arguing that courts have required litigants to move mountains to prove harm resulting from privacy violations unlike countless other areas where redress is required for negative externalities imposed on individuals); Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization*, 57 UCLA L. REV. 1701, 1703–04 (2010) (asserting that privacy law is built around the mistaken principle that anonymized data cannot easily be "deanonymized" and that, accordingly, people are afforded much less privacy than they assume); Paul Ohm, *Sensitive Information*, 88 S. CAL. L. REV. 1125, 1196 (2015). Our previous work has tackled the issue as well. *See, e.g.*, DANIEL J. SOLOVE, UNDERSTANDING PRIVACY 8–9 (2008) (introducing a new theory of privacy that abandons the traditional way of conceptualizing privacy); Danielle Keats Citron, *Mainstreaming Privacy Torts*, 98 CALIF. L. REV. 1805, 1831 (2010) [hereinafter *Mainstreaming*] (contending that courts should invoke established tort remedies to address unwanted intrusions and disclosure of personal information instead of creating new privacy torts); Danielle Keats Citron, *Reservoirs of Danger: The Evolution of Public and Private Law at the Dawn of the Information Age*, 80 S. CAL. L. REV. 241, 243–45 (2007) [hereinafter *Reservoirs*].

37. Calo, *Boundaries*, *supra* note 35, at 1144–48; Calo, *Exceptionalism*, *supra* note 35, at 362–63. Calo argues that privacy harms have an objective component, which involves unanticipated or coerced use of personal information to an individual's disadvantage, and a subjective one, which involves the unwanted perception of observation. Calo, *Boundaries*, *supra* note 35, at 1144, 1148. Calo's framework recognizes anxiety suffered in the wake of a data breach as cognizable (subjective) harm, but does not recognize increased risk of identity theft and fraud as a cognizable (objective) harm. *Id.* at 1156.

38. *See* Lily Hay Newman, *If You Want to Stop Big Data Breaches, Start with Databases*, WIRED (Mar. 29, 2017), https://www.wired.com/2017/03/want-stop-big-data-breaches-start-databases/ [https://perma.cc/7WS2-MVEB] (observing that data breaches often result from databases "with outdated and weak default security configurations"); *At Mid-Year, U.S. Data Breaches Increase at Record Pace*, IDENTITY THEFT RESOURCE CTR. (July 18, 2017), http://www.idtheftcenter.org/Press-Releases/2017-mid-year-data-breach-report-press-release [https://perma.cc/3F9H-CZV2] (reporting that in the first half of 2017, data breaches reached a half-year record high).

here and now. Victims of data breaches have an increased risk of identity theft, fraud, and reputational damage. Once victims learn about breaches, they may be chilled from engaging in activities that depend on good credit, like house- and job-hunting. Data-breach victims might decline to search for a new home or employment since there is an increased chance that lenders or employers will find their credit reports marred by theft.[39] They face an increased chance of being preyed upon by blackmailers, extortionists, and fraudsters promising quick fixes in exchange for data or money.[40] Emotional distress is a crucial aspect of the suffering. Knowing that thieves may be using one's personal data for criminal ends can produce significant anxiety. Because companies do not have to internalize these negative externalities borne by individuals, the number of data breaches continues to grow.[41] Data breaches have become an epic problem.

In this Article, we focus on data-breach harms. We explore why courts have struggled with the issue, and we offer an approach to address data-breach harms that has roots in existing law. In what follows, we explore the nature of data-breach harms and demonstrate how the law is far from closed off to recognizing them. We show that there are ample conceptual foundations in the law to address risk and anxiety and thus to recognize data-breach harms. In some areas, the law has been developing gingerly in the direction of recognizing concepts helpful to recognizing data-breach harms; in other areas of the law, such concepts are widely accepted yet remain sequestered from similar kinds of harm in other contexts.

The past century has witnessed great advances in how the law deals with risk and anxiety. Risk is readily addressed, quantified, and factored into business decisions. Despite this progress, many courts in data-breach cases seem to freeze in the headlights and find risk too difficult to assess. Ironically, the very companies being sued for data breaches make high-stakes decisions about cyber security based upon an analysis of risk. Indeed, in areas of law beyond data-breach cases, courts have developed robust and concrete

39. *See* Ron Lieber, *Why the Equifax Breach Stings So Bad*, N.Y. TIMES (Sept. 22, 2017), https://www.nytimes.com/2017/09/22/your-money/equifax-breach.html [https://perma.cc/AQ57-REQA] (stating that home loan officers and employers check credit scores and bad credit scores will likely yield rejections from both).

40. Sarah Perez, *Scammers Now Targeting Anthem Data Breach Victims Via Email and Phone*, TECHCRUNCH (Feb. 9, 2015), https://techcrunch.com/2015/02/09/scammers-now-targeting-anthem-data-breach-victims-via-email-and-phone/ [https://perma.cc/3Q3V-8XL9].

41. *See* IDENTITY THEFT RESOURCE CTR., *supra* note 38 (reporting on the record increase in data breaches in recent years); Benjamin Dean, *Sorry Consumers, Companies Have Little Incentive to Invest in Better Cybersecurity*, QUARTZ (Mar. 5, 2015), https://qz.com/356274/cybersecurity-breaches-hurt-consumers-companies-not-so-much/ [https://perma.cc/6BH7-Z4GW] (arguing that private companies lack incentive to invest in information security because other parties typically bear the costs resulting from data breaches).

understandings of risk.[42] Sufficient foundations in law exist for courts to assess increased risk of harm in data-breach cases.

Anxiety is also readily dismissed on the grounds that it is too speculative and insubstantial to serve as a basis of cognizable harm in data-breach cases.[43] In other contexts, however, courts routinely accept various forms of emotional distress, including anxiety, as sufficient harm.[44] Indeed, in some areas, the issue of harm is not even discussed in most cases and is rarely an issue on appeal.[45] For example, the privacy torts, recognized in the vast majority of states, allow plaintiffs to recover for the disclosure of private information or the improper intrusion into private matters resulting in emotional distress if the defendant's conduct is "highly offensive to the reasonable person."[46] The tort of breach of confidentiality recognizes emotional distress as a cognizable injury without the need to show highly offensive conduct.[47]

If a news media site published a nude photo or sex video of a person without consent, the plaintiff could prevail without establishing financial losses or physical injury because the gravamen of the harm is emotional distress.[48] Recently, the famous former pro wrester Hulk Hogan won $115 million in compensatory damages from media site Gawker for posting a sex video involving him without his consent. In cases involving data breaches or improper sharing of data, however, claims of emotional distress are dismissed as insufficient without even a whisper of the extensive body of law under the privacy torts that establishes otherwise. Why does the embarrassment over a sex video amount to $115 million worth of harm but the anxiety over the loss of personal data (such as a Social Security number and financial information) amount to no harm?

This Article has three parts: In Part I, we discuss the way that courts are currently deciding cases involving data-breach harms. In Part II, we explore why the law struggles with recognizing privacy and security violations as having caused cognizable harm. In Part III, we demonstrate that there are foundations in the law for a coherent recognition of harm based upon increased risk and anxiety. We build on this foundation, offering a framework for courts to assess risk and anxiety in a principled and consistent way.

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42. *See infra* section II(A)(2).

43. Dana Post, *Plaintiffs Alleging Only "Future Harm" Following a Data Breach Continue to Face a High Bar*, INT'L ASS'N OF PRIVACY PROF'LS (Jan. 28, 2014), https://iapp.org/news/a/plaintiffs-alleging-only-future-harm-following-a-data-breach-continue-to-fa/ [https://perma.cc/PX7K-KHZH].

44. *See infra* section II(B)(2).

45. *See* cases cited *infra* notes 181–93.

46. Citron, *Mainstreaming*, *supra* note 36, at 1827.

47. DAVID A. ELDER, PRIVACY TORTS § 3:8 (2002).

48. *See infra* section II(B)(2).

I. The Emerging Law of Data-Breach Harms

Harm is indispensable to most private law claims. Generally speaking, harm is understood as the impairment, or setback, of a person, entity, or society's interests.[49] People or entities suffer harm if they are in worse shape than they would be in had the activity not occurred.[50] Harm frustrates a person's ability to "fashion a life . . . that is distinctively and authentically hers."[51] Harm can involve the impairment of a person's interest in physical integrity, "intellectual acuity, emotional stability, the absence of groundless anxieties and resentments, the capacity to engage normally in social intercourse . . . a tolerable social and physical environment, and a certain amount of freedom from interference and coercion."[52]

A legally cognizable harm is harm that the law recognizes as worthy of redress, deterrence, or punishment.[53] Reasonable foreseeability of harm is a fundamental principle of much of private law.[54] Plaintiffs must prove harm even if the defendant indisputably acted wrongly and violated the law. In tort suits, plaintiffs must prove that they were injured by the defendant's actions. In *The Common Law*, Oliver Wendell Holmes identified harm as the evil against which tort law was directed.[55] Regardless of whether the defendant acted negligently, recklessly, or intentionally—no matter how wrongful the defendant's conduct may have been—if harm is not proven, then plaintiffs cannot obtain relief.[56] To be sure, legislation sometimes permits statutory damages or includes liquidated damages provisions, which permit redress

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49. JOEL FEINBERG, HARM TO OTHERS: THE MORAL LIMITS OF CRIMINAL LAW 34 (1984) (explaining that harm involves the thwarting, setting back, or defeating of a person or entity's interest). Competing accounts of harm argue that harm involves events that are bad to suffer or impose conditions that impair agency. *Id.*

50. JOEL FEINBERG, *Wrongful Life and the Counterfactual Element in Harming*, *in* FREEDOM & FULFILLMENT: PHILOSOPHICAL ESSAYS 3, 4 (1992); *see* Stephen Perry, *Harm, History, and Counterfactuals*, 40 SAN DIEGO L. REV. 1283, 1292 (2003) (exploring a concept of harm as a "historical worsening," which may involve a subsequent counterfactual analysis).

51. Seana Valentine Shiffrin, *Wrongful Life, Procreative Responsibility, and the Significance of Harm*, 5 LEGAL THEORY 117, 123–24 (1999).

52. FEINBERG, *supra* note 49, at 37.

53. As Joel Feinberg explains, harms may involve invasions or setbacks to interests but not all invasions of interests are worthy of law's attention. FEINBERG, *supra* note 48, at 34–35. Law may ignore the wrongful behavior causing harm because the defendant acted justifiably or the targeted individual had no right to expect that his interests be protected. *Id.*

54. Gregory C. Keating, *When is Emotional Distress Harm?*, *in* TORT LAW: CHALLENGING ORTHODOXY 273, 273 (Stephen G.A. Pitel et al. eds., 2013).

55. *See* OLIVER WENDELL HOLMES, THE COMMON LAW 64 (Mark DeWolfe Howe ed., 1963) ("The business of the law of torts is to fix the dividing lines between those cases in which a man is liable for harm which he has done, and those in which he is not."); *see also* Thomas C. Grey, *Accidental Torts*, 54 VAND. L. REV. 1225, 1272 (2001) (exploring Holmes's harm-based approach).

56. In certain circumstances, there may be distinct criminal laws and regulatory enforcement that would punish the defendant. In the absence of such penalties, the defendant can engage in the wrongdoing and violate the law without suffering any penalty.

without additional showings of harm.[57] The harm is understood as the interference with the right recognized in the statute, so long as the plaintiff has suffered some setback to tangible or intangible interests.[58]

Beyond the substance of private law claims, federal courts require that plaintiffs have standing to bring suit in accord with Article III of the U.S. Constitution. Standing doctrine requires that plaintiffs allege an injury in fact.[59] The injury must be concrete, particularized, and "actual or imminent, not conjectural or hypothetical."[60] If a plaintiff lacks standing to bring a claim, a federal court cannot hear it.[61]

Although the requirements for standing and substantive causes of action are different, the issue of harm that undergirds both is strikingly similar. In most cases, the way courts think about harm for standing is nearly identical to the way courts approach harm in substantive claims. We focus on harm because it is central to the jurisprudence of private law claims.

No matter whether harm is raised for the purposes of standing or determining the cognizability of private claims, harm drives the way courts think about data-breach cases, most often resulting in their dismissal early in the litigation. Courts have found a lack of injury in fact to support standing or have concluded that there is no harm caused by various torts or other causes of action. In this Part, we examine how courts have conceptualized harm in their rejection of these claims.

A. *Judicial Approaches to Data-Breach Harms*

Data breaches usually involve various types of personal data, such as financial account information, driver's license numbers, biometric markers, and Social Security numbers. The Office of Policy Management (OPM) breach leaked people's fingerprints, background check information, and

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57. Copyright law is a prime example of statutory damages without harm. *See* 17 U.S.C. § 504(c)(1) (2012) (stating that the copyright owner may at any time before a final judgment recover "an award of statutory damages for all infringements involved in the action" instead of "actual damages and profits").

58. *See* Spokeo v. Robins, 136 S. Ct. 1540, 1549 (2016) (explaining that concrete injuries may be both tangible and intangible, and that "[i]n determining whether an intangible harm constitutes injury in fact, both history and the judgment of Congress play important roles"). Some statutes like the Privacy Act of 1974 require an additional showing of harm for individuals to bring suit. *See* NASA v. Nelson, 131 S. Ct. 746, 763 (2011) (rejecting a claim under the act where plaintiffs alleged only a possibility of harm). Similarly, some state Unfair and Deceptive Practice acts (UDPA) permit consumers to seek compensation for losses caused by unfair and deceptive commercial practices only if those practices result in injury. *See* Danielle Keats Citron, *The Privacy Policymaking of State Attorneys General*, 92 NOTRE DAME L. REV. 747, 798 (2016) ("[P]rivate UDAP claims are routinely dismissed due to a lack of an 'injury in fact' sufficient to support a finding of standing or cognizable harms, or due to the economic loss rule."). Because private UDAP claims require a showing of harm—whether or not statutes so require—courts routinely dismiss them.

59. Friends of the Earth Inc. v. Laidlaw Envtl. Servs. (TOC), Inc., 528 U.S. 167, 180 (2000).

60. *Id.*

61. Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992).

analyses of security risks.[62] The Ashley Madison breach released information about people's extramarital affairs.[63] The Sony breach involved employee email.[64] The Target breach resulted in the leaking of credit card information, bank account numbers, and other financial data.[65] Other breaches result in the disclosure of passwords, children's information, location data, and medical records.

Plaintiffs in data-breach cases have pursued a number of causes of action, including negligence, privacy torts, and breach of fiduciary duty.[66] Other claims assert violations of state unfair and deceptive commercial acts and practice statutes (UDAP laws), state data security laws, the federal Privacy Act, and the federal Fair Credit Reporting Act (FCRA).[67] In a study of 230 data-breach lawsuits between 2004 and 2014, plaintiffs brought more than eighty-six different causes of action.[68]

Data-breach cases are often filed in federal court or removed from state court under the federal Class Action Fairness Act (CAFA).[69] Under CAFA, class actions can be removed to federal court for state-law claims exceeding $5 million where at least one member of the putative class and one defendant reside in different states.[70] At the federal level, harm thus must often be established twice—first to make it past the hurdle of standing and second to satisfy the elements of various causes of action.

Although plaintiffs advance a number of theories of harm, at bottom, their claims are based on three overarching theories: (1) data breaches create a risk of future injury, (2) plaintiffs take preventative measures to reduce the

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62. Kim Zetter, *The Massive OPM Hack Actually Hit 21 Million People*, WIRED (July 9, 2015), http://www.wired.com/2015/07/massive-opm-hack-actually-affected-25-million/ [https://perma.cc/CK7S-EWBA]; Kim Zetter & Andy Greenberg, *Why OPM Is A Security and Privacy Debacle*, WIRED (June 11, 2015) http://www.wired.com/2015/06/opm-breach-security-privacy-debacle/ [https://perma.cc/PUB3-QJHS].

63. Danielle Keats Citron & Maram Salaheldin, *Leave the Cheaters in Peace: If You Poke Around the Ashley Madison Data, You're Aiding and Abetting the Hackers*, N.Y. DAILY NEWS (Aug. 24, 2015), http://www.nydailynews.com/opinion/citron-salaheldin-leave-cheaters-peace-article-1.2333852 [https://perma.cc/2R76-F69Y].

64. Kim Zetter, *Sony Got Hacked Hard: What We Know and Don't Know So Far*, WIRED (Dec. 3, 2014), http://www.wired.com/2014/12/sony-hack-what-we-know/ [https://perma.cc/9K6N-SJKE].

65. Jim Finkle & David Henry, *Exclusive: Target Hackers Stole Encrypted Bank PINs - Source*, REUTERS (Dec. 24, 2013), https://www.reuters.com/article/us-target-databreach/exclusive-target-hackers-stole-encrypted-bank-pins-source-idUSBRE9BN0L220131225 [https://perma.cc/G3VZ-6RX2]; Kim Zetter, *Target Admits Massive Credit Card Breach: 40 Million Affected*, WIRED (Dec. 19, 2013), https://www.wired.com/2013/12/target-hack-hits-40-million/ [https://perma.cc/C6CJ-DY26].

66. Romanosky et al., *supra* note 2, at 100, 101 fig.7.

67. *Id.*

68. *Id.* at 102.

69. Class Action Fairness Act of 2005, 28 U.S.C. § 1332(d) (2012).

70. *Id.* § 1332(d)(2)(A).

risk of injury, and (3) plaintiffs experience anxiety as a result of data breaches compromising their personal data.

1. Risk of Future Injury.—A common theory advanced by plaintiffs is that a data breach has increased their risk of future identity theft or fraud. The majority of courts reject that theory of harm. Plaintiffs' increased risk of identity theft is regarded as too speculative a harm even in cases where thieves allegedly stole personal data.[71] Courts view the increased risk of identity theft not as an "actual injury" but rather as "speculation of future harm."[72]

The trend is that if a person's personal data has not yet been used to commit identity theft or fraud, then courts find that plaintiffs have suffered no harm.[73] In a case where plaintiffs' sensitive financial data was accessed by unknown third parties, a federal district court dismissed the class suit alleging increased risk of identity fraud because plaintiffs' "credit information and bank accounts look[ed] the same today as they did" before the breach.[74] Because hackers had not opened new bank accounts or credit cards in plaintiffs' names, there was no harm.[75] This was true in *Key v. DSW Inc.*,[76] where thieves gained access to the defendant shoe retailer's computer system containing the financial data of 96,000 customers.[77] The court found no harm because plaintiffs only alleged the possibility of being victimized "at some unidentified point in the indefinite future."[78]

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71. *See, e.g.*, Forbes v. Wells Fargo Bank, 420 F. Supp. 2d 1018, 1020–21 (D. Minn. 2006) (granting the defendant's motion for summary judgment in a case involving the theft of personal data from the defendant's system because there was no indication that the information on the stolen computers had been misused); Guin v. Brazos Higher Educ. Serv. Corp., No. Civ. 05-668 RHK/JSM, 2006 WL 288483, at *6 (D. Minn. Feb. 7, 2006) (holding that the plaintiff did not raise a genuine issue of material fact on injury because there was no evidence that the thieves accessed the allegedly stolen data).

72. *E.g.*, *In re* Barnes & Noble Pin Pad Litig., No. 12–cv–8617, 2013 WL 4759588, at *5 (N.D. Ill. Sept. 3, 2013) (dismissing a claim of harm based on increased risk of identity theft as speculation of future harm); Hammer v. Sam's East, Inc., No. 12–cv–2618–CM, 2013 WL 3746573, at *3 (D. Kan. July 16, 2013) ("[N]o court has found that a mere increased risk of identity theft or fraud constitutes an injury in fact for standing purposes without some alleged theft of personal data or security breach.").

73. *See, e.g.*, Reilly v. Ceridian Corp., 664 F.3d 38, 42 (3d Cir. 2011) (finding that plaintiffs do not suffer harm until their information is misused); Hammond v. Bank of N.Y., No. 08 Civ. 6060(RMB)(RLE), 2010 WL 2643307, at *8 (S.D.N.Y. June 25, 2010) (holding that plaintiffs lacked standing because they did not produce evidence to suggest their injuries were more than speculative); Bell v. Acxiom Corp., No. 4:06CV00485-WRW, 2006 WL 2850042, at *2 (E.D. Ark. Oct. 3, 2006) (dismissing the plaintiff's negligence claim in a case in which the defendant's databases that stored the plaintiff's personal data was hacked because being at a higher risk for fraud is insufficient harm to warrant standing).

74. Storm v. Paytime, Inc., 90 F. Supp. 3d 359, 366 (M.D. Pa. 2015).

75. *Id.*

76. 454 F. Supp. 2d 684 (S.D. Ohio 2006).

77. *Id.* at 685–86.

78. *Id.* at 690.

For some courts, there are simply too many contingencies at play, including the varied skills and intent of third-party hackers, to warrant a finding of harm.[79] In *Fernandez v. Leidos, Inc.*,[80] for instance, the district court dismissed the plaintiff's increased risk of harm in the wake of theft of backup tapes with his personal data because the capabilities and criminal intentions of the data thieves were speculative.[81]

Even when plaintiffs quantify the extent to which the data breach has elevated their risk of future harm, courts still find the harm too speculative to proceed.[82] In *In re Science Applications International Corp. (SAIC) Backup Tape Data Theft Litigation*,[83] the plaintiffs argued that they were nearly ten times more likely to be victims of identity theft.[84] The court found that the "degree by which the risk of harm has increased [wa]s irrelevant" because it failed to suggest that the harm was "certainly impending."[85] Another court sharpened the point, reasoning that identity theft was unlikely to happen in the future since the plaintiffs had not experienced fraud in the year after the breach.[86]

Although three Courts of Appeals have recognized increased risk of harm as cognizable, their cases involved allegations about the malicious purpose of hackers or actual or attempted misuses of leaked personal data.[87]

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79. *See, e.g.*, Reilly v. Ceridian Corp., 664 F.3d 38, 45 (3d Cir. 2011) ("Any damages that may occur [in data-breach cases with no allegations of misuse] are entirely speculative and dependent on the skill and intent of the hacker." (citation omitted)); Stapleton v. Tampa Bay Surgery Ctr., Inc., No. 8:17-cv-1540-T-30AEP, 2017 WL 3732102, at *3 (M.D. Fla. Aug. 30, 2017) ("While Plaintiffs argue that the mere fact that there was data breach is sufficient to constitute imminent injury, the Court cannot agree with that sort of *ipse dixit* reasoning. Something more than the mere data breach must be alleged before Plaintiffs can show they have a substantial risk of injury.").

80. 127 F. Supp. 3d 1078 (E.D. Cal. 2015).

81. *Id.* at 1086–88.

82. *E.g.*, Storm v. Paytime, Inc., 90 F. Supp. 3d 359, 366–67 (M.D. Pa. 2015) (rejecting an increased risk of identity theft as a basis for injury "[e]ven though Plaintiffs may indeed be at greater risk of identity theft" because plaintiffs did not "allege that any of them [had] become actual victims of identity theft"); *In re* Sci. Applications Int'l Corp. (SAIC) Backup Tape Data Theft Litig., 45 F. Supp. 3d 14, 28 (D.D.C. 2014) ("[I]ncreased risk of harm alone does not constitute an injury in fact.").

83. 45 F. Supp. 3d 14 (D.D.C. 2014).

84. *Id.* at 25.

85. *Id.*

86. *Storm*, 90 F. Supp. 3d at 366–67.

87. *See* Lewert v. P.F. Chang's China Bistro, Inc., 819 F.3d 963, 967 (7th Cir. 2016) (holding an "increased risk of fraudulent charges and identity theft" constituted an injury "concrete enough to support a lawsuit" because the data had already been stolen); Remijas v. Neiman Marcus Grp., 794 F.3d 688, 693 (7th Cir. 2015) ("[I]t is plausible to infer that the plaintiffs have shown a substantial risk of harm from the Neiman Marcus data breach. Why else would hackers break into a store's database and steal consumers' private information? Presumably, the purpose of the hack is, sooner or later, to make fraudulent charges or assume those consumers' identities."); Krottner v. Starbucks Corp., 628 F.3d 1139, 1142–43 (9th Cir. 2010) (holding an allegation of increased risk of identity theft was sufficient to confer standing when plaintiffs alleged a specific instance of an attempt to use stolen information to open a bank account).

In *Remijas*, the Seventh Circuit found the risk of harm "immediate and very real" because the data "was in the hands of hackers who used malware to breach the defendant's systems," and "fraudulent charges had shown up on the credit cards of some of its customers."[88] Moreover, the defendant "contacted members of the class to tell them they were at risk," which the court viewed as an admission that the plaintiffs had suffered nonspeculative harm.[89] In *Krottner v. Starbucks Corp.*,[90] the Ninth Circuit conferred standing on the plaintiffs because there was a subsequent attempt to open a bank account with personal data following the theft of a laptop.[91]

In most cases, however, increased risk of future injury fails as a theory of cognizable harm. The motives of those who obtained the data are unknown, and the plaintiffs have not yet suffered identity theft or other forms of financial fraud. It will not be clear who has the data or what they will do with it. Proving that the risk of harm is "certainly impending" is challenging because the harm from a data breach is not immediate. Even in many cases where hackers accessed personal data and their malicious motive can be inferred, courts have still refused to find harm.[92]

2. Preventative Measures to Protect Against Future Injury.—A related theory based on future risk of injury is that plaintiffs incur out-of-pocket costs to mitigate the risk of identity theft or fraud. They spend time and money placing alerts with credit reporting agencies and subscribing to identity-theft protection and credit-monitoring services. They devote time and money to monitor various accounts and go through the hassle of changing service providers to prevent further breaches. Plaintiffs contend that the cost of these measures presents a specific monetary value that can be associated with the

88. *Remijas*, 794 F.3d at 690, 693; *see also* Danielle Citron, *Some Good News for Data Breach Victims, for a Change*, FORBES (July 21, 2015), http://www.forbes.com/sites/daniellecitron/2015/07/21/some-good-news-for-data-breach-victims-for-a-change/ [https://perma.cc/DS3K-WY86] (explaining the significance of the *Remijas* court's injury-in-fact holding).

89. *Remijas*, 794 F.3d at 696; *accord Lewert*, 819 F.3d at 967 (finding credence in the risk of identity theft alleged by plaintiffs because the defendant had encouraged customers whose data had been stolen to monitor their credit reports). The Sixth Circuit's recent *Galaria* decision similarly pointed to the defendant's provision of credit monitoring as supporting increased risk of harm. Galaria v. Nationwide Mut. Ins., 663 Fed. App'x 384, 388–89 (6th Cir. 2016).

90. 628 F.3d 1139 (9th Cir. 2010).

91. *Id.* at 1142–43.

92. *See, e.g.*, Forbes v. Wells Fargo Bank, 420 F. Supp. 2d 1018, 1019, 1021 (D. Minn. 2006) (finding "no present injury or reasonably certain future injury to support damages for any alleged increased risk or harm" after theft of computers containing unencrypted customer information, including names, addresses, Social Security numbers, and account numbers); *see also* cases cited *supra* notes 71–86.

improper exposure of personal data. Courts, however, often reject this theory of harm, viewing plaintiffs' expenses as attempts to "manufacture" injury.[93]

The preventative-measure theory of harm typically fails because it is based upon the increased-risk-of-future-injury theory.[94] The concern of courts is that any plaintiff could find some measure to spend money to mitigate any risk. Said another way, monetary expenditures are viewed as too easy to manufacture. If such expenses were recognized as a cognizable injury, plaintiffs' lawyers would just instruct their clients to spend time and money on mitigation measures to create harm. Having rejected the risk of future injury, courts reject the expenditure of time and money in the present to turn the risk of future injury into more cognizable monetary losses.

3. Anxiety.—Plaintiffs have argued that data breaches caused them emotional distress (in particular, anxiety), but courts have rejected these claims nearly every time. As a federal district court in New Jersey noted, "[c]ourts across the country have rejected 'emotional distress' as a basis for" finding harm because plaintiffs' fear of identity theft or fraud is based on speculative conclusions that personal data will be used in a malicious way.[95]

According to one court, "[p]laintiffs' bald assertion of 'emotional distress including anxiety, fear of being victimized, harassment and embarrassment' is unexplained by any facts at all, let alone facts plausibly suggesting emotional injury."[96] One court stated, "even if [the risk of identity theft] is enough to engender some anxiety" and, "even if their fears are rational," plaintiffs lacked standing "based on risk alone."[97] As another court concluded: "Emotional distress in the wake of a security breach is insufficient to establish standing . . . ."[98] Unless there is an "imminent threat" of personal data being used in a "malicious way," plaintiffs' anxiety and emotional

93. *See, e.g.*, Clapper v. Amnesty Int'l USA, 568 U.S. 398, 422 (2013) ("We hold that respondents lack Article III standing because they cannot demonstrate that the future injury they purportedly fear is certainly impending and because they cannot manufacture standing by incurring costs in anticipation of non-imminent harm."); Polanco v. Omnicell, Inc., 988 F. Supp. 2d 451, 470–71 (D.N.J. 2013) ("Plaintiff's decision to [incur expenses] was based entirely on her speculative belief . . . . Therefore, her assertion is one that claims injury for expenses incurred in anticipation of future harm, and is not sufficient for purposes of establishing Article III standing.").

94. *See, e.g.*, Reilly v. Ceridian Corp., 664 F.3d 38, 46 (3d Cir. 2011) ("[T]hey prophylactically spent money to ease fears of future third-party criminality. Such misuse is only speculative—not imminent. The claim that they incurred expenses in anticipation of future harm, therefore, is not sufficient to confer standing.").

95. Crisafulli v. Ameritas Life Ins., No. 13–5937, 2015 WL 1969176, at *4 (D.N.J. Apr. 30, 2015).

96. *Id.*

97. *In re* Sci. Applications Int'l Corp. (SAIC) Backup Tape Data Theft Litig., 45 F. Supp. 3d 14, 26 (D.D.C. 2014); *see also* Maglio v. Advocate Health & Hosps. Corp., 40 N.E.3d 746, 755 (Ill. App. 2015) (suggesting that "speculative and conclusory" allegations of possible "anxiety and emotional distress" caused by data breaches do not give rise to standing).

98. *In re* Barnes & Noble Pin Pad Litig., No. 12–cv–8617, 2013 WL 4759588, at *5 (N.D. Ill. Sept. 3, 2013).

suffering are viewed as insufficient to constitute harm.[99] Most courts consider plaintiffs' fear, anxiety, and psychic distress about their increased risk of identity theft and other abuses too remote to warrant recognition.[100]

B. *Cramped View of Harm: Visceral and Vested*

As the previous section has shown, cases are dismissed for lack of harm even when a company's negligence has clearly caused a data breach. Even in the face of wrongful conduct by defendants, courts are denying plaintiffs redress. The reason is because courts view the harm in overly narrow ways. Courts insist that data-breach harms be visceral—easy to see, measure, and quantify.[101] They require harms to be vested—already materialized in the here and now. Plaintiffs must experience physical, monetary, or property damage or, at least, the damage must be imminent.[102]

This cramped understanding of harm harkens back to early conceptions of the common law. Nineteenth-century tort claims required proof of physical injury or property loss.[103] Financial losses could be recovered in tort actions if defendants owed plaintiffs a special duty of care.[104] Along these lines, courts have recognized claims for privacy violations only where redress is sought for tangible financial losses.[105] Courts have found sufficient injury in data-breach cases where the exposure of personal data has led to identity

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99. *Id.*

100. Amburgy v. Express Scripts, Inc., 671 F. Supp. 2d 1046, 1053 (E.D. Mo. 2009).

101. *See, e.g.*, Reilly v. Ceridian Corp., 664 F.3d 38, 45 (3d Cir. 2011) (emphasizing that a "quantifiable [rather than speculative] risk of damage" is necessary to establish data harm).

102. *See, e.g.*, *Amburgy*, 671 F. Supp. 2d at 1050, 1053–55 (asserting that the "injury or threat of injury must be concrete and particularized, actual and imminent; not conjectural or hypothetical").

103. Gregory C. Keating, *The Priority of Respect Over Repair*, 18 LEGAL THEORY J. 293, 332 & n.97 (2012).

104. *See* John A. Fisher, *Secure My Data or Pay the Price: Consumer Remedy for the Negligent Enablement of Data Breach*, 4 WM. & MARY BUS. L. REV. 215, 237–38 ("[T]he Economic Loss Rule operates to preclude recovery when the parties have a direct contractual relationship and damages are consequential (lost profits), rather than direct (property damage or personal injury)."). The economic loss rule does not apply when a defendant owes the plaintiffs a special duty of care. *See In re* Target Corp. Customer Data Sec. Breach Litig., 66 F. Supp. 3d 1154, 1173–76 (D. Minn. 2014) (discussing special-relationship and independent-duty exceptions to the economic loss rule, allowing recovery of financial losses in tort).

105. *E.g.*, Fraley v. Facebook, Inc., 830 F. Supp. 2d 785, 800 (N.D. Cal. 2011) (finding a recoverable injury where the alleged privacy violation had deprived plaintiffs of the measurable, concrete financial value of their endorsement for advertising purposes); *In re* Barnes & Noble Pin Pad Litig., No. 12-cv-8617, 2013 WL 4759588, at *6 (N.D. Ill. Sept. 3, 2013) (noting that a fraudulent charge resulting from a private data breach would only create a cognizable injury if the charge was unreimbursed).

theft.[106] But without proof of physical harm or financial loss, courts rarely recognize harm.[107]

Requiring harm to be visceral and vested has severely restricted the recognition of data-breach harms, which rarely have these qualities. Data-breach harms are not easy to see, at least not in any physical way. They are not tangible like broken limbs and destroyed property. Instead, the harm is intangible. Data breaches increase a person's risk of identity theft or fraud and cause emotional distress as a result of that risk.

Despite the intangible nature of these injuries, data breaches inflict real compensable injuries. Data breaches raise significant public concern and generate legislative activity.[108] Would all this concern and activity exist if there were no harm? Why would more than 90% of the states pass data-breach-notification laws in the past decade if breaches did not cause harm?[109] Why would the Federal Trade Commission and state attorneys general expend considerable time and resources pursuing data-breach cases?[110] In short, if data breaches cause no harm, then why do federal and state law-enforcement agencies devote resources to addressing them?

Data-breach harms might be akin to invisible objects in the middle of a crowded room. We may not be able to see an invisible object, but we see how everyone is bumping into it, how they are changing where they stand because of it, how they are walking different routes to avoid it, and so on. The object is invisible to the naked eye, but it is having a significant effect and people are expending a lot of time and energy to deal with it. To understand its

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106. *E.g.*, Resnick v. AvMed, Inc., 693 F.3d 1317, 1330 (11th Cir. 2012); Remijas v. Neiman Marcus Grp., 794 F.3d 688, 696–97 (7th Cir. 2015). It can, however, be difficult to pinpoint a single actor for the harm suffered in the wake of a data breach. There are many participants that contribute to the harm experience by identity-theft victims: the entities that leaked the data, the companies that allowed thieves to open up accounts in victims' names, and the credit reporting agencies that assembled the faulty information and use it to report on people's reputations. *See* Daniel J. Solove, *Identity Theft, Privacy, and the Architecture of Vulnerability*, 54 HASTINGS L.J. 1227, 1260–61 (2003) (assigning blame for identity theft to a broad group of private and governmental actors in addition to the thieves). When victims attempt to clean up their credit reports, they are often prevented from doing so by uncooperative credit-reporting agencies and creditors. Tara Siegel Bernard, *TransUnion, Equifax and Experian Agree to Overhaul Credit Reporting Practices*, N.Y. TIMES (March 9, 2015), http://www.nytimes.com/2015/03/10/business/big-credit-reporting-agencies-to-overhaul-error-fixing-process.html?_r=0 [https://perma.cc/6Q5V-3QY2].

107. *E.g.*, *In re* Hannaford Bros. Co. Customer Data Sec. Breach Litig., 4 A.3d 492, 496 (Me. 2010) (holding that reasonable time and effort spent to mitigate possible future losses was not a cognizable harm in tort or implied contract).

108. *See* Daniel R. Stoller, *Massive Equifax Cyberattack May Push Congress on Breach Notice Law*, BLOOMBERG BNA (Sept. 8, 2017), https://www.bna.com/massive-equifax-cyberattack-n57982087651/ [https://perma.cc/8U9D-M62D] (anticipating strong legislative response to the Equifax data breach based on past data-breach responses).

109. *Security Breach Notification Laws*, NAT'L CONF. ST. LEGISLATURES (Apr. 12, 2017), http://www.ncsl.org/research/telecommunications-and-information-technology/security-breach-notification-laws.aspx [https://perma.cc/K3U2-UBB2].

110. *See* Citron, *State Attorneys General*, *supra* note 58, at 748–49, 755.

impact, the best approach is not to look directly at it. Instead, we need to look at the activity generated by it and around it. The same is true with data-breach harms. When data-breach harms are studied in isolation, the real harm can be difficult to see. As with the invisible object, one must step back and observe the reactions to the data breach.

As we explore in Part II, in other areas of the law, conceptions of harm have evolved to recognize injury that is hard to see or measure. This is true for pain and suffering, loss of consortium, and other matters that are not easily translated into monetary terms. This is true for emotional distress and risk-oriented injuries. Law has developed ways to arrive at dollar figures for these harms, and it should evolve to do so in the context of data-breach harms.

II. Risk and Anxiety as Harms

The nature of data-breach harms is a complex issue that courts have given far too little attention. In this Part, we explore why courts have struggled with risk and anxiety, the key dimensions to data-breach harms. We contend that these harms are far from fanciful or trivial. Data-breach harms are real, and compelling reasons exist for recognizing them. In this Part, we demonstrate that contrary to findings that no legal basis exists to recognize harm arising out of data breaches, there is a substantial basis in legal doctrine to recognize data-breach harms. These precedents involve other bodies of law, some closely related to the law of data breaches. Rather than ignoring these legal foundations for recognizing harm, courts should build upon them. Doing so would ensure conceptual coherence to the judiciary's approach. Moreover, the existence of these other areas of law that recognize similar types of harm demonstrates that data-breach harms can be recognized without causing calamity in the law.

A. Risk as Harm

1. Understanding Risk.—In data-breach cases, courts have difficulty with the concept of risk. A problem is that fraud may not surface until after an identity thief combines leaked personal data with other information. Because the downstream use of improperly obtained personal data is not known at the time of the breach and because it depends upon the aggregation of disparate sources of personal data, courts have difficulty conceptualizing the harm.

What does that risk entail? It may take months or years before leaked personal data is abused, but when it happens, the harm can be profound. Identity-theft victims may face financial ruin. Identity thieves may plunder victims' credit, riddling victims' credit reports with false information including debts and second mortgages obtained in victims' names. Victims struggling with identity theft may be forced to file for bankruptcy, and some

may lose their homes.[111] Victims may be turned down for loans or end up paying higher interest rates on credit cards.[112] Their utilities may be cut off and their services denied.[113] Victims' stolen health information may be used to obtain medical care, saddling them with hefty hospital bills and a thief's treatment records.[114] Victims may incur legal fees and have to cover bounced checks. In 2012, the average cost of repairing identity theft was $1,769, and the median loss was $300.[115] On average, it takes up to thirty hours to resolve problems when identity thieves open new accounts in victims' names.[116] To be sure, some types of data-breach harms are more quickly realized. Payment-card fraud, for example, usually occurs shortly after payment-card data is compromised. Because card numbers get cancelled quickly, fraudsters act very fast.[117]

As Michael Sussmann, a lawyer in Perkins Coie's privacy and data security practice, explains: "The data is sold off, and it could be a while before it's used. . . . There's often a very big delay before having a loss."[118] Similarly, Ed Mierzwinski, the federal Consumer Program Director and senior fellow for U.S. PIRG, notes:

> Credit card numbers and debit card numbers have a short shelf life, because banks figure out which cards are at risk, and people get new numbers without asking for them[.] Social Security [n]umbers have a very long shelf life—a bad guy that's smart won't use it immediately, he'll keep a hoard of numbers and use them in a couple of years.[119]

Harm may occur well beyond the statute of limitations, and the timing of the harm might be different for each victim.

The problem with identity theft is that personal data cannot readily be "cancelled" like a credit-card number. Social Security numbers are difficult to change. Other personal data such as birth date and mother's maiden name cannot be replaced. Biometric data such as fingerprints or eye scans, health

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111. J. Craig Anderson, *Identity Theft Growing, Costly to Victims*, USA TODAY (Apr. 14, 2013), http://www.usatoday.com/story/money/personalfinance/2013/04/14/identity-theft-growing/2082179/ [https://perma.cc/7T5Q-DTHH].

112. BUREAU OF JUST. STAT., U.S. DEP'T OF JUST., NCJ 243779, VICTIMS OF IDENTITY THEFT, 2012, at 7 (2013), https://www.bjs.gov/content/pub/pdf/vit12.pdf [https://perma.cc/773U-SHVT].

113. *Id.*

114. Thomas Clifford, Note, *Provider Liability and Medical Identity Theft: Can I Get Your (Insurance) Number?*, NW. J.L. & SOC. POL'Y, Fall 2016, at 45, 45.

115. BUREAU OF JUST. STAT., *supra* note 112, at 6.

116. *Id.* at 10.

117. *See* Andrea Peterson, *Data Exposed in Breaches Can Follow People Forever. The Protections Offered in Their Wake Don't.*, WASH. POST (June 15, 2015), http://www.washingtonpost.com/blogs/the-switch/wp/2015/06/15/data-exposed-in-breaches-can-follow-people-forever-the-protections-offered-in-their-wake-dont/ [https://perma.cc/JBF5-4K6X] (explaining that card providers quickly identify and replace at-risk card numbers).

118. *Id.*

119. *Id.*

information, and genetic data cannot be exchanged. A criminal may obtain a victim's personal data and use it months or years later; the data will still be useful for committing fraud.

Another challenge for assessing data-breach harms is the great difficulty in catching identity thieves. Without information about where an identity thief obtained the data, a plaintiff will have difficulty linking the harm to a particular data breach or data disclosure.[120] Ironically, the very factors that make identity theft so harmful—the difficulty in catching the perpetrators and the fact that it can continue indefinitely—are what impede victims' ability to obtain redress in the courts.

What of the argument that "[a] risk of privacy harm is no more a privacy harm than a chance of a burn is a burn"?[121] Unlike the chance of a burn while cooking in the kitchen, the risk of harm after a data breach inflicts harm in the here and now. To start, data-breach victims incur expenses to mitigate the damage. Data-breach victims incur out-of-pocket costs to minimize future losses. They purchase identity-theft-protection services and insurance to minimize the impact of fraud.[122] Their opportunity costs are real. Individuals spend time monitoring their accounts, which pulls them away from their jobs. In cases involving privacy violations and inadequate data security, consumers bear the lion's share of these costs because courts view them as too attenuated to recognize as harm.

It is rational to spend time and money to mitigate the possibility of harm in the future. Insurance exists for this very purpose. There are numerous products and services aimed at risk mitigation. Indeed, after data breaches, organizations often offer affected individuals free credit monitoring.[123] State attorneys general often insist that companies pay consumers one to two years of credit monitoring and identity-theft insurance after a security breach.[124]

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120. Daniel J. Solove, *The New Vulnerability: Data Security and Personal Information*, *in* SECURING PRIVACY IN THE INTERNET AGE 111, 116 (Anupam Chander et al. eds., 2008).

121. Calo, *Boundaries*, *supra* note 36, at 1157.

122. *See* Press Release, Accenture, One in Four US Consumers Have Had Their Healthcare Data Breached, Accenture Survey Reveals (Feb. 20, 2017), https://newsroom.accenture.com/news/one-in-four-us-consumers-have-had-their-healthcare-data-breached-accenture-survey-reveals.htm [https://perma.cc/2U3Q-HAP3] (detailing a survey of consumers which found nearly all data-breach victims took some type of action in response to a breach, such as purchasing insurance plans or subscribing to identity-protection services).

123. *See* Vincent R. Johnson, *Credit-Monitoring Damages in Cybersecurity Tort Litigation*, 19 GEO. MASON L. REV. 113, 125–27 (2011) (collecting a list of several cases in which organizations offered free credit monitoring to affected individuals after a data breach).

124. *E.g.*, Press Release, Off. of the Attorney Gen., St. of Conn., AG Jepsen to Anthem: End Unreasonable Delay in Providing Information to Affected Residents (Feb. 10, 2015), http://www.ct.gov/ag/cwp/view.asp?Q=560660&A=2341 [https://perma.cc/TA46-ZWJ5] (demanding that Anthem inform affected consumers within 24 hours that they are going to be provided two years of credit monitoring and identity-theft insurance to consumers impacted by data breach).

Another component of the data-breach harm involves a chilling of a person's ability to engage in life's important activities. As a result of a data breach, a person's increased risk of identity theft might prevent her from buying a new house. Identity theft, when it occurs, pollutes a person's credit report, making it difficult if not impossible to obtain a loan. In the face of a greater risk of identity theft, a person might be reluctant to take the steps necessary to buy a home, such as placing an existing home on the market, going house hunting, and making an offer with a deposit. Why take those expensive and time-consuming steps if there is a chance that her credit report might be damaged and thus jeopardize her deposit on a home? Why sell one's current home if one would be unable to buy a new one due to a marred credit report? Credit reports take a long time to fix, so it is a legitimate concern that the person might not be able to find housing to rent while cleaning up her credit report, since the report is essential to obtain a rental agreement.[125] Given these significant risks, a person might delay buying a new house.

The same concerns are true for employment. In the face of a heightened risk of identity theft, a person might delay looking for a new job because a polluted credit report can interfere with a person's employment opportunities. A person might not want to go through the time and effort of applying for a position if there is an increased chance that future employers will find her credit report marred by a thief's financial mischief. Seeking a new job could jeopardize one's current employment, so a reasonable person might not chance losing a current job in the face of an elevated risk that it will be difficult to obtain a new one. Then too, a person might be chilled from seeking a job that requires a security clearance.[126]

Just as people might rationally delay an outdoor party when the forecast calls for a greater chance of rain, people might delay certain important life decisions when their risk of a sullied credit report increases.

Although the increased risk of harm as a result of a data breach might be hard to see, consider the following analogy. Imagine that a person owns two identical safes. She wants to sell them and lists them on eBay:

SAFE FOR SALE

Made of the thickest iron with the most unbreakable lock.

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125. *"Big 3" Credit Bureaus Settle with 31 States Over Credit Reporting Mistakes*, CONSUMERS UNION (May 26, 2015), http://consumersunion.org/2015/05/big-3-credit-bureaus-settle-with-31-states-over-credit-reporting-mistakes/ [https://perma.cc/EEV6-7G7G] (explaining that one in five consumers have an error in their credit reports).

126. Although Calo's scholarship has rejected the notion of risk as cognizable harm, the related out-of-pocket expenses and opportunity costs might fall under an expanded understanding of his view of objective harm.

SAFE FOR SALE

Made of the thickest iron with the most unbreakable lock. However, the combination to the safe was improperly disclosed and others may know it. Unfortunately, the safe's combination cannot be reset.

Which safe would get the higher price?

Safe 2 is no longer as good as Safe 1. Its utility has been damaged by the improper disclosure of the combination to the safe, and thus the value of the safe has been significantly reduced.

Or suppose there is a new virus that does not cause adverse effects but that makes people more vulnerable to getting a painful disease later on. Many people will not develop the painful disease—only some will fall prey to it. Nonetheless, those with the virus are at greater risk to develop the painful disease. Has the person who has contracted the virus suffered harm?

In the case of the safe combination and the virus, people are made more vulnerable: they are placed in a weakened and more precarious position. Their risk level has increased. They are worse off than before the release of a safe's combination number or the exposure to a virus. In the immediate present, the increased risk exposure is undesirable, anxiety producing, and frustrating. In cases involving an increased risk of future harm, not all individuals will actually suffer that harm, but "each has suffered a loss in an actuarial sense because his chances of avoiding the harm have been reduced."[127]

People have a meaningful interest in avoiding risk.[128] They will go to the doctor to monitor their health. They will pay for insurance to insure against particular risks. Indeed, the insurance market is proof that protection against risk has a monetary value.

Although there are sophisticated ways to assess and understand risk, many courts have refused to recognize risk as a cognizable harm in data-breach cases. Risk is a central concept toward making more intelligent and practical decisions. As Justice Oliver Wendell Holmes famously observed, "the man of the future is the man of statistics and the master of economics."[129] And in many areas, law has recognized risk as a legally cognizable harm.

2. Legal Foundations for Recognizing Risk as a Cognizable Harm.— Data-breach harms may push on the edges of the law, but ample foundations and significant flexibility exist in the law to recognize them. The law has

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127. David A. Fischer, *Tort Recovery for Loss of a Chance*, 36 WAKE FOREST L. REV. 605, 633 (2001). *See* Zehner v. Post Oak Oil Co., 640 P.2d 991, 994–95 (Okla. Civ. App. 1981) (allowing tort recovery as compensation for a lost chance to obtain a lease of land at a particularly profitable rate when the defendant committed the tort of slander of title).

128. Nancy Levit, *Ethereal Torts*, 61 GEO. WASH. L. REV. 136, 181 (1992).

129. OLIVER WENDELL HOLMES, *The Path of the Law*, *in* COLLECTED LEGAL PAPERS 167, 187 (1920).

evolved to recognize risk. This trend is likely driven by the fact that modern thinking in science and business, among other domains, is deeply focused on risk. Because the conceptual underpinnings for recognizing data-breach harms are already present in the law, recognizing such harms does not require a radical shift in legal conceptions of harm. Risk so pervades modern thinking that law cannot resist embracing the concept if it is to remain relevant.

The law has grown in its recognition of future injury.[130] Over time, probabilistic injuries have been recognized in three conceptually related areas: increased risk of injury, loss of a chance, and fear of disease.[131] Tort law has developed to recognize the "fear of or the increased risk of developing a disease in the future" and "lost chances to avoid diseases or physical injury" as compensable injuries.[132] For these claims, the harm is the destruction of a future opportunity and the loss of hope.[133]

Courts have begun allowing people to sue for medical malpractice that results in the loss of an "opportunity to obtain a better degree of recovery."[134] Under risk-of-future-harm cases, damages include those "directly resulting from the loss of a chance of achieving a more favorable outcome," as well as damages "for the mental distress from the realization that the patient's prospects of avoiding adverse past or future harm were tortiously destroyed or reduced," and damages "for the medical costs of monitoring the condition in order to detect and respond to a recurrence or complications."[135] For example, in *Petriello v. Kalman*,[136] a physician made an error that damaged the plaintiff's intestines.[137] The plaintiff was estimated to have between an 8% and 16% chance that she would suffer a future bowel obstruction.[138] The court concluded that the plaintiff should be compensated for the increased risk of developing the bowel obstruction "to the extent that the future harm is likely to occur."[139]

Similarly, environmental law is premised on the notion of risk as harm. "One of the major innovations of environmental law has been to substitute the concept of risk as a proxy for injury for the common law's insistence that

130. Levit, *supra* note 128, at 154–55.

131. *Id.* at 154.

132. *Id.* at 154–55.

133. *Id.* at 158.

134. *E.g.*, Lord v. Lovett, 770 A.2d 1103, 1104–06 (N.H. 2001) (holding a medical malpractice plaintiff could recover for a lost chance at full recovery under the loss-of-opportunity doctrine); *see* Claire Finkelstein, *Is Risk a Harm?*, 151 U. PA. L. REV. 963, 985–86 (2003) (arguing tort law supports the notion of risk as a harm, and citing as a specific example lost-chance-of-recovery cases where medical malpractice plaintiffs are compensated for reduced chance of medical cure).

135. Joseph H. King, Jr., *"Reduction of Likelihood" Reformulation and Other Retrofitting of the Loss-of-a-Chance Doctrine*, 28 U. MEM. L. REV. 491, 504–05 (1998).

136. 576 A.2d 474 (Conn. 1990).

137. *Id.* at 476.

138. *Id.* at 477.

139. *Id.* at 484.

injury be established by proof that an action in fact caused demonstrable harm."[140] Courts have found increased risk of disease sufficient for standing purposes and as the basis of regulation.[141]

To be sure, if remedies for increased risk of injury were applied broadly, many kinds of vulnerabilities would be prohibited. A driver who operates his car recklessly increases other drivers' potential to get into an accident. It would be difficult to imagine the law recognizing increased risk as harm due to reckless driving. In other cases, however, the law provides a remedy for increased risk of developing health complications due to medical malpractice. Why the different result? Once the reckless driver passes by traffic without getting into an accident, the risk has been eliminated. By contrast, the risk of developing future complications from medical malpractice may have no clear end in sight.

The risk of injury in a data-breach case is closer to the medical-malpractice scenario than that of the reckless driver. To the individuals whose personal data is leaked into the hands of thieves, the risk of harm is continuing. Hackers may not use the personal data in the near term to steal bank accounts and take out loans. Instead, they may wait until an illness befalls a family member and then use personal data to generate medical bills in a victim's name. They may use the personal data a year later but only use some individuals' personal information for fraud. Although not all of the personal data will be used for criminal ends, some will. In the meanwhile, the individuals worry that their information will be misused and expend time and resources to protect themselves from this possibility.

Long-term risk is not a harmless wrong, unlike the risky driver who does not hurt anyone. It is not negligence "in the air," which the law has long understood as unworthy of a legal response.[142] There is an injury; it is not a regrettable close call like the reckless driver who hits no one. When an entity inadequately secures personal data and thieves steal it, the entity's unreasonable actions impact a sizeable number of users, often in the

140. ROBERT L. GLICKSMAN ET AL., ENVIRONMENTAL PROTECTION: LAW AND POLICY 738 (5th ed. 2007).

141. *E.g.*, Duke Power Co. v. Carolina Envtl. Study Grp., 438 U.S. 59, 74, 81 (1978) (holding the chance of "health and genetic" consequences resulting from exposure to radiation were sufficient to satisfy standing's injury-in-fact requirement); Ethyl Corp. v. EPA, 541 F.2d 1, 1, 12, 17 (D.C. Cir. 1976) (holding that the Clean Air Act empowers the EPA to regulate prophylactically against the risk of harm).

142. *See* David Rosenberg, *The Causal Connection in Mass Exposure Cases: A "Public Law" Vision of the Tort System*, 97 HARV. L. REV. 849, 883 (1984) (explaining, in the mass exposure toxic tort setting, that torts creating long-term risk in a large enough group will inevitably manifest real injury, meaning the tortfeasor's wrongful conduct cannot be forgiven as "negligence in the air").

millions,[143] and the excess risk of fraud is certain to take its toll on a number of those users. Victims spend time and money to minimize the impact of identity theft. They refrain from important life opportunities, such as buying a new home or looking for a new job. Over time, the risk of identity theft will materialize for a percentage of those users. Although the eventual victims cannot be immediately identified, the entity cannot deny the reality of the loss it has inflicted.

Law's recognition of risk of future harm was arguably anticipated by the Court in *Robins v. Spokeo* when the Court noted that intangible informational injuries, recognized at common law, can provide the basis for harm sufficient to support standing.[144] As shown by judicial doctrine related to lost chances, the common law has come to recognize increased risk of harm as an intangible injury worthy of redress.

There are practical implications of denying increased risk as a cognizable harm in data-breach cases. If increased risk is not understood as harm, then when the risk materializes, such as when the identity theft occurs, plaintiffs probably will be unable to sue at all. Statutes of limitations would likely bar any lawsuit.[145] Even if statutes of limitations are not a bar, delay in resolving the issue may lead to the loss of evidence.

In many other contexts, high-stakes decisions are based on risk, a fact that makes it difficult to understand why law should be an exception. Legal decisions are not necessarily more important than decisions in other domains; nor are people in the law inherently less capable of comprehending risk. Despite the law's caution and timidity with risk, it has been making significant steps toward embracing risk concepts. Risk-oriented harm has increasingly been recognized by the law, which has been catching up to more modern understandings of risk management. Changes in risk level have significant financial repercussions, and there are concrete and sophisticated approaches to evaluating, monetizing, and managing risk. Thus, the foundation is present for a more robust understanding of data-breach harm.

B. Anxiety as Harm

1. Understanding Anxiety.—Data-breach harms often result in victims experiencing anxiety about the increased risk of future harm. Anxiety is a form of emotional distress, which is an umbrella term to capture a wide array of negative and disruptive feelings such as sadness, embarrassment, and

143. *See, e.g.*, Off. of the Att'y Gen., St. of Conn., *supra* note 124 (stating that the Anthem data breach "may have exposed sensitive personal information of as many as 80 million people, or perhaps more").

144. *See supra* notes 28–34 and accompanying text (discussing *Spokeo*).

145. Daniel Bugni, *Standing Together: An Analysis of the Injury Requirement in Data Breach Class Actions*, 52 GONZ. L. REV. 59, 89 (2016).

anxiety, among others.[146] With a data breach, anxiety is experienced as a result of knowing that personal information, often sensitive, can be observed and used to one's detriment.[147] Emotional distress is experienced in the present, but courts are reluctant to recognize it as a cognizable injury arising out of data-breach harms.

For breaches involving embarrassing or reputation-damaging information, plaintiffs clearly suffer emotional distress. Consider the breach of the Ashley Madison website, an online hub for individuals seeking sexual encounters outside of their relationships.[148] The hackers stole information related to users' sexual desires and personally identifying information and posted it online.[149] The knowledge that employers, family, and friends might discover one's intimate desires and fantasies produced significant anxiety.[150] Ashley Madison users who were active members of the military worried that they might face penalties because adultery is a punishable offense under the Army's Military Code of Conduct.[151] Following the breach, several affected individuals committed suicide.[152]

Many data breaches, however, do not involve embarrassing or discrediting information. The exposure of this information might not seem as intuitively harmful, but anxiety can be caused in many ways. Personal data involved in a breach is often a tool used for financial or identity fraud, and living under the specter of such fraud can make reasonable people worry that, at any moment, they might be impeded in making financial transactions, obtaining employment, or engaging in many other important activities.

A concern with recognizing emotional distress in data-breach cases is that psychic distress can be readily manufactured. Arguments against the

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146. 2 DAN B. DOBBS, THE LAW OF TORTS § 302 (2001).

147. Calo, *Boundaries*, *supra* note 36, at 1148. As Calo argues and as we agree, there is real harm in the anxiety someone suffers due to the unwanted observation of personal information, such as the emotional distress suffered from knowing embarrassing information is lingering online or that a data breach could lead to identity theft. *See id.* at 1148–49 (describing the privacy harm that occurs where an individual worries observation could lead to the unanticipated use of personal information that will lead to "some adverse, real-world consequence").

148. Lisa Bonos, *Ashley Madison's Data Breach is a Warning for Us All, Cheaters or Not*, WASH. POST (July 20, 2015), https://www.washingtonpost.com/news/soloish/wp/2015/07/20/ashley-madisons-data-breach-is-a-warning-for-all-of-us-cheaters-or-not/ [https://perma.cc/6R6L-JTGM].

149. *Id.*

150. *See* Troy Hunt, *Here's What Ashley Madison Members Have Told Me*, TROY HUNT BLOG (Aug. 24, 2015), https://www.troyhunt.com/heres-what-ashley-madison-members-have/ [https://perma.cc/3M24-9TJX] (detailing numerous anxious and worried reactions by Ashley Madison members after the breach).

151. Woodrow Hartzog & Danielle Citron, *Five Unexpected Lessons from the Ashley Madison Breach*, ARS TECHNICA (Dec. 29, 2016), http://arstechnica.com/tech-policy/2016/12/op-ed-five-unexpected-lessons-from-the-ashley-madison-breach/ [https://perma.cc/VK3W-UF34].

152. John Gibson, a pastor, took his own life six days after his name was released in the leak. His suicide note talked about his regret in using the site. *Id.* A San Antonio, Texas police captain committed suicide shortly after his email address was linked to an Ashley Madison account. *Id.*

recognition of anxiety focus on the fact that claims of anxiety are easy to make and difficult to dispute. Plaintiffs will quickly learn to make poignant statements about their anguish with details exaggerating their distress. Defendants may have difficulty disproving plaintiffs' accounts of their own subjective mental states.

Concerns over disingenuous claims of emotional distress as well as the difficulty in disproving such claims are certainly significant. But as we demonstrate in the next Part, the law has evolved to recognize emotional distress disconnected from physical or financial injury. In certain privacy cases, courts recognize pure emotional distress without hesitation,[153] most likely, we posit, because courts recognize that most people would feel emotional distress in these situations. In essence, an unstated objective test to emotional distress seems to exist in privacy tort cases.

Many other areas of law involve proving subjective mental states. Indeed, the vast majority of criminal law involves subjective mental states that must be proven with the highest standard of proof—beyond a reasonable doubt. Despite the challenges, the law quite often involves a quest to delve into the truth of what was going on in a person's mind.

A data breach can quite appropriately result in victims feeling anxiety. Leaks of personal data can cause embarrassment or result in fraudulent transactions. The most common preventative measure given to people is credit monitoring,[154] but this cannot inoculate data-breach victims against future injury. Credit monitoring merely informs people about anomalies in their credit reports after theft has occurred.[155] It does not prevent the misuse of data. By analogy, credit monitoring is akin to a blood-screening test for cancer. The test might indicate that a person has cancer, but the test is not a cure. Nor does routinely testing a person for cancer address the emotional suffering as a result of a person's increased risk of developing cancer.

Credit monitoring cannot totally alleviate a person's anxiety. Although credit monitoring will detect fraud appearing on a person's credit report, not all fraud will be documented in a victim's credit report. Fraudulent uses of leaked personal data that do not involve credit will often not be reported on

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153. *See, e.g.*, Doe v. Hofstetter, No. 11–cv–02209–DME–MJW, 2012 WL 2319052, at *8 (D. Colo. June 13, 2012) (awarding a plaintiff damages for alleged "severe emotional distress" in a default judgment without question); Daily Times Democrat v. Graham, 162 So.2d 474, 475–76, 478 (Ala. 1964) (affirming damages for a plaintiff who suffered embarrassment after defendant published a photo of plaintiff with her undergarments exposed).

154. *See, e.g.*, Galaria v. Nationwide Mut. Ins., 663 F. App'x 384, 386 (6th Cir. 2016) (noting that in response to a breach of its computer networks, the defendant offered free credit monitoring to its customers); Press Release, Equifax, Inc., Equifax Releases Details on Cybersecurity Incident, Announces Personnel Changes (Sept. 15, 2017), https://investor.equifax.com/news-and-events/news/2017/09-15-2017-224018832 [https://perma.cc/U2CE-KQJR] (highlighting that in response to a data breach, Equifax offered free credit monitoring to all of its customers).

155. U.S. GOV'T ACCOUNTABILITY OFF., GAO-17-254, IDENTITY THEFT SERVICES: SERVICES OFFER SOME BENEFITS BUT ARE LIMITED IN PREVENTING FRAUD 10 (2017).

a credit report. A credit report, for instance, will not alert a data-breach victim that a thief used her leaked personal information to empty her bank accounts.[156] It will not notify a data-breach victim that a fraudster has used her leaked login credentials to access private files on her computer or used her computer to send out spam.[157]

Data breaches can create a cascade of compromised accounts, especially if they involve personal data about password-recovery questions. Because there is no ready expiration date on the misuse of compromised personal data, criminals can at any point use that information to defraud victims. Anxiety about this increased risk, which often cannot be fully reduced, is a legitimate, real, and discomfiting experience.

Anxiety over a data breach is often dismissed as the irrational response of abnormally anxious people. But it is rational for people to feel anxiety about the fact that their personal data is in the hands of criminals who can cause their financial ruin. A blizzard of laws protects data security, the reality of which demonstrates that data breaches are not a trivial matter to legislatures. The media often report on data breaches,[158] and it is rational to assume that the media is paying attention because data breaches cause some kind of harm. Otherwise, why report on something that should generate no worries or concerns?

People are often advised to take steps to protect their personal data, such as Social Security numbers.[159] They are told to shred documents with sensitive personal data and to avoid carrying such data around in their wallets.[160] Rational people would assume that these measures are meant to

156. *Identity Theft Protection Services*, FED. TRADE COMM'N: CONSUMER INFO. (Mar. 2016), https://www.consumer.ftc.gov/articles/0235-identity-theft-protection-services#monitoring [https://perma.cc/X779-MMT3].

157. *See id.* ("Credit monitoring only warns you about activity that shows up on your credit report.").

158. *See, e.g.*, Tara Siegel Bernard et al., *Equifax Says Cyberattack May Have Affected 143 Million in the U.S.*, N.Y. TIMES (Sept. 7, 2017), https://www.nytimes.com/2017/09/07/business/equifax-cyberattack.html?hp&action=click&pgtype=Homepage&clickSource=story-heading&module=first-column-region®ion=top-news&WT.nav=top-news [https://perma.cc/D9E6-BXGW] (discussing the 2017 Equifax cyberattack that resulted in a breach of sensitive consumer information); Rishi Iyengar, *Hackers Release Data from Cheating Website Ashley Madison Online*, TIME (Aug. 18, 2015), http://time.com/4002647/ashley-madison-hackers-data-released-impact-team/?iid=sr-link1 [https://perma.cc/37Y3-WHAP] (detailing the 2015 data breach of Ashley Madison that revealed members' personal and financial data); Maggie McGrath, *Target Data Breach Spilled Info On As Many As 70 Million Customers*, FORBES (Jan. 10, 2014), https://www.forbes.com/sites/maggiemcgrath/2014/01/10/target-data-breach-spilled-info-on-as-many-as-70-million-customers/#528bf61ee795 [https://perma.cc/XQ6V-GUSK] (reporting on the breach of customer information at Target in late 2013).

159. *See How to Keep Your Personal Information Secure*, FED. TRADE COMM'N: CONSUMER INFO. (July 2012), https://www.consumer.ftc.gov/articles/0272-how-keep-your-personal-information-secure [https://perma.cc/H7QF-JZN3] (detailing suggestions for protecting personal information to avoid identity theft).

160. *Id.*

prevent something harmful from happening. Otherwise, why bother if there is nothing to worry about? It seems reasonable for a person to respond to a data breach with anxiety in light of all the attention and concern given to data breaches. So much focus is not typically given to something that is benign. Moreover, many organizations stress that keeping personal data secure is very important to them.[161] If failing to do so should not cause people any anxiety, then why bother promising to keep the data secure? It would be absurd for organizations to worry about data breaches if victims have nothing to be concerned about.

2. Legal Foundations for Recognizing Anxiety as Harm.—Ample foundations exist in the law to recognize anxiety as a cognizable harm. There was a time when pure emotional distress was discounted because it seemed too ethereal, too difficult to measure, too easy to fake.[162] That view of emotional distress faded in the mid-twentieth century.[163] It has been replaced by a much greater and growing acceptance of emotional distress as a cognizable harm.

The law has grown to recognize so-called "ethereal" harms.[164] In some instances, the recognition of emotional distress traces its roots back before the modern era. As Ryan Calo has argued, the "tort of assault—where the harm is the emotion of fear—dates back six and a half centuries."[165] It

161. *See, e.g.*, AMAZON WEB SERVS., AMAZON WEB SERVICES: OVERVIEW OF SECURITY PROCESSES 1 (2017), https://d0.awsstatic.com/whitepapers/Security/AWS_Security_Whitepaper.pdf [https://perma.cc/8KR8-QQFT] ("Helping to protect the confidentiality, integrity, and availability of our customers' systems and data is of the utmost importance . . . ."); *This Is How We Protect Your Privacy*, APPLE INC., https://www.apple.com/privacy/approach-to-privacy/ [https://perma.cc/ZQC8-4B8H] ("We're committed to keeping your personal information safe.").

162. *See* Levit, *supra* note 128, at 172 (arguing that courts effectively exercise "a presumption that claims of mental disturbance are frivolous"); Leslie Benton Sandor & Carol Berry, *Recovery for Negligent Infliction of Emotional Distress Attendant to Economic Loss: A Reassessment*, 37 ARIZ. L. REV. 1247, 1253 (1995) (exploring fears about triviality, fraudulent claims, and unmanageability that accompany resistance to emotional distress torts). Emotional distress was also dismissed as the province of the neurotic, weak-minded, and deviant. *See* Rodrigues v. State, 472 P.2d 509, 520 (Haw. 1970) (addressing the argument that "mental distress of a trivial and transient nature are part and parcel of everyday life" and that the law should not "curry to neurotic patterns in the population"); Danielle Keats Citron, *Law's Expressive Value in Combating Cyber Gender Harassment*, 108 MICH. L. REV. 373, 393 (2009) (describing the persistent historical trivialization of women's emotional distress and dismissal of attendant tort claims). Amanda Pustilnik insightfully explores the law's tendency to refuse damages for pain and suffering because plaintiffs were viewed as mentally ill, hysterical, or fraudsters. A.C. Pustilnik, *Imaging Brains, Changing Minds: How Pain Neuroimaging Can Inform the Law*, 66 ALA. L. REV. 1099, 1107–12 (2015).

163. *See* Robert L. Rabin, *Emotional Distress in Tort Law: Themes of Constraint*, 44 WAKE FOREST L. REV. 1197, 1197 (2009) (explaining that emotional distress "gained respectability" as a stand-alone tort claim with the adoption of intentional and negligent infliction of emotional distress into the Restatement (Second) of Torts in 1948 and 1960 respectively).

164. Levit, *supra* note 128, at 158.

165. Calo, *Exceptionalism*, *supra* note 35, at 363.

redressed emotional distress without any showing of physical injury.[166] Relational torts like the alienation of affection, of a similar vintage, permitted compensation for emotional distress.[167]

Privacy law's roots supported the recognition of emotional distress as a compensable injury in the early twentieth century. In *The Right to Privacy*,[168] Samuel Warren and Louis Brandeis spent considerable energy discussing the evolving nature of harm, from tangible to intangible injuries. "[I]n very early times," they contended, "the law gave a remedy only for physical interference with life and property."[169] Subsequently, the law expanded to recognize incorporeal injuries; "[f]rom the action of battery grew that of assault. Much later there came a qualified protection of the individual against offensive noises and odors, against dust and smoke, and excessive vibration. The law of nuisance was developed."[170] Property developed to include "every form of possession—intangible, as well as tangible."[171] Defamation law protected reputations without requiring proof of financial or physical suffering. The harm involved a person's good name rather than a tangible loss.[172]

In tracing law's development surrounding the nature of harm, Warren and Brandeis were paving the way for the legal recognition of remedies for privacy invasions, which primarily involve an "injury to the feelings."[173] Warren and Brandeis identified the legally protected interest set back by privacy invasions as a person's ability to develop her "inviolate" personality.[174] Privacy invasions inflict harm by interfering with a person's ability to decide the extent to which her personal information would be revealed, shared, and disclosed to others. Warren and Brandeis noted that privacy invasions interfere with a person's "estimate of himself," inflicting "mental pain and distress, far greater than could be inflicted by mere bodily injury."[175]

In the century following the publication of the Warren and Brandeis article, the law grew to recognize privacy torts because emotional tranquility was an interest deserving protection.[176] Courts recognized that emotional

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166. Rabin, *supra* note 163, at 1197.

167. *Id.*

168. Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193, 193 (1890).

169. *Id.*

170. *Id.* at 194.

171. *Id.* at 193.

172. *Id.* at 197. Defamation liability includes redress for emotional distress caused by the defamatory publication. RESTATEMENT (SECOND) OF TORTS § 623 (AM. LAW INST. 1977).

173. Warren & Brandeis, *supra* note 168, at 197.

174. *Id.* at 205, 211.

175. *Id.* at 196–97.

176. *See* Calvert Magruder, *Mental and Emotional Disturbance in the Law of Torts*, 49 HARV. L. REV. 1033, 1035–36 (1936) (explaining that most jurisdictions had begun to allow recovery for

distress could be "as severe and debilitating as physical harm."[177] Privacy tort claims have succeeded in garnering compensation for emotional distress.[178] Plaintiffs have prevailed in cases involving the dissemination of nude photos,[179] before-and-after photos of plastic-surgery patients,[180] and autopsy or death-scene photos of loved ones.[181] Courts do not question the harm in those cases, even though it involves intangible injury.[182] Indeed, with corpse photos, courts recognize that the photos implicate the privacy rights not of the subject of the photos (the dead person) but of the deceased person's family members.[183]

The privacy torts readily allow for emotional distress damages alone. As David Elder aptly notes in his treatise *Privacy Torts*, decisions on the public-disclosure-of-private-fact tort "collectively reject any suggestion that special damages or physical injuries are a threshold pre-condition to recovery."[184] Elder explains that courts have permitted harms such as "injury to feelings or sensibilities; feelings of violation and mortification; . . . fear for physical security; . . . past and future humiliation; [and] embarrassment," among other things.[185] According to the Restatement of Torts, plaintiffs can recover for

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outrage and emotional distress, abandoning the common law view that peace of mind is not worthy of legal protection).

177. *E.g.*, Molien v. Kaiser Found. Hosps., 616 P.2d 813, 814 (Cal. 1980); Schultz v. Barberton Glass Co., 447 N.E.2d 109, 113 (Ohio 1983) (citing *Molien*).

178. *See* Citron, *Mainstreaming*, *supra* note 36, at 1811–14 (2010) (exploring privacy tort cases awarding damages for emotional distress, mental anguish, worry, and embarrassment).

179. Daily Times Democrat v. Graham, 162 So.2d 474, 475–76, 478 (Ala. 1964) (awarding damages for embarrassment and humiliation after a newspaper published a picture of the plaintiff whose undergarments were exposed after wind blew up her skirt); Doe v. Hofstetter, No. 11-cv-02209-DME-MJW, 2012 WL 2319052, at *7 (D. Colo. June 13, 2012) (awarding, in a default judgment, damages for intentional infliction of emotional distress and public disclosure of private fact where the complaint alleged the defendant had posted intimate photographs of the plaintiff online, emailed them to plaintiff's husband, and created fake Twitter accounts displaying them).

180. Vassiliades v. Garfinckel's, Brooks Bros., Miller & Rhoades, Inc., 492 A.2d 580, 585–86, 594–95 (D.C. 1985).

181. Catsouras v. Dep't of the Cal. Highway Patrol, 104 Cal. Rptr. 3d 352, 359, 385 (Cal. Ct. App. 2010) (concerning automobile death scene photos); Douglas v. Stokes, 149 S.W. 849, 849–50 (Ky. 1912) (concerning autopsy photos of conjoined twins). A family's privacy interest in death images of deceased persons was also recognized by the U.S. Supreme Court as a valid basis to assert a privacy exemption to the Freedom of Information Act (FOIA). *See* Nat'l Archives & Records Admin. v. Favish, 541 U.S. 157, 168, 174–75 (2004) ("Family members have a personal stake in honoring and mourning their dead and objecting to unwarranted public exploitation that, by intruding upon their own grief, tends to degrade the rites and respect they seek to accord to the deceased person who was once their own.").

182. *See* Citron, *Mainstreaming*, *supra* note 36, at 1811–14 (noting courts' recognition of mental and privacy harms across a variety of privacy torts).

183. *See Catsouras*, 104 Cal. Rptr. 3d at 394 (concluding that the plaintiffs had a privacy interest in preventing the dissemination of gruesome photographs of their deceased loved one); *Stokes*, 149 S.W. at 849–50 (affirming that the defendant–photographer violated the plaintiff's privacy when he wrongfully used photographs of the plaintiff's dead children for his own benefit).

184. ELDER, *supra* note 47, at § 3:8.

185. *Id.*

purely emotional distress harm.[186] As one court put it, plaintiffs are "entitled to recover substantial damages, although the only damages suffered . . . resulted from mental anguish."[187]

Under the tort of intrusion upon seclusion, mental distress is "recoverable without the necessity of showing actual physical injury . . . because the injury is essentially . . . subjective, not actual harm done to the plaintiff's body."[188] As a court noted: "The difficulty of measuring damages for invasion of privacy is no reason for denying relief."[189] Elder observes that

> Since the gravamen of the tort is "injury to the feelings of the plaintiff, and the mental anguish and distress caused thereby," the plaintiff is generally entitled to collect substantial damages, "damages of real worth and importance," for emotional distress without any proof of special damages or physical or otherwise debilitating psychic injury.[190]

Courts have also recognized emotional harm for the breach-of-confidentiality tort. The law recognizes that disclosures of information made in confidential relationships involve "harms of broken trust, betrayal, and disrupted expectations of secrecy."[191] Suppose a doctor improperly breaches patient confidentiality and reveals the patient's medical data to another person. The data is not embarrassing; the patient is in good health, and there is nothing embarrassing revealed and no reputational damage done. Is the patient harmed? Courts readily recognize harm under these circumstances. The harm involves the betrayal of trust in socially desirable professional relationships. As Elder notes, "The permissible damages are broad and parallel those available under the intrusion and other privacy torts."[192] Additionally, in other contexts, courts accept emotional distress damages based solely upon the plaintiff's testimony, such as in employment-discrimination cases.[193]

In case after case involving the privacy torts and breach-of-confidentiality tort, courts have recognized harm based on pure emotional distress or psychological impairment. Fear, anxiety, embarrassment, and loss

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186. RESTATEMENT (SECOND) OF TORTS § 652H cmt. b (AM. LAW. INST. 1977).

187. Brents v. Morgan, 299 S.W. 967, 971 (Ky. 1927).

188. Gonzales v. Sw. Bell Tel. Co., 555 S.W.2d 219, 221–22 (Tex. Civ. App.—Corpus Christi 1977) (quotation marks omitted) (quoting Billings v. Atkinson, 489 S.W.2d 858, 861 (Tex. 1973)).

189. Socialist Workers Party v. Attorney Gen., 642 F. Supp. 1357, 1422 (S.D.N.Y. 1986).

190. ELDER, *supra* note 47, § 2:10.

191. Levit, *supra* note 128, at 147–48.

192. ELDER, *supra* note 47, at § 5:2.

193. Lewis R. Hagood, *Claims of Mental and Emotional Damages in Employment Discrimination Cases*, 29 U. MEM. L. REV. 577, 586 (1999) ("[A] majority of the federal courts that have held a plaintiff's own testimony as sufficient to sustain an award of damages for emotional distress usually subject such claims to heightened scrutiny.").

of trust are all recognized as harms.[194] Humiliation, nervousness, worry, and loss of sleep are understood as compensable harms.[195]

The inconsistency between these different contexts is quite stark. Bodies of tort jurisprudence are entirely ignored in cases involving data-breach harms. Courts do not distinguish these cases; they simply do not mention them, as if those cases did not exist as precedent. Hardly any attempt is made to reconcile them. In contrast to cases involving data breaches, cases involving the privacy torts and breach-of-confidentiality tort lack the judicial hand-wringing and angst over the recognition of emotional harm.

The common law has also recognized claims for intentional infliction of emotional distress as well as for negligent infliction of emotional distress.[196] Claims for negligent infliction of emotional distress initially were limited to cases involving physical injury, but that rule eased over time.[197] In the past fifty years, courts have deemphasized the "directness of the physical injury" and emphasized the "reality of the emotional distress suffered by the plaintiff."[198] Courts have recognized negligent-infliction-of-emotional-distress claims where the emotional distress occurs in the context of relationships that impose independent, preexisting duties of care.[199]

Relevant to data-breach cases, in a series of cases, courts have permitted emotional distress damages for fear of contracting diseases. Courts have held that plaintiffs can recover for fear of contracting AIDS, even if they do not yet have AIDS and even if they are not HIV positive.[200] For example, in *Johnson v. West Virginia University Hospitals, Inc.*,[201] the court held that a police officer could sue for emotional distress caused by the fear of contracting AIDS after being bitten by an AIDS patient.[202] Although a majority of courts require plaintiffs to prove actual exposure to HIV,[203] a

194. *See* Citron, *Mainstreaming*, *supra* note 36, at 1811–14 (offering examples of mental injuries resulting from privacy intrusions).

195. *Id.* at 1811.

196. Keating, *supra* note 54, at 277 & n.18.

197. *See* Stanley Ingber, *Rethinking Intangible Injuries: A Focus on Remedy*, 73 CALIF. L. REV. 722, 814–15 (1985) (describing the tests of varying stringency courts have applied to emotional distress claims).

198. Levit, *supra* note 28, at 144.

199. Keating, *supra* note 54, at 278.

200. Vance A. Fink, Jr., *Emotional Distress Damages for Fear of Contracting AIDS: Should Plaintiffs Have to Show Exposure to HIV?*, 99 DICK. L. REV. 779, 794 (1995); James C. Maroulis, Note, *Can HIV-Negative Plaintiffs Recover Emotional Distress Damages for Their Fear of AIDS?*, 62 FORDHAM L. REV. 225, 237–39, 247 (1993).

201. 413 S.E.2d 889 (W. Va. 1991).

202. *Id.* at 891, 894.

203. Majca v. Beekil, 701 N.E.2d 1084, 1089 (Ill. 1998) ("[A] majority of the courts that have considered claims for fear of contracting AIDS have required a showing of actual exposure to HIV."). Some of the cases cited in *Majca* include: *Brzoska v. Olson*, 668 A.2d 1355 (Del. 1995); *K.A.C. v. Benson*, 527 N.W.2d 553 (Minn. 1995); *Bain v. Wells*, 936 S.W.2d 618 (Tenn. 1997);

number of courts do not require exposure to HIV to warrant recovery for emotional distress.[204] Courts have also permitted emotional distress damages based on fear of contracting cancer. In one case, a court held that the plaintiff's fear of getting cancer after being exposed to asbestos was reasonable and actionable.[205]

The harm from an increased risk of identity theft is akin to the risk of contracting a chronic disease. The risk of a data breach is ongoing. Data-breach notification letters explicitly inform people that there is a risk of identity theft. Credit-monitoring services are offered for one or two years,[206] signaling to plaintiffs an increased risk of theft for that time period. When a person has a reasonable belief that her credit identity is in jeopardy, she is rightly afraid that her creditworthiness is out of her hands. The exposure to the risk of identity theft can be anxiety-inducing because identity theft can have catastrophic effects on an individual's life and because it is difficult to resolve. The passage of time may not dissipate that fear because identity theft can happen at any time. A person's financial and employment opportunities can be destroyed by identity theft, and time and money are essential to addressing it. In all of these ways, identity theft is the digital equivalent to contracting a chronic disease.

The clear direction and thrust of the law is towards a greater recognition of emotional distress. In various contexts, the law has increasingly recognized pure emotional distress as cognizable harm. Negligent infliction of emotional distress has moved beyond the narrow confines of physical harm to extend to certain relationships requiring a duty of care.[207] These

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Johnson v. West Virginia University Hospitals, Inc., 413 S.E.2d 889 (1991); and *Neal v. Neal*, 873 P.2d 871 (1994). *Majca*, 701 N.E.2d at 1089.

204. *See* Hartwig v. Or. Trail Eye Clinic, 580 N.W.2d 86, 94 (Neb. 1998) (allowing plaintiffs to recover for mental anguish even when it cannot be determined whether the tissue, blood, or body fluid may be HIV positive); Williamson v. Waldman, 696 A.2d 14, 21–22 (N.J. 1997) (rejecting the actual-exposure requirement and allowing emotional distress damage for plaintiffs who could show genuine, reasonable emotional distress); Madrid v. Lincoln Cty. Med. Ctr., 923 P.2d 1154, 1160–61, 1163 (N.M. 1996) (holding an emotional distress plaintiff must only prove contact with a channel medically capable of transmitting HIV, regardless of whether HIV was present at the time of contact); Faya v. Almaraz, 620 A.2d 327, 337 (Md. 1993) (holding plaintiffs can recover for fear of contracting AIDS when the fear is during the reasonable window of anxiety); *see also* Marchica v. Long Island R.R. Co., 31 F.3d 1197, 1206–07 (2d Cir. 1994) (holding that despite medical uncertainty as to how the HIV virus could be transmitted through a needle, plaintiff's contact with an HIV-positive needle was sufficient to support a fear-of-developing-disease claim).

205. Devlin v. Johns–Manville Corp., 495 A.2d 495, 498–99 (N.J. Super. Ct. Law Div. 1985).

206. *See* Robert Harrow, *What For-Pay Credit Monitoring Services Actually Offer*, FORBES (Sept. 25, 2017), https://www.forbes.com/sites/robertharrow/2017/09/25/what-for-pay-credit-monitoring-services-actually-offer/#62a9303579bc [https://perma.cc/Z5Y3-ELPD] (explaining that Equifax has offered a one-year credit-monitoring service); *How FDIC Is Helping*, FDIC (Nov. 1, 2016), https://www.fdic.gov/creditmonitoring/howfdicishelping.html [https://perma.cc/W4GK-UQL9] (offering a two-year credit-monitoring service for individuals affected by FDIC security incidents).

207. The Reporters' Memorandum to tentative drafts of the Restatement (Third) of Torts: Liability for Physical and Emotional Harm explains that there is a "recurring (and new) theme"—

bodies of law have laid the foundation to extend emotional distress damages to cases involving inadequate security.[208]

Thus, there is a robust basis in the law to recognize the intangible nature of data-breach harms. In tort cases, courts have recognized emotional distress alone as sufficient for harm. These cases typically involve privacy torts and breach of confidentiality rather than negligence. Nonetheless, the precedent is there to recognize emotional distress as cognizable harm in data-breach cases. In contract cases, courts recognize the value of preferences without economic value.

III. An Approach for Assessing Risk and Anxiety

Many courts reject risk and anxiety as cognizable harms based upon concerns about the difficulty of assessing and quantifying a dollar value for risk and anxiety. Courts worry that plaintiffs can simply assert a desire for redress for increased risk and anxiety and that there is no way to evaluate their claims with rigor or concreteness. Courts express concern that preventative measures to protect against future injury are merely "manufactured" to generate cost. The overarching concern is that risk and anxiety are speculative, subjective and, worse, susceptible to manipulation by attorneys who desire to manufacture injuries out of a data breach.

In this Part, we contend that risk and anxiety can be assessed in a sufficiently concrete way. Although risk might be difficult to measure with precision, factors exist that can be measured and quantified. Courts should determine whether a reasonable person would take preventative measures and, if so, assess the harm based on the reasonable cost of such measures. Whether, in fact, plaintiffs actually took such measures should not be the focus, as the test we propose is objective. In essence, risk can be assessed based on what it would cost to insure against such risk. A similar approach is suggested for anxiety. Courts should employ an objective standard, assessing whether a reasonable person would feel anxiety over any unmitigated risk of future injury stemming from a data breach.

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the use of "arbitrary lines to limit recovery for emotional disturbance." *Reporters' Memorandum* to RESTATEMENT (THIRD) OF TORTS: LIABILITY FOR PHYSICAL AND EMOTIONAL HARM xxi (AM. LAW INST., Tentative Draft No. 5, 2007). The Reporters' Memorandum recognizes that the restrictions are arbitrary but that "given the ubiquity of emotional disturbance, lines must be drawn." *Id.*

208. For further discussion on how the foundation of tort law can be adopted to modern cyber-security issues, see generally Citron, *Mainstreaming*, *supra* note 35 (detailing the foundation created from existing privacy tort law and suggesting how to adapt existing tort law to fit modern cyber issues); Citron, *Reservoirs*, *supra* note 35 (analyzing the use of tort law to combat the current cyber crisis and offering suggestions for how the law should adapt to meet the changing challenges of the Information Age).

A. *Assessing Risk*

1. Likelihood and Magnitude of the Future Injury.—Courts should examine how the use or disclosure of the personal data would affect the financial security, reputation, or emotional state of a reasonable person. If stolen data is posted on sites used by identity thieves, then a substantial risk exists that the data will be used for fraudulent ends.[209] On the other hand, if a thief steals a car with a password-protected laptop and the data is encrypted, then there is little to suggest a substantial risk of identity theft.

From a risk perspective, the likelihood and magnitude of future injuries fall on a sliding scale. A significant risk can exist with a low likelihood of a high-magnitude injury or with a high likelihood of a low-magnitude injury. For a major potential injury, even a small likelihood is a risk worthy of concern.

In many cases, it can be challenging to assess the likelihood and magnitude of future injury with any degree of scientific precision. This is because the potential uses of the data are vast. Nonetheless, there are factors that suggest the likelihood and magnitude of future injury. Courts can assess how different types of data have been misused in the aftermath of similar data breaches. Courts can look at the means and methods used to exploit different types of data involved in data breaches. Courts should examine the extent that breached data can be aggregated with other available data and the harms that result from the use of the aggregated data.

2. Data Sensitivity and Data Exposure.—Certain types of data are readily categorized as sensitive because their release poses a substantial risk of being used to perpetrate fraud and identity theft. Some personal data effectively amount to keys to a bank account, such as account information coupled with passwords, Social Security numbers coupled with driver's license numbers, and medical-insurance information coupled with dates of birth.

Information can be sensitive if it reveals embarrassing or reputation-damaging matters that a reasonable person would want to conceal from others. The Ashley Madison hack resulted in the posting of highly sensitive information about married people's desire to have sex with strangers and information about their sexual preferences.[210] Beyond the embarrassment and humiliation, that data raises the substantial risk of bribery and extortion.

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209. *See In re* Adobe Sys., Inc. Privacy Litig., 66 F. Supp. 3d 1197, 1214–15 (N.D. Cal. 2014) (noting that the stolen personal information had surfaced on the Internet and describing the risk of misuse as impending and very real).

210. Sakinah Jones, Note, *Having an Affair May Shorten Your Life: The Ashley Madison Suicides*, 33 GA. ST. U. L. REV. 455, 455, 457 (2017).

These situations are easily understood as raising a substantial risk of fraud, embarrassment, or reputational damage. But that is not to suggest that the harm from data breaches involving more innocuous-seeming personal data is trivial. Personal data does not exist in a vacuum. It can be readily combined with other data to reveal sensitive information and thus cause harm to individuals. For instance, it might seem trivial if information about people's mothers' maiden names is compromised, but this data is often used for password-recovery questions and could compromise the security of personal accounts. The same is true for data about people's favorite books, places of birth, and other facts that might not, in isolation, seem to be sensitive.

Compromised data does not exist in a void. The world is teeming with data, and compromised data can be readily combined with data to cause harm to individuals. It is nearly impossible to figure out in advance all the possible combinations and permutations. But one thing is clear: As more data about a person is compromised, it will become increasingly more possible to make data combinations that could be used to injure individuals.

The sensitivity of data—and its potential to cause harm—can be the result of the data itself like Social Security numbers combined with birth dates. But it also can be the result of the aggregation of seemingly innocuous data with other data. Sensitivity and harmfulness stem from the potential uses of the data, and data is often not used in isolation. Because of these facts, courts should be careful to avoid rushing to a conclusion that compromised data will not cause harm just because the data might appear to be innocuous.

3. Mitigating Actions.—Another consideration is whether the potential harm is reasonably likely to be mitigated by other actions. Consider the leak of credit card numbers. Although credit card companies are not required to reimburse customers for all fraudulent charges,[211] many major credit card companies have a zero-fraud liability policy.[212] Thus, where reasonable costs are likely to be reimbursed, this consideration should be kept in mind when assessing the likelihood of the harm.

4. The Reasonableness of Preventative Measures.—Preventative measures to reduce harm can serve as guideposts to understanding risk in more concrete terms and to figuring out the current costs of future harm. What preventative measures are available to deal with a potential future harm? What are the costs and effectiveness of such measures? In the absence

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211. *See* 15 U.S.C. § 1643(a) (2012) (limiting but not disallowing cardholder liability for unauthorized credit card use); Regulation Z, 12 C.F.R. § 226.12(b) (2017) (same).

212. Whalen v. Michael Stores Inc., 153 F. Supp. 3d 577, 581 (E.D.N.Y. 2015).

of efficient preventative measures, what would it cost to insure against the risk of future harm if such insurance were available?

The ultimate barometer for this analysis is reasonableness. Courts should look at the degree of the risk. If there is significant uncertainty, courts should assess the reasonableness of trying to manage the uncertainty. A component of reasonableness would be evaluating the cost of preventative measures in relation to their potential benefit. Costly measures for a small chance of a modest harm would be unreasonable. Inexpensive measures for a small chance of a significant harm, however, would be reasonable—these considerations are the basis of contemporary insurance markets.

The objection that plaintiffs can manufacture harms by incurring the costs of preventative measures would have no bearing on our objective test. It would not matter whether plaintiffs choose unreasonably expensive preventative measures or whether they pursue no preventative measures at all. An objective approach avoids the problem of the overly sensitive plaintiffs or the overly cavalier ones. Courts do not need to take plaintiffs' word for these things.

In *Clapper*, the U.S. Supreme Court failed to understand risk. The Court expressed deep concern about people spending money on protective measures to manufacture standing.[213] But there are ways to distinguish genuine measures from manufactured ones. The key issue that the Court should have analyzed in *Clapper* is whether the decision to take any given measure was a reasonable response to the risk of government surveillance. Instead of certainties, we need to shift the focus to risk because contemporary understandings of the world are based on risk. This is how most of the business and scientific world operates—by seeing things through the lens of risk. Moreover, a requirement of reasonableness will limit the ability of any plaintiff to manufacture standing. Courts can analyze whether a person would be reasonable in assessing the risk of surveillance (or fraud) and in undertaking preventative measures to address that risk.

B. Assessing Anxiety

As the law has recognized in other contexts, emotional distress should count as a sufficient basis to establish harm. A data breach might not exact immediate financial costs to people, but the leak puts people's good credit history at risk of being blemished by fraudulent transactions in the future. That one's credit is in jeopardy of becoming polluted can be the source of considerable anxiety, especially for people who anticipate engaging in pursuits involving their credit, such as buying a new home or looking for a

213. Clapper v. Amnesty Int'l USA, 568 U.S. 398, 407–08 (2013).

new job. A data breach can raise a person's risk of reputational damage, as seen in the Ashley Madison hack, and in turn result in significant anxiety.[214]

But not every instance of emotional distress should be cognizable. Courts should assess whether a plaintiff's emotional distress is reasonable under the plaintiff's particular circumstances. This would help exclude disingenuous claims and those made by hypersensitive people. Reasonableness inquiries have weeded out frivolous claims of emotional harm elsewhere in the law and can do so in data-breach cases.

Elements of certain claims can be viewed as protecting against frivolous attempts at recovery for emotional distress. Consider claims for intrusion on seclusion and public disclosure of private-fact torts: they provide redress only for privacy invasions that would be "highly offensive to the reasonable person."[215] Intentional infliction of emotional distress claims can succeed only if plaintiffs can show that their anxiety was caused by "extreme and outrageous" conduct.[216] How might courts approximate such protections in negligence claims? Here too we can look to current applications of negligence law. Courts can assess whether the emotional distress is serious and genuine, as is done in cases involving workers with asbestosis who fear their increased likelihood of developing cancer.[217]

C. *Examples*

The nature of a data breach provides significant insight into the way courts should understand and estimate the nature of the risk and accompanying anxiety. Consider the following spectrum of scenarios:

1. Attempted Fraud Against the Plaintiff.—Let's consider a data breach where hackers attempt to use an individual's information for fraudulent purposes. As discussed in Part I, courts have found that if hackers obtain a plaintiff's personal data and use it for fraudulent ends, there is little debate about the existence of harm. Situations involving attempted fraud should be viewed in similar terms. They generally present sufficiently concrete evidence of a significant risk of injury. There is a very high risk of future injury in such cases, and courts should recognize that risk as cognizable harm.

Suppose a fraudster obtains a plaintiff's personal data and sells the data online to other criminals. Although no one has attempted to use the

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214. *See* Troy Hunt, *Here's What Ashley Madison Members Have Told Me*, TROY HUNT BLOG (Aug. 24, 2015), https://www.troyhunt.com/heres-what-ashley-madison-members-have/ [https://perma.cc/3M24-9TJX] (detailing numerous anxious and worried reactions by Ashley Madison members after the breach).

215. Citron, *Mainstreaming*, *supra* note 36, at 1827.

216. DANIELLE KEATS CITRON, HATE CRIMES IN CYBERSPACE 121 (2014).

217. *E.g.*, Norfolk & W. Ry. Co. v. Ayers, 538 U.S. 135, 157–58 (2003) (allowing claims for damages for emotional distress resulting from the fear of developing cancer so long as the plaintiff proves the genuine and serious nature of the fear).

information yet, a substantial risk exists that this will happen. Courts should find harm under these circumstances. The only thing to cut against the risk of injury is if the data by itself or in combination with other data poses little risk of potential criminal use. That would be true of data stripped of indicia that could be used to reasonably connect it to specific individuals.[218]

To return to a recent decision, in *Bradix v. Advance Stores Co., Inc.*,[219] the court dismissed claims for lack of injury where the plaintiff alleged that hackers obtained the defendant's employees' names, Social Security numbers, gross wages, and states where employees pay income taxes and used that information in unauthorized attempts to secure vehicle financing appearing on the plaintiff's credit report. The court based its dismissal on the fact that there was no proof that the attempts at fraud had actually damaged the plaintiff's credit score.[220] That hackers had personal data and attempted to use it makes clear that there is a significant risk of future injury. Hackers—whose identities are unknown and who remain at large—can use and will likely use the information for criminal ends sometime in the future. The past efforts of hackers make clear their intent to use personal data for fraud. The sensitive nature of the data increases the likelihood that hackers will be successful in future efforts to steal individuals' identities for fraudulent purposes. Crucially, there is little that plaintiffs can do to mitigate the harm since Social Security numbers and names cannot be changed to avoid future fraud.

2. Actual or Attempted Fraud Against Others.—Suppose a hacker obtains personal data of hundreds of individuals, including the plaintiff. The fraudster defrauds, or attempts to defraud, some of these individuals, but not the plaintiff. That hackers have victimized or have attempted to defraud individuals similarly situated to the plaintiff should be sufficient to establish a substantial risk of future injury.

3. Fraudster Obtains Personal Data But Use Remains Unknown.—In a number of circumstances, fraudsters obtain plaintiffs' personal data, but nothing is known about their misuse. In those circumstances, the precise motives of criminal hackers may be unknown. It is fair, however, to suggest that there is a substantial likelihood that hackers hope to use the data for criminal ends. Courts should not require proof that hackers had criminal motives. As a practical matter, the hackers' identities are unknown and thus such proof is elusive. Crucially, there is no need to require it. Hackers'

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218. *But see* Paul M. Schwartz & Daniel J. Solove, *The PII Problem: Privacy and a New Concept of Personally Identifiable Information*, 86 N.Y.U. L. REV. 1814, 1845 (2011) (describing the difficulty of stripping personally identifying information of the indicia that connect it to specific individuals).

219. No. 16-4902, 2016 WL 3617717 (E.D. La. July 6, 2016).

220. *Id.* at *1, *4.

criminal motives can be presumed. As the Seventh Circuit asked in *Remijas*, why else would hackers steal personal data if not for criminal purposes?[221] If a burglar breaks into a house and takes the jewelry box, it is logical to assume that the burglar is interested in the jewelry.

Again, much like the analysis of attempted fraudulent uses of personal data, courts should consider the types of personal data stolen and whether that data alone or combined with other data is likely to be used for fraud. Courts also should take into consideration if there are avenues for plaintiffs to prevent or curtail potential fraudulent uses of the data.

4. Stolen Electronic Device with Personal Data.—Suppose a thief steals a portable electronic device containing a plaintiff's personal data. Nothing is known about the use of the data. The device might have been stolen for the device or the data. Thus, the risk of misuse of data is unclear. To assess whether the device was likely stolen for the data stored inside or the hardware, courts can ask whether such devices have a significant market value independent of the data, whether the thief might have known of the nature of the data on the device, the nature of the data on the device and its sensitivity, and other things.

This case could go either way. If the data by itself or in combination with other data is not readily usable for fraud, then this cuts strongly against harm.

If the data is encrypted—and if the encryption keys are not compromised—then this factor would cut against finding harm. In those circumstances, it would be costly to decrypt the data, thus decreasing the risk that it could be used for criminal ends.

5. Missing Electronic Device with Personal Data.—Suppose a portable electronic device containing a plaintiff's personal data goes missing, and it is unknown whether the device was lost or stolen. This scenario is similar to the case above, although less is known. The device might just have been lost.[222]

In cases involving missing devices storing personal data, the evidence generally would not support a finding of a sufficient risk of future injury. This is especially true in cases involving personal data that alone or in combination with other data would not be considered sensitive—that is, data that can be cheaply and easily used to commit fraud. However, if the data on the device is embarrassing or highly sensitive, then there might be sufficient emotional distress harm in the mere exposure of this data to others. Anxiety

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221. *See supra* notes 24–26 and accompanying text.

222. This scenario is quite common. *See, e.g.*, Linda McGlasson, *Bank of New York Mellon Investigated for Lost Data Tape*, BANK INFO SECURITY (May 27, 2008), https://www.bankinfosecurity.com/bank-new-york-mellon-investigated-for-lost-data-tape-a-862 [https://perma.cc/2KFA-JU7T] (discussing the uncertainty as to whether missing tapes were lost or stolen).

over the risk—not of fraud but of the data being disclosed to others—can be sufficient for harm if it is reasonable to feel such anxiety based on the data involved. Of course, if the data is encrypted and the encryption keys are not compromised, then there would be no harm.

6. Personal Data Exposed Online.—Suppose a plaintiff's personal data is unwittingly exposed on the Internet for a period of time. Nothing is known about whether anyone saw or used the data. This case is similar to situations involving missing electronic devices with personal data. There generally will not be enough evidence to demonstrate a sufficient risk of future injury, but there might be reasonable anxiety if the data is sensitive or embarrassing.

7. Personal Data Exposed in the Trash.—Suppose paper records with a plaintiff's personal data are thrown away in a dumpster. The records are all recovered, but it is unknown whether anyone accessed them while they were exposed in the dumpster.

The risk of future fraud and anxiety is lower here than the above examples. Unlike personal data posted online, paper records are more difficult to use than electronic data; the odds that criminals accessed the paper records, copied down the data, and left the records in the dumpster are low. The risk is especially small if the personal data is not sensitive.

What if the personal data is highly sensitive? What if the data includes medical records?[223] Given the low likelihood that such data was in fact discovered, anxiety about its misuse should be viewed as unreasonable. As a result, courts should not recognize risk and accompanying anxiety as cognizable harms.

8. Improper Access by an Organization's Employee.—Suppose an employee improperly accesses records concerning a plaintiff's personal data. Nothing is known about the use of the data.

The analysis will depend upon the nature of the data and what the likely motive of the employee was. A hospital employee snooping into a celebrity's medical record can cause reasonable anxiety because of the exposure of private health data. This is a classic example of intrusion upon seclusion and there would be emotional distress harm under that tort.

IV. Resisting Denial

Recognizing data-breach harms has significant downstream consequences in our legal system. Judicial reluctance to recognize harm

223. This scenario has come up in state-attorney-general investigations. In such cases, AG offices have settled with pharmacies and medical practices for modest penalties and promises to undertake rigorous security measures. Citron, *supra* note 58, at 779 & n.211.

might stem from a desire to avoid creating more opportunities for litigation, especially class-action lawsuits.

The law has various tools to provide redress for injuries, as well as to deter blameworthy conduct that leads to injuries. In data-breach cases, some of the most common tools include data-breach-notification laws, regulatory enforcement, and litigation. Data-breach-notification laws require provision of notice to people about data breaches,[224] but they do little to redress any injuries caused. The cost of sending out breach-notification letters can serve as a deterrent, but these laws are often strict liability and are not tied to blameworthy conduct.[225] They thus do not deter the most blameworthy any more than the least blameworthy. Moreover, the cost of notification is not proportionate to the amount of harm that a breach might cause.

Regulatory enforcement can be effective, and the Federal Trade Commission (FTC), Federal Communications Commission (FCC), the Department of Health and Human Services (HHS), and state attorneys general, among others, have brought enforcement actions against organizations for data breaches.[226] Regulatory enforcement is limited in extensiveness, as regulatory agencies are only able to pursue a small number of cases. The FTC, for example, has brought only about sixty cases involving data security since 2002.[227] Moreover, individuals often have little say in whether enforcement actions are brought, and they lack much participation in the process. Regulatory enforcement waxes and wanes as agency priorities and personnel change. Not all state attorneys general vigorously enforce the regulation.

Private lawsuits serve a function that these other tools lack. Such lawsuits allow individuals to have a say about which cases are brought. These lawsuits bring out facts and information about blameworthy security practices by organizations. They provide redress to victims, and they act as a deterrent. But there are many flaws with litigation as a legal tool to deal with data breaches.

One concern is that runaway class actions could bankrupt companies. As one court noted, "for a court to require companies to pay damages to thousands of customers, when there is yet to be a single case of identity theft proven, strikes us as overzealous and unduly burdensome to businesses."[228]

224. *Security Breach Notification Laws*, *supra* note 109.

225. Jane K. Winn, *Are "Better" Security Breach Notification Laws Possible?*, 24 BERKELEY TECH. L.J. 1133, 1146 (2009).

226. Citron, *supra* note 58, at 792–93, 799.

227. FED. TRADE COMM'N, PRIVACY & DATA SECURITY—UPDATE: 2016, at 4 (2016), https://www.ftc.gov/system/files/documents/reports/privacy-data-security-update-2016/privacy_and_data_security_update_2016_web.pdf [https://perma.cc/QE3Z-6B4D].

228. Storm v. Paytime, Inc., 90 F. Supp. 3d 359, 368 (M.D. Pa. 2015). However, harm might not necessarily lead to a dramatic increase in class action lawsuits. Under the current procedural rules, federal courts would not certify a class where individual issues of harm would predominate

One problem endemic to data breaches is one we will refer to as the "multiplier problem." This problem is caused by the fact that organizations can hold data on so many individuals that recognizing even a small amount of harm will be multiplied by a staggering number of people. These days, even a small company can have data on tens of millions of people. Judges are reluctant to recognize harm because it might mean bankrupting a company just to give each person a very tiny amount of compensation. Do we want bankruptcy-threatening liability for a data harm that only causes people a minor amount of harm?

The challenge with data breaches is that although the harm might be small to many people, it can add up as hundreds and perhaps thousands of organizations cumulatively cause harm to people. Moreover, a small amount of harm to many people might add up to more harm collectively than a large amount of harm to a few people.

Courts may also be concerned that class-action lawsuits for data breaches often do not provide much in the way of redress to individuals. These lawsuits can be slow, expensive, and punishing to the parties. Lawsuits can be so costly and time-consuming that organizations often settle just to avoid the pain of having the legal process resolve the case even when they think they will likely win.[229]

Despite these concerns, which are legitimate, courts should not focus on them when evaluating whether there is a legally cognizable harm. Courts should analyze whether the law should recognize harms independently from the downstream consequences of such recognition. Often, these downstream consequences become conflated with the issue of whether there should be legally cognizable harm. Harm should not be denied merely because finding harm will involve facing challenging issues about the form and amount of redress.

It is true that litigation is a flawed legal tool, but the other legal tools to deal with data breaches have limitations. New legal tools might work better. But none of these points should lead to failing to find harm. If there's a nail

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the case. *See* Alex Parkinson, Comment, *Comcast Corp. v. Behrend and Chaos on the Ground*, 81 U. CHI. L. REV. 1213, 1214, 1223–25 (2013) (interpreting *Comcast Corp. v. Behrend*, 133 S. Ct. 1426 (2013), to prohibit class certification where individualized damage questions predominate). Under both tests, context is an important consideration for the various factors. *See* Fed. R. Civ. P. 23(b)(3). This in turn may make it difficult to obtain certification for classes involving thousands of people. Consider a proposed class action in a case related to a data breach involving thousands of people's home addresses. Context is key to determining if the disclosure would raise the risk of physical harm and emotional distress. Individualized hearings would be necessary to determine whether the sharing of home address raised the risk of domestic abuse or stalking. In such a case, the description of the class would have to be carefully tailored to the data-breach harms to overcome challenges to certification.

229. *See* Randy J. Kozel & David Rosenberg, *Solving the Nuisance-Value Settlement Problem: Mandatory Summary Judgment*, 90 VA. L. REV. 1849, 1850–51 (2004) ("The civil justice system is rife with situations in which the difference in cost between filing and ousting meritless claims or defenses makes the nuisance-value strategy profitable").

that needs to be hammered into the wall, and a hammer is not available, the solution is not to deny the existence of the nail. We reach this conclusion not just based on principle or a blind commitment to conceptual consistency, but on pragmatic grounds. At first blush, it generally does not seem pragmatic to argue that courts should recognize harm even though it could produce undesirable consequences in the legal system. But there are undesirable consequences for failing to recognize harm, which include allowing harm to go undeterred. The consequences should be seen beyond the particular case. Data-breach harms in any one case might not be large for most individuals, but aggregated across many cases, the harms become much more significant.

Moreover, there are adverse consequences with conflating issues and not addressing each in an honest and direct manner. These consequences affect society's ability to grapple with problems of great social concern. Not recognizing data-breach harms is avoidant behavior that often leads to a poor response on two fronts. The first is that problems involving data-breach harms are not addressed. The second is that specific problems involving the way our legal system functions are ignored.

If there is a legally cognizable harm, then the law should try to address it. If the problem is that the forms of redress and remedies cause problems, then these problems should be grappled with directly rather than avoided. Suppose a person's job is to pick every apple on an apple tree. Some apples are high up in the tree and are difficult to pick. The person declares that they are not apples, so she does not have to pick them. This approach is not only dishonest—it is unproductive. A more honest and productive response would be to explore how to surmount the difficulties in picking them. Maybe a different method is needed. Maybe new tools can be created to pick the apples. Innovation and invention might lead to a solution, but this might never occur if the existence of the apples is denied.

Denying problems stunts the law's development and is one factor why the law struggles to respond rapidly and effectively to contemporary problems. A key reason why data-breach harms are not recognized as cognizable is because their recognition would push on many of the areas where the law is very gingerly developing. Some might argue that the law should turn away data-breach harms until it is fully prepared to embrace them. That view, however, ignores the expressive function of the law.[230] By rejecting data-breach harms, the law is saying that they are not worthy of redress. It is suggesting that they are not worth rethinking existing legal concepts or pushing harder on newer developing areas of the law. What originates in a lack of judicial imagination and fortitude becomes manifested in terms of data-breach harms being cast aside as insignificant or nonexistent.

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230. *See* Citron, *supra* note 162, 376–77 ("[B]ecause law is expressive, it constructs our understanding of harms that are not trivial.").

It is difficult to set aside the law's current difficulties when tackling the question of whether the law should recognize data-breach harms. Bringing in the legal system with all its flaws might create negative outcomes. Shouldn't we consider the consequences of how our legal system will handle a certain matter?

The problem is that such an analysis takes the current legal system as fixed and unchangeable, and this is far from the case. The legal system will never grow or mature if it is not challenged. The consequences might be worse in the short term, but this sacrifice might yield better results in the long term. Our legal system already has many different tools to redress harm, and has evolved considerably over the years.

Moreover, the existence of problems with the legal system cuts both ways in a consequentialist analysis. Part of the decision about whether to accept and live with something is how well it functions. If the legal system functions fairly well, then one might be more accepting of it. The further away the legal system is from acceptable, the stronger the argument for changing it. Thus, the worse the failings of our legal system, the better it is to push on it.

Additionally, denial of harm is not the only escape valve that the legal system can employ. Escape valves can be created at nearly any point in the process. Instead of addressing difficulties in how the legal system will handle cases when determining whether data harm exists, courts could address those difficulties and make compromises when actually addressing those cases. Rather than create a fiction that harm does not exist, why not create other fictions more directly on point and responsive to the problems for which they are being created?

Generally, those who cause wide-scale harm must pay for it. If a company builds a dam and it bursts and floods a town, that company must pay.[231] But with data-breach harms, courts are saying that companies should be off the hook and should not be made to internalize the harm. To the extent that there ought to be limits on liability for data harm, such limits are best addressed directly rather than through denying the existence of data-breach harm. For instance, not all harms might need to be addressed via damages and could be dealt with through various forms of equitable remedies and declaratory judgments.

The problems with our civil justice system and class actions exist in many other areas of law and for many other types of harm. Data-breach harms should not be singled out. To the extent the civil justice system is flawed, this is an issue that ought to be taken up systematically, most practically through our legislatures. It is not an excuse for courts to take it upon themselves to

231. *See Reservoirs*, *supra* note 36, at 270–71 (analyzing data-breach cases as analogous to dam breach cases).

close off the civil justice system from redressing a serious and important type of harm.

Conclusion

Looking across the body of jurisprudence of data-breach harms, it is fair to say that courts are reluctant to recognize data-breach harms. Various lines of cases that would support their recognition are ignored or narrowly interpreted. Courts rarely seize the opportunity to push doctrines in a progressive direction when it comes to data-breach harms. By contrast, courts are willing to extend the logic of related lines of cases in other contexts. Yet for data-breach harms, where precedent can be read flexibly and creatively, courts will rarely take the opportunity to do so. In many cases, courts brush aside or ignore precedent that would support the recognition of data-breach harms.

With a better understanding of harms, we can appreciate why they are harmful, why the law struggles, and why the law needs to do more. Although there are legitimate concerns with recognizing data-breach harms, not doing so is akin to being an ostrich hiding its head in the sand. The law offers a set of tools that can be used to address harm, from compensatory damages to equitable relief (such as injunctions) to remedies (such as unjust enrichment).

Our legal system needs to confront data-breach harms because real costs are borne by individuals and society and because ignoring them results in inefficient deterrence. Courts routinely avoid hard questions and ignore the anxiety people experience and the increased risk that data breaches cause. Yet in other areas of the law, courts have recognized such harms and placed manageable limits on their reach. As we have shown, those legal developments should inform how courts address data-breach harms. A path has been laid to help us work through the complexities of data-breach harms.

Data-breach harm might often be intangible, but it still is very real. Data harm is frequently risk-oriented, but risk management is a standard part of the way that the modern commercial world operates.

There are regulatory enforcement mechanisms to address harm, as well as many possibilities for legislation. What is the ideal mix of these tools? Are new tools needed? These are important questions to ask and ones we plan to address in future work. For now, though, it is important to note that these questions will not be asked sufficiently if no harm is recognized.

In this Article, we have attempted to lay the conceptual groundwork for understanding data-breach harms and to demonstrate the legal foundations that can be used to help the law grapple with data-breach harms. When the law fails to recognize harm, the costs of our data-driven society are

externalized onto individuals. These costs are compounding as data-breach harms aggregate. Not recognizing data-breach harms can lead to under-deterrence of data security violations as well as inadequate investment in prevention. Dealing with data-breach harms will certainly be challenging, but the law is ready, and the stakes are of paramount importance.

Law Firms and Their Partners Revisited: Reflections on Three Decades of Lawyer Mobility

Robert W. Hillman*

Lawyers once joined their firms with the expectation that they would remain, become partners, and work themselves up the ladder of lockstep compensation. Lateral movements of lawyers among firms were rare. Ethics norms of the time assumed lawyers stayed with their firms.[1] That, of course, has changed as lawyer mobility has become a pervasive and unquestioned feature of the contemporary legal profession.[2]

We now have experienced roughly three decades of lawyer mobility. The modern era of lawyer mobility began with the rapid growth of a law firm by the name of Finley, Kumble, Wagner, Heine, Underberg, Manley, Myerson & Casey. Few lawyers of the present generation have heard of this firm, but it was a game changer. Finley, Kumble broke the mold by developing almost overnight into a legal powerhouse. It did so not through the then-usual means of growth by developing lawyers within the firm but instead sought an immediate impact through attracting political and legal stars and hiring laterally.[3] At its peak, the firm could boast of having in its rank of partners three former U.S. Senators, a former Governor of New York,

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1. Illustrative of the norms of this earlier era is an ABA 1961 ethics opinion concluding that a restrictive covenant in an employment contract is improper because it is unnecessary: "A former employee of a lawyer or law firm would be bound . . . to refrain from any effort to secure the work of clients of his former employer." ABA Standing Comm. on Ethics & Prof'l Responsibility, Formal Op. 300 (1961).

2. Lawyer mobility has been robust in recent years. Since the Great Recession, lateral hiring of partners by large firms has increased significantly. *See* GEO. L. CTR. FOR STUDY OF L. PROF'N, 2017 REPORT ON THE STATE OF THE LEGAL MARKET 12–13 (2017). On the other hand, lateral hiring was also robust during the economic downturn. *See* Vivia Chen, *The 2010 Lateral Report Buyer's Market: The Great Recession Led to an 11 Percent Spike in Lateral Partner Moves*, AM. LAW. (Feb. 1, 2010), http://www.americanlawyer.com/id=1202439218666/The-2010-Lateral-ReportBuyers-Market?slreturn=20170826102958 [https://perma.cc/J8MU-X9WN] (noting that 2,775 lawyers left or joined the largest firms in the country in the twelve months ending September 30, 2009). All of which suggests that lawyer mobility fares well in both good and bad times.

3. *See, e.g.*, John Nielsen, *An Upstart Law Firm Comes of Age*, FORTUNE (Sept. 29, 1986), http://archive.fortune.com/magazines/fortune/fortune_archive/1986/09/29/68093/index.htm [https://perma.cc/2XQJ-NK5V] ("A law firm rises from untouchable to Brahmin only by accumulating decades of respectable practice. What then to make of Finley Kumble Wagner Heine Underberg Manley Myerson & Casey? Too young to be part of the establishment, it is too big to be an upstart. Seemingly overnight it has become one of the giants of the profession. It is among the most reviled, most envied—and most emulated—law firms in America.").

a former mayor of New York City, and perhaps most impressive of all, a former Commissioner of Baseball.[4] Overnight, it became one of the largest law firms in the United States. And, apart from the famous personages it attracted, most of its growth was fueled by hiring partners from other firms. These partners moved their practices and their clients to Finley, Kumble. The firm's aggressive lateral hiring practices brought to an abrupt end a lengthy period for American law firms characterized by loyalty of partners to their firms and very rare movement of lawyers from one large law firm to another.[5]

Other firms quickly abandoned their lockstep compensation structures and embraced rapid growth through lateral hiring of lawyers who overnight could bring their books of business and revenue streams. In many cases, entire practice groups moved to new firms. Firms losing lawyers sought to offset their setbacks by gaining lawyers through lateral hiring. Abruptly, the profession had changed, and the law firm world would never be the same. So dramatic was this development that it prompted one court to describe the revolving door as "a modern-day law firm fixture."[6] Even the Chief Justice of the United States was moved to comment on the rapidity of the changes in the legal profession brought by the new development of lawyer mobility.[7]

If Finley, Kumble's rise marked the beginning of a new era of lawyer mobility, its even more sudden collapse in 1987 signaled that the law firms of this new era would be far more fragile than they had been in the past.[8] Finley, Kumble illustrates that lateral hiring may facilitate dramatically faster growth than firms had experienced in the past, but the cost of that growth is weakened firm stability. Finley, Kumble was the first of the major law firms to fail. But it was not the last. In more recent years, blue-chip firms such as Dewey & LeBoeuf; Brobeck, Phleger & Harrison; Coudert Brothers LLP; Heller Ehrman LLP; Howrey LLP; and Thelen LLP each fell from greatness into the abyss of bankruptcy.[9] The collapse of such preeminent law firms

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4. E.R. Shipp, *Finley, Kumble, Major Law Firm, Facing Revamping or Dissolution*, N.Y. TIMES (Nov. 11, 1987), http://www.nytimes.com/1987/11/11/business/finley-kumble-major-law-firm-facing-revamping-or-dissolution.html [https://perma.cc/6ZXH-JGUH]; E.R. Shipp, *Myerson & Kuhn Arises from Finley, Kumble*, N.Y. TIMES (Jan. 6, 1988), http://www.nytimes.com/1988/01/06/business/myerson-kuhn-arises-from-finley-kumble.html [https://perma.cc/JZ8J-78K5].

5. For a first-person account of Finley, Kumble's rise and fall, see STEVEN KUMBLE & KEVIN LAHART, CONDUCT UNBECOMING: THE RISE AND RUIN OF FINLEY, KUMBLE (1990).

6. Graubard Mollen Dannett & Horowitz v. Moskovitz, 653 N.E.2d 1179, 1180 (N.Y. 1995).

7. *See* William H. Rehnquist, *The Legal Profession Today*, 62 IND. L.J. 151, 152 (1987) ("Institutional loyalty appears to be in decline. Partners in law firms have become increasingly 'mobile,' feeling much freer than they formerly did and having much greater opportunity than they formerly did, to shift from one firm to another and take revenue-producing clients with them.").

8. At the time of its collapse, the firm had 245 partners and approximately 2,000 associates and staff. Rita H. Jensen, *Scenes from a Breakup*, NAT'L L.J., Feb. 8, 1988, at 1, col. 1.

9. Andrew Clyne, *5 Years After the Collapse of Dewey & LeBoeuf: Career Advice for Associates from a Dewey Associate-Turned-Recruiter*, ABOVE THE LAW (May 12, 2017), https://abovethelaw.com/2017/05/5-years-after-the-collapse-of-dewey-leboeuf-career-advice-for-

would have been unimaginable prior to the era of lawyer mobility. But today, no law firm can guarantee that it will not suffer a similar fate.

At about the time of Finley, Kumble's rise and fall, I published an article in this law review anticipating future trends in lawyer mobility and offering a framework for balancing the conflicting norms (partnership and agency law, legal ethics, and constitutional law) that set the rules of the game.[10] The article was expanded slightly and published as a book in 1990.[11] Lawyers at the time were reluctant to display the book in their offices, and my editor relayed to me that the publisher was astonished that so many orders were placed with delivery to home rather than office addresses. More recently, both the law and the acceptance of lawyer mobility have changed. The slim volume has grown into a substantial loose-leaf treatise, which itself has been the subject of multiple editions.[12] Such is the rapidity of change in this area that the treatise is revised twice a year, and the current iteration of the Table of Cases includes more than six hundred reported opinions,[13] compared with eighty-two in the first version of the book.[14] The law of lawyer mobility, first articulated and discussed in the 1988 *Texas Law Review* article, has taken hold.

Now, thirty years after this first article on the law and ethics of lawyer mobility, it is appropriate to step back and assess where we have come from and where we are heading in a world of lawyer mobility. Although the existence and scope of lawyer mobility are well-documented, the implications and costs of this development are not. In these brief reflections, I will focus my comments on five principal lessons and consequences of more than three decades of lawyer mobility: (1) the structure of the modern law firm is inherently fragile; (2) firms are no longer capable of acting as effective

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associates-from-a-dewey-associate-turned-recruiter/ [https://perma.cc/BK6H-XT7W]; Elie Mystal, *Thelen Officially Dissolves*, ABOVE THE LAW (Oct. 28, 2008), https://abovethelaw.com/2008/10/thelen-officially-dissolves/ [https://perma.cc/P496-B248]; Steven Pearlstein, *Why Howrey Law Firm Could Not Hold It Together*, WASH. POST (Mar. 19, 2011), https://www.washingtonpost.com/business/economy/why-howrey-law-firm-could-not-hold-it-together/2011/03/16/ABNTqkx_story.html?utm_term=.f1d839ce05b9 [https://perma.cc/WJZ3-R5JN]; Ellen Rosen, *The Complicated End of an Ex-Law Firm*, N.Y. TIMES (Feb. 9, 2007), http://www.nytimes.com/2007/02/09/business/09legal.html [https://perma.cc/WEY8-YTSK]; Andrew Strickler, *5 Things To Know About The Heller Ehrman Clawback Case*, LAW360 (Sept. 19, 2016), https://www.law360.com/articles/841576/5-things-to-know-about-the-heller-ehrman-clawback-case [https://perma.cc/U4D7-ELKN].

10. *See generally* Robert W. Hillman, *Law Firms and Their Partners: The Law and Ethics of Grabbing and Leaving*, 67 TEXAS L. REV. 1 (1988).

11. ROBERT W. HILLMAN, LAW FIRM BREAKUPS: THE LAW AND ETHICS OF GRABBING AND LEAVING (1990).

12. ROBERT W. HILLMAN, HILLMAN ON LAWYER MOBILITY: THE LAW AND ETHICS OF PARTNER WITHDRAWALS AND LAW FIRM BREAKUPS (2d ed. 1998, looseleaf); ROBERT W. HILLMAN & ALLISON MARTIN RHODES, HILLMAN ON LAWYER MOBILITY: THE LAW AND ETHICS OF PARTNER WITHDRAWALS AND LAW FIRM BREAKUPS (3d ed. 2017, looseleaf).

13. HILLMAN & RHODES, *supra* note 12, at TC:1–14.

14. HILLMAN, *supra* note 11, at 279–81.

gateways to the profession in providing training and mentoring for young lawyers and offering a transition from school to professional practice; (3) the nature of firm "equity," or ownership, has undergone profound changes not fully understood by many in the profession; (4) lawyer mobility has created significant externalities often disregarded by courts anxious to promote the professional development of lawyers; and (5) lawyer mobility has made it exceedingly difficult, if not impossible, for most firms to differentiate themselves through effective "branding" of their identities.

What links these lessons together is the common theme of the diminishment of the "firm." The firm is the vehicle for providing legal services. Even as the market for legal services has grown, the firms that have provided those services have weakened and are far less stable and cohesive today than they were in the past. To be sure, BigLaw is populated by law firms of ever-increasing size and seemingly boundless energy. But scratch the surface of these firms and another picture emerges. We see firms that struggle mightily to develop identities, and that are increasingly difficult to differentiate, because of the instability of their memberships resulting from lawyer mobility. And we see that even an old-line prestigious law firm that had been in existence for more than 150 years and was the first of the truly international law firms is not immune from sudden collapse, as happened to the once-prestigious Coudert Brothers firm ten years ago.[15]

Change is the theme of the law firm world. And a large part of the change has been brought about because of lawyer mobility. I noted thirty years ago that "[f]irms are increasingly but temporary resting places for their partners."[16] The context of that statement was the astonishingly rapid and unprecedented rise in lawyer mobility. Now, with the experience of the ensuing decades, I am pleased to revisit the subject and offer these broader perspectives on the diminishment of law firms as well as the lessons, consequences, and costs of thirty years of lawyer mobility.

I. Fragility of Law Firm Structure

Strong firms are the counterpoint to mobile lawyers. To the extent that a law firm is able to command the loyalty of its clients, the risk to the firm of its lawyers grabbing clients and moving to other firms is remote. Hence, internal tensions inevitably arise as law firms weaken the bonds that clients have with individual lawyers and "train" clients to view the firms, not individual lawyers, as their service providers.

For the most part, these efforts have been unsuccessful. Sophisticated clients often prefer to have relationships with lawyers rather than firms and

15. *See* Jonathan D. Glater, *Law Firm That Opened Borders Is Closing Shop*, N.Y. TIMES (Aug. 30, 2005), http://www.nytimes.com/2005/08/30/business/law-firm-that-opened-borders-is-closing-up-shop.html?mcubz=0 [https://perma.cc/NB8J-2GHL].

16. Hillman, *supra* note 10, at 2.

are wary of firms' attempts to weaken these bonds through methods that increase costs to clients and provide few corresponding improvements to the quality of service.[17] A 2017 report of Georgetown's Center for the Study of the Legal Profession describes the erosion of the traditional law firm franchise:

> [In the past], clients would typically entrust an entire transaction, litigation, or other project to one of their outside law firms, and the selected firm would handle all aspects of the matter "from soup to nuts." While this approach was clearly advantageous for law firms, it resulted in higher fees for clients, partly because firms tended to have many of the tasks involved in the matters performed by professionals who were overly qualified for the jobs at hand. A classic example is using relatively high-priced associates to conduct routine document reviews that could adequately be performed by qualified paralegals or other support staff.[18]

Now, the report concludes, clients increasingly are inclined to break matters into their constituent parts and decide how to most efficiently address the handling of each part.[19] This may involve dividing work among multiple law firms when in the past all work would have been done by a single firm.[20]

At the dawn of the era of lawyer mobility, the decline of the law firm franchise may have seemed highly unlikely. Professors Gilson and Mnookin published a fascinating economic theory of the law firm that, among many interesting points, argued that large firms should be strong because they allow lawyers to diversify their practices and thereby manage risk.[21] They further argued that lockstep compensation should prove an effective means of allocating firm profits among the partners.[22] In such an environment, they wondered why lawyers would ever leave their firms:

> The new firm is presumably prepared to pay the departing lawyer his real marginal product. But why is not the old firm prepared to match the bid? . . . One would suppose that the new firm must know that the original firm has better information concerning the actual marginal product of the lawyer who is leaving. Thus, any time the new firm is successful in hiring the winner, there is an implication that a party with

17. *See* Robert W. Hillman, *Loyalty in the Firm: A Statement of General Principles on the Duties of Partners Withdrawing from Law Firms*, 55 WASH. & LEE L. REV. 997, 1010–11 (1998) (discussing how sophisticated clients typically "hire the lawyer rather than the firm" and prefer an environment of competition in the provision of legal services).

18. GEO. L. CTR. FOR STUDY OF L. PROF'N, *supra* note 2, at 10.

19. *Id.*

20. Alternatively, clients may handle some matters in-house or refer work to non-law firm service providers. *Id.*

21. Ronald J. Gilson & Robert H. Mnookin, *Sharing Among the Human Capitalists: An Economic Inquiry into the Corporate Law Firm and How Partners Split Profits*, 37 STAN. L. REV. 313, 320 (1985).

22. *Id.* at 386–87.

better information concerning the lawyer's real value would not bid that high.[23]

There are several answers to the question Gilson and Mnookin pose. The most fundamental is that the lawyer may have greater value to another firm. This may be the case for any number of reasons. The new firm, for example, may have complementary practice areas enabling it to provide more attractive packaging of services to clients. Or the new firm's offices may be more appropriately located to service the clients of the lawyer. Or fewer client conflict problems may exist at the new firm. The list could go on. The fallacy in the argument of Gilson and Mnookin is their apparent, but unstated, assumption that firms are fundamentally equal. If that truly were the case, then their conclusion would be defensible.

There are other reasons why the economic calculation they proposed may not be an effective foil to lawyer mobility. Personality conflicts and friction may cause a partner's current firm to bid less than another firm. A lawyer may also leave a firm because of disgruntlement over management policies or dissatisfaction with the firm's approach to gender, race, and sexual-orientation issues. A lawyer may feel her firm is providing inadequate resources and staffing to support her practice. Or a lawyer may have concerns over management policies as they affect the fiscal solvency of the firm. In the past, it would have been foolhardy to speak of a top-line firm failing, but as recent years have shown, even blue-chip firms may fail with a breathtaking suddenness. In such an environment, lawyers may be quick to "jump ship" at the first signs of downturns in their firms.

With a few very impressive exceptions,[24] lockstep compensation has died and been replaced by profit-division arrangements that favor control of client revenues over now-antiquated notions of seniority. All of this means that the contemporary law firm may be viewed as a loose confederation of lawyers. The personnel of the firm are constantly in flux. A recent Altman Weil survey reported that lateral hiring is perceived as a quick way to buy

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23. *Id.* at 338 n.43.

24. A very small handful of highly prestigious and successful firms retain lockstep compensation systems and seem to reflect the Gilson and Mnookin law firm model. The Cravath, Swaine & Moore website, for example, states, "[W]e compensate partners in a lockstep system throughout their careers." *Philosophy*, CRAVATH, SWAINE & MOORE LLP, https://www.cravath.com/philosophy [https://perma.cc/SN2A-YYDT]. Cleary Gottlieb makes a similar claim, noting that "[a]t Cleary, we still believe this model brings out the best in our lawyers and our firm—and helps deliver the best results to our clients. Every associate and partner is compensated solely on the basis of seniority, not hours billed or business generated." *Culture*, CLEARY GOTTLIEB, https://www.clearygottlieb.com/locations/new-york/legal-landing-page/careers-interior-pages/why-cleary/culture [https://perma.cc/49Q7-AFJG]. As does Debevoise & Plimpton, which states that the firm "is one of the few firms with a lockstep compensation system for associates and partners. Lockstep economics create a culture of collaboration among all lawyers." *Working in New York*, DEBEVOISE & PLIMPTON, http://www.debevoise.com/news/working-in-new-york [https://perma.cc/F2XC-9E6H]. A handful of other elite firms may maintain lockstep compensation systems, but they are in a distinct minority.

market share in a low-growth environment. The survey added that 85% of firms reported adding lawyers who brought new business to their firms, while 47% of firms lost lawyers who took business with them.[25]

A firm's losses may be offset quickly by the same firm's hiring new lawyers from other firms. Firms are in a state of constant change, and for this reason it is unsurprising that clients often focus their loyalties on individual lawyers, or even practice groups, ahead of the firms in which they practice. In other words, lawyer mobility has destabilized, permanently, the American law firm. When the revenue streams lost to other firms are not offset by new revenue streams generated through lateral hiring, downsizing the firm is inevitable in the hope that firm collapse may be avoided. The pressures are all the more intense as firms come to recognize overcapacity in the legal profession aggravated by decreased demand for legal services.[26]

II. Narrowing the Gateway to the Profession

Large law firms once provided a well-functioning gateway to the legal profession. They bridged the gap between theory (law school) and professional practice by providing coherent training and mentoring programs for young associates.[27] Often, new lawyers spent the first two or three years in their firms rotating through various departments and practice groups.[28] Much time was spent on nonproductive but educational tasks such as attending depositions and meetings with clients. Only as third- or fourth-year associates were they required to commit to a practice specialty, a decision grounded on significant work experience in the area and, therefore, likely to be the correct one both for the lawyer and the firm.

A. The Demise of Subsidized Training

The rather leisurely but highly effective professional-development model for associates of the past is no longer. Rotation and extensive training programs were premised on the assumption that a large percentage of

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25. ERIC A. SEEGER & THOMAS S. CLAY, ALTMAN WEIL, INC., 2016 LAW FIRMS IN TRANSITION: AN ALTMAN WEIL FLASH SURVEY iii (2016).

26. A 2017 Altman Weil survey revealed that nearly 61% of firms believe overcapacity is diluting firm profitability, and 88% said that they have chronically underperforming lawyers. ERIC A. SEEGER & THOMAS S. CLAY, ALTMAN WEIL, INC., 2017 LAW FIRMS IN TRANSITION: AN ALTMAN WEIL FLASH SURVEY 38, 41 (2017).

27. *See generally* Robert W. Hillman, *The Hidden Costs of Lawyer Mobility: Of Law Firms, Law Schools, and the Education of Lawyers*, 91 KY. L.J. 299 (2002).

28. An American Bar Association publication suggested that rotation programs are useful in: (1) giving broad on-the-job training; (2) providing associates with expertise that they can later draw upon; (3) enabling firms to assess the capabilities of new attorneys; and (4) fostering understanding between practice areas so that, for example, nonlitigators understand the pressures of trial work, etc. *See* Gregory D. Huffaker, Jr., *Departmental Rotation of New Lawyers*, *in* YOUR NEW LAWYER: THE LEGAL EMPLOYER'S COMPLETE GUIDE TO RECRUITMENT, DEVELOPMENT AND MANAGEMENT 143, 143–49 (Michael K. Magness & Carolyn M. Wehmann eds., 2d ed. 1992).

associates would remain with their firms. Over time, the firms would recoup the costs of early professional development. Moreover, the costs to be recouped often were passed on to clients, who accepted charges, without significant questioning, for unproductive time associates spent on their matters.

In the more competitive environment of today, clients are no longer willing to subsidize associate training,[29] and firms are unwilling to commit resources to training young lawyers unlikely to remain with their firms. These reasons help explain why the number of junior associates at large law firms is decreasing.[30] Moreover, rising salaries for top associates further pressure firms to get a return on their "investment" in associates sooner rather than later.[31] Firms, in short, have ceased providing a type of postgraduate training to serve as a useful bridge between law school and professional practice.

Providing entry-level lawyers with diverse practice experiences and sufficient time to make long-term career decisions are some of the casualties of these developments. The rotation period is a luxury no firm can afford (and no clients are willing to subsidize). Consider, for example, Cravath, Swaine & Moore, an elite firm that maintains lockstep compensation and boasts of the quality of training it provides associates. The Cravath website states with enthusiasm the firm's rotation program, which provides "our associates with a broad but intense training experience they are not likely to find anywhere else."[32] But a closer reading reveals that the so-called rotation program simply involves working for different partners "within their department of choice."[33] The benefit of the traditional but now-defunct rotation program was that lawyers could sample different practice areas (not just different partners) before making long-term career choices concerning their

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29. *See, e.g.*, Melissa Maleske, *The Trouble With Young Associates*, LAW360 (Mar. 1, 2017), https://www.law360.com/articles/897098/the-trouble-with-young-associates [https://perma.cc/6BJD-J6C5] ("Most corporate clients, however, are insulated from any effect of the raises [in associate starting salaries] because they simply don't pay for first- and second-year associates. They have either adopted blanket policies, negotiated nonhourly billing arrangements or acquired the control to veto rate hikes, and their unwillingness to pay for the services of the inexperienced base of the law firm pyramid has been a main driver behind such moves."). This development is not limited to firms in the United States. Anna Ward & Alex Berry, *In a First, Major UK Client Says No to Paying for Junior Lawyers*, AM. LAW. (Mar. 21, 2017), http://www.americanlawyer.com/id=1202781722437/In-a-First-Major-UK-Client-Says-No-to-Paying-for-Junior-Lawyers [https://perma.cc/5M7N-GBBC].

30. *See* GEO. L. CTR. FOR STUDY OF L. PROF'N, *supra* note 2, at 12.

31. Even in the early 1980s there was a perception that rising associate salaries were limiting firms' investment in training. *See, e.g.*, David Ranii, *In-House Training Pays Off; Quicker Competency?*, NAT'L L.J., Jan. 3, 1983, at 1 (quoting the director of professional development at a large firm: "There was a day when you could train young lawyers by letting them sit in on meetings, what the New York firms call second chairing. But that was when associates were making a lot less.").

32. *The Rotation System*, CRAVATH, SWAINE & MOORE LLP, https://www.cravath.com/rotationsystem/ [https://perma.cc/7FU3-7CQR].

33. *Id.*

specialties. But that is an expensive training luxury that firms simply no longer support.

This is a sad development and a serious loss in the professional development of young lawyers. Second-year law students exploring job opportunities are asked to state their specialties, with the result that a student's decision to commit to a career as a litigator may be based on nothing more than a positive experience in a first-year civil procedure course (perhaps not even taught by a lawyer). Young associates must earn their keep from the first day. To make matters worse, mentoring is haphazard and often does not exist.[34] Asking inexperienced lawyers to make long-term career decisions with neither information nor guidance through mentoring is a manifestation of weakened law firms brought about, at least in part, by lawyer mobility.

B. The Emergence of Contract Lawyers

The competition for entry-level positions in law firms is intense. In the past, firms on a growth trajectory would regularly hire associate "classes" with clear tracks to partnership. But clear tracks have diminished, and in recent years the rise of "contract lawyers" has made the quest for entry-level positions all the more difficult. In contrast with an associate, a contract lawyer has only a temporary affiliation with a firm. A recent report reveals that most firms are reducing their hiring of associates in favor of more expansive use of contract lawyers to meet staffing needs without incurring the long-term costs attendant to the hiring and development of associates.[35] The report adds that there is little reason to believe firms will be "ratcheting up their associate hiring goals anytime soon."[36]

The contract lawyer position is not a path to partnership even though contract lawyers produce legal work of a high quality. Altman Weil reports that the stigma that contract-lawyer work is of lower quality is nearly gone and that the use of contract lawyers is the most effective lawyer-staffing technique firms are pursuing.[37] Seventy percent of firms surveyed regard the shift to contract lawyers as a permanent rather than temporary trend.[38] Moreover, almost 60% of large firms surveyed plan to shift work to contract

34. On the value of associate mentoring, see Patrick J. Schiltz, *Legal Ethics in Decline: The Elite Law Firm, the Elite Law School, and the Moral Formation of the Novice Attorney*, 82 MINN. L. REV. 705, 721–22 (1998) ("Most of those in the legal profession understand that mentors . . . play an important role in teaching novice lawyers how to practice law *well*. What is not widely understood is that, as important as mentoring is in teaching young attorneys to practice law well, it is far more important in teaching them to practice law *ethically*.").

35. GEO. L. CTR. FOR STUDY OF L. PROF'N, *supra* note 2, at 14.

36. *Id.* at 15.

37. ERIC A. SEEGER & THOMAS S. CLAY, ALTMAN WEIL, INC., 2017 LAW FIRMS IN TRANSITION: AN ALTMAN WEIL FLASH SURVEY iii (2017).

38. *Id.* at 1.

lawyers and paraprofessionals in the future.[39] Nearly 80% of large firms (more than 250 lawyers) now use contract lawyers.[40] The development is a natural consequence of lawyer mobility because it enables a firm to quickly adjust staffing levels to reflect its *current* needs based on the *present* population of senior lawyers in the firm.

The movement toward contract lawyers is very similar to the practices of many law schools in placing increased teaching responsibilities on adjuncts and lecturers rather than permanent, tenured members of faculties.[41] Both trends reflect severe cost-cutting priorities and radically alter traditional relationships between institutions and participants who contribute necessary intellectual capital. Staffing that assumes the fungibility and temporary status of such contributors may be an effective approach to cutting costs in the uncertain environment brought about by lawyer mobility, but it is not the preferred method of developing, over the long term, robust institutions with unique identities and consistently high performance.

III. Diminishment of Equity

Law firms of the past were smaller and more egalitarian than contemporary law firms. Partnership as an associational form suited these firms well as partnerships by their nature are populated by lawyers who are equals within, and truly co-owners of, their firms. But growth meant larger firms, and larger firms meant more hierarchical structures. The traditional law firm model for growth became pyramidal, with an ever-expanding, leveraged base and well-defined career paths to partnership. For this purpose, partnership continued to mean ownership, as it should, although the line between owner and employee began to blur in larger firms.[42] That at least some degree of co-ownership is the *sine qua non* of a partnership is reflected both in the Uniform Partnership Act, which defines a partnership as an "association of two or more persons to carry on as co-owners a business for

39. *Id.* at 25.

40. *Id.* at 33.

41. The American Bar Association is considering relaxing its requirement that full-time tenured faculty teach more than half the total credit hours offered by a law school. Such a change could be seen as a cost-cutting measure for law schools. Nick Roll, *Debating the Value of Full-Time Professors*, INSIDER HIGHER ED. (July 14, 2017), https://www.insidehighered.com/news/2017/07/14/american-bar-association-receives-pushback-tenure-proposal [https://perma.cc/Q2GY-7QCE]. Not surprisingly, the American Association of University Professors (AAUP) opposes this change. AAUP, COMMENTS ON PROPOSED REVISIONS TO STANDARD 403(A) (July 10, 2017), https://www.aaup.org/sites/default/files/AAUP-ABA-Comments-on-Proposed-Revisions-to-Standard-403_July%2010.%202017.pdf [https://perma.cc/RB9D-FZVL].

42. The equality norm of partnership law is in sharp contrast with the more hierarchical underpinnings of the relationship between employer and employee. On this point, see Robert W. Hillman, *Law, Culture, and the Lore of Partnership: Of Entrepreneurs, Accountability, and the Evolving Status of Partners*, 40 WAKE FOREST L. REV. 793, 796 (2005).

profit,"[43] and in the Revised Uniform Partnership Act, which includes a similar definition of a partnership.[44]

But as law firms grew in size, the egalitarian premise underlying partnership was stressed severely. May it truly be said that partners are coequal owners when they number in the hundreds or even the thousands? Centralized management became a necessary norm, and even true equity partners had relatively little say in the day-to-day direction of their law firms. If there was any doubt about the changing nature of partnership, the uncertainty was removed as firms faced with an economic downturn responded with "layoffs" of large numbers of partners. The inherent contradiction in laying off an owner of a firm was a rather nuanced point of more interest to this academic than to the managers of large law firms.[45]

The pyramidal model keyed to both growth and leverage may have worked well in an environment in which lawyer mobility was anemic, lawyers stayed at their firms, and compensation increased with seniority (i.e., compensation was lockstep). But as lateral movement options expanded and the era of lawyer mobility was launched, new and more restricted gateways to partnership developed. Some firms increased in size even as the relative percentage of true "partners" declined.

The ubiquitous nonequity partner is a modern phenomenon appropriate for an environment in which true "partnership" is illusory for increasing percentages of firm members. Although some firms seek to evade the oxymoronic character of "nonequity partner" by describing this new status of lawyers within their firms with alternative terms such as "salaried partner" and "income partner," the effect transcends the label. By creating a large group of mature nonequity lawyers within the firm, the true equity partners are able to keep their own group small while enjoying many of the benefits of leverage and avoiding diluting the economic ownership of their firm.[46]

To those outside law firms and in particular to clients, nonequity and equity partners may be indistinguishable, and that is often the idea. But within firms there is a clear difference in that the former have the status of employees rather than equity stakeholders. When firms need to downsize in response to changes brought by partner departures, layoffs of nonequity partners may be implemented quickly and without legal complications. Conversely, nonequity partners may move among firms with fewer hindrances than equity partners. They do not have capital accounts that need to be repaid and generally are not subject to lengthy notice periods in their

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43. UNIF. P'SHIP ACT § 6 (UNIF. LAW COMM'N 1914).

44. REV. UNIF. P'SHIP ACT § 101(6) (UNIF. LAW COMM'N 1997).

45. *See* Hillman, *Law, Culture and the Lore of Partnership*, *supra* note 42, at 812–17 (discussing various means for removing partners, including layoffs). On downsizing generally, see HILLMAN & RHODES, *supra* note 12, ch. 5.

46. *See generally* Douglas R. Richmond, *The Partnership Paradigm and Law Firm Non-Equity Partners*, 58 U. KAN. L. REV. 507 (2010).

employment agreements (as equity partners frequently are in their partnership agreements). Often, nonequity partners are integral parts of practice groups, and when a group moves to another firm largely as a unit, the ease of movement for the nonequity partner segment of the unit facilitates lawyer mobility.

Nonequity partners and contract lawyers are two sides of the same coin. Firms may quickly "staff up" or "staff down" by retaining or discharging these professionals with no greater difficulty than a commercial firm encounters in adjusting the size of its workforce in a recession. Lawyer mobility encourages this option because firms vulnerable to sudden changes in client revenues require flexibility to adjust staffing, and to do so quickly. To be sure, contract-lawyer status by its nature is temporary. The same cannot necessarily be said of nonequity-partner status, and firms may be more reluctant to remove nonequity partners than contract lawyers. But neither status may be said to be associated with employment security, and when necessary, firms may quickly remove both contract lawyers and nonequity partners.

More broadly, both the rise of nonequity partners and the rise of contract lawyers limit the number of lawyers who may hope to achieve equity ownership of their firms. The goal of true "partnership" becomes ever more elusive for an increasing number of lawyers. The data bear this out. Over the last decade, the number of midlevel and senior associates has declined slightly, the number of nonequity partners has risen, and the number of junior associates has dropped significantly.[47] As noted, the use of contract lawyers has reduced the need for firms to dangle the partnership carrot as a means of attracting young lawyers. Along a similar line, for more experienced lawyers, nonequity-partner status may be a transitional step on the way to becoming an equity partner, but it often is not. By eliminating the "up or out" feature of past law-firm structures, nonequity partners have rendered the achievement of firm ownership illusory for an increasing number of lawyers in the contemporary large law firm.

IV. Externalities

The last several decades have been kind to entrepreneurs who seek to shield themselves from liability. Traditionally, partners have stood behind their businesses in the most meaningful way possible by having potentially unlimited liability for tort and contract claims.[48] Incorporating as a means of

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47. REPORT ON THE STATE OF THE LEGAL MARKET, *supra* note 2, at 11–12. The effect is to stress the traditional leverage benefits of the pyramid structure by reducing the number of lowly compensated (relatively speaking) attorneys at the junior level while increasing the number of highly compensated partners. *Id.* at 12.

48. UNIF. P'SHIP ACT §§ 13–15 (UNIF. LAW COMM'N 1914) (defining partners' liability, jointly and severally, for the debts and obligations of the partnership); REV. UNIF. P'SHIP ACT §§ 305–06 (UNIF. LAW COMM'N 1997) (same).

limiting liability has long been an option, but is not without its own drawbacks, particularly on the tax front.[49] But beginning in the 1990s, the small business landscape was changed forever with the development of new associational liability shields, principally through LLCs and LLPs, curtailing or eliminating altogether significant personal liability for claims arising from law firm business operations. To a large extent, lawyers also have benefitted from the extension of limited liability protections, and in most states the limited liability partnership and/or the limited liability company are popular associational forms for law firms.[50]

A largely unnoted aspect of lawyer mobility is the externalities generated when mobile lawyers remove income streams from their firms to the possible detriment of third parties, most notably staff employees and creditors. In the once-benign world of partnership law as applied to law firms, all fees generated on open cases—so-called unfinished business—were the property of the firm.[51] If the firm failed, fees derived from the completion of unfinished business would be remitted to the firm for the benefit of its creditors.[52] This has become known as the "*Jewel* doctrine," named after a relatively obscure California case applying the unfinished-business doctrine of partnership law to law firms.[53] To circumvent this result, partners of failing firms began reaching "*Jewel* waivers" providing that departing lawyers could take their cases to their new firms and retain any fees generated from the completion of work in progress.[54]

What is wrong with this picture? As between partners in a law firm, there is no reason not to respect arms-length bargaining culminating in a *Jewel* waiver. But such contracts should not create externalities harmful to third parties. For good reason, creditors decry the loss of income derived from the completion of a firm's unfinished business. This point was made succinctly and clearly by a federal district court judge in a ruling ultimately overturned on other grounds: "A departing partner is not free to walk out of

49. 26 U.S.C. § 11 (laying out corporate tax rates).

50. *See generally* Robert W. Hillman, *Organizational Choices of Professional Service Firms: An Empirical Study*, 58 BUS. LAW 1387 (2003) (providing data on associational choices of law firms); Allison M. Rhodes, Robert W. Hillman & Peter Tran, *Law Firms' Entity Choices Reflect Appeal of Newer Business Forms*, BUS. ENTITIES, July/Aug. 2014, at 16 (updating the 2003 data).

51. *See, e.g.*, UNIF. P'SHIP ACT § 30 (UNIF. LAW COMM'N 1914) (partnership is not terminated upon dissolution but continues until a winding up of its business is completed); REV. UNIF. P'SHIP ACT § 802 (UNIF. LAW COMM'N 1997) (same). *See generally* HILLMAN & RHODES, *supra* note 12, § 4.3.

52. *See, e.g.*, Rosenfeld, Meyer & Susman v. Cohen, 194 Cal. Rptr. 180, 189 (Cal. Ct. App. 1983) (holding that contingent fees from the completion of the case pending at the time the firm dissolved were unfinished-business income of the dissolved firm); HILLMAN & RHODES, *supra* note 12, §§ 4.3–.4; Douglas R. Richmond, *Migratory Law Partners and the Glue of Unfinished Business*, 39 N. KY. L. REV. 359 (2012); Thomas E. Rutledge & Tara A. McGuire, *Conflicting Views as to the Unfinished Business Doctrine*, BUS. L. TODAY, Feb. 2015, at 1.

53. Jewel v. Boxer, 203 Cal. Rptr. 13 (Cal. Ct. App. 1984).

54. *See* HILLMAN & RHODES, *supra* note 12, § 4.6.3.1.

his firm's office carrying a Jackson Pollack painting he ripped off the wall of the reception area, simply because the firm has dissolved."[55]

Creditors have enjoyed some success as a handful of decisions have applied bankruptcy law's fraudulent-transfer doctrine to allow clawbacks of some or all fees addressed in such agreements.[56] Clawbacks have a tentative toehold in the world of law firms, although it is by no means certain that all courts will be prepared to apply the fraudulent-transfer doctrine to protect the interests of creditors harmed by lawyer mobility.

The vulnerability of creditors is evident in a series of recent decisions refusing to treat hourly-fee cases as the unfinished business of law firms. These decisions mean that lawyers who control hourly-fee cases are free to move the income streams generated by such cases to other law firms, free of claims by the creditors of failed law firms. The most important of the decisions is a 2014 decision of the New York Court of Appeals. The decision endorses lawyer mobility and concludes that hourly-fee matters are not the unfinished business of a dissolved law firm and may freely be moved to new firms.[57] The opinion not only failed to recognize key provisions of the Uniform Partnership Act (in effect in New York) that point to a contrary conclusion but also had nothing to say about the costs of its decision to be borne by creditors and employees of bankrupt firms.[58] At least in New York, the interests of mobile lawyers are of paramount importance.

Along a similar line, in *Heller Ehrman LLP v. Davis Wright Tremaine LLP*,[59] decided under the Revised Uniform Partnership Act, a federal district

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55. Dev. Specialists, Inc. v. Akin Gump Strauss Hauer & Feld LLP, 480 B.R. 145, 157 (S.D.N.Y. 2012), *rev'd in part*, Dev. Specialists, Inc. v. Akin Gump Strauss Hauer & Feld LLP (*In re* Coudert Bros. LLP), 574 F.App'x. 15 (2d Cir. 2014).

56. *See, e.g.*, *In re* Brobeck, Phleger & Harrison LLP, 408 B.R. 318, 336–40 (Bankr. N.D. Cal. 2009) (holding that such an agreement is effective but is subject to attack on the fraudulent-conveyance grounds if made at the time a dissolved partnership is insolvent).

57. *In re* Thelen LLP, 20 N.E.3d 264, 273–74 (N.Y. 2014). The New York Court of Appeals was responding to the Second Circuit's certification of unresolved questions concerning the scope of the unfinished-business doctrine under New York law. *See In re* Thelen LLP, 736 F.3d 213, 224–25 (2d Cir. 2013). *See generally* Rutledge & McGuire, *supra* note 52.

58. Although the court was addressing the consequences of firm dissolution, it failed to even cite Uniform Partnership Act (UPA) Section 29 (defining dissolution) and Section 30 (providing that a partnership does not terminate on dissolution but continues until the winding up of its business is complete). UNIF. P'SHIP ACT §§ 29, 30 (UNIF. LAW COMM'N 1914).

59. 527 B.R. 24 (N.D. Cal. 2014). On appeal, the Ninth Circuit has certified the question to the California Supreme Court. *See* Heller Ehrman LLP v. Davis Wright Tremaine LLP, 830 F.3d 964, 966 (9th Cir. 2016) ("We ask the California Supreme Court to resolve a question of state law: whether a dissolved law firm has a property interest in legal matters that are in progress but not completed at the time the law firm is dissolved, where the dissolved law firm had been retained to handle the matters on an hourly basis."). The California Supreme Court has granted the request to decide the question, but it framed the issue in a more appropriate fashion: "[W]hat interest, if any, does a dissolved law firm have in legal matters that are in progress but not completed at the time the law firm is dissolved, when the dissolved law firm had been retained to handle the matters on an hourly basis?" Heller Erhmann LLP v. Davis Wright Tremaine LLP, No. S236208, 2016 Cal. LEXIS 7131, at *1 (Cal. Aug. 31, 2016).

court concluded hourly matters are not unfinished business of a bankrupt law firm. *Heller* reasoned that third-party firms should not be discouraged from hiring former partners of insolvent firms or taking on their clients. Missing from the policy analysis, however, is a substantive consideration of the interests of third parties other than clients. Although the court did note in passing that the "plight of Heller's former staff and creditors is, as in all bankruptcies, deplorable,"[60] it made absolutely no attempt to accommodate the interests of these parties in its decision.

Cases like *Thelen* and *Heller* elevate lawyer mobility to the level of public policy that courts should encourage. *Thelen* was explicit on the point, noting that "[u]ltimately, what the trustees ask us to endorse [are] conflicts with New York's strong public policy encouraging client choice and, concomitantly, attorney mobility."[61] Unquestionably, the freedom of clients to choose their lawyers has long been a policy advanced by law. But the link between client choice and lawyer mobility is attenuated, and the elevation of lawyer mobility to the level of a worthy public policy objective in its own right is dubious, particularly when the same concerns are not expressed over the professional mobility of physicians and other professionals.[62] The analysis becomes all the more troublesome when offered without meaningful consideration (if there is consideration at all) of the costs and externalities associated with lawyer mobility, particularly those that affect employees and creditors of failed firms.

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60. Heller Ehrman, 527 B.R. at 32.

61. *In re* Thelen, 20 N.E.3d at 273.

62. For example, with a very limited exception relating to retirement, lawyers may not enter restrictive covenants that limit their right to practice and, by extension, take clients when they change firms. MODEL RULES OF PROF'L CONDUCT r. 5.6 (AM. BAR ASS'N 2016). Courts have extended this ban on restrictive covenants to include contractual provisions that impose economic disincentives on compensation. *See, e.g.*, Cohen v. Lord, Day & Lord, 550 N.E.2d 410 (N.Y. 1989). *See generally* HILLMAN & RHODES, *supra* note 12, § 2.2. In contrast, restrictive covenants are more widely used in the medical profession, which recently amended its rules to reflect the need to balance the interests of physicians, patients, and healthcare firms. *See* AM. MED. ASS'N, CODE OF MEDICAL ETHICS OF THE AMERICAN MEDICAL ASSOCIATION 190 (2017) (revising Opinion E-9.02 governing restrictive covenants in light of increased mobility of physicians to prohibit only those restrictive covenants that unreasonably restrict the right to practice (time or geographic area) and do not make "reasonable" accommodations for patients' choice of physician). The commentary accompanying the revision noted, "While covenants not-to-compete may seem counterproductive in the medical realm, such agreements can help protect a practice's relationships with its patients, as well as protect monetary and other investments health care organizations and practices make in physician training and mentoring." AMA ASS'N, REPORT OF THE COUNCIL ON ETHICAL AND JUDICIAL AFFAIRS 3-A-14, at 3 (2014), https://www.ama-assn.org/sites/default/files/media-browser/public/about-ama/councils/Council%20Reports/council-on-ethics-and-judicial-affairs/ceja-3a14.pdf [https://perma.cc/BQY2-LZWU].

V. Firm Branding and the Rise of Group Movement

Branding enables a firm to differentiate itself from other firms.[63] A firm is an aggregation of lawyers, however, and a prerequisite to branding a firm's identity is stability in the firm's membership, especially at the level of its senior lawyers. In the professional-services context, branding and lawyer identity are inseparable. A firm may promote through marketing efforts its mergers-and-acquisitions (M&A) practice, for example, but the key component of the practice is the identity of the lawyers, not the view from the top-floor large conference room. And if key lawyers or even practice groups leave for other firms, the post-departure firm is not the same even after it replaces the losses with new lawyers and practice groups hired from other firms. All of which raises questions concerning what exactly firms with unstable memberships are "branding."

Firms continue to invest in their brands, with mixed results. But branding is not limited to firms and may extend to lawyers and, increasingly, practice groups within firms.[64] The success of these efforts is evident as sophisticated clients recognize areas of strength within firms and divide their work among numerous firms.[65] As one commentator rather colorfully put it,

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63. A number of firms specialize in assisting professional-services firms with branding. *See, e.g.*, *Branding and Marketing for Professional Services*, HINGE, https://hingemarketing.com/programs-services/branding [https://perma.cc/AXU8-GG3E] (describing the firm as the leader in professional services branding):

> At the heart of our Branding Program is Hinge's proprietary Growth Algorithm™. This groundbreaking knowledge engine combines research about you and your clients with proprietary industry data from our ongoing study of over 15,000 firms and buyers of professional services. The results allow us to benchmark your firm against high growth firms and identify opportunities to position your firm in the marketplace.

Branding is frequently discussed in professional publications for lawyers. *See, e.g.*, John Hellerman, *Minding Your Firm Brand: A Roundtable Discussion on Brand Identity*, LAW PRACTICE, Nov./Dec. 2015, at 50–55, http://www.mazdigital.com/webreader/34871?page=52 [https://perma.cc/DW33-YVF7]:

> Few topics have as much sustained relevance to law firm management as branding. For decades now law firms have been developing branding strategies—some very successful, and others, like Howrey's, now serving as cautionary tales in Law360. In contrast to other management topics that come and go, branding is one of a handful of issues that we can be certain firms will continue to grapple with decades into the future. Indeed, the only issue as durable as branding may be the death of the billable hour, which gets announced and chewed over on an annual basis.

64. *See, e.g.*, Daniel J. DiLucchio, *"We Hire the Lawyer, Not the Law Firm"—Really?*, REP. TO L. MGMT., Apr. 2009, at 11, http://www.altmanweil.com//dir_docs/resource/cd0c93d9-b842-4ab2-9d9c-387ecb16d4c3_document.pdf [https://perma.cc/5882-WSMV] ("If we conclude that general counsel hire lawyers and the law firm, each firm must concern itself with multiple brands—the firm's overall brand, as well as that of its practice groups and individual lawyers.").

65. *See* Ronald J. Gilson, *The Devolution of the Legal Profession: A Demand Side Perspective*, 49 MD. L. REV. 869, 902 (1990) ("Long-term relationships give way to retention of counsel in connection with discrete specialized transactions; clients select their own specialists; and the rule becomes to hire lawyers, not firms.").

"Hiring 'the lawyer, not the firm' is not a toxic notion; it is sanity."[66] All of this may give rise to an intrafirm competitive environment in which the firm, individual lawyers, and distinct groups within the firm seek positive identities (i.e., their brand) with the objective of securing both new clients and the loyalty of existing clients. Branding is alive and well, but firms are no longer the exclusive (or even meaningful) beneficiaries of branding and related marketing activities.

Attempting to play to their strengths in branding, some firms may highlight particularly strong areas of their practices. The idea is that clients that come to a firm because of its strong healthcare practice, for example, may be persuaded to use the firm's services in areas in which its reputation is not as strong (e.g., tax, labor relations, and real estate work). Over time, or so the argument goes, the weaker areas will become stronger as the influx of clients facilitates the development of these weaker practice areas.

This branding strategy, however, may prove problematic. By promoting strong practice groups, firms strengthen the mobility prospects of those groups (which may chafe under the financial and professional burdens of supporting weaker groups in their firms) and sow the seeds of their departure. Hence the conundrum for law firms: How do firms burnish their brands by marketing their most successful practice groups without thereby facilitating and highlighting the groups' successes and promoting their future departures for greener pastures?

Despite efforts of firms to build their brands and establish unique identities, the movement of groups, including entire practice groups, has become an important component of lawyer mobility.[67] Group movements are regularly reported by the legal press.[68] In the early years of lawyer mobility,

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66. Mark Herrmann, *Inside Straight: 'The . . . Toxic Notion That You Hire The Lawyer, Not The Firm'*, ABOVE THE LAW (Jan. 28, 2013), http://abovethelaw.com/2013/01/inside-straight-the-toxic-notion-that-you-hire-the-lawyer-not-the-firm/ [https://perma.cc/Y7XK-8VJZ] (responding to another commentator who criticized clients for encouraging the "star" system and being willing to chase stars from one firm to another). *See* Bruce MacEwen, *Letter from London*, ADAM SMITH ESQ. (Jan. 16, 2013), http://adamsmithesq.com/2013/01/letter-from-london/2/ [https://perma.cc/N6VE-9YED].

67. *See, e.g.*, MP McQueen, *The Big Law Lateral Hiring Frenzy Continues*, AM. LAW. (Feb. 1, 2016), http://www.americanlawyer.com/id=1202747504110/The-Big-Law-Lateral-Hiring-Frenzy-Continues [https://perma.cc/6VDR-C8LW] (discussing how "lateral lift-outs" of groups of lawyers are becoming common).

68. For a small sampling of such reports, see Brian Baxter, *Covington Adds 15 More Chadbourne Lawyers in 3 Cities*, AM. LAW. (June 10, 2017), http://www.americanlawyer.com/id=1202789382892 [https://perma.cc/NDY6-J9V9] (reporting on the move of a project finance group to Covington); Lizzy McLellan, *Cozen O'Connor Snags More Buchanan Defectors, Building Employment Group*, LEGAL INTELLIGENCER (May 8, 2017), http://www.thelegalintelligencer.com/id=1202785516507/Cozen-OConnor-Snags-More-Buchanan-Defectors-Building-Employment-Group?slreturn=20170715170039 [https://perma.cc/VKH5-B6CB] (reporting on a lateral move of seventeen labor and employment group lawyers from Buchanan to Cozen O'Connor); Lizzy McLellan, *Cozen O'Connor Grabs Construction Group From Pepper Hamilton*, LEGAL INTELLIGENCER (Apr. 25, 2017), http://www.thelegalintelligencer.com/id=1202784538142/Cozen-

movement was an individual rather than group exercise, but today lawyers often move in numbers. Although some firms avoid hiring groups because of the perceived increased risks when compared with individual lateral hires,[69] data indicate that group hires are often more successful over the long term.[70]

OConnor-Grabs-Construction-Group-From-Pepper-Hamilton [https://perma.cc/3DPR-7QEX] (reporting on the movement of construction law practices, including a four-lawyer group from Pepper Hamilton to Cozen O'Connor); Brian Baxter, *The Door Spins at Jenner & Block, Plus More Lateral Moves*, AM. LAW. (Apr. 20, 2017), http://www.americanlawyer.com/id=1202755404576/The-Door-Spins-at-Jenner---Block-Plus-More-Lateral-Moves [https://perma.cc/Y93J-CBFA] (reporting on the lateral movement of an eight-partner government contracts team from Jenner & Block, a group of nine lawyers from Carlton Fields Jorden Burt, and a four-lawyer corporate team from LeClairRyan); Brenda Sapino Jeffreys, *Norton Rose Lures 8 in NY for Public Finance Practice*, N.Y. L.J., June 2016, at 4 (discussing the departure of eight public finance lawyers from Sidley Austin to join Norton Rose Fulbright); Susan Beck, *Polsinelli Guts IP Boutique Novak Druce With Mass Hire*, AM. LAW. (Mar. 1, 2016), http://www.americanlawyer.com/id=1202751088041/Polsinelli-Guts-IP-Boutique-Novak-Druce-With-Mass-Hire [https://perma.cc/3ZES-7WLD] (reporting on the lateral move of forty-four intellectual property lawyers from Novak Druce to Polsinelli); Katelyn Polantz, *Covington Picks Up Heart of McKenna's Government Contracts Group*, LEGAL TIMES (May 1, 2015), http://www.nationallawjournal.com/legaltimes/id=1202725169744/Covington-Picks-Up-Heart-of-McKennas-Government-Contracts-Group?slreturn=20170715171237 [https://perma.cc/L5KA-ZMTE] (reporting on a move of nineteen-lawyer government contracts practice group to Covington); Brian Baxter, *Arent Fox Adds Real Estate Team, Plus More Lateral Moves*, AM. LAW. (Apr. 28, 2015), http://www.americanlawyer.com/id=1202724873517/Arent-Fox-Adds-Real-Estate-Team-Plus-More-Lateral-Moves [https://perma.cc/WH2F-K7UM] (reporting on a number of lateral moves, including real estate team from McKenna Long & Aldridge and eleven-lawyer team from Kelley Drye); Brian Baxter, *Winston Poaches 11-Partner Team From Pillsbury*, AM. LAW. (Mar. 11, 2015), http://www.americanlawyer.com/id=1202720296398/Winston-Poaches-11Partner-Team-From-Pillsbury [https://perma.cc/HME3-C4CM] (reporting on a move of eleven corporate, finance, and private equity partners from Pillsbury to Winston & Strawn); David Gialanella, *Epstein Becker Nabs 15-Lawyer Group, Opens in Princeton*, N.J. L.J. (Feb. 23, 2015), http://www.law.com/njlawjournal/almID/1202718666351/epstein-becker-nabs-15lawyer-group-opens-in-princeton/?back=law [https://perma.cc/8KSR-GU73] (reporting on the lateral move of fifteen-lawyer health care group); Brian Baxter, *Latham Raids O'Melveny for Six Partners, Plus More Lateral Moves*, AM. LAW. (Nov. 11, 2014), http://www.americanlawyer.com/id=1202676160161/Latham-Raids-OMelveny-for-Six-Partners-Plus-More-Lateral-Moves [https://perma.cc/7CC2-5EJ2] (reporting on Latham's lateral hire of a six-partner sports, media, and entertainment team from O'Melveny); Julie Triedman & Brian Baxter, *Bingham Loses Bulk of London, Frankfurt Offices to Akin*, AM. LAW. (Sept. 17, 2014), http://www.americanlawyer.com/id=1202670307995/Bingham-Loses-Bulk-of-London-Frankfurt-Offices-to-Akin [https://perma.cc/98AS-YCSL] (reporting on a lateral move from Bingham to Akin of twenty-two partners and an unspecified number of associates largely specializing in financial restructuring).

69. Hiring a large group of lawyers may have an immediate financial impact (positive or negative) on the firm, create challenges in the integration of the new lawyers into the firm, and may raise significant client conflicts of interest because of new clients brought to the firm.

70. A study of partners (equity and nonequity) laterally hired in 2011 by large law firms and still practicing in 2016 reveals that the hiring of individuals or pairs accounted for over three-quarters of partners hired. Measured by attrition rates over the five-year period, however, the individuals or pairs proved to be less successful hires than the group hires. The largest groups had the lowest attrition rates. The study concluded that the more cautious law firm managers should be more open to hiring groups of lawyers. *See* Hugh A. Simons, *Global Lateral Hiring by the Numbers: A Look Behind the High 5-Year Attrition Rate*, AM. LAW. (Feb. 3, 2017), https://www.law.com/americanlawyer/almID/1202778406931/ [https://perma.cc/R8NQ-PRR6] (comparing attrition rates of lateral hires of single partners versus groups of partners). Groups of

Group movement signals a more mature age of lawyer mobility and likely will have significant long-term implications for law firms. Already, many firms have become little more than loose affiliations of practice groups, which in some respects and situations operate as firms within firms. Even as firms and the effectiveness of their branding efforts weaken, attempts to highlight firm strengths may redound more to the benefit of the practice groups being promoted than to the firms themselves. Practice groups should prove cohesive and enduring, particularly if the environment of lawyer mobility continues to support group movement among firms. Law firms may continue to serve an important role in providing organizational and support services to groups operating within their ambit, but a growing number of firms will bear little resemblance to the stable, economically robust institutions that existed prior to the dawn of lawyer mobility.

VI. An Observation on MDPs and What Might Have Been

Neither lawyer mobility nor the decline of law firms was inevitable. In fact, in the early years of lawyer mobility a movement emerged within the accounting and law professions pointing to the development of strong firms that may very well have resisted the effects of mobile professionals. These Multidisciplinary Practice Firms (MDPs) were to be mega-firms, each of which would provide a wide range of services, including legal, accounting, and financial services. Proponents of the idea argued that such firms were necessary in an increasingly competitive global environment for professional services.[71] Such firms likely would be very large and limited in number.[72]

Although many in the legal profession were concerned over how MDPs would function consistent with traditional legal-ethics norms (especially client confidentiality and the prohibition on fee sharing with nonlawyers),[73]

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three or four laterally hired have an attrition rate that is thirteen percentage points below the average; groups of five or more have an attrition rate five percentage points below the average. *Id.*

71. *See* Mary C. Daly, *Choosing Wise Men Wisely: The Risks and Rewards of Purchasing Legal Services from Lawyers in a Multidisciplinary Partnership*, 13 GEO. J. LEGAL ETHICS 217, 281–88 (2000) ("The historical restrictions imposed on [multidisciplinary practice] by the profession not only should be, but will be, eliminated by a vibrant free market."); John S. Dzienkowski & Robert J. Peroni, *Shaping the Future of Law: ABA's Multidisciplinary Practice Proposals Will Stymie the Growth of MDPs*, LEGAL TIMES, Aug. 1999, at 27 ("To flourish in this interconnected, electronic world, large and small corporate clients need multidisciplinary professional services.").

72. Large accounting firms were vigorous advocates for MDPs. In fact, the efforts of accounting firms to expand their range of service to include legal advice was one of the underlying reasons for the MDP movement. The debate over MDPs was intense, and the prospects for their emergence was described as "the most important issue to face the legal profession this century – the expansion of professional-service entities, principally accounting firms, into the practice of law." COMM'N ON MULTIDISCIPLINARY PRACTICE TO THE ABA HOUSE OF DELEGATES, BACKGROUND PAPER ON MULTIDISCIPLINARY PRACTICE: ISSUES AND DEVELOPMENTS (1999), https://www.americanbar.org/groups/professional_responsibility/commission_multidisciplinary_practice/multicomreport0199.html [https://perma.cc/979A-NM63].

73. *See* Lawrence J. Fox, *Accountants, the Hawks of the Professional World: They Foul Our Nest and Theirs Too, Plus Other Ruminations on the Issue of MDPs*, 84 MINN. L. REV. 1097, 1097

there was considerable support for MDPs and even a feeling that their emergence was inevitable.[74] Until, that is, it wasn't. Continued resistance from some in the legal profession,[75] combined with financial scandals implicating and ultimately destroying one of the largest accounting firms,[76] ultimately crushed the MDP movement.[77] As the former Chair of the Commission on Multidisciplinary Practice noted, "It will be a long while before multidisciplinary practice turns up again, if ever."[78]

But consider what might have been the impact on lawyer mobility if MDPs had been allowed to develop. MDPs likely would have been outsized firms for which firm identity, goodwill, and branding would have been

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(2000) (finding that "the Big 5 accounting firms have mounted a frontal assault on the legal profession that threatens to destroy the foundation of professional independence, loyalty and confidentiality that the lawyers of America have always promised the public").

74. *See, e.g.*, Erica Blaschke Zolner, *Jack of All Trades: Integrated Multidisciplinary Practice, or Formal Referral System? Emerging Global Trends in the Legal and Accounting Professions and the Need for Accommodation of the MDP*, 22 NW. J. INT'L L. & BUS. 235, 260 (2002) ("Like all other forms of change to legal practice, the MDP will eventually be embraced and no longer feared by the American legal system."); Cheryl Niro, *Another Look at the Future*, 88 ILL. B.J. 190 (2000) ("We simply must anticipate increasing nonlawyer competition and unauthorized practice of law—whether we approve the authorization of multidisciplinary practice or not.").

75. The ABA created the Commission on Multidisciplinary Practice to take a closer look at MDPs, and in two proposals, the Commission recommended amending the Model Rules of Professional Conduct to permit MDPs. *See* COMM'N ON MULTIDISCIPLINARY PRACTICE, REPORT TO THE HOUSE OF DELEGATES—RECOMMENDATION, A.B.A. (Aug. 1999), https://www.americanbar.org/groups/professional_responsibility/commission_multidisciplinary_practice/mdprecommendation.html [https://perma.cc/KD8M-SW9B]; COMM'N ON MULTIDISCIPLINARY PRACTICE, REPORT TO THE HOUSE OF DELEGATES—RECOMMENDATION, A.B.A. (July 2000), https://www.americanbar.org/groups/professional_responsibility/commission_multidisciplinary_practice/mdpfinalrep2000.html [https://perma.cc/ZP5A-AHUS]. To review the full study and accompanying reports by the Commission, see *Commission on Multidisciplinary Practice*, ABA, https://www.americanbar.org/groups/professional_responsibility/commission_multidisciplinary_practice.html [https://perma.cc/F5QX-ETMT]. However, the ABA Center for Professional Responsibility rejected the proposals and adopted Recommendation 10F instead. *See id.* Prepared by the Illinois, New Jersey, and New York State Bar Associations, Recommendation 10F recommended closing the MDP debate and discharging the Commission on Multidisciplinary Practice. *See MDP Recommendation*, ABA, https://www.americanbar.org/groups/professional_responsibility/commission_multidisciplinary_practice/mdprecom10f.html [https://perma.cc/K4ZX-NS6F]. Recommendation 10F stated that the "ownership and control of the practice of law by nonlawyers are inconsistent with the core values of the legal profession." COMM'N ON MULTIDISCIPLINARY PRACTICE, MDP RECOMMENDATION, A.B.A. (July 2000), https://www.americanbar.org/groups/professional_responsibility/commission_multidisciplinary_practice/mdprecom10f.html [https://perma.cc/CB8Y-V5FM].

76. *See* Susan Poser, *Main Street Multidisciplinary Practice Firms: Laboratories for the Future*, 37 U. MICH. J.L. REFORM 95, 98 (2003) (noting that many Arthur Anderson attorneys provided consulting services to clients at the time of the scandal).

77. *See* Alexis Gilbert, *Is MDP DOA? Experts Ponder Effect of Andersen Guilty Verdict*, LEGAL INTELLIGENCER, June 2002, at 6 (quoting Jerome Shestack, former ABA president: "The Enron situation has driven the last nail in the coffin of MDP.").

78. Geanne Rosenberg, *Big Four Auditors' Legal Services Hit by Sarbanes-Oxley*, N.Y. L.J. (Jan. 5, 2004), http://www.law.com/newyorklawjournal/almID/900005398686/ [https://perma.cc/56AP-5TCD].

critical. Assuming, as is probable, there would have been a relatively small number of MDPs attractive to corporate and institutional clients, the mega-firms should have been able to resist ongoing raiding of each other's professional talent. Moreover, the broad mix of professional and legal services may have made it less desirable, and more difficult, for sophisticated clients to divide their work among firms as they do today. For example, a client in need of mergers and acquisitions services may very well have preferred that the full range of legal, financial, and accounting services be sourced in a single firm.

This, of course, was the very idea behind MDPs, and a world in which they flourished would not be a welcoming environment for lawyer mobility.[79] As noted above, strong firms are the counterpoint to mobile lawyers. If MDPs did restrict lawyer mobility, then investment in the training and mentoring of young lawyers and the articulation of long-term career paths in the firms, perhaps reinforced by some form of lockstep compensation keyed to seniority, have alleviated some of the consequences of lawyer mobility discussed above. Moreover, to the extent that large MDPs were financially stable, or at least more stable than large law firms in the present environment, externalities associated with failing firms could have been reduced.[80] On the other hand, it is quite possible that MDPs would continue the trends of today in restricting equity participation in firms and expanding the class of lawyers who are "employees" rather than "owners" of the firms for which they work.

The abrupt termination of the MDP movement means we will never know how the practice would look if dominated by a handful of these mega-firms. But it would surely look very different from the world we now have, where large numbers of top-flight law firms struggle to withstand the ongoing challenges of lawyer mobility.

Concluding Notes

Firms exist today with varying degrees of cohesiveness. They range from a select handful of Wall Street firms continuing to employ lockstep compensation and enjoying exceptional stability in membership to a much

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79. Although MDPs may have curtailed movement of lawyers among the large firms, they would not have affected lawyers whose clients are not corporations and institutions drawn to the MDPs. Most lawyers represent individuals, not corporations and institutions, and the impact of MDPs on the practices of these professionals would have been minimal. The emergence of MDPs would have restricted the mobility options of lawyers providing services to large, sophisticated clients, but lawyer mobility would continue to have thrived for the balance of the profession.

80. A note of caution on this observation is in order. Given the failures of large law and accounting firms, there is no reason to assume that MDPs could never fail. Indeed, Arthur Andersen, one of the largest accounting firms, failed because of the actions of a handful of its members, not for reasons of accountant mobility or any underlying financial weakness in the firm. But the diversity of MDP services combined with stability of their membership likely would have reduced the prospects of failure and associated hardships on third parties who would have done business with the firms.

larger number of firms with weak firm structures and constant turnover in lawyers. Although many firms fall between these extremes, the trend is clear. Lawyer mobility is robust and pervasive. More firms are becoming weaker, less cohesive, and even unstable. And lawyer mobility bears the responsibility for much of this change.

For most firms, lawyer mobility has moved beyond being a problem for which a management solution should be sought. The world of law firms has changed dramatically over the last thirty years. The initial outrage of firms over grabbing and leaving activities of their partners, the subject of my earlier article, has been replaced with an acceptance, often grudging, of the inevitability of lawyer mobility. Indeed, firms victimized by partner departures have learned how to gain from lawyer mobility as they move quickly to offset their losses through their own lateral hires of partners from other firms. And so the cycle continues.

Most firms have no choice on lateral hiring. If for no other reason than the need to replace lawyers lost to other firms, firms must ride the carousel of lawyer mobility. And they must do so even though the prospects for long-term success from the practice are dubious. Today's lateral hires are next year's departing lawyers. One recent report concludes half of lateral-partner hires are failures in that 47% of laterals do not stay more than five full years.[81] Rational firms may well decide that the long-term benefits of lateral hiring are illusory, but whether they have any options is doubtful.

Even if such a "reform" would be desirable, it is doubtful that anything short of a radical change in applicable law will stem the tide of lawyer mobility. It is tempting to argue that the legal profession's rather extreme position on client choice, giving clients the ability to change their lawyers and firms at any time, has facilitated lawyer mobility.[82] If that were so, then restricting the ability of clients to choose their lawyers, and allowing firms to establish in partnership agreements contractual disincentives to competition, would limit lateral movement of lawyers among firms. But a few states, most notably California, do allow modest contractual disincentives to competition, and there is no evidence that lateral movement occurs any less frequently in these states than in others.[83]

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81. *See* Simons, *Global Lateral Hiring by the Numbers*, *supra* note 70.

82. On client choice as an absolute value that enhances competition among lawyers, see HILLMAN & RHODES, *supra* note 12, § 2.2.

83. *See* Howard v. Babcock, 863 P.2d 150, 159 (Cal. 1993) (allowing a partnership agreement to impose a penalty upon a lawyer who leaves and takes clients):

> Unless the penalty were unreasonable, it is more likely that the agreement would operate in the nature of a tax on taking the former firm's clients—a tax that is not unreasonable, considering the financial burden the partners' competitive departure may impose on the former firm. The sum to be forfeited by the withdrawing partners may be seen as comparable with a liquidated damages clause, an accepted fixture in other commercial contexts.

Lawyer mobility transcends particular rules of law and legal ethics, and the tweaking of written standards for lawyer behavior is unlikely to have a meaningful effect on the activity. To the contrary, lawyer mobility is a new norm that both reflects and supports increased competition in the market for legal services. This change in the environment is not limited to law and may be seen in all sectors of commercial and professional activities. The newer generation of lawyers understands this and is more comfortable with the world of lawyer mobility than more senior lawyers with rich but sometimes unreliable memories of happy days when firms were stable and commanded the long-term loyalties of their members.

Although many law firms and lawyers have been casualties of lawyer mobility, there are beneficiaries as well. Rainmaking lawyers no longer must wait patiently under systems of lockstep compensation before receiving a share of their firms' income commensurate with their contributions. And sophisticated corporate and institutional clients almost certainly benefit from increased competition that arises from the mobility of lawyers. These are no small benefits. But against these benefits should be weighed the costs, which include less effective training of lawyers, arguably fewer attractive career paths for lawyers, and harm to third parties who do business with firms unable to meet their liabilities because of lawyer departures. These costs represent the dark side of lawyer mobility and should be considered together with the benefits when assessing the changes that firms and lawyers who populate them have experienced over the last three decades.

For a discussion of *Howard* and other courts that have accepted this reasoning, see HILLMAN & RHODES, *supra* note 12, § 2.2.4.

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"The Irons Are Always in the Background": The Unconstitutionality of Sex Offender Post-Release Laws as Applied to the Homeless*[1]

Introduction

Convicted sex offenders who have served their criminal sentence must, upon release, navigate "a byzantine code [that] govern[s their lives] in minute detail."[2] Sex offender post-release (SOPR) laws impose affirmative obligations on sex offenders[3] that extend far beyond any sentence of incarceration, often lasting the person's lifetime.[4] SOPR laws require sex offenders to register with and periodically report in person to law enforcement, ban offenders from various avenues of gainful employment, mandate GPS monitors, and demand periodic fees.[5] Some states and localities employ residency restrictions that prohibit sex offenders from living within a certain distance from schools, playgrounds, parks, or other places where children congregate.[6] Municipalities also restrict where sex offenders may be physically present.[7] Many paroled sex offenders must subject themselves to

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1. Does #1–5 v. Snyder, 834 F.3d 696, 703 (6th Cir. 2016) (describing the looming possibility of imprisonment for failure to comply with SOPR laws—for convicted sex offenders, the "irons are always in the background since failure to comply with these restrictions carries with it the threat of serious punishment, including imprisonment").

2. *Id.* at 697.

3. I use the terms "registrant" and "sex offender" to refer to people who are required to register and comply with SOPR laws as a result of a conviction for a sex offense. In so doing, I recognize that these terms are problematic insofar as they do not emphasize people's humanity, but reduces them to a term that is likely the worst thing they have ever done. Despite my personal discomfort with this terminology, I use it here because it is concise. For the most part, I believe "registrant" is the more appropriate term, so when it makes sense to do so, I use registrant.

4. Who is deemed a "sex offender" and required to comply with SOPR laws varies by state, but the list of eligible offenses is often lengthy. *See* Elizabeth R. Platt, *Gangsters to Greyhounds: The Past, Present, and Future of Offender Registration*, 37 N.Y.U. REV. L. & SOC. CHANGE 727, 754–58 (2013) (arguing that registries are both underinclusive and overinclusive by including crimes such as public urination, but due to the uniquely private nature of sex crimes, many are underreported and, as a result, these individuals would not be included on the registry); *see also* LISA WILLIAMS-TAYLOR, INCREASED SURVEILLANCE OF SEX OFFENDERS: IMPACTS ON RECIDIVISM 181–94 (2012) (providing an appendix of all registrable offenses in New York state).

5. *See infra* Part II.

6. *See infra* subpart I(A).

7. Until recently, North Carolina prohibited sex offenders from being "[a]t any place where minors frequently congregate, including, but not limited to, libraries, arcades, amusement parks, recreation parks, and swimming pools, when minors are present." N.C. GEN. STAT. § 14-208.18

regular psychological evaluation, routinely take polygraph tests, and enroll in lengthy and expensive therapy.[8] SOPR laws frequently require sex offenders to pay for their psychological treatment, polygraph tests, and GPS monitoring.[9]

Sex offender registration laws emerged as a response to a string of horrific crimes and resulting public outrage.[10] In one such case, a disguised, armed man stopped eleven-year-old Jacob Wetterling while he was riding his bike with friends.[11] The man ordered the friends to flee, and Jacob was not seen again.[12] Although Jacob's body was never found, and his perpetrator never identified, the police discovered that recently released sex offenders had been staying in a nearby halfway house.[13] In another case, seven-year-old Megan Kanka accepted a neighbor's invitation to play with his puppy.[14] The neighbor, a twice-convicted pedophile, raped and murdered Megan before dumping her body in a park.[15] Megan's parents said they would not have allowed Megan to travel around the neighborhood if they had known that there was a convicted sex offender living across the street.[16]

Incidents like these convinced legislators that sex offenders posed a high risk of recidivism and must be monitored.[17] Congress responded in 1994 with

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(2016), *invalidated by* Doe v. Cooper, 842 F.3d 833 (4th Cir. 2016); Marcie Shields, *Illinois Court Strikes Sex Offender Park Ban*, COURTHOUSE NEWS SERV. (Feb. 14, 2017), https://www.courthousenews.com/illinois-court-strikes-sex-offender-park-ban/ [https://perma.cc/H5CB-M8YF] (explaining how an Illinois appellate court struck down a similar park ban because the law "criminalizes substantial amounts of innocent conduct" and "makes no attempt to assess the dangerousness of a particular individual").

8. *See infra* subpart II(C).

9. *See infra* subpart II(C); *see also, e.g.*, UNTOUCHABLE (Panoptican Productions 2016) (chronicling the cost of one woman's compliance—a $40 monthly probation fee, $170 monthly group therapy fee, and $200 for a polygraph test, which over fourteen years totaled to $35,800 for probation fees, classes, and polygraphs—and explaining that she is required to register and remain on probation for the rest of her life).

10. *See* Platt, *supra* note 4, at 736–38, 743–45 (chronicling public response to the specific sex offenses and overwhelming public support of harsh registry laws); *Megan's Law Website: History of the Law and Federal Facts*, PA. ST. POLICE, https://www.pameganslaw.state.pa.us/InformationalPages/History [https://perma.cc/ZGS7-K5QR] (outlining public response for various heinous crimes against children, including sex offenses and how the presence of sex offenders near an unsolved crime caused public outrage).

11. PA. ST. POLICE, *supra* note 10. For more on Jacob Wetterling's abduction, how the police mishandled the investigation, and how this fueled the fear about sex offenders, see generally *In the Dark*, AM. PUB. MEDIA (Sept. 7, 2016) (downloaded using iTunes).

12. PA. ST. POLICE, *supra* note 10.

13. *Id.*

14. *Id.*

15. *Id.*

16. *Id.*

17. *See, e.g.*, LA. STAT. ANN. § 15:540 (2017) (introducing the stated purpose of Louisiana's sex offender laws); *see also* Smith v. Doe, 538 U.S. 84, 92–95 (2003) (examining the stated purpose of the Alaska Sex Offender Registration Act). The claim of high rates of recidivism by sex offenders has been debunked. *See* PATRICK A. LANGON, BUREAU OF JUSTICE STATISTICS, RECIDIVISM OF SEX OFFENDERS RELEASED FROM PRISON IN 1994, at 24 (2003) (noting that only 5.3% of sex

the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act.[18] The statute made certain federal funding to the states contingent on each state establishing a sex offender registry. The states complied.[19] Legislators and groups lobbying for registries believed that the "release of certain information about sex offenders to public agencies and the general public [would] assist in protecting the public safety."[20] Sex offender registration was intended to "provide[] a system by which law enforcement agencies can track, supervise, and monitor these offenders."[21] Legislators justified sex offender registration and community notification by the need to "increase public awareness about sex offenders . . . so that concerned citizens and parents can take protective actions to prevent victimization."[22] The aim was "to prevent recidivism by increasing scrutiny of sex offenders through enhanced law enforcement monitoring and public awareness."[23] In sum, SOPR laws attempt to inform communities about a sex offender's presence in their neighborhood, expand the information available to police seeking to identify suspects, deter potential offenders, and limit access to potential victims through the use of residency and employment restrictions.[24]

Notwithstanding these goals, there is no proof that SOPR laws actually reduce recidivist sexual violence or deter first-time offenses.[25] Indeed,

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offenders released from prison were re-arrested for a sex crime within three years and only 3.5% were convicted). In fact, sex offenders are less likely to be re-arrested than property and drug offenders. DUROSE ET AL., BUREAU OF JUSTICE STATISTICS, RECIDIVISM OF PRISONERS RELEASED IN 30 STATES IN 2005: PATTERNS FROM 2005 TO 2010, at 8–9 (2014); *see also* Jill S. Levenson et al., *Grand Challenges: Social Justice and the Need for Evidence-Based Sex Offender Registry Reform*, J. SOC. & SOC. WELFARE, June 2016, at 3, 14 (providing a comprehensive overview of the studies that show that sex offender recidivism rates are much lower than commonly believed and decline substantially overtime); Eli Lehrer, *Rethinking Sex-Offender Registries*, 26 NAT'L AFF., Winter 2016, at 52, 55, 61 (noting that sex offenders have lower recidivism rates than other felons).

18. Catherine L. Carpenter & Amy E. Beverlin, *The Evolution of Unconstitutionality in Sex Offender Registration Laws*, 63 HASTINGS L.J. 1071, 1077 & n.26 (2012).

19. For a comprehensive history of the Federal Sex Offender Registration and Notification Act (SORNA), see generally LISA WILLIAMS-TAYLOR, INCREASED SURVEILLANCE OF SEX OFFENDERS 83–116 (2012); Carpenter & Beverlin, *supra* note 18, at 1077–81; Platt, *supra* note 4, at 729–42. Today, only nineteen states substantially comply with SORNA because the costs of implementing a similar version at the state level are more costly than losing federal funding. Levenson, *supra* note 17, at 6, 15.

20. Act of Apr. 20, 1994, 1994 Alaska Sess. Laws ch. 41, §§ 1(4), 4(b)(1) (requiring a sex offender to give their address, place of employment, date of birth, each convicted sex offense that requires registration, date of the convictions, place and court of sex offense convictions, and driver's license number).

21. Levenson, *supra* note 17, at 5.

22. *Id.* For a detailed overview of the purpose of sex offender registries, see Platt, *supra* note 4, at 745–50.

23. Jill S. Levenson et al., *Failure-to-Register Laws and Public Safety: An Examination of Risk Factors and Sex Offense Recidivism*, 36 L. & HUM. BEHAV. 555, 555 (2012).

24. *See* Platt, *supra* note 4, at 745–49 (detailing the intent and purpose of sex offender registries).

25. Most people think that all sex offenders will reoffend, and when they do, they will commit a more serious offense than their first. In *Smith*, the landmark case upholding sex offender

numerous scholars and activists maintain that SOPR laws may actually increase non-sex crime recidivism because registrants have a more difficult time reentering society. Patty Wetterling, Jacob Wetterling's mother, was an early advocate of the registry and these comprehensive laws, but has recently questioned their effectiveness. She believes the laws have gone too far, are used against too many people, and are fueled by our anger.[26] Due to the difficulty registrants experience reentering society, many struggle with unemployment and end up homeless. This unanticipated effect of SOPR laws makes it more difficult to track registrants.

registration and SOPR laws, Justice Kennedy, writing for the Court, wrote that "[t]he risk of recidivism posed by sex offenders is 'frightening and high.'" Smith v. Doe, 538 U.S. 84, 103 (2003) (quoting McKune v. Lile, 536 U.S. 24, 34 (2002)). David Feige traced this assertion and discovered that it was "an entirely invented number." David Feige, *When Junk Science About Sex Offenders Infects the Supreme Court*, N.Y. TIMES (Sept. 12, 2017), https://www.nytimes.com/2017/09/12/opinion/when-junk-science-about-sex-offenders-infects-the-supreme-court.html [https://perma.cc/AW23-8PYH]. In fact, study after study confirms that sex offenders actually have a very low rate of recidivism. *See, e.g.*, CRIMINAL JUSTICE POLICY & PLANNING DIV., OFFICE OF POLICY & MGMT., RECIDIVISM AMONG SEX OFFENDERS IN CONNECTICUT 10–12 (2012), http://www.ct.gov/opm/lib/opm/cjppd/cjresearch/recidivismstudy/sex_offender_recidivism_2012_final.pdf [https://perma.cc/MUN9-DMD5] (finding 3.6% of sex offenders were re-arrested for a new sex offense, 2.7% were convicted for a new sex offense, and 1.7% returned to prison for a new sex offense); PATRICK A. LANGAN ET AL., DEP'T OF JUSTICE, RECIDIVISM OF SEX OFFENDERS RELEASED FROM PRISON IN 1994, at 24 tbl.21 (2003), https://www.bjs.gov/content/pub/pdf/rsorp94.pdf [https://perma.cc/ZER5-AXD5] (finding a recidivism rate of 3.5% within three years of release based on 9,691 sex offenders released from fifteen states); BRAD MYRSTOL ET AL., ALASKA JUSTICE STATISTICAL ANALYSIS CTR., ALASKA SEX OFFENDER RECIDIVISM AND CASE PROCESSING STUDY 23, 27–28 (2016) https://scholarworks.alaska.edu/bitstream/handle/11122/7342/1408.02.aksorcps-final.pdf [https://perma.cc/7DNQ-5MTQ] (stating that "findings affirm the results of previous sex offender recidivism studies in Alaska and elsewhere showing that sex offenders recidivate at a lower rate than individuals convicted of other types of criminal offenses" and concluding that "the proportion of sex offenders who commit new crimes following their release from prison steadily decreases over time" and that "Alaska sex offenders are infrequently rearrested or reconvicted for the commission of new sex offenses"); OFFICE OF RESEARCH, CAL. DEP'T OF CORR. & REHAB., 2013 OUTCOME EVALUATION REPORT 26 fig.11 & tbl.12 (2014), http://www.cdcr.ca.gov/adult_research_branch/research_documents/outcome_evaluation_report_2013.pdf [https://perma.cc/L33V-V8C8] (revealing that offenders required to register are more likely to be recommitted for a new non-sex crime than for a new sex crime); ME. STATISTICAL ANALYSIS CTR., SEXUAL ASSAULT TRENDS AND SEX OFFENDER RECIDIVISM IN MAINE 14 tbl.4 (2010) http://muskie.usm.maine.edu/justiceresearch/Publications/Adult/Sexual_Assault_Trends_and_Sex_Offender_Recidivism_in_Maine_2010.pdf [https://perma.cc/G9EY-G686] (finding a sex offender recidivism rate of 3.9% within 3 years of entering probation); *see also* Radley Balko, *The Big Lie About Sex Offenders*, WASH. POST (Mar. 9, 2017), http://www.washingtonpost.com/news/the-watch/wp/2017/03/09/the-big-lie-about-sex-offenders [https://perma.cc/5NCE-XYLJ] (stressing that policies underlying sex offenders' post-release requirements are "all based on a widely held assumption that all the available data say is utterly false"); *Recidivism Studies*, WOMEN AGAINST REGISTRY, http://www.womenagainstregistry.org/page-1752769 [https://perma.cc/C4SU-4RYH] (listing various federal and state studies that show sex offender recidivism rates); UNTOUCHABLE, *supra* note 9.

26. Jennifer Bleyer, *Patty Wetterling Questions Sex Offender Laws*, CITY PAGES (Mar. 20, 2013), http://www.citypages.com/news/patty-wetterling-questions-sex-offender-laws-6766534 [https://perma.cc/ZX76-HRDA].

Despite the purported nonpunitive purpose of sex offender registries and SOPR laws,[27] registrants must bear their costs and face the threat of further incarceration and prosecution for noncompliance. For convicted sex offenders, the "irons are always in the background since failure to comply with these restrictions carries with it the threat of serious punishment, including imprisonment."[28] While reentry following any criminal conviction is challenging,[29] it is especially difficult for sex offenders. Sex offenders must endure significant social consequences[30] from their convictions: instability in housing; difficulty finding and keeping steady employment; stress, shame, and isolation stemming from the stigma of inclusion on the registry; and increased strain on familial and other relationships.[31] Forced to live on the

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27. SOPR laws were upheld by the Supreme Court in *Smith v. Doe* as civil statutes meant to protect public safety. Most states explicitly state that their SOPR laws are civil schemes, but the California Supreme Court held that the California law was intended to be punitive. *See In re* Taylor, 343 P.3d 867, 868–69 (Cal. 2015) (quoting *In re* E.J., 223 P.3d 31, 34 (Cal. 2010)) (recognizing California's sex registry law was adopted for punitive reasons).

28. Does #1–5 v. Snyder, 834 F.3d 696, 703 (6th Cir. 2016).

29. *See generally* JOAN PETERSILIA, WHEN PRISONERS COME HOME: PAROLE AND PRISONER REENTRY (2003) (discussing the consequences of a felony conviction: employment obstacles, denial of public benefits, decreased educational opportunities, and disenfranchisement—and that housing instability is consistently associated with criminal recidivism and absconding). For an overview of the specific effects of unstable housing on reentry, see Hensleigh Crowell, Note, *A Home of One's Own*, 95 TEXAS L. REV. 1103, 1115–21 (2017). For an overview of the challenges formerly incarcerated people face finding employment, see JOHN SCHMITT & KRIS WARNER, CTR. FOR ECON. & POL'Y RES., EX-OFFENDERS AND THE LABOR MARKET (2010).

30. *See* JENNIFER L. KLEIN & DANIELLE J.S. BAILEY, TECHNICAL REPORT: THE EFFECTS OF LIVING ON THE REGISTRY—EXPERIENCES OF REGISTRANTS AND FAMILY MEMBERS 3–4 (2016), https://www.researchgate.net/publication/308902828_Technical_Report_The_Effects_of_Living_on_the_Registry_-_Experiences_of_Registrants_and_Family_Members [https://perma.cc/2B9C-F9RE] (expounding the unintended social consequences of sex offender registries); Levenson, *supra* note 17, at 11–13 (examining the collateral consequences of sex offender registration policies); Platt, *supra* note 4, at 759–67 (summarizing the negative social consequences experienced by sex offender registrants).

31. *See* J.J. Prescott, *Portmanteau Ascendant: Post-Release Regulations and Sex Offender Recidivism*, 48 CONN. L. REV. 1035, 1055–56 (2016) (noting that sex offenders have "difficulty finding employment, . . . trouble securing stable, quality, reasonably priced housing, . . . [and that] pervasive public awareness that one has committed a sex crime makes it difficult to form and maintain relationships"); Emily DePrang, *Life on the List*, TEX. OBSERVER (May 31, 2012) (detailing the struggles one juvenile registrant faced as a result of being listed on the registry); *see generally* 19 HUMAN RIGHTS WATCH, NO EASY ANSWERS: SEX OFFENDER LAWS IN THE U.S. pt. 8, at 78–99 (2007) [hereinafter NO EASY ANSWERS] (analyzing the effects of registration on sex offenders and their family members); JUSTICE POLICY INST., REGISTERING HARM: HOW SEX OFFENSE REGISTRIES FAIL YOUTH AND COMMUNITIES 16–32 (2008) (discussing the harmful effects of the Adam Walsh Act); RICHARD TEWKSBRURY ET AL., SEX OFFENDERS: RECIDIVISM & COLLATERAL CONSEQUENCES (2012); Klein & Bailey, *supra* note 30 (researching how being on a sex offender registry affects registrants and family members of registrants); Jill Levenson, *Hidden Challenges: Sex Offenders Legislated into Homelessness*, J. SOC. WORK, June 2016, at 1, 1 (discussing how zoning laws that prevent sex offenders from living in certain areas are not good public policy); Carla Schultz, *The Stigmatization of Individuals Convicted of Sex Offenses: Labeling Theory and the Sex Offense Registry*, 2 THEMIS: RES. J. JUST. STUD. & FORENSIC SCI. 64, 64 (2014) (examining "how the registry reproduces labeling and how sex offenders are consequently damaged by their given label"); Richard Tewksbury et al., *Sex Offender Residential Mobility and Relegation:*

margins of society, sex offenders' lives lack stability and are characterized by a continuing struggle for stable work, housing, and community. These increased barriers to reentry contribute to the significant number of registrants who are homeless.

Once homeless, states subject registrants to more onerous reporting requirements, which in turn increases the attendant risk of prosecution and future imprisonment.[32] There is no comprehensive overview of how sex offender registration laws across the country address homeless registrants. This Note explores the constitutionality of SOPR laws as they continue to apply after people have served their sentences. It surveys how the fifty states and the District of Columbia address homeless registrants and assesses the constitutionality of those measures.[33] Part I reviews the unique reentry challenges faced by sex offenders. Part II describes how specific SOPR laws pose unique challenges to homeless registrants, the guidance states provide to homeless registrants, and the additional burdens that jurisdictions impose on homeless registrants. Part III distinguishes these additional homeless-specific provisions from the burdens upheld by the Supreme Court and lower courts against constitutional challenges brought by non-homeless registrants, and concludes that this constellation of SOPR laws is vulnerable to ex post facto and void-for-vagueness challenges as applied to homeless registrants.

I. The Unique Challenges that Reentry Poses for Convicted Sex Offenders

Persons convicted of a crime will encounter obstacles upon seeking to reintegrate into society.[34] SOPR laws and the sex offender label exacerbate

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The Collateral Consequences Continue, 41 AM. J. CRIM. JUST. 852, 852 (2016) (suggesting that "the collateral consequences of sex offender policies have long-term deleterious effects on housing for sex offenders").

32. *See, e.g.*, McGuire v. Strange, 83 F. Supp. 3d 1231, 1239 & n.6 (M.D. Ala. 2015), *appeal filed*, No. 15-10958 (11th Cir. Mar. 06, 2015) (noting that failure to comply with registration in Alabama subjects an offender to one of 115 Class C felonies, which carry a sentence from one to ten years). While these are low-level felonies, the court in *McGuire* likens these to "being shot with a smaller caliber bullet." *Id.*; *see also* OFF. OF RES., CAL. DEP'T OF CORR. & REHAB., *supra* note 25 (finding that 88% are returned to prison for parole violations); UNTOUCHABLE, *supra* note 9 (describing how one man, Clyde Newton, was eight minutes late to the homeless sex offender camp set up in Florida for registrants to live and was convicted of a technical violation and went back to prison for four years).

33. The federal government's Sex Offender Registration and Notification Act (SORNA) does not mention homelessness, and the SOPR laws of several other jurisdictions follow suit. In these states, as the Survey explains in Part II, what registrants are required to do varies by jurisdiction. Other states' laws clarify for homeless residents how frequently they must verify their status as homeless with law enforcement. These states impose more frequent reporting requirements for homeless residents.

34. Regardless of whether a person serves jail time for an offense, a criminal conviction keeps people from employment, housing, and public benefits. For a discussion of reentry challenges, see Platt, *supra* note 4, at 759–65, and Levenson, *supra* note 17, at 11 (postulating that registries "may unfairly and unnecessarily deprive offenders of opportunities for success").

these challenges.[35] Barriers like residency and employment restrictions—which are consequences of a sex offense conviction—are statutorily imposed, whereas other obstacles flow from the presence of a conviction or societal prejudices against sex offenders. This Part does not presume to exhaustively catalog the challenges that registrants face reentering society or to fully survey the jurisdictional variations in residency and employment restrictions.[36] Rather, this Part aims to provide an overview of some of the most common challenges that registrants face.

These challenges are best understood through their impact on an individual's quotidian life. What follows is a partial sketch of the challenges faced by one man, Michael McGuire.[37] The challenges Mr. McGuire experienced, and likely continues to experience today, are merely an example of what some registrants face. The registry impacts individuals differently depending on their unique circumstances—the jurisdiction they live in and its requirements, family and social support networks, skills and job training. Mr. McGuire was relatively well-resourced and sophisticated: he had support from family and friends, a career, ties to his community, and even a brother with legal expertise. Many registrants encounter more difficult challenges than those Mr. McGuire faced. Yet Mr. McGuire was unable to retain housing and employment in the face of SOPR laws.

In 1986, Mr. McGuire was convicted of sexual assault in Colorado.[38] This remains his only criminal conviction.[39] He served three years in prison and another year on parole, successfully completing his prison sentence.[40] He then had a career as a hair stylist and jazz musician.[41] In 2010, in order to be closer to his aging mother, he and his wife moved to his hometown, Montgomery, Alabama.[42] The following describes his attempts to comply

35. *See* Levenson, *supra* note 17, at 11 (asserting that "[a]n ever-growing national registry . . . weakens the public's ability to distinguish truly dangerous offenders").

36. These challenges include, but are not limited to, employment and residency restrictions, GPS and electronic surveillance, chemical castration, and involuntary civil commitment, a form of indefinite detention. For a comprehensive overview of these laws, see generally CHARLES PATRICK EWING, JUSTICE PERVERTED: SEX OFFENDER LAW, PSYCHOLOGY, AND PUBLIC POLICY 69–116 (2011); SEX OFFENDER LAWS: FAILED POLICIES, NEW DIRECTIONS (Richard G. Wright ed., 2d ed. 2015); and LISA WILLIAMS-TAYLOR, INCREASED SURVEILLANCE OF SEX OFFENDERS: IMPACTS ON RECIDIVISM 84–87, 102–07 (2012). It is probably impossible to accurately survey the residency restrictions as they exist at the state and municipal levels.

37. *See McGuire*, 83 F. Supp. 3d at 1269–70 (holding that while Mr. McGuire did not show that "ASORCNA's scheme as a whole is so punitive either in purpose or effect as to negate the Legislature's stated nonpunitive intent," he did show that "requiring dual, in-person weekly registration for in-town homeless registrants and dual applications for travel permits for all in-town registrants are affirmative disabilities or restraints excessive of their stated nonpunitive intent" and therefore "violate the Ex Post Facto Clause of the United States Constitution").

38. *Id.* at 1236.

39. *Id.*

40. *Id.*

41. *Id.*

42. *Id.*

with Alabama's SOPR law and how his life unraveled as a result.[43] The information about Mr. McGuire's struggles is drawn from the pleadings and record of a lawsuit he filed challenging Alabama's SOPR law.[44]

A. *Residency Restrictions*

Alabama bars registrants from living within 2,000 feet of any school or childcare facility.[45] Mr. McGuire was, therefore, prohibited from living with his wife in the home they rented.[46] The McGuires lived in a hotel, depleting their savings while attempting to find suitable housing.[47] Unable to find housing that complied with the residency restrictions, Mr. McGuire began to live under a bridge.[48]

Despite his diligent efforts, Mr. McGuire's fate seems to have been sealed. An expert analyzed the residency restrictions, housing stock, and presence of schools and childcare facilities in Montgomery.[49] The expert discovered that "80 percent of where the people are actually living in the city is off limits to people subject to the statute."[50] However, even this figure underestimates the actual burden on sex offenders. Of the limited housing purportedly available, the expert noted that "many of the larger parcels . . . d[id] not include any potential housing" and that other potential homes would be unaffordable for many registrants.[51]

Alabama, of course, is not unique in imposing residency restrictions on sex offenders.[52] At least twenty-seven states have "rules restricting how close

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43. *Id.*

44. *Id.*

45. ALA. CODE § 15-20A-11(a) (2017). Alabama prohibits registrants from living within 2,000 feet of their victims or the victims' immediate families. *Id.* § 15-20A-11(b).

46. *McGuire*, 83 F. Supp. 3d at 1240.

47. *Id.* at 1241.

48. *Id.* at 1236.

49. *Id.* at 1241.

50. *Id.*; Expert Report/Declaration of Peter Wagner, J.D., at 9, McGuire v. City of Montgomery, 83 F. Supp. 3d 1231 (M.D. Ala. 2015) (No. 2:11-cv-01027-WKW-CSC) at *5.

51. Expert Report/Declaration of Peter Wagner, J.D., *supra* note 50, at 8.

52. For a comprehensive overview of these laws, their ineffectiveness and their effects on registrants, see Levenson, *supra* note 31, at 3–8; *see also* CAL. SEX OFFENDER MGMT. BD., HOMELESSNESS AMONG CALIFORNIA'S REGISTERED SEX OFFENDERS: AN UPDATE 1 (2011) ("Analysis of the situation in California shows that residence restrictions have led to dramatically escalating levels of homelessness among sex offenders, particularly those on parole, of whom nearly one in three are now homeless. In addition, sex offender homelessness is likely to be exacerbated by local ordinances, which continue to proliferate. It is extremely difficult to keep track of these ordinances and to evaluate their contribution to the problem."); Jacob Carpenter, *Sex Offender Ordinance Hasn't Worked as Planned, Putting Public at Greater Risk*, MILWAUKEE J. SENTINEL (Aug. 20, 2016), http://www.jsonline.com/story/news/local/2016/08/20/sex-offender-ordinance-worked-planned-putting-public-greater-risk/88948028/ [https://perma.cc/B33Y-5F9W] (asserting that residency ordinances for sex offenders increase the risk of reoffending and place "the public at greater risk"); Jen Fifield, *Despite Concerns, Sex Offenders Face New Restrictions*, STATELINE (May 6, 2016), http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2016/05/06/

sex offenders can live to schools and other places where groups of children may gather."[53] Residency restrictions range from 1,500 to 2,000 feet from schools, parks, and recreation centers.[54] In some communities with more onerous restrictions, "[l]ocating legal housing for offenders has become so difficult . . . that when parole officers find an apartment building beyond the exclusion zones, they often pile in as many offenders as the landlord will accept."[55] In Mr. McGuire's case, the court noted that "[a]ccurately accounting for housing availability for sex offenders is, in short, an unresolvable nightmare for law enforcement."[56] Further, "[f]or registrants, who bear the burden of locating such housing under the penalty of several felony offenses should they make the wrong decision, keeping track is impossible, period."[57]

Municipalities may also enact residency restrictions that are even more onerous than the applicable state's laws.[58] Florida, for example, provides that

despite-concerns-sex-offenders-face-new-restrictions [https://perma.cc/MEL3-J5XR] (pointing to studies showing that residency restrictions for sex offenders not only "make more offenders homeless" but also fail to decrease the risk of reconviction for sexual offenses); Lehrer, *supra* note 17, at 61 (explaining that "[m]aking it impossible for sex offenders to live in most places contributes directly to their becoming homeless . . ."); Ian Lovett, *Neighborhoods Seek to Banish Sex Offenders by Building Parks*, N.Y. TIMES (Mar. 9, 2013), http://www.nytimes.com/2013/03/10/us/building-tiny-parks-to-drive-sex-offenders-away.html [https://perma.cc/JTF9-K46Z] (explaining how cities in California build tiny parks to restrict where sex offenders may live and how this makes it virtually impossible for sex offenders to find eligible housing); Steven Yoder, *New Evidence Says US Sex-Offender Policies Are Actually Causing More Crime*, QUARTZ (Dec. 21, 2016), https://qz.com/869499/new-evidence-says-us-sex-offender-policies-dont-work-and-are-are-actually-causing-more-crime/ [https://perma.cc/75PB-K3BU] (positing that re-offense rates are increased by implementing policies such as "making it harder to find a place to live" and using sex offender registries). *But see California Loosens Sex Offender Residency Restrictions*, KCRA (Mar. 27, 2017), http://www.kcra.com/article/california-loosens-sex-offender-residency-restrictions/6421299 [https://perma.cc/FW58-Z8GP] (explaining that California is scaling back its restrictions based on a court decision).

53. Fifield, *supra* note 52. This is not the whole picture, as many counties enact residency restrictions even if the state does not have any. *Id.*

54. *See* Michelle L. Meloy et al., *Making Sense Out of Nonsense: The Deconstruction of State-Level Sex Offender Residence Restrictions*, 33 AM. J. CRIM. JUST. 209, 215 (2008) (proffering survey results of thirty states' sex offender registry restriction laws ranging from 500 to 2,000 feet).

55. Karl Vick, *Laws to Track Sex Offenders Encouraging Homelessness*, WASH. POST (Dec. 27, 2008), http://www.washingtonpost.com/wp-dyn/content/article/2008/12/26/AR2008122601722_pf.html [https://perma.cc/KAV2-8KQ4]; *see also* Meloy et al., *supra* note 54, at 213, 218 (arguing that residency restrictions for sex offenders both "result in the relocation of many offenders . . . into more rural communities" and increase the likelihood of "offender displacement").

56. McGuire v. Strange, 83 F. Supp. 3d 1231, 1241 (M.D. Ala. 2015), *appeal filed*, No. 15-10958 (11th Cir. Mar. 06, 2015).

57. *Id.*

58. For a curated collection of articles on the subject, see *Sex Offender Residency Restrictions: A Curated Collection of Links*, MARSHALL PROJECT (Sept. 25, 2017), https://www.themarshallproject.org/records/2061-sex-offender-residency-restrictions#.wLCZ3Mu2c [https://perma.cc/4SLZ-BYPP]. These laws are frequently challenged. *See* Lauren Phillips, *Over 20 Texas Towns Repeal Restrictions on Where Sex Offenders Live After Broad Legal Challenge*, DALL. NEWS

certain sex offenders "may not reside within 1,000 feet of any school, child care facility, park, or playground."[59] But, in 2009, "Miami-Dade County . . . adopted an ordinance banning sex offenders from living within 2,500 feet of anywhere that children gather."[60] After the city dismantled a homeless encampment under the Julia-Tuttle Causeway in 2007, today approximately 260 people are registered as living in a tent village with no electricity, running water, or bathroom facilities.[61] And, although Colorado lacks residency restrictions at the state level, the Colorado Supreme Court upheld a municipal ordinance that banished all sex offenders from a town.[62] There, the residency restriction in question made "99% of the city off limits to qualifying sex offenders."[63]

Residency restrictions force registrants to leave their homes, social support networks, and communities; result in homelessness; and, in some cases, return registrants to prison.[64] Courts are split on how lawful they are and how onerous they must be to be unconstitutional. For example, the Supreme Court of California found that "blanket enforcement of [residency restrictions] in San Diego County has led to greatly increased homelessness among registered sex offenders."[65] The Court noted that residency restrictions effectively barred registrants from 97% of the multifamily rental

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(Feb. 2016), https://www.dallasnews.com/news/local-politics/2016/02/07/over-20-texas-towns-repeal-restrictions-on-where-sex-offenders-live-after-broad-legal-challenge [https://perma.cc/WUP4-HT9Y].

59. FLA. STAT. § 775.215(2)(a) (2017).

60. Greg Allen, *Sex Offenders Forced to Live Under Miami Bridge*, NPR (May 20, 2009), http://www.npr.org/templates/story/story.php?storyId=104150499 [https://perma.cc/R4ME-MGKN] (reporting that due to the residency restrictions in Miami, probation officers instructed released sex offenders to live under an underpass of a causeway because it was the only place in Miami where they were allowed to live).

61. Douglas Hanks, *Tent Camp of Homeless Sex Offenders Near Hialeah "Has Got to Close," County Says*, MIAMI HERALD (Aug. 22, 2017), http://www.miamiherald.com/news/local/community/miami-dade/article168569977.html [https://perma.cc/R9JB-9GYK]; *see also* Wilson Sayre, *Sex Offenders Sent To Homeless Encampment Told To Find Housing, But Where?*, WLRN (Aug. 22, 2017), http://wlrn.org/post/sex-offenders-sent-homeless-encampment-told-find-housing-where [https://perma.cc/55KS-48DL].

62. Ryals v. City of Englewood, 364 P.3d 900, 909 (declaring that "[t]here is nothing in Colorado's sex offender regulatory regime that prevents home-rule cities from banning sex offenders from residing within city limits, nor is there anything that suggests that sex offenders are permitted to live anywhere they wish").

63. *Id.* at 904.

64. Tewksbury et al., *supra* note 31, at 853, 864 (summarizing well-established research that sex offenders struggle with unstable housing due in part to residency restrictions and hostility from landlords and describing a study the authors conducted following registrants fifteen years after arrest, which found that registrants moved to "less desirable neighborhoods" and that "the placement (or, relegation) of registered sex offenders in poor, low social capital, and often crime-ridden communities may actually be working counter to the justifications for sex offender registration and community notification").

65. *In re* Taylor, 343 P.3d 867, 881 (Cal. 2015).

housing in San Diego County.[66] It held that these restrictions "cannot survive even the more deferential rational basis standard of constitutional review."[67] Moreover, the blanket enforcement of the restrictions there "infringed the affected parolees' basic constitutional right to be free of official action that is unreasonable, arbitrary, and oppressive."[68] But, in Maryland, "not having a fixed address to register with the Maryland Sex Offender Registry is a parole violation which places the offender back into prison [housing]."[69] And, in Wisconsin, a man was held for nearly fourteen months beyond the end of his official sentence because he could not find housing that complied with the residency restrictions.[70]

A registrant who is able to find affordable housing that complies with residency restrictions often faces other hurdles in actually securing that housing. Sex offenders who are required to register for life are barred from public housing.[71] Landlords frequently refuse to rent to people with criminal records[72] and consider sex offender status to be the ultimate scarlet letter.[73] Property owners deploy restrictive covenants to create and advertise "sex offender free communities."[74] Given these sweeping obstacles, it is no wonder that so many registrants end up homeless.

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66. *Id.* at 876.

67. *Id.* at 879.

68. *Id.*

69. Sarah S. Rhine, *Criminalization of Housing: A Revolving Door that Results in Boarded Up Doors in Low-Income Neighborhoods in Baltimore, Maryland*, 9 U. MD. L.J. RACE, RELIG., GENDER & CLASS 333, 350 (2009). Illinois has a similar scheme. There, one ex-offender was due to be released but because he had no family to take him in and no facility would accept him due to his sex offender status, he was not released on parole and held until the completion of his sentence. Cordrey v. Prisoner Review Bd., 21 N.E.3d 423, 425 (Ill. 2014); Patrick Yeagle, *Imprisoned for Poverty*, ILL. TIMES (Jan. 22, 2015), http://illinoistimes.com/article-permalink-15006.html [https://perma.cc/XT4X-5WQW].

70. Werner v. Wall, 836 F.3d 751, 756–57 (7th Cir. 2016).

71. Rhine, *supra* note 69, at 347.

72. One study estimates that "10%–30% of homeless individuals have recently been released from incarceration or have a criminal record." Levenson, *supra* note 31, at 2 (citing KATHERINE CORTES & SEAN ROGERS, COUNCIL OF STATE GOV'TS JUSTICE CTR., REENTRY HOUSING OPTIONS: THE POLICYMAKERS' GUIDE (2010), https://csgjusticecenter.org/reentry/publications/reentry-housing-options-the-policymakers-guide-2/ [https://perma.cc/UV56-NX2Z]).

73. *See* Crowell, *supra* note 29, at 1105–12.

74. Asmara M. Tekle, *Safe: Restrictive Covenants and the Next Wave of Sex Offender Legislation*, 62 SMU L. REV. 1817, 1819 (2009); *see also* Brett Jackson Coppage, *Balancing Community Interests and Offender Rights: The Validity of Covenants Restricting Sex Offenders from Residing in a Neighborhood*, 38 URB. LAW. 309, 315–35 (2006) (explaining how private covenants exemplify private attempts to limit offender housing).

B. Employment Restrictions

Alabama, like most states, also imposes restrictions on registrants' employment.[75] Numerous states have enacted "employment restrictions intended to keep sex offenders away from schools, daycare facilities, playgrounds, public swimming pools, video arcades, recreation centers, or public athletic fields and the like."[76] While these restrictions may be reasonable when applied to individuals convicted of sexually abusing children, many states apply them to all sex offenders.[77] Furthermore, geographic restrictions that "bar all registered sex offenders . . . from employment where they may inadvertently come into contact with children effectively bar[s] registered sex offenders from employment in large sectors of the economy."[78] The court in Mr. McGuire's case found that "approximately 85 percent of jobs in [Montgomery, Alabama,] are barred to offenders . . . [and] approximately 50 percent of the 500 offenders in Montgomery County are unemployed."[79] Alabama's employment restrictions prevented Mr. McGuire from "accepting or applying for a number of jobs, including music-related engagements" that he was otherwise qualified for.[80] As a result, he lives on a fixed income of disability benefits.[81]

Registrants also face discrimination from potential employers, many of whom use the sex offender status as a litmus test to deny employment. According to a Human Rights Watch report, "private employers are reluctant to hire sex offenders even if their offense has no bearing on the nature of the job."[82] Employers may be motivated by fear that their address will be listed

75. In Alabama, registrants are not allowed to work or volunteer "at any school, childcare facility, mobile vending business that provides services primarily to children, or any other business or organization that provides services primarily to children." ALA. CODE § 15-20A-13(a) (2016). They are prohibited from "apply[ing] for, accept[ing], or maintain[ing] employment or volunteer[ing] for any employment or vocation within 2,000 feet of the property [of] a school or childcare facility." *Id.* § 15-20A-13(b). Registrants are also prohibited from working or volunteering "within 500 feet of a playground, park, athletic field or facility, or any other business or facility having a principal purpose of caring for, educating, or entertaining minors." *Id.* § 15-20A-13(c). These provisions apply regardless of whether the registrant's former victim was a minor. McGuire v. Strange, 83 F. Supp. 3d 1231, 1238 n.3 (M.D. Ala. 2015), *appeal filed*, No. 15-10958 (11th Cir. Mar. 06, 2015).

76. Joseph L. Lester, *Off to Elba! The Legitimacy of Sex Offender Residence and Employment Restrictions*, 40 AKRON L. REV. 339, 354 (2007). For a list of sex offender employment-restriction statutes, see *id.* at 385–88 tbl.3.

77. *See, e.g.*, *McGuire*, 83 F. Supp. 3d at 1264 (explaining that Alabama's SOPR law "does not differentiate between registrants who committed sexual offenses against children and those who committed offenses against adults"). Many states employ broad definitions of "sex offense," which include offenses such as public urination, prostitution, and "Romeo and Juliet" offenses. *See* Platt, *supra* note 4, at 754–60.

78. NO EASY ANSWERS, *supra* note 31, at 82.

79. *McGuire*, 83 F. Supp. 3d at 1241 n.7.

80. *Id.* at 1241.

81. *Id.*

82. NO EASY ANSWERS, *supra* note 31, at 81.

on the registry, which could harm business or otherwise hurt their commercial reputation, or simple revulsion about the sex offense conviction. Regardless of employer motivation, when registrants tell prospective employers of their status they are usually denied employment.[83] Registrants have also reported that hostility from community members has resulted in losing jobs and other employers being less willing to hire them.[84]

C. *Mental Health*

People reentering society after serving time in jails and prisons often suffer from untreated mental health conditions. Some experts believe that sex offenders experience even higher rates of mental illness.[85] Placement on the registry saddles people with the "psychological burden of shame, isolation and stigma . . . ."[86] Social scientists and mental health experts have conducted a number of studies on the stigma associated with the sex offender label and SOPR laws.[87] They found that sex offender registration "may exacerbate the stressors (for example, isolation, disempowerment, shame, depression, anxiety, and a disconnection from social supports) that can trigger relapse and reoffending in some former offenders."[88]

Placement on the registry and compliance with SOPR laws distances registrants from their families and communities, through both physical separation and the stigma associated with the sex offender label.[89] Registrants commonly express experiencing feelings of alienation due to this "exclusionary atmosphere."[90] This manifests in registrants as "feel[ing] as tho[ugh] there is no way out of the physical and social isolation that results from this exclusion."[91] People report "feeling ashamed, having a difficult life,

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83. *Id.* at 81–82.

84. *Id.* at 82–83; *see also, e.g.*, UNTOUCHABLE, *supra* note 9 (describing how one woman felt she had finally made it as a journalist for her local newspaper until someone complained and she was fired).

85. Silke Harsch et al., *Prevalence of Mental Disorders Among Sexual Offenders in Forensic Psychiatry and Prison*, 29 INT'L J.L. & PSYCHIATRY 443, 447 (2006).

86. Carolyn E. Frazier, *Today's Scarlet Letter—the Sex Offender Registry—Is Risky Justice for Youth*, CHI. TRIB. (May 26, 2017), http://www.chicagotribune.com/news/opinion/commentary/ct-sex-offenders-list-teens-risk-perspec-0529-md-20170526-story.html [https://perma.cc/QHV4-BFYW].

87. Klein & Bailey, *supra* note 30, at 4.

88. NO EASY ANSWERS, *supra* note 31, at 62 (citing Jill Levenson & Leo Cotter, *The Effects of Megan's Law on Sex Offender Reintegration*, 21 J. CONTEMP. CRIM. JUST. 49 (2005); Richard Tewksbury, *Collateral Consequences of Sex Offender Registration*, 21 J. CONTEMP. CRIM. JUST. 67 (2005); Telephone Interview with Dr. Jill Levenson (Oct. 11, 2006); Telephone Interview with Dr. Robert Prentky (Mar. 20, 2007)).

89. Klein & Bailey, *supra* note 30, at 4.

90. *Id.*

91. *Id.* (citing Richard Tewksbury & David Patrick Connor, *Incarcerated Sex Offenders' Perceptions of Family Relationships: Previous Experiences and Future Expectations*, 13 W. CRIMINOLOGY REV., no. 2, 2012, at 25–35; Richard Tewksbury & Matthew B. Lees, *Perceptions*

feeling excluded from their communities, having close relationships suffer, and experiencing disrespect all as a result of being required to register as a sex offender with the state."[92]

Unstable housing and employment are frequently associated with mental health issues.[93] When people have difficulty with securing a place to live and work, they are more likely to become homeless. Once homeless, it becomes even more challenging to find a job, which in turn makes affording and finding housing unobtainable.[94]

II. Surveying State Approaches to Homeless Sex Offender Registration

Most states do not substantially comply with SORNA, despite its threat to withhold federal funding from noncompliant states.[95] In fact, SORNA compliance is so expensive that some states have deliberately chosen to relinquish the associated federal funding and enact their own SOPR laws.[96] As a result, state SOPR laws differ significantly in their treatment of homeless registrants: some do not address homeless registrants and some require more frequent in-person reporting. This Part provides an overview of SORNA and how states address homeless registrants. These variations are important when analyzing both their vulnerability to constitutional challenges and their complexity—how difficult it can be for a registrant to understand what he is supposed to do to comply.

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of Punishment: How Registered Sex Offenders View Registries, 53 CRIME & DELINQ. 611, 611–26 (2007)).

92. *Id.* at 14.

93. Public health research established that social determinants of health—the conditions in which people are born, grow, live, work, and age—have a significant impact on mental and physical health. *See generally* REG'L OFFICE FOR EUR., SOCIAL DETERMINANTS OF HEALTH: THE SOLID FACTS, WORLD HEALTH ORGANIZATION [WHO] (Richard Wilkinson & Michael Marmot eds., 2d ed. 2003), http://www.euro.who.int/__data/assets/pdf_file/0005/98438/e81384.pdf [https://perma.cc/8Q5W-PUKX] (outlining how social determinants strongly correlate with mental health issues); Jessica Allen et al., *Social Determinants of Mental Health*, 26 INT'L REV. PSYCHIATRY 392 (2014) (same).

94. *See* ADAM STEEN ET AL., SWINBURNE INST. FOR SOC. RES., HOMELESSNESS AND UNEMPLOYMENT: UNDERSTANDING THE CONNECTION AND BREAKING THE CYCLE, SWINBURNE UNIVERSITY 2 (2012), http://wp.sheltertas.org.au/wp-content/uploads/2015/03/Homelessness-and-unemployment_Final-Report-20121.pdf [https://perma.cc/89CB-4T2R] (explaining the barriers to obtaining jobs that pay enough to afford housing due to a lack of credentials or permanent address); *see also* NAT'L COAL. FOR THE HOMELESS, EMPLOYMENT AND HOMELESSNESS (2009), http://www.nationalhomeless.org/factsheets/employment.html [https://perma.cc/4KZW-K4J3] ("[C]limbing out of homelessness is virtually impossible for those without a job.").

95. *SORNA Implementation Status*, OFF. JUST. PROGRAMS, https://www.smart.gov/sorna-map.htm [https://perma.cc/45T7-HWEF] (representing that as of Fall 2017, eighteen states and three territories have substantially implemented SORNA).

96. *Some States Refuse to Implement SORNA, Lose Federal Grants*, PRISON LEGAL NEWS, Sept. 2014, at 54, 54.

A. SORNA Is an Inadequate Model

SORNA is an inadequate model because it does not explicitly mention homeless registrants, much less provide separate registration provisions for homeless registrants.[97] SORNA instead defines the place a sex offender "resides" as "the location of the individual's home or other place where the individual habitually lives."[98] In 2008, the U.S. Department of Justice issued National Guidelines for Sex Offender Registration and Notification[99] "to provide guidance and assistance to jurisdictions in implementing the SORNA standards in their sex offender registration and notification programs."[100] The Guidelines further define "habitually lives" as "any place in which the sex offender lives for at least 30 days."[101]

This provides—at best—ambiguous guidance to homeless registrants, police departments, and courts. The SORNA Guidelines do not answer reasonable questions that a homeless registrant might have in seeking to understand his obligations and how to avoid prosecution for failing to register. For instance, at what point does a registrant register as homeless? Does he register when he loses stable housing and begins to sleep on the street? Or, does he register when he has been homeless for thirty days? Does a homeless registrant who repeatedly moves around a city in a thirty-day period qualify as habitually living in that city? Do people who move more often avoid the reporting provisions? Or, are they required to re-register more frequently? Must a registrant update his registration when he moves from Shelter A to Park B within a jurisdiction, or may he wait until the next thirty-day re-registration period when he is required to update his registration? Does he habitually live in the city, or does he habitually live at Shelter A? Homeless registrants struggle to answer such questions.

Yet, homeless registrants are, of course, expected to register; the Eighth Circuit rejected the idea that "a savvy sex offender can move to a different city and avoid having to update his SORNA registration by sleeping in a different shelter or other location every night."[102] Numerous federal courts interpreting SORNA have defined "habitually lives" as the place where a transient registrant "regularly returns to sleep, eat his meals and keep

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97. SORNA was meant to provide a model for states and provides funding for states that "substantially comply" with it. However, thirty-two states forgo federal funding because the cost of complying is too onerous. SMART, *supra* note 95.

98. 34 U.S.C.A. § 20911 (West 2017).

99. The National Guidelines for Sex Offender Registration and Notification, 73 Fed. Reg. 38030 (July 2, 2008) [hereinafter SORNA Guidelines].

100. Supplemental Guidelines for Sex Offender Registration and Notification, 76 Fed. Reg. 1630 (Jan. 11, 2011).

101. SORNA Guidelines, *supra* note 99, at 38062.

102. United States v. Voice, 622 F.3d 870, 875 (8th Cir. 2010).

personal belongings in a localized area . . . ."[103] This definition encompasses many homeless registrants and requires them to register despite not having a more conventional stable address.[104] The prevailing understanding is that "terminating a residence with no intention of returning constitutes a 'change' in residence under SORNA."[105]

However, Justice Alito questioned this reasoning, writing for the Court in *Nichols v. United States*.[106] Mr. Nichols, a non-homeless registered sex offender who had been living in Kansas, moved to the Philippines without updating his registration.[107] He was subsequently charged and convicted of failing to update his registration. Prosecutors alleged that Mr. Nichols changed his residence—and thus should have updated his registration—twice: once when he abandoned his apartment in Kansas and again when he checked into a hotel in the Philippines.[108] Justice Alito questioned this reasoning and the resulting conviction:

> We think this argument too clever by half; when someone moves from, say, Kansas City, Kansas, to Kansas City, Missouri, we ordinarily would not say he moved twice: once from Kansas City, Kansas, to a state of homelessness, and then again from homelessness to Kansas City, Missouri. Nor, were he to drive an RV between the cities, would we say that he changed his residence *four* times (from the house on the Kansas side of the Missouri River to a state of homelessness when he locks the door behind him; then to the RV when he climbs into the vehicle; then back to homelessness when he alights in the new house's driveway; and then, finally, to the new house in Missouri). And what if he were to move from Kansas to California and spend several nights in hotels along the way? Such ponderings cannot be the basis for imposing criminal punishment. "We interpret criminal statutes, like other statutes, in a manner consistent with ordinary English usage."[109]

Justice Alito's reasoning was adopted unanimously to overturn Mr. Nichols's conviction because, in plain English, Mr. Nichols had moved just once. However, lower federal courts had previously applied this definition of a move to homeless defendants and may continue to do so given their unique

103. Marsh v. United States, Nos. 3:13-CV-15, 3:10-CR-76, 2015 WL 5470236, at *9 (N.D. W. Va. Sept. 15, 2015) (citing *Voice*, 622 F.3d at 875; United States v. Bruffy, No.1:10cr77 (LMB), 2010 WL 2640165, at *3 (E.D. Va. June 30, 2010)).

104. *See, e.g.*, United States v. Van Buren, 599 F.3d 170, 175 (2d Cir. 2010) (holding that "SORNA requires a convicted sex offender to update his registration information in person upon terminating his current residence with no intention of returning, even if the sex offender has not yet established a new residence").

105. *Id.* at 172.

106. 136 S. Ct. 1113 (2016).

107. *Id.* at 1115.

108. *Id.* at 1118.

109. *Id.* at 1118–19 (quoting Abramski v. United States, 134 S. Ct. 2259, 2277 (2014) (Scalia, J., dissenting)).

circumstances.[110] For example, the Eighth Circuit held in 2010 that there was evidence that a defendant repeatedly changed his residence because he "habitually lived" in more than one location of the same town.[111] Federal courts may still apply this reasoning in future cases with homeless registrants.[112]

B. *Inconsistent Approaches to Homeless Registrants*

Because SORNA provides little instruction to states seeking guidance on registering homeless sex offenders, states in turn lack a uniform approach. Some states implement policies addressing and accommodating homeless registrants,[113] while other states emulate SORNA's failure to textually address how homeless registrants should comply. While many aspects of these laws have the potential to impact homeless registrants, a few categories of provisions pose unique burdens.

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110. *See, e.g.*, United States v. Bruffy, 466 F. App'x 239, 244 (4th Cir. 2012) (requiring the defendant to register under SORNA and rejecting the defendant's argument challenging that "resides" is vague as applied to transient offenders who have vacated one residence but have not yet established a new residence in a different state because the defendant was not in transit, but merely transient in a defined jurisdiction, in that "[he] was not merely passing through [an] area in uninterrupted travel," but had one location where he habitually lived); United States v. Voice, 622 F.3d 870, 875 (8th Cir. 2010) ("We reject the suggestion that a savvy sex offender can move to a different city and avoid having to update his SORNA registration by sleeping in a different shelter or other location every night."); *Van Buren*, 599 F.3d at 175 ("[A] registrant must update his registration information if he alters his residence such that it no longer conforms to the information that he earlier provided to the registry."); United States v. Kimble, 905 F. Supp. 2d 465, 472–74 (W.D.N.Y. 2012) (holding that "resides" is not unconstitutionally vague for transient sex offenders).

111. *Voice*, 622 F.3d at 874–75.

112. In *Nichols*, the Supreme Court did not address homeless registrants; the Supreme Court noted that Mr. Nichols's conduct was in violation of state law and revisions to SORNA, which require that the registrant provide information regarding travel in foreign commerce. *Nichols*, 136 S. Ct. at 1119.

113. States differ in their definitions of "homeless." Some supply no definition; some provide definitions for "homeless," "transient," or "habitually lives." For the purposes of this Note, I use the term "homeless" to mean a person with an unstable address, and lump "homeless," "transient," and "habitually lives" within this definition. For example, Maryland defines all three in its statute. *See* MD. CODE ANN., CRIM. PROC., § 11-701 (West 2017). Habitually lives is defined as "any place where a person lives, sleeps, or visits with any regularity, including where a homeless person is stationed during the day or sleeps at night. . . . [This] includes any place where a person visits for longer than 5 hours per visit more than 5 times within a 30-day period." *Id.* § 11-701(d). Homeless is defined as "having no fixed residence." *Id.* § 11-701(e). Transient refers to "a nonresident registrant who enters a county of this State with the intent to be in the State or is in the State for a period exceeding 14 days or for an aggregate period exceeding 30 days during a calendar year for a purpose other than employment or to attend an educational institution." *Id.* § 11-701(r). However, in Montana, the definition of residence "does not mean a homeless shelter" and transient "means an offender who has no residence." MONT. CODE ANN. §§ 46-23-502(7)(b), (12) (2017). For comparison, the Department of Housing and Urban Development has four categories of homeless. *See Homeless Definition*, DEP'T OF HOUSING & URB. DEV., https://www.hudexchange.info/resources/documents/HomelessDefinition_RecordkeepingRequirementsandCriteria.pdf [https://perma.cc/X679-PDB9].

This subpart summarizes variations of SOPR laws that particularly burden homeless registrants to a degree that, as Part III analyzes, raises constitutional concerns. The Appendix details all fifty states' reporting requirements for transient registrants: whether there is an in-person reporting requirement; the statutorily imposed fines and fees; and, for comparison, the reporting requirements for nontransient registrants. This subpart summarizes those findings and provides context to understand the impact of these provisions on homeless registrants.

1. Nineteen states and the District of Columbia do not provide any statutory guidance for how homeless registrants should comply with the required registration.—Nineteen states and the District of Columbia do not provide any statutory guidance for homeless registrants seeking to comply with the required registration.[114] As a result, many homeless registrants face uncertainty, confusion, and additional hurdles in attempting to comply. The absence of statutory guidance does not mean homeless registrants are ignored; courts and agencies interpret the statutes and impose requirements that fill some gaps. However, the absence of statutory guidance raises due process concerns. Homeless registrants are provided no notice of what they must do to comply and avoid prosecution. As one court acknowledged: "without an explanation or clarification of how the term 'residence' applies to homeless people, the provisions . . . that require sex offenders to report any change of residence raise significant legal problems when they are applied to homeless sex offenders."[115] When a homeless registrant is charged with failure to register, courts must interpret these statutes to answer: Are registrants whose homelessness forces them to move more often exempt from registration requirements, or does a homeless registrant's transience subject them to more frequent—and possibly constant—reporting?

Several states interpret any move a registrant makes as triggering re-registration.[116] The vast majority of states require a registrant, homeless or not, who changes residences to report in person within three days of the move.[117] Requiring homeless individuals to report within three days or

114. *See infra* Appendix (identifying those nineteen states as Alaska, Connecticut, Kentucky, Maine, Michigan, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Oregon, Rhode Island, South Dakota, Utah, Virginia, West Virginia, and Wisconsin).

115. Shayen v. State, 373 P.3d 532, 534 (Alaska Ct. App. 2015).

116. *See* Tobar v. Commonwealth, 284 S.W.3d 133, 135 (Ky. 2009) ("[T]he focus . . . is not that the sex offender have an address, but that any change in address be reported to the proper authorities.").

117. For instance, in Missouri, "[w]hen a sex offender leaves a residence with no intention to return, even if he leaves to become homeless, his residence has *changed* as it is no longer that of the original residence." State v. Kelly, 367 S.W.3d 629, 632 (Mo. Ct. App. 2012); *see also* State v. Younger, 386 S.W.3d 848, 856–57 (Mo. Ct. App. 2012) ("'[C]hange of residence' also includes within its scope any time an offender is not actually living or dwelling at a registered address, regardless the intent to return . . . . Common sense and the plain meaning of 'residence' suggest that

immediately after a move leads to an unworkable morass. Housing can be so unstable that homeless individuals are forced to move every night, begetting a Kafkaesque obligation of continual reporting.

For instance, a Kentucky registrant moved to a shelter and attempted to register its address as his residence.[118] The shelter informed him that he could not continue to live at the shelter because the shelter had a policy against housing sex offenders.[119] He left the shelter and subsequently became homeless, a change he did not report to authorities. He defended himself by arguing that "he was homeless when charged and therefore unable to register a change in address."[120] The court rejected this argument and held: "Nowhere in the plain language of the statute does it require that the registrant must have an actual place he is moving to."[121] As this case indicates, a major concern of courts is not to immunize homeless registrants "from the registration requirements . . . as long as they continue[] to 'drift.'"[122]

Not all jurisdictions, however, take this approach. In Oregon, "the duty to report is triggered only when the sex offender has both left the offender's former residence to go to a new residence *and* has acquired a new residence."[123] Oregon courts have overturned at least three failure-to-register convictions on a finding that there was insufficient evidence to support that the sex offender had established a new residence.[124]

Some states implement ad hoc interpretations.[125] Connecticut illustrates how such approaches, although designed to ease burdens, can still result in

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the focus of determining whether a 'change of residence' has occurred should not be on the offender's intent to return, but instead on whether there has been a change in the location where the offender is actually dwelling."); *Tobar*, 284 S.W.3d at 135 ("[T]he focus . . . is not that the sex offender have an address, but that any *change* in address be reported to the proper authorities.").

118. *Tobar*, 284 S.W.3d at 134.

119. *Id.*

120. *Id.*

121. *Id.* at 135; *see also* State v. Worley, 679 S.E.2d 857, 864 (N.C. Ct. App. 2009) (explaining that in North Carolina, "the sex offender registration statutes operate on the premise that everyone does, at all times, have an 'address' of some sort, even if it is a homeless shelter, a location under a bridge or some similar place.").

122. *Worley*, 679 S.E.2d at 864.

123. State v. Hiner, 345 P.3d 478, 480 (Or. Ct. App. 2015) (emphasis added) (interpreting the former reporting requirement).

124. *Id.* at 482; State v. McColligan, 381 P.3d 1101, 1102 (Or. Ct. App. 2016); State v. Williams, 377 P.3d 677, 677 (Or. Ct. App. 2016) (explaining that, as in the previous two cases, "the state failed to prove that defendant had acquired a new residence after he left previous residences and, therefore, the trial court erred in denying his motions for judgment of acquittal").

125. For example, in Alaska, the Department of Public Safety asked homeless registrants to "identify the place they were staying with as much detail as reasonably possible." Shayen v. State, 373 P.3d 532, 534 (Alaska Ct. App. 2015). The department would accept a general location and even a zip code if the registrant did not know the exact physical location or address. *Id.* But even the court acknowledged that: "if the Department did formalize this approach by regulation or written policy, we are not sure that this approach would resolve every difficulty involved in applying the 'change-of-residence' reporting requirement to homeless sex offenders." *Id.* In Michigan, the Michigan State Police allowed homeless registrants to register their address as "123 Homeless,"

vague guidance and arbitrary enforcement. If a Connecticut registrant moves, he must "without undue delay" notify law enforcement in writing of the new address.[126] Connecticut's SOPR laws do not address homeless registrants,[127] but its courts relax daily reporting requirements for the homeless and no longer require such registrants to report in person.[128] Instead of periodic in-person reporting, the Department of Emergency Services and Public Protection mails a non-forwardable verification form to the registrant's last reported address every ninety days.[129] The registrant must sign the form and return it within ten days of receipt.[130] However, this does not work for homeless registrants, as there is no way for them to receive the verification form. And, because the homeless registrant cannot receive the verification form, he cannot return it and has failed to comply with the plain language of the statute. Courts and law enforcement have recognized the resulting absurdity and have provided a way for homeless registrants to comply.

In *State v. Winer*,[131] the Appellate Court of Connecticut endorsed an ad hoc approach and rejected a homeless defendant's argument that it was impossible for him to register. The court agreed with the State that "an adoption of the defendant's proposed definition would excuse homeless and temporarily housed sex offenders from compliance, thereby frustrating the intent of the statute to maintain records of the offenders' locations for the purpose of public safety."[132] At trial, a trooper testified that when "newly released registrants do not have an address, they provide the unit with daily updates on their location until they find housing so that the unit's records always reflect the registrant's current location."[133] Satisfied with the officer's ad hoc policy requiring unusually burdensome daily reporting for all homeless registrants, the court affirmed the defendant's conviction.[134]

However, just a few years later, the Connecticut Supreme Court distinguished typical "homelessness" in *Winer* from mere unstable housing

People v. Dowdy, 802 N.W.2d 239, 247 (Mich. 2011). In *Dowdy*, the defendant claimed he should not have to register because he was homeless and did not have a residence. *Id.* at 243. Rejecting this defense, the court held that "[n]othing in the text of SORA suggests that homelessness is an excuse for an offender's failure to comply with the act." *Id.* at 249. The court restructured its definition of "residence" to contemplate homelessness: "homelessness in no way prevents a sex offender from complying with the notification obligation . . . either because every person must have a legal domicile or, for practical purposes, because the Michigan State Police has promulgated an order to accommodate homeless sex offenders for the purposes of registration." *Id.* at 247.

126. CONN. GEN. STAT. § 54-251(e) (2015).

127. *Id.* §§ 54-250 to -262.

128. *See infra* notes 144–49 and accompanying text.

129. *Id.* § 54-257(c).

130. *Id.*

131. 963 A.2d 89 (Conn. App. Ct. 2009).

132. *Id.* at 93.

133. *Id.* at 92.

134. *Id.* at 93.

in *Drupals*.[135] *Drupals* demonstrates how registrants and law enforcement struggle to understand the contours of these obligations when applied to the homeless, and how courts work to interpret what SOPR laws require. Despite diligent efforts to comply with the SOPR laws,[136] Mr. Drupals was charged and convicted of two counts of failure to register.[137]

Mr. Drupals lived in Stamford, Connecticut, for a number of years, during which time he had some form of housing and registered as required.[138] He diligently attempted to comply with Connecticut's SOPR laws.[139] But, when he experienced unstable housing, he moved to Maryland to live with his brother.[140] His brother was quickly confronted by his landlord, who was upset that a registered sex offender was living in the apartment.[141] Mr. Drupals tried to find his own apartment, but failed and was forced to leave his brother's house as a result of the stigma associated with his criminal history.[142] Unable to find housing in Maryland, he returned to Connecticut but lived with his mother rather than at his old address.[143] He sent notice to the Maryland registry that he would be leaving Maryland.[144] Despite having five days to register in Connecticut,[145] Connecticut issued a warrant for

135. State v. Drupals, 49 A.3d 962, 972 (Conn. 2012) ("Unlike the situation of a homeless registrant like the defendant in *Winer*, where the unit may expect daily updates of a registrant's location, a registrant who has a residence address is required only to verify that address, in writing, . . . and to provide written notice of a change of that 'residence address . . . without undue delay . . . .' [T]herefore, . . . *Winer* is distinguishable on its facts.")

136. During his trial for failure to register, a detective with the state police described him as "one of the unit's most compliant registrants." *Id.* at 966.

137. *Id.* at 965.

138. *Id.* at 966 (noting that Mr. Drupals was able to receive mail at his address in Stamford).

139. Mr. Drupals received a verification form and hand delivered it to the sex offender registry headquarters within ten days. *Id.* He informed them that the address was currently correct, but that he would be moving the next day. *Id.* He confirmed that he had five days until he needed to provide an updated address. *Id.* The next day he sent a letter to the office informing them that he would no longer be living at the previous address and that he would let them know within five days where he was living. *Id.* When the office received this letter, they listed Mr. Drupals as "noncompliant" on Connecticut's sex offender registry website. *Id.* Three days later, Mr. Drupals faxed the registration office a letter giving notice in writing of his new address and claiming that he was in compliance. *Id.* Because this letter had a return address in Maryland, the office updated his registration to the Maryland address. *Id.*

140. *Id.* at 966–67. Mr. Drupals moved in with his brother in Maryland and subsequently registered as a sex offender in Maryland. *Id.* A Maryland police officer assigned to verify Mr. Drupals's presence stopped by his brother's house. The officer stopped by unannounced on a few weekdays and confirmed that Mr. Drupals's brother lived there. *Id.* When the officer did not see Mr. Drupals, he determined that Mr. Drupals was not living at the Maryland address and alerted both the Maryland and Connecticut sex offender registry programs. *Id.*

141. *Id.* at 967.

142. *Id.* (noting that Mr. Drupals failed "in his attempt to rent his own apartment due to his status as a registered sex offender").

143. *Id.*

144. *Id.*

145. *Id.* at 976; CONN. GEN. STAT. § 54-251(e) (2015).

Mr. Drupals's arrest for failure to register just two days after he moved back.[146]

The Connecticut Supreme Court vacated Mr. Drupals's convictions[147] and held that its SOPR laws must be interpreted "so that [they do] not lead to absurd or unworkable results."[148] The Court also noted the absurdity that could result from imposing constant reporting:

> If a registrant were in the process of moving from Connecticut to California and was driving a car across the country, pursuant to the state's definition, he would be required to fax the registry every night when he stopped at a motel, even though the registry would be closed if he stopped late at night, and he would possibly have left his motel location before the registry opened in the morning. The absurdity of this scenario is exacerbated if the registrant were traveling on a weekend, when the registry is closed. He would be required to send two separate changes of address to an office where no one could record those addresses until he had already left the location.[149]

In vacating the conviction, the court determined that "residence means the act or fact of living in a given place for *some time*, and the term does not apply to temporary stays."[150] The Connecticut Supreme Court thus distinguished homelessness from unstable housing. But it failed to clarify when someone should be considered homeless and when he is "in the process of moving."[151]

Connecticut provides an example of how a vague statute can be interpreted in many different ways by registrants, police officers, prosecutors, and courts. With a vague statute, enforcement can easily become arbitrary.[152] Courts typically defer to the legislative purpose and rarely interpret ambiguities in the defendant's favor. In light of the strong public interest in maintaining up-to-date registries, courts rarely address the burdens homeless

146. *Drupals*, 49 A.3d at 967.

147. *Id.* at 976.

148. *Id.* at 972.

149. *Id.*

150. *Id.* at 971 (emphasis added).

151. *Id.* at 972. Two years later in *State v. Edwards*, the Appellate Court of Connecticut clarified that homeless registrants are not required to report on a daily basis and that homelessness does not always equal a change of address. State v. Edwards, 87 A.3d 1144, 1148 n.6 (Conn. App. Ct. 2014). Explicitly rejecting *Winer*, the Court held that "a homeless registrant may be required to frequently update authorities of *changes* of address, but this frequency is not the product of being homeless per se, but rather flows from being transient." *Id.* Thus, in Connecticut, "a homeless person may elect to sleep on a particular park bench, so long as he has informed the commissioner of his location and returns to that particular bench daily, he may be considered in compliance." *Id.*

152. Mr. Drupals alleged in a civil rights suit that he was "falsely arrested, maliciously prosecuted, and denied procedural and substantive due process in Connecticut by Connecticut local and state law enforcement officers and other Connecticut local and state officials, with the involvement of a police officer from a county in Maryland." Drupals v. Mabey, 3:13–CV–00404 (CSH), 2014 WL 3696374, at *1 (D. Conn. July 23, 2014).

registrants face in complying. Instead, homeless registrants across the country are punished for failing to comply with provisions that are vague and ambiguous.

2. Thirty-one states statutorily impose more onerous reporting requirements for homeless registrants.—Thirty-one states expressly require homeless registrants to report in person to law enforcement more frequently than if they were not homeless.[153] Typically, states with statutes that

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153. *See infra* Appendix. The following states expressly require homeless registrants to report in person more frequently than if they were not homeless: Alabama, *compare* ALA. CODE § 15-20A-10(f) (2017) (requiring registrants to report in person every three months), *with* ALA. CODE § 15-20A-12(b) (2017) (requiring weekly in-person registration for the homeless); Arizona, *compare* ARIZ. REV. STAT. ANN. § 13-3821(J) (requiring registrants to report online identifiers and obtain a new driver's license yearly), *and* ARIZ. REV. STAT. ANN. § 13-3822(A) (requiring registrants to report address changes within 72 hours), *with* ARIZ. REV. STAT. ANN. §§ 13-3821(I), 13-3822(A) (2017) (requiring the homeless to report to the sheriff every 90 days); Arkansas, *compare* ARK. CODE ANN. § 12-12-909(a)(1) (West 2017) (requiring registrants to register in person every six months), *with* ARK. CODE ANN. § 12-12-909(a)(6) (West 2017) (requiring homeless registrants to register in person every 30 days); California, *compare* CAL. PENAL CODE § 290(b) (West 2017) (requiring registrants to register within five business days of moving to a new city, county, or campus), *with* CAL. PENAL CODE § 290.011(a) (West 2017) (requiring homeless registrants to register every 30 days); Colorado, *compare* COLO. REV. STAT. ANN. § 16-22-108(b) (requiring registrants to register yearly), *and* COLO. REV. STAT. ANN. § 16-22-108(d)(I) (requiring certain violent or adult registrants to register quarterly), *with* COLO. REV. STAT. ANN. §§ 16-22-109(3.5)(b), (c)(I)–(II) (West 2017) (requiring homeless registrants to register based on a tier system: annual registration is converted to every three months; quarterly is converted to monthly); Delaware, *compare* DEL. CODE ANN. tit. 11, §§ 4120(g)(1–3) (West 2017) (requiring registrants to register by tier: tier III (every 90 days); tier II (every 6 months); tier I (every 12 months)), *with* DEL. CODE ANN. tit. 11, §§ 4121(k)(1)–(3) (West 2017) (requiring homeless registrants to register by tier: tier III (weekly); tier II (30 days); tier I (every 90 days)); Florida, *compare* FLA. STAT. ANN. § 943.0435(14)(a) (West 2017) (requiring most registrants to register every 12 months), *and* FLA. STAT. ANN. § 943.0435(4)(b) (West 2017) (requiring certain registrants to register quarterly), *with* FLA. STAT. ANN. § 943.0435(4)(b)(2) (West 2017) (30 days); Georgia, *compare* GA. CODE ANN. § 42-1-12(f)(4)–(5) (West 2017) (requiring registrants to report annually and within 72 hours of changes to required registration information), *with* GA. CODE ANN. § 42-1-12(f)(5) (West 2017) (requiring homeless registrants to report within 72 hours of changing sleeping locations); Hawaii, *compare* HAW. REV. STAT. ANN. § 846E-5(a) (West 2017) (requiring registrants with permanent addresses to report quarterly through the mail), *with* HAW. REV. STAT. ANN. § 846E-5(b) (West 2017) (requiring homeless registrants to report in person quarterly); Idaho, *compare* IDAHO CODE ANN. § 18–8308(1) (West 2017) (requiring violent sexual predators to return via mail an address verification every thirty days), *with* IDAHO CODE ANN. § 18–8308(4) (West 2017) (requiring those homeless registrants to report in person weekly); Illinois, 730 ILL. COMP. STAT. ANN. 150/6 (West 2017) (requiring registrants with a fixed domicile to report yearly, unless requested at other times by law enforcement, but requiring homeless registrants to report in person weekly); Indiana, *compare* IND. CODE ANN. § 11–8–8–14(a) (West 2017) (requiring registrants to report in person yearly), *with* IND. CODE ANN. § 11–8–8–12(c) (West 2017) (requiring homeless registrants to report in person weekly); Iowa, IOWA CODE § 692A.108(1) (2017) (providing law enforcement discretion to require registrants "to appear in person more frequently . . . to verify relevant information if good cause is shown"); Kansas, *compare* KAN. STAT. ANN. § 22–4905(b) (West 2017) (requiring registrants to register in person quarterly), *with* KAN. STAT. ANN. § 22–4905(f) (West 2017) (requiring homeless registrants to report in person ". . . every 30 days, or more often at the discretion of the registering law enforcement agency"); Louisiana, *compare* LA. STAT. ANN. §§ 542.1.1(A)(1)–(3) (2017) (requiring registrants to register every three months (those convicted

of aggravated offenses), every six months (those convicted of sexual offenses against a minor), or every twelve months (all others subject to registration)), *with* LA. STAT. ANN. § 542.1.1(A)(4) (2017) (requiring homeless registrants to report in person every fourteen days); Maryland, *compare* MD. CODE ANN., CRIM. PROC. §§ 11–707(a)(1)–(3) (West 2017) (requiring registrants to report in person by tier: tier I and II (every 6 months), tier III (every 3 months), sexually violent predators (every 3 months)), *with* MD. CODE ANN., CRIM. PROC. § 11–705(d)(2) (West 2017) (requiring homeless registrants to register in person weekly); Massachusetts, *see* MASS. GEN. LAWS ANN. ch. 6, §§ 178F–F1/2 (West 2017) (requiring registrants to mail in registration form and report in person annually but requiring homeless registrants to mail in registration form and report in person monthly); Minnesota, *compare* MINN. STAT. ANN. § 243.166(3)(b) (West 2017) (requiring registrants to report in person only when changing addresses), *with* MINN. STAT. ANN. § 243.166(3a)(e) (West 2017) (requiring homeless registrants to report in person weekly); Montana, *compare* MONT. CODE ANN. §§ 46–23–504(6)(a), (c) (West 2017) (requiring registrants to report in person by level: level 3 (every 90 days), level 2 (every 180 days), level 1 (every 365 days)), *with* MONT. CODE ANN. § 46–23–504(5) (West 2017) (requiring homeless registrants to report in person monthly); Nebraska, *compare* NEB. REV. STAT. ANN. §§ 29-4006(3)–(5) (West 2017) (requiring registrants to report in person according to the duration of their registration requirement: fifteen years (every twelve months), twenty-five years (every six months), for life (every three months)), *with* NEB. REV. STAT. ANN. § 29-4004(9) (West 2017) (requiring homeless registrants to register in person every 30 days); Nevada, *compare* NEV. REV. STAT. ANN. § 179D.480(1) (West 2017) (requiring registrants to report in person by tier: tier I (annually); tier II (every 180 days); tier III (every ninety days)), *with* NEV. REV. STAT. ANN. § 179D.470(3) (West 2017) (requiring homeless registrants to report in person every 30 days); New Mexico, *see* N.M. STAT. ANN. § 29-11A-4(H) (West 2017) ("When a sex offender who is registered or required to register is homeless . . . the sex offender shall register each address or temporary location with the county sheriff for each county in which the sex offender is living or temporarily located."); North Dakota, *compare* N.D. CENT. CODE ANN. § 12.1-32-15(7) (West 2017) (requiring registrants to register a change of registration information), *with* N.D. CENT. CODE ANN. § 12.1-32-15(2) (West 2017) (requiring homeless registrants to register every three days); Oklahoma, *compare* Sex Offender Registration Procedure, ch. 224, sec. 2, OKLA. STAT. tit. 57, § 584(A)(5) (2017) (requiring registrants to report based on their numeric risk: one (annually); two (semiannually); three (every ninety days)), *with* OKLA. STAT. ANN. tit. 57, § 584(G) (West 2017) (requiring homeless registrants to report in person weekly); Pennsylvania, *compare* 42 PA. STAT. AND CONS. STAT. ANN. §§ 9799.15(e)–(f) (West 2017) (requiring registrants to report in person by tier: tier I (annually); tier II (semiannually); tier III (quarterly)), *with* 42 PA. STAT. AND CONS. STAT. ANN. § 9799.15(h) (West 2017) (requiring homeless registrants to report in person monthly); South Carolina, *compare* S.C. CODE ANN. § 23-3-460(A) (requiring registrants to report semi-annually or quarterly), *with* S.C. CODE ANN. § 23-3-460 (requiring registrants who "habitually live or reside" somewhere to update their registration within three days of moving); Tennessee, *compare* TENN. CODE ANN. §§ 40–39–204(b)(1)–(3) (West 2017) (requiring registrants to report yearly or quarterly, if the individual is a violent sexual offender), *with* TENN. CODE ANN. § 40–39–203(f) (West 2017) (requiring homeless registrants to report in person monthly); Texas, TEX. CODE CRIM. PROC. ANN. art. 62.051(h)(1)–(2) (West Supp. 2015) (weekly or monthly for some, *see id.* art. 62.055(i)); Vermont, VT. STAT. ANN. tit. 13 § 5407(h); Washington, *compare* WASH. REV. CODE ANN. §§ 9A.44.130(1)(b)–(2)(a) (West 2017) (not requiring in-person reporting for normal registration), *with* WASH. REV. CODE ANN. § 9A.44.130(6)(b) (West 2017) (requiring homeless registrants to report weekly and in-person); Wyoming, *compare* WYO. STAT. ANN. § 7–19–302(e) (2015) (requiring no in-person reporting for normal registration), *with* WYO. STAT. ANN. § 7–19–302(e) (requiring homeless registrants to report in person weekly). Georgia, New Mexico, and Vermont do not fit easily into either category, but are included here. They may impose more frequent registration of new addresses or dwelling locations but do not statutorily impose more frequent reporting. For example, in Vermont, "[a] registrant who has no permanent address shall report to the department to notify it as to his or her temporary residence. Temporary residence, for purposes of this section, need not include an actual dwelling or numbered street address, but shall identify a specific location. A registrant shall not be required to check in daily if he or she makes acceptable other arrangements with the department to

expressly accommodate homeless registrants require them to report in person more frequently than non-homeless registrants.[154] The majority of states classify registrants into tiers based on the seriousness of the underlying conviction that triggered registration.[155] For example, Pennsylvania classifies a person convicted of rape[156] as a tier III offender[157] and requires him to report quarterly.[158] However, if he were homeless, he would have to report monthly.[159]

Many states require homeless registrants to report more frequently than non-homeless registrants. Eleven states require all homeless registrants to report weekly regardless of their underlying offense's severity classification.[160] This obligation is doubled if the registrant is required to register with both the sheriff of the county and the chief of police of any municipality, as registrants in Alabama are required to do.[161] North Dakota requires homeless registrants residing there to report every three days.[162]

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keep his or her information current. The department may enter into an agreement with a local law enforcement agency to perform this function, but shall maintain responsibility for compliance with this subsection." VT. STAT. ANN. tit. 13 § 5407(h). In Georgia, homeless registrants must provide "information regarding the [ ] new sleeping location to the sheriff" within 72 hours of a change. GA. CODE ANN. § 42-1-12 (f)(5) (West 2017). While this could be more onerous due to the nature of homelessness, it mirrors the requirements of housed registrants to report a "change" within three days.

154. *See infra* Appendix.

155. *See, e.g.*, 42 PA. CONS. STAT. § 9799.14 (2017). This is in contrast to tiers based on an evaluation of current dangerousness. *See* COLO. REV. STAT. § 18-3-414.5 (2017) (requiring a risk assessment to deem someone a sexually violent predator). For a critical discussion of basing reporting requirements on the underlying offense, see Naomi J. Freeman and Jeffrey C. Sandler, *The Adam Walsh Act: A False Sense of Security or an Effective Public Policy Initiative?*, 21 CRIM. JUST. POL'Y REV. 31, 43–45 (2010).

156. 18 PA. CONS. STAT. § 3121 (2017).

157. 42 PA. CONS. STAT. § 9799.14(d) (2017).

158. *Id.* § 9799.15(e).

159. *Id.* § 9799.15(h)(1). A homeless tier I registrant is required to report monthly as well, as opposed to annually. *Id.* § 9799.15(e)(1).

160. *See infra* Appendix (identifying these states as Alabama, Delaware, Idaho, Illinois, Indiana, Maryland, Minnesota, Oklahoma, Texas, Washington, and Wyoming).

161. McGuire v. Strange, 83 F. Supp. 3d 1231, 1239, 1259 (M.D. Ala. 2015), *appeal filed*, No. 15-10958 (11th Cir. Mar. 06, 2015) (finding that the combination of "residency, employment, and travel restrictions generally, as well as dual weekly registration requirements for in-town homeless registrants specifically, are affirmative disabilities and restraints").

162. N.D. CENT. CODE § 12.1-32-15(2) (2017) ("A homeless individual shall register every three days with the sheriff or chief of police of the jurisdiction in which the individual is physically present."). For a comprehensive discussion of North Dakota's sex offender registry scheme and how the status of being a homeless sex offender is criminalized, see Emily Donaher, Note, *Sex Offender Registration Laws for the Homeless: Safeguarding Society or Punishing Sexually Dangerous Individuals for Being Homeless?*, 91 N.D. L. REV. 375, 387–89 (2016). Donaher argues that "[t]he laws in North Dakota make it nearly impossible for homeless sex offenders to reside within the state without being in violation of a registration requirement." *Id.* at 390. For example, in State v. Rubey, Rubey was convicted for failing to notify the authorities that he secured a post office box. State v. Rubey, 611 N.W.2d 888, 892 (N.D. 2000) ("[I]f the offender, as in this case, has no new residing address, but has a new mailing address, the offender must notify authorities of the new address.").

Some states specify that if a registrant is homeless and reports more frequently, he does not need to register each change in address during the periods in which he reports, but merely provide an account at each monthly registration.[163] However, many statutory schemes lack this clarifying detail, so the same interpretation problem identified above with a change of temporary location could require registrants to report changes at least every three days.[164] For example, the Arizona Court of Appeals rejected the argument that requiring updates within seventy-two hours of a move to a temporary location would "clog" the system.[165] But the Arizona Supreme Court overturned this decision and held that "if a cardboard box or a spot by a dumpster is a 'residence' for purposes of the seventy-two-hour reporting requirement, then 'moving' from it to another transient location would repeatedly trigger the reporting requirement, which would render the ninety-day transient registration requirement largely pointless."[166]

A Nebraska case demonstrates the burden of even more lenient requirements. In Nebraska, transient registrants are required to update their registrations once every thirty days.[167] Jason Harris began registering as transient in 2009 because he travelled frequently as a truck driver and tech

Summarizing this case, Donaher notes that the defendant "was convicted of failing to give notice of a mailing address, which was a post office box, after he had signed an acknowledgement form agreeing to notify law enforcement within ten days of moving to a new address." Donaher, *supra*, at 387.

163. *See, e.g.*, CAL. PENAL CODE § 290.011(d) (West 2017) ("A transient shall, upon registration and reregistration, provide current information as required on the Department of Justice registration forms, and shall also list the places where he or she sleeps, eats, works, frequents, and engages in leisure activities. If a transient changes or adds to the places listed on the form during the 30-day period, he or she does not need to report the new place or places until the next required reregistration."); TEX. CODE CRIM. PROC. ANN. art. 62.051(j)(1)–(2) (West 2017) (requiring that if a registrant does not indicate an address on the registration form and has a residence that does not have a physical address, the registrant must report "not less than once in each succeeding 30-day period and provide that authority with . . . a detailed description of the geographical location of the person's residence."). This provision only applies to registrants who actually lack a physical address; homeless registrants who are transient but have an address must report weekly. *Id.* art. 62.051(h)(1)–(2).

164. The vast majority of states follow SORNA and require any change of residence to be reported within three days. There are very real consequences for failing to report a change in address. One man in New Mexico faced up to three years in jail for failing to report his move from a dumpster to a homeless shelter. *Homeless Man Arrested for Moving Out of a Rubbish Bin*, GUARDIAN (May 4, 2011), https://www.theguardian.com/world/2011/may/04/homeless-man-arrested-dumpster [https://perma.cc/PM2N-7QU3].

165. *See* State v. Burbey, 381 P.3d 290, 295 (Ariz. Ct. App. 2016) (denouncing defendant's assertions that "[a] transient offender may occupy many locations on a more or less regular basis during the course of a day, week, or month" and "a good faith effort to comply with the literal terms of the statute would clog the registration system" because "nothing in [Arizona's statute on sex offender registration] requires that a homeless person re-register 'every particular location,' but only a change from a previously registered address").

166. State v. Burbey, 403 P.3d 145, 148 (2017).

167. NEB. REV. STAT. § 29-4004(9) (2017).

for touring bands.[168] In May of 2010, Mr. Harris updated his registration nine days late.[169] In his defense at trial, he asserted that his truck broke down in Iowa while he was travelling for work.[170] In his appeal, he claimed that the sex offender registration statute "violates the Ex Post Facto, Due Process, Equal Protection, and Commerce Clauses of the U.S. and Nebraska Constitutions on its face and as applied to him."[171] The Nebraska Supreme Court rejected all of his challenges, upheld his felony conviction for failure to comply,[172] and noted that while "appearing in person may be more inconvenient, . . . requiring it is not punitive."[173] In rejecting his equal protection claim, the court held that "treating transient registrants different than registrants with a regular residence"[174] is rationally related to the legislative purpose of the Sex Offender Registration Act—"to keep track of the whereabouts of known sex offenders."[175] Essentially, "as it is more difficult to keep track of registrants who do not have a regular residence, domicile, or living location than it is for those registrants who have a regular residence, it is rational to require such persons to update their registration more frequently than other registrants."[176]

Defined reporting-frequency requirements can still be vague.[177] For example, a homeless registrant in Florida unsuccessfully argued that "the policy's burdens exceeded those the statute imposed upon him."[178] His local sheriff's office required registrants to "report in person to its main office by 10 a.m. each Monday morning to specify where they intend[ed] to spend the next seven nights"[179] and keep a "weekly log of their expected whereabouts."[180] The court held that this policy was in accord with the statute as it "clearly envisions that sheriff's offices must establish some protocols by

168. State v. Harris, 817 N.W.2d 258, 265 (Neb. 2012).

169. *Id.*

170. *Id.*

171. *Id.* at 267.

172. *Id.* at 277.

173. *Id.* at 273 (quoting United States v. W.B.H., 664 F.3d 848, 857 (11th Cir. 2011)).

174. *Id.* at 276.

175. *Id.* at 277.

176. *Id.*

177. For an example, see *supra* note 162, reviewing North Dakota's reporting requirements.

178. Goodman v. State, 117 So. 3d 32, 34 (Fla. Dist. Ct. App. 2013).

179. *Id.* at 33. It is common for police departments to require homeless registrants to report during specific hours of the day. In Dallas, registration is open for only a few hours three days a week. Registrants there report that they frequently wait for hours in long lines with no available restroom. Amy Martyn, *Dallas Prisoner Advocate Josh Gravens Faces Prison Himself over Technicality*, DALL. OBSERVER (May 14, 2015), http://www.dallasobserver.com/news/dallas-prisoner-advocate-josh-gravens-faces-prison-himself-over-technicality-7212827 [https://perma.cc/H8XN-7KZU].

180. *Goodman*, 117 So. 3d at 38.

which a transient registered offender presents himself in person and provides locational information."[181]

C. *Financial Burdens of Registration*

SOPR laws impose a range of fees for registration and fines for noncompliance, which uniquely burden the poor in general and homeless individuals in particular. The most obvious of these costs are the financial penalties associated with conviction,[182] the cost of complying with parole or other supervised release programs,[183] and the fees associated with registering.[184] Some states require GPS monitoring of certain registrants at the registrants' expense for significant periods of time after their formal supervised release.[185] These costs are manageable for some, but even small expenses can be daunting for homeless individuals. The differential impact that these fines have on indigent homeless registrants renders the fines vulnerable to Equal Protection challenges.

For example, in Louisiana, at their initial registration and each anniversary, the registrant is required to pay a $60 annual fee.[186] If a registrant fails to pay the fee within thirty days, he will be charged with failure to register.[187] Adults convicted of a sex offense or criminal offense against a minor are also required to take out an advertisement in the official local paper for two separate days and prepare and mail postcards notifying their neighbors of their presence and status on the registry at the registrant's expense.[188] These obligations must be met within twenty-one days of the

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181. *Id.* at 37.

182. *See, e.g.*, TEX. PENAL CODE ANN. § 12.32(b) (West 2011) (stating that a person convicted of aggravated sexual assault, a first degree felony, is subject to a fine "not to exceed $10,000").

183. Defense attorneys report that complying involves following all recommendations, including counseling, treatment, and polygraphs, which cost thousands of dollars. Telephone Interview with Kristin Etter, Partner, Sumpter & González, L.L.P. (Apr. 24, 2017) (notes on file with author); *see also* Stephen J. Dubner, *Making Sex Offenders Pay—and Pay and Pay and Pay*, FREAKONOMICS (June 10, 2015), http://freakonomics.com/podcast/making-sex-registrants-pay-and-pay-and-pay-and-pay-a-new-freakonomics-radio-podcast/ [https://perma.cc/V72U-F7GK].

184. *See infra* Appendix. These annual charges range from $15 in Oklahoma to $150 in Tennessee. While some states only require registrants to pay for their initial registration (like Arizona and North Carolina), other states, such as New York, require registrants pay a fee with every move.

185. Some states require GPS monitoring for life or significant periods of time. *See, e.g.*, N.C. GEN. STAT. § 14-208.40 (2017). Other "costs" are associated with GPS monitoring that are specific to homeless individuals. *See* Wilson v. State, 485 S.W.3d 698, 700 (Ark. Ct. App. 2016) (noting that the officer gave defendant permission to charge his GPS device at McDonald's). *See also* Carpenter & Beverlin, *supra* note 18, at 1098–99 (noting that at least thirty-nine states permit some form of electronic monitoring of convicted sex offenders, some for life, and that the majority of those states require the registrant to pay).

186. LA. STAT. ANN. § 15:542(D) (2017).

187. *Id.*

188. *Id.* § 15:542.1(A)(1)(a), (2)(a).

conviction, release from incarceration, or establishing a residence.[189] The court of conviction may also impose additional notification requirements as "deemed appropriate."[190]

In New Orleans, it costs $193.50 to publish each day's ad in the *Times-Picayune*, the official newspaper for Orleans Parish.[191] There are two ways to comply with the advertisement and postcard requirements.[192] One method is to pay a company, Watch Systems.[193] This company typically charges between $700 and $1,000 and includes the cost of *Times-Picayune* notification.[194] The second way to comply is a labor-intensive "do-it-yourself" route that some public defenders assist their clients in completing.[195]

Public defenders in New Orleans report that the New Orleans Police Department does not require registrants who are homeless—defined as living outside—to send the postcards or publish in the paper.[196] However, homeless individuals' housing may be unstable in the sense that they move frequently, live with family or friends on an intermittent basis, live in shelters, or are otherwise not living outside but lack a home in the traditional sense.[197] Based on the black letter law, these registrants with unstable housing—with a roof over their heads but functionally homeless—could be required to frequently

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189. *Id.* § 15:542.1(A)(2)(a).

190. LA. STAT. ANN. § 15:542.1(A)(3) (2017). For example, the court of conviction may require any other notice it deems appropriate, including (but not limited to) "signs, handbills, bumper stickers or clothing labeled to that effect." *Id.* The court may require a statement under oath of intended residential address after sentencing or release. LA. STAT. ANN. § 15:542.1(A)(4) (2017). Further, the residence must display its number of address so that it's "visible to an ordinarily observant person . . . during the daylight hours." LA. STAT. ANN. § 15:542.1(A)(5) (2017). Providers of "noneducational" instruction or lessons (martial arts, dance, music, etc.) must place a prominent notice of sufficient size in the building where instruction is given. LA. STAT. ANN. § 15:542.1(B) (2017). While these costs of notifying community members are unique to Louisiana, public notification akin to shaming is prevalent in other states as well. For example, a judge in Corpus Christi, Texas, required sex offenders to "post warning signs in the front yard of their homes [and on their cars] reading 'Danger! Registered Sex Offender Lives Here!'" *Forcing Sex Offenders to Publicize Crimes*, ABC NEWS (June 18, 2017) http://abcnews.go.com/2020/story?id =132693&page=1 [https://perma.cc/7AAP-CBHC].

191. Telephone Interview with Dylan Duffey, Staff Attorney, Orleans Public Defender's Office (Apr. 23, 2017) (on file with author).

192. The New Orleans Police Department partners with Watch Systems to send these cards. *See id.*

193. *Id.* The registrants simply submit their addresses, and the software populates, prints, and mails notifications to all addresses within the defined radius. *Id.*

194. *Id.*

195. *Id.* First, the registrants must copy a sample notification postcard on card stock or blank postcards. Then, the registrants create a list of all the addresses in a 3/10-mile radius of their homes; OPD suggests that residents do this by walking around their neighborhoods to be sure they catch all the addresses. Next, the registrants must address each postcard to all of these addresses and one to the New Orleans Police Department. Finally, the registrants must affix postcard stamps to these notification cards and deposit them with the postal service. *Id.*

196. *Id.*

197. *See supra* Part I.

provide this costly community notification.[198] Moreover, the enforcement policy of the New Orleans Police Department provides no succor to those outside of New Orleans and, indeed, would not protect New Orleans's homeless from enforcement by other law enforcement agencies.

In Colorado, public defenders report that their sex offender clients are subject to psychological evaluation and treatment, tracking and monitoring, and polygraph tests as a condition of parole.[199] Evaluations can cost anywhere from $700 to $1,300 or more.[200] Treatment costs, at a minimum, around $275 a month[201] and "the person will be in treatment . . . for years and years."[202] Even when someone is engaged in treatment while in prison, they will be required to fund and cooperate with community-based treatment as well. Colorado may also require probationers and parolees to pay for "trackers,"[203] often off-duty law enforcement officers "whose entire job is to pop up everywhere you go in your life and make sure you are where you say you are."[204] Some people are required to take semi-annual or more frequent polygraph tests,[205] which cost $250 each time.[206] If someone fails or gets an inconclusive result on a polygraph test, the tests become more frequent.[207]

198. While there may not be many examples of this in court cases, prosecutors can always charge defendants with multiple failure-to-register charges, with community notification being one of many, and defendants may plead guilty to one failure-to-register in order to avoid increased prison sentences. This understanding was confirmed by conversations with public defenders in Louisiana and Colorado. Telephone Interview with Laurie Kepros, Colorado Public Defender (May 24, 2017) (notes on file with author); Telephone Interview with Dylan Duffey, *supra* note 192.

199. Dubner, *supra* note 183.

200. COLO. DEPT. OF CORR. ET AL., LIFETIME SUPERVISION OF SEX OFFENDERS ANNUAL REPORT 31 tbl.6 (2016) [hereinafter LIFETIME SUPERVISION REPORT]; Telephone Interview with Laurie Kepros, *supra* note 198.

201. LIFETIME SUPERVISION REPORT, *supra* note 200, at 31–32.

202. Dubner, *supra* note 183. Laurie Kepros, Colorado Public Defender, confirmed that this was still the case. She noted that the duration of evaluation can be "never ending" and that she has seen people in treatment for ten to thirteen years, sentences for twenty to life for parole terms. She said therapists often think that sex offenders are done with treatment, but the supervising parole officer will keep them in treatment. Telephone Interview with Laurie Kepros, *supra* note 198.

203. Dubner, *supra* note 183.

204. *Id.*

205. *See* COLO. SEX OFFENDER MGMT. BD., STANDARDS AND GUIDELINES FOR THE ASSESSMENT, EVALUATION, TREATMENT AND BEHAVIORAL MONITORING OF ADULT SEX OFFENDERS 121–22 (rev'd 2017) https://cdpsdocs.state.co.us/dvomb/SOMB/Standards/SAdult.pdf [https://perma.cc/R4SM-4GAW] (recommending time frames for polygraphs, which are far more frequent than biannually); Dubner, *supra* note 183 (reasoning that frequent polygraph examinations exemplify unceasing punishment on sex offenders beyond their years in prison).

206. LIFETIME SUPERVISION REPORT, *supra* note 200, at 31 tbl.6; Dubner, *supra* note 183. In Texas, a polygraph test costs $500. Telephone Interview with Kristin Etter, *supra* note 183.

207. Dubner, *supra* note 183; Telephone Interview with Laurie Kepros, *supra* note 198; Telephone Interview with Kristin Etter, *supra* note 183.

Many states have indigency provisions, but exactly what qualifies as indigent and what costs are covered varies by jurisdiction.[208] While homeless people should qualify as presumptively indigent, they may not know that there is an indigency provision or that they qualify. For those unable to pay legal debts, it "carries [an] additional hardship as they are regularly summoned to court or arrested for outstanding warrants because of nonpayment."[209] Public defenders report that fees are often imposed despite an individual's inability to pay.[210] As registrants are not provided counsel after their criminal trial,[211] they are forced to navigate registering and seeking indigency status on their own or rely on the very people who will arrest them if they err. Registrants may be so overwhelmed by the complex registration scheme—the frequency of reporting, residency and employment restrictions, and amounts of money they owe—that instead of seeking help, they may not register and try to evade detection.[212]

Costs imposed on registrants are part of a larger trend in the criminal justice system to implement alternatives to incarceration.[213] Such efforts to keep people out of prison are undeniably laudable, and their intent should be encouraged. However, charging defendants or registrants for their freedom leads to situations where the poor experience higher rates of incarceration for the same crimes as those who can afford to pay for their freedom.[214]

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208. *See generally* ALEXES HARRIS, A POUND OF FLESH: MONETARY SANCTIONS AS PUNISHMENT FOR THE POOR (2016) (surveying state statutory indigency statutes).

209. *Id.* at 53.

210. Telephone Interview with Laurie Kepros, *supra* note 198. Kepros noted that indigency provisions are entirely up to the judge. She has heard judges impose fees and say "maybe they'll have money later." *Id.*

211. *See* Gagnon v. Scarpelli, 411 U.S. 778, 790–91 (1973) (holding that the Sixth Amendment right to counsel extends through sentencing in the formal criminal trial). There is a limited right to counsel in parole and probation revocation settings. *Id.* This exists where the sentence was not imposed at the hearing and where there are special circumstances. *Id.* at 790.

212. Telephone Interview with Laurie Kepros, *supra* note 198; Levenson, *supra* note 31, at 4 (noting that "transient sex offenders are more likely to abscond from registration, suggesting that housing restrictions may undermine the very purpose of registries"); Jill S. Levenson et al., *Catch Me If You Can: An Analysis of Fugitive Sex Offenders*, 26 SEXUAL ABUSE 129, 134 (2013) (suggesting that there are many explanations for why individuals abscond and refuting the assertion that absconders were more sexually dangerous). For a discussion of the despair and hardship that fines and fees impose on the poor, see HARRIS, *supra* note 208, at 70–72 (describing the emotional despair related to owing the court money); Richard A. Webster, *$23,000 in Traffic Fines Reduced to $9 for Man as Pilot Program Takes on New Orleans' Court System*, TIMES-PICAYUNE (Mar. 29, 2017), http://www.nola.com/crime/index.ssf/2017/03/23000_in_traffic_fines_reduced.html [https://perma.cc/QL92-S6AC] (describing the emotional turmoil one man suffered for twenty years as a result of traffic fines: "Mayes, whose license was suspended in 1997, says driving to work was a terrifying, daily experience, with every police car representing the threat of being pulled over, handcuffed and thrown in jail. Not able to pay even a fraction of his court balance, Mayes says he resigned himself to the risk of imprisonment every time he got behind the wheel.").

213. Alexandra Natapoff, *Misdemeanor Decriminalization*, 68 VAND. L. REV. 1055, 1077–78 (2015).

214. The principle that "[t]here can be no equal justice where the kind of trial a man gets depends on the amount of money he has" led the Supreme Court to hold that debtor's prisons were

III. As-Applied Constitutional Challenges to SOPR Laws for Homeless Registrants

SOPR laws are vulnerable to a number of constitutional challenges. Due to the variations in these laws, constitutional challenges will be brought as "as-applied" challenges and require extensive discovery particular to each jurisdiction and the variations in their SOPR laws.[215] This Part explores two possible challenges[216] to the two main variations in these laws as applied to homeless registrants: First, states with SOPR statutes that fail to describe how a homeless registrant should comply are void for vagueness for failing to provide the notice required by the Due Process Clause. Second, the affirmative obligations of states that impose more frequent reporting on homeless registrants, extensive GPS monitoring, residency and employment restrictions, and financial burdens are punitive in their effect as applied to homeless registrants and thus violate the Ex Post Facto Clause of the Constitution.

A. *Void for Vagueness*

Fundamental to the American criminal justice system is the concept that people take responsibility for their crimes. However, in order to take responsibility, people must have notice that conduct is either prohibited or required.[217] Under the Due Process Clause of the Fourteenth Amendment, a statute is invalidated "if it is so vague and standardless that it leaves the public uncertain as to the conduct it prohibits . . . ."[218] Accordingly, "[n]o one may

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unconstitutional under the Equal Protection Clause. Williams v. Illinois, 399 U.S. 235, 241 (1970) (quoting Griffin v. Illinois, 351 U.S. 12, 19 (1956)); *see also* Tate v. Short, 401 U.S. 395, 398 (1971) (concluding that the Constitution prohibited states from automatically converting a fine into a jail term solely because the defendant was indigent); Bearden v. Georgia, 461 U.S. 660, 661–62 (1983) (requiring a new sentencing determination because the state had not determined whether petitioner had made bona fide efforts to pay his fine). By the same token, levying charges on people after they have completed the sentence for the underlying crime and when they are unable to pay is similarly vulnerable to constitutional challenges when failure to comply means future imprisonment.

215. *See, e.g.*, Does #1–5 v. Snyder, 834 F.3d 696, 698 (6th Cir. 2016) (noting plaintiff challenged the constitutional validity of Michigan's SORA law); McGuire v. Strange, 83 F. Supp. 3d 1231, 1252–59, 1263, 1267, 1270 (M.D. Ala. 2015), *appeal filed*, No. 15-10958 (11th Cir. Mar. 6, 2015) (enumerating other challenges to these laws).

216. Some of the possible challenges include the Takings Clause of the Fifth Amendment, the Cruel and Unusual Punishment Clause of the Eighth Amendment, the Due Process Clause of the Fourteenth Amendment, and the First Amendment guarantees of freedom of speech, association, and religion. Most recently, a district court in Colorado found the Colorado SOPR statutory scheme violated the Eighth Amendment's proscription against cruel and unusual punishment. Millard v. Rankin, No. 13–CV–02406–RPM, 2017 WL 3767796, at *16 (D. Colo. Aug. 31, 2017). For an overview of some of these challenges, see Rachel J. Rodriguez, *The Sex Offender Under the Bridge: Has Megan's Law Run Amok?*, 62 RUTGERS L. REV. 1023, 1043–51 (2010).

217. F.C.C. v. Fox Television Stations, Inc., 567 U.S. 239, 253 (2012).

218. Giaccio v. Pennsylvania, 382 U.S. 399, 402 (1966).

be required at peril of life, liberty or property to speculate as to the meaning of penal statutes."[219]

A criminal law may be invalid because it is vague for either of two independent reasons: first, it may fail to "provide the kind of notice that will enable ordinary people to understand what conduct it prohibits; second, it may authorize and even encourage arbitrary and discriminatory enforcement."[220] A statute is vague if it "offers no guidance as to what conduct it prohibits, inducing . . . impermissible speculation and uncertainty."[221] In a recent case, the Ninth Circuit analyzed a city law that prohibited using a car as living quarters.[222] The court reviewed the experiences of a number of homeless individuals who were subjected to this law in a variety of different situations:

> Plaintiffs [were] left guessing as to what behavior would subject them to citation and arrest by an officer. Is it impermissible to eat food in a vehicle? Is it illegal to keep a sleeping bag? Canned food? Books? What about speaking on a cell phone? Or staying in the car to get out of the rain?[223]

Despite attempting to comply with a law that gave them no guidance, the court held "there appears to be nothing they can do to avoid violating the statute short of discarding all of their possessions or their vehicles, or leaving Los Angeles entirely. . . . [T]his broad and cryptic statute criminalizes innocent behavior, making it impossible for citizens to know how to keep their conduct within the pale."[224]

Sex offender registration laws have been held to be void for vagueness when applied to homeless registrants.[225] In states that do not define how frequently homeless registrants should report to law enforcement or otherwise ensure their compliance with SOPR laws, homeless registrants are left guessing. When statutes do not address the unique circumstances and challenges homeless registrants face, there is no way for registrants to know how to comply. For instance, in some states, the registrant is required to report "any change" in address,[226] whereas Oregon only requires reporting

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219. Lanzetta v. New Jersey, 306 U.S. 451, 453 (1939).

220. City of Chi. v. Morales, 527 U.S. 41, 56 (1999).

221. Desertrain v. City of L.A., 754 F.3d 1147, 1155 (9th Cir. 2014).

222. *Id.*

223. *Id.* at 1555–56.

224. *Id.* at 1556.

225. *See, e.g.*, People v. North, 112 Cal. App. 4th 621 (2003) (holding that the statute did not provide adequate notice to homeless registrants regarding what constitutes a "location"); Santos v. State, 668 S.E.2d 676, 678 (2008) (explaining that the statute contains "no objective standard or guidelines that would put homeless sexual offenders without a street or route address on notice of what conduct is required of them, thus leaving them to guess as to how to achieve compliance with the statute's reporting provisions").

226. *See supra* notes 102–05 and accompanying text.

when the registrant has established a new address.[227] These laws functionally criminalize the status of being a homeless sex offender. Like the homeless plaintiffs in Los Angeles, for homeless sex offenders "there appears to be nothing [they] can do to avoid violating the statute."[228] Registrants are left with the choice of securing housing—at which many have likely failed due to residency restrictions—or leaving one state and seeking refuge in a more lenient one. There appears to be nothing homeless registrants can do to avoid violating such a statute short of obtaining a home. Therefore, SOPR laws that do not clarify how a homeless registrant can successfully comply are void for vagueness.

These SOPR statutes also fail to serve their purpose. The stated purpose of SOPR laws is to protect the public; by collecting information about sex offenders' whereabouts and releasing that information, law enforcement and the public attempt to monitor the presence of sex offenders in their vicinity. However, when released sex offenders are unable to successfully reintegrate into communities and end up homeless, they become more difficult to track and monitor. Thus, the effectiveness of this goal is dubious. Not only are these laws unconstitutional as applied to homeless sex offenders; they also fail to fulfill their purpose.

B. Ex Post Facto

The Ex Post Facto Clause of the United States Constitution bars retroactive punishment.[229] The Supreme Court considered the constitutionality of Alaska's sex offender registration and notification law in *Smith v. Doe* in 2003.[230] It held that the Alaska statute was not punitive; therefore, its retroactive application did not violate the Ex Post Facto Clause.[231] However, since then, states have enacted more and more aggressive laws.[232] For example, the Alaska statute the Supreme Court analyzed required registrants to report annually or quarterly depending on the severity of the underlying offense, whereas many jurisdictions today require much more frequent reporting. Although nearly every state's statute today requires in-person reporting, Alaska's law did not.[233] The Supreme Court also did not consider residency restrictions, which have a profound effect on a registrant's successful reentry. Because the current landscape of laws has

227. *See supra* notes 123–24 and accompanying text.

228. *Desertrain*, 754 F.3d at 1147, 1156.

229. U.S. CONST. art. 1, § 10, cl. 1; *see also* Calder v. Bull, 3 U.S. 386, 388 (1798).

230. Smith v. Doe, 538 U.S. 84 (2003).

231. *Id.* at 85. The Alaska Supreme Court ultimately held that the same law violated Alaska's constitution's Ex Post Facto Clause. Doe v. State, 189 P.3d 999, 1019 (Alaska 2008).

232. *See* Carpenter & Beverlin, *supra* note 18, at 1078–81 (describing how SOPR laws are much more harsh today than they were at their inception).

233. *See Smith*, 538 U.S. at 89–90 (outlining the requirements of the statute which included annual verification of registry information, but did not mandate the verifications be made in person).

changed significantly since *Smith*, the Supreme Court should find that the current SOPR laws violate the Ex Post Facto Clause.

The *Smith* court applied the framework developed in *Kennedy v. Mendoza-Martinez*[234] for determining if "an ostensibly civil and regulatory law" is punitive.[235] Under *Mendoza-Martinez*, plaintiffs must "show 'by the clearest proof' that 'what has been denominated a civil remedy' is, in fact, 'a criminal penalty.'"[236] The first step is to determine if "the legislature intended to [impose] punish[ment]."[237] Yet, there is rarely facial evidence that the legislative intent was in fact punitive as nearly all SOPR statutes include legislative findings describing how sex offenders pose a heightened risk to public safety due to their high recidivism rate[238] and how the registry will assist law enforcement and the public in preventing future crimes.[239]

When there is no clear evidence that the legislative intent was punitive, the plaintiff must show that "the statutory scheme is so punitive either in purpose or effect as to negate [the State's] intention to deem it civil."[240] The *Smith* Court identified five factors to analyze the purpose or effect:

(1) Does the law inflict what has been regarded in our history and traditions as punishment?

(2) Does it impose an affirmative disability or restraint?

(3) Does it promote the traditional aims of punishment?

(4) Does it have a rational connection to a nonpunitive purpose?

(5) Is it excessive with respect to this purpose?[241]

When analyzing these factors, the *Smith* Court instructed that courts should consider "how the effects of the Act are felt by those subject to it."[242] While one provision may not be enough to make a statute punitive, the constellation of effects may be punitive. Thus, courts must decide whether "the cumulative effects of the scheme as a whole"[243] are punitive.

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234. 372 U.S. 144 (1963).

235. *Does #1–5*, 834 F.3d at 700 (citing *Smith*, 538 U.S. at 92).

236. *Id.*

237. *Smith*, 538 U.S. at 92–93.

238. *See supra* notes 17, 23, 25, 26 and accompanying text (chronicling the myth of sex offender recidivism studies).

239. *See, e.g.*, ALA. CODE § 15-20A-2 (2017) (stating the purpose of Alabama's statute).

240. *Smith*, 538 U.S. at 92 (citing the factors the Supreme Court identified in Kennedy v. Mendoza-Martinez, 372 U.S. 144, 168–69 (1963), to determine whether or not a law is punitive) (cleaned up).

241. Does #1–5 v. Snyder, 834 F.3d at 696, 701 (citing *Smith*, 538 U.S. at 97).

242. *Smith*, 538 U.S. at 99–100.

243. McGuire v. Strange, 83 F. Supp. 3d 1231, 1251 (M.D. Ala. 2015), *appeal filed*, No. 15-10958 (11th Cir. Mar. 06, 2015); *see also Snyder*, 834 F.3d at 705 (evaluating the effects of Michigan's Sex Offender Registration Act in its totality, the Sixth Circuit summarized that "[a] regulatory regime that severely restricts where people can live, work, and 'loiter,' that categorizes them into tiers ostensibly corresponding to present dangerousness without any individualized assessment thereof, and that requires time-consuming and cumbersome in-person reporting, all

1. History and Traditions.—In *Smith*, the Supreme Court dismissed the argument that Alaska's registration and notification law was a historical form of punishment for two reasons: First, because the law was relatively recent, "it did not involve . . . traditional means of punishing."[244] Second, the notification provisions were not akin to shaming because they merely disseminated accurate, public information through the internet.[245] In contrast, the Sixth Circuit held in 2016 that Michigan's more recent SOPR law resembled the traditional punishments[246] of banishment, shaming, and supervised release.[247] SOPR laws monitor registrants, dictate where they can live and work, limit what jobs they can take, and shame and ostracize registrants—all restrictions and impositions that are in their essence akin to historical forms of punishment of banishment, shame, and supervised release programs.

a. Banishment.—As Part II explained, residency restrictions impact not only where sex offenders sleep, but also their families' ability to reside in desirable areas,[248] employment opportunities, access to treatment, ability to comply with parole, and the availability of other social services.[249] The impact of residency restrictions is local—both the actual law and the makeup of the city affect how much of the city is functionally off-limits to sex offenders.[250] While many states have residency restrictions, municipalities

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supported by—at best—scant evidence that such restrictions serve the professed purpose of keeping Michigan communities safe, is something altogether different from and more troubling than Alaska's first-generation registry law"); Commonwealth v. Muniz, 164 A.3d 1189, 1208 (Pa. 2017) (explaining that "in determining whether a statute is civil or punitive, we must examine the law's entire statutory scheme").

244. *Smith*, 538 U.S. at 86.

245. *Id.*

246. Before analyzing the specific provisions, the Sixth Circuit sought to define punishment. Does #1–5 v. Snyder, 834 F.3d 696, 701 (6th Cir. 2016), *reh'g denied* (Sept. 15, 2016). The court referenced the "general, and widely accepted, definition . . . offered by legal philosopher H.L.A. Hart: (1) it involves pain or other consequences typically considered unpleasant; (2) it follows from an offense against legal rules; (3) it applies to the actual (or supposed) offender; (4) it is intentionally administered by people other than the offender; and (5) it is imposed and administered by an authority constituted by a legal system against which the offense was committed." *Id.* (cleaned up).

247. *Id.* at 701, 703 (summarizing that "while [the Michigan law] is not identical to any traditional punishment[], it meets the general definition of punishment, has much in common with banishment and public shaming," employs geographical restrictions similar to those employed by punitive sun-down laws, and "has a number of similarities to parole/probation").

248. *In re* Taylor, 343 P.3d 867, 880 (Cal. 2015) (noting that "although the restrictions do not expressly prohibit them from living with family members, if the family members' residence is not in a compliant location, they cannot live there").

249. *Id.* at 881 (reporting that "registered sex offender parolees can be cut off from access to public transportation, medical care, and other social services to which they are entitled, as well as reasonable opportunities for employment").

250. It involves hiring a geographic expert who can analyze the laws using mapping software. This process is time-consuming; it involves consulting multiple sources for the location of schools and parks. *See* Expert Report/Declaration of Peter Wagner, J.D., *supra* note 50, at 2–3 (describing the process of consulting multiple lists of schools).

also enact residency restrictions that apply in addition to the state laws, if they exist. Residency restrictions are also more harmful in dense urban areas, where a 1,000-foot restriction eliminates more housing due to the presence of more schools per square mile. Because the impact is highly fact specific, proving banishment in any particular place requires expert analysis, is expensive, and often out of reach for many low-income people.

Despite these financial hurdles, when presented with evidence of the effects of residency restrictions, courts across the country find that residency restrictions force sex offenders to the margins of society and make registrants homeless. For example, residency restrictions made large portions of densely populated, urban areas "basically unavailable" for sex offenders living and working in Michigan.[251] In San Diego, California, "residency restrictions . . . prevented paroled sex offenders as a class from residing in large areas of the county."[252] In Montgomery, Alabama, 80% of the housing stock is off-limits to sex offenders.[253] In communities across the country, residency restrictions lead to functional banishment.

b. Shame.—While many sex offenders experience shame due to their past acts, "the ignominy under [Michigan's SOPR law] flows not only from the past offense, but also from the statute itself."[254] In contrast to *Smith*, the Sixth Circuit noted in *Snyder* that the Michigan law publishes a registrant's tier classification and information that would not otherwise be public, such as juvenile convictions.[255] The Pennsylvania Supreme Court explained that, as "an individual's presence in cyberspace is omnipresent," the registry broadcasts status worldwide.[256] This "exposes registrants to ostracism and harassment without any mechanism to prove rehabilitation—even through the clearest proof."[257] Other shaming punishments include mandating that registrants take out newspaper advertisements and send postcards[258] and requiring registrants to have special driver's licenses and to post signage on their cars or lawns that publicizes their status.[259]

c. Supervised "Freedom."—The Sixth Circuit held that frequent in-person reporting and residency restrictions "resemble[d] the punishment of parole/probation."[260] These obligations are more onerous for homeless registrants, especially in states that require homeless registrants to report

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251. *Snyder*, 834 F.3d at 702.

252. *In re* Taylor, 343 P.3d at 880.

253. Expert Report/Declaration of Peter Wagner, J.D., *supra* note 50, at 7, at *7.

254. *Snyder*, 834 F.3d at 703.

255. *Id.* at 702–03.

256. Commonwealth v. Muniz, 164 A.3d 1189, 1212 (Pa. 2017) (quoting Commonwealth v. Perez, 97 A.3d 747, 765–66 (Pa. Super. Ct. 2014) (Donohue, J., concurring)).

257. *Id.* (quoting *Perez*, 97 A.3d at 765–66 (Donohue, J., concurring)).

258. *See supra* notes 186–90 and accompanying text.

259. *See supra* note 190.

260. *Snyder*, 834 F.3d at 703.

more frequently than housed registrants. States also frequently require registrants to pay fees for registering[261] and mandate that registrants wear and pay for GPS tracking devices.[262] In addition to their indigency, homeless registrants face other unique challenges, such as where to charge GPS monitoring devices.[263]

There is no question that these laws succeed in physically banishing registrants from communities,[264] that they shame people, and that they resemble other forms of supervised release. Like probation, these conditions are mandatory and failure to comply results in prosecution, and possibly incarceration.[265] Furthermore, registrants, like probationers, would not be subject to these mandatory obligations absent the underlying offense, which weighs heavily in finding that SOPR laws are punitive as applied to homeless registrants.

2. *Affirmative Disability or Restraint.*—As explained in Part I, current SOPR laws require much more from registrants than did the Alaska statute the Supreme Court analyzed in *Smith*.[266] Direct restraints on conduct—in-person reporting, residency, employment, and loitering restrictions—are imposed on many for life.[267] While courts are split on whether in-person

261. These costs are likely a fraction of what registrants are required to pay in addition to incarceration. While many states have provisions waiving fines and fees for indigent defendants, which homeless people would likely qualify for, indigency guidelines are often arbitrarily imposed. *See* HARRIS, *supra* note 208, at 28 (listing fees associated with felony convictions); Alexes Harris et al., *Drawing Blood from Stones: Legal Debt and Social Inequality in the Contemporary United States*, 115 AM. J. SOCIOL. 1753, 1796, 1772–74 (2010) (same); Joseph Shapiro, *As Court Fees Rise, the Poor Are Paying the Price*, NPR (May 19, 2014), http://www.npr.org/2014/05/19/312158516/increasing-court-fees-punish-the-poor [https://perma.cc/XHJ3-FHGR] (reporting that Vanessa Torres-Hernandez, a lawyer with the ACLU of Washington, explained that the threat of incarceration is used to squeeze money from those who do not have it. If one were wealthy or if one were to have resources, "a court fine or fee isn't a big deal. You can pay that money. You can walk free. But for people who are already poor, a court fine or fee is in essence an additional sentence."); *State-By-State Court Fees*, NPR (May 19, 2014), http://www.npr.org/2014/05/19/312455680/state-by-state-court-fees [https://perma.cc/8PQP-REPT] (displaying court fees by state).

262. In 2014, a report by National Public Radio found that "in all states except Hawaii, and the District of Columbia, there's a fee for the electronic monitoring devices defendants and offenders are ordered to wear." Shapiro, *supra* note 261 (citing *State-By-State Court Fees*, *supra* note 256).

263. *See* Wilson v. State, 485 S.W.3d 698, 700 (Ark. Ct. App. 2016) (describing how one homeless registrant was concerned about where to charge his electronic ankle monitor and how the police officer told him he could charge it at McDonald's).

264. *See* Ryals v. City of Englewood, 364 P.3d 900, 909 (Colo. 2016) (holding that "[t]here is nothing in Colorado's sex offender regulatory regime that prevents home-rule cities from banning sex offenders from residing within city limits, nor is there anything that suggests that sex offenders are permitted to live anywhere they wish").

265. *See, e.g.*, Commonwealth v. Muniz, 164 A.3d 1189, 1208 (Pa. 2017) (citing 42 PA. CONS. STAT. § 9799.21(a) (2017)) (explaining that people who fail to register, verify information, or provide accurate information are subject to prosecution and incarceration).

266. Does #1–5 v. Snyder, 834 F.3d 696, 703 (6th Cir. 2016).

267. *Id.*

reporting imposes a disability or restraint,[268] the burden on homeless registrants is greater than it is for housed registrants. For homeless registrants, frequent in-person reporting is an affirmative restraint on a registrant's freedom because it interferes with a registrant's ability to hold a job and go about life. The Pennsylvania Supreme Court recently held that in-person reporting requirements were a "direct restraint" on registrants' freedom.[269] The court expressed dismay at the sheer number of times housed registrants in Pennsylvania were required to report.[270] In Pennsylvania, a Tier III registrant is required to report in person a minimum of four times a year for the rest of his life, which amounts to 100 times over the next twenty-five years.[271] It was important to the Pennsylvania Supreme Court that these reporting obligations are "the minimum number of times [registrants] will have to appear in person, and [do] not account for the times [a registrant] must appear due to his 'free' choices including 'moving to a new address or changing his appearance . . . .'"[272] The Pennsylvania Supreme Court highlighted that homeless registrants there are required to report monthly.[273] This analysis bolsters the claim that more frequent reporting interferes with registrants' liberty, as it is a direct restraint on freedom.

Registrants are also subject to indirect disabilities and restraints, such as limits on out-of-state travel and obstacles to finding and keeping housing, employment, and schooling. Being on the registry and labeled as such also increases the likelihood that registrants will be subject to adverse social and psychological experiences. GPS and electronic monitoring is also an affirmative disability in that it is highly intrusive, burdensome, and expensive.[274] This factor weighs heavily in finding that SOPR laws as applied to homeless registrants are punitive.

3. *Traditional Aims of Punishment.*—Both proponents and opponents of SOPR laws acknowledge that these laws advance the traditional aims of

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268. *Compare* State v. Letalien, 985 A.2d 4, 18 (Me. 2009) (opining that quarterly in-person verification "imposes a disability or restraint that is neither minor nor indirect"), *with* Doe v. Miller, 405 F.3d 700, 720 (8th Cir. 2005) (explaining that sex offender registration laws, which require only periodic reporting and updating of information, do not have a punitive restraining effect), People v. Mosley, 344 P.3d 788, 803 (Cal. 2015) (finding that "residency restrictions impose no additional obligations on registrants whose domiciles . . . are . . . in compliance" with the law, and therefore the "restrictions do not necessarily inflict onerous disabilities and restraints"), *and* State v. Seering, 701 N.W.2d 655, 668 (Iowa 2005) (holding that residency restrictions "clearly impose a form of disability").

269. Commonwealth v. Muniz, 164 A.3d 1189, 1211 (Pa. 2017).

270. *Id.* at 1210–11.

271. *Id.*

272. *Id.* at 1210–11 (citing 42 PA. CONS. STAT. § 9799.15(g) (2017); Commonwealth v. Perez, 97 A.3d 747, 754 (Pa. Super. Ct. 2014)).

273. *Id.* at 1211.

274. For an analysis of how electronic monitoring is punitive, see Avlana K. Eisenberg, *Mass Monitoring*, 90 S. CAL. L. REV. 123, 163–67 (2017).

punishment—deterrence and retribution.[275] These statutes serve to deter potential offenders from committing sex crimes. Consistent with retributive theories, these restrictions are often, but not always, backward looking; they are determined by the underlying offense and not present dangerousness or lack thereof.[276] SOPR laws also aim to reduce recidivism by incapacitation—keeping registrants away from potential victims. Courts give this factor little weight because these goals can also rightly be described as civil and regulatory. However, the Supreme Court thought it was a relevant factor in analyzing whether or not a law was punitive in *Smith* and *Mendoza-Martinez*.[277]

SOPR laws today are more expansive than the Alaska statute analyzed in *Smith*. Beyond the differences previously discussed, today's SOPR statutes often require registration for minor misdemeanor offenses, which often do not lead to incarceration but may lead to a fifteen-year period of registration in Pennsylvania[278] or registration for life in other states.[279] The Internet is also much more prevalent today than it was in 2003, which makes the registry much more public.[280] Unlike the Alaska statute analyzed in *Smith*, which disseminated otherwise publicly accessible information, statutes today mandate the release of private information, such as home and work addresses, photographs, vehicle descriptions, and license-plate numbers.[281] This constellation of changes since *Smith*—increased length of time on the registry, inclusion of minor offenses, mandatory in-person reporting, residency restrictions, electronic monitoring, and inclusion of private

275. *See Muniz*, 164 A.3d at 1235 (noting that these laws can operate as deterrents). The Sixth Circuit explained in *Snyder*:

> Its very goal is incapacitation insofar as it seeks to keep sex offenders away from opportunities to reoffend. It is retributive in that it looks back at the offense (and nothing else) in imposing its restrictions, and it marks registrants as ones who cannot be fully admitted into the community . . . it does so in ways that relate only tenuously to legitimate, nonpunitive purposes. Finally, its professed purpose is to deter recidivism (though . . . it does not in fact appear to do so), and it doubtless serves the purpose of general deterrence.

Does #1–5 v. Snyder, 834 F.3d 696, 704 (6th Cir. 2016).

276. *See supra* note 155. For example, in Ohio, the period of post-release control required for sex offenders is determined by the degree of the felony. OHIO REV. CODE ANN. § 2967.28 (West 2006). In New York, on the other hand, offenders' notification requirements are based upon individualized recommendations made by the Board of Examiners of Sex Offenders. N.Y. CORRECT. LAW § 168-n (McKinney 2014). The Board's recommendations are, in turn, based upon the offender's risk of recidivism and the threat the offender poses to the public. N.Y. CORRECT. LAW §§ 168-l (f)–(h) (McKinney 2014).

277. Smith v. Doe, 538 U.S. 84, 92–93 (2003); Kennedy v. Mendoza-Martinez, 372 U.S. 144, 167–69 (1963).

278. *Muniz*, 164 A.3d at 1215.

279. *See* state statutes cited in *supra* note 153.

280. *See Muniz*, 164 A.3d at 1212 (explaining that "*Smith* was decided in an earlier technological environment").

281. *Id.* at 1215–16.

information—alongside a public that has greater access to the registry via the Internet, makes current SOPR laws more retributive than earlier SOPR schemes.

4. Rational Connection to a Nonpunitive Purpose.—Public safety is the purported nonpunitive purpose for SOPR laws.[282] However, as "sexual offense recidivism rates . . . are lower than commonly believed,"[283] and most sex offenses are committed by someone the victim knows and not by someone already on the registry, there is "scant support" for the proposition that SOPR laws get anywhere close to accomplishing their goals.[284] Notably "[t]he requirement that registrants make frequent, in-person appearances before law enforcement . . . appears to have no relationship to public safety at all."[285] Residency restrictions[286] and constant in-person reporting resemble traps more than they do legitimate means of protecting the larger community. This factor weighs heavily in finding that SOPR laws are punitive as applied to homeless registrants.

5. Excessiveness with Respect to This Nonpunitive Purpose.—There has been little, if any, research establishing that SOPR laws actually reduce recidivism,[287] protect the community, or prevent crime. However, it is clear that SOPR laws "put[] significant restrictions on where registrants can live, work, and 'loiter' . . . ."[288] These restrictions are commonly imposed on all "sex offenders" regardless of the severity of the underlying offense. In fact, many SOPR laws are overinclusive as they include minor and nonsexual

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282. Legislators erroneously claim that the recidivism rates are "frightening and high" and that the registry and accompanying laws "provide[] a mechanism to keep tabs on them with a view to preventing some of the most disturbing and destructive criminal activity." *Snyder*, 834 F.3d at 704; *see also* Prescott, *supra* note 31 (stating registration laws do not serve their stated purpose).

283. Levenson et al., *supra* note 23, at 555; *see also* Brief for the Association for the Treatment of Sexual Abusers et al. as Amici Curiae Supporting Plaintiff-Appellees, Does #1–5 v. Snyder, 834 F.3d 696 (6th Cir. 2016) (No. 15-2346/2486), 2016 WL 147210, at *17 tbl.1 (stating recidivism rates from various jurisdictions).

284. Does #1–5 v. Snyder, 834 F.3d 696, 704 (6th Cir. 2016).

285. *Id.* at 705. *But see* Shaw v. Patton, 823 F.3d 556, 576 (10th Cir. 2016) (announcing that reporting requirements are reasonable "in light of [a] statute's nonpunitive purpose for protecting public safety"); United States v. Parks, 698 F.3d 1, 6 (1st Cir. 2012) (observing that in-person registration serves the remedial purpose of establishing "that the individual is in the vicinity"); United States v. W.B.H., 664 F.3d 848, 857 (11th Cir. 2011) ("The in-person requirements help law enforcement track sex offenders and ensure that the information provided is accurate.").

286. The Kentucky Supreme Court analyzed Kentucky's residency restrictions in an ex post facto challenge. It noted that while there was a connection with residency restrictions and public safety, the connection was not rational. Commonwealth v. Baker, 295 S.W.3d 437, 445–46 (Ky. 2009). "It is difficult to see how public safety is enhanced by a registrant not being allowed to sleep near a school at night, when children are not present, but being allowed to stay there during the day, when children are present." *Id.* at 445.

287. The Sixth Circuit noted, "Michigan has never analyzed recidivism rates despite having the data to do so." *Snyder*, 834 F.3d at 705.

288. *Id.*

offenses.[289] States rarely conduct risk assessments before subjecting people to these onerous provisions.

First, residency restrictions insofar as they make securing stable housing nearly impossible are excessive with respect to their nonpunitive purpose. Courts, legislators, and leading experts for both sex offenders and victims of sexual violence agree that finding stable housing as a sex offender is difficult and, in many communities, impossible. Due to high rates of homelessness among sex offenders, victim rights advocates, law enforcement, legislators, and scholars question the effectiveness of residency restrictions. Law enforcement and treatment experts argue that "residency restriction 'should be recognized as a well-intentioned failure' and repealed . . . ."[290] Put simply: "[a]s restricted zones increase, so do transience, homelessness, and reduced employment opportunities for offenders."[291] Moreover, for a number of years, the California Sex Offender Management Board has advised that these restrictions have the opposite effect from that which was intended, as they increase the risk of reoffending and do not make communities safer.[292] A state's interest in residency restriction is therefore low.[293] Thus, residency restrictions are excessive in relation to their stated purpose.

Second, frequent reporting is excessive in relation to its purported purpose. While frequent in-person reporting requirements aim to keep track of registrants, it is unclear that the frequent reporting actually achieves anything besides making it more difficult for registrants to regain control of their lives and successfully reenter society. Indeed, frequent reporting may

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289. The overinclusiveness and lack of an individualized determination contributed to the Kentucky Supreme Court's decision that its residency restrictions were unconstitutional. *See Baker*, 295 S.W.3d at 446–47 (holding that the statute was excessive because "there is no individual determination of the threat a particular registrant poses to public safety").

290. Karl Vick, *Laws to Track Sex Offenders Encouraging Homelessness*, WASH. POST (Dec. 27, 2008), http://www.washingtonpost.com/wp-dyn/content/article/2008/12/26/AR2008122601722_pf.html [https://perma.cc/2Z4P-NDHX] (quoting NIKI DELSON ET AL., CAL. COALITION ON SEXUAL OFFENDING, POSITION PAPER ON SEX OFFENDER RESIDENCE RESTRICTIONS 11 (2008)).

291. Expert Report/Declaration of Jill Levenson, Ph.D. at 5, McGuire v. City of Montgomery, 83 F. Supp. 3d 1231 (M.D. Ala. 2015) (No. 211CV01027), 2014 WL 8331476, at *4.

292. CAL. SEX OFFENDER MGMT. BD., *supra* note 52, at 1, 13 (2011); *see also* 2016 CAL. SEX OFFENDER MGMT. BD. ANN. REP. 17–19 (2016) ("[T]he enforcement of blanket residency restrictions against all registrants is counterproductive to effective sex offender management and reduces public safety related to registrants on supervised release. Residency restrictions remain an applicable tool for registrants on supervised release when their criminal history has a nexus to schools, parks, or other specified locations, and their risk level warrants special restrictions."); Paul A. Zandbergen et al., *Residential Proximity to Schools and Daycares: An Empirical Analysis of Sex Offense Recidivism*, 37 CRIM. JUST. & BEHAV. 482, 498 (2010) ("The results of this study indicate no empirical association between where a sex offender lives and whether he reoffends sexually against a minor").

293. *In re* Taylor, 343 P.3d 867, 879 (Cal. 2015) ("Such enforcement has imposed harsh and severe restrictions . . . while producing conditions that hamper, rather than foster, efforts to monitor, supervise, and rehabilitate these persons. Accordingly, it bears no rational relationship to advancing the state's legitimate goal of protecting children from sexual predators . . . .").

be counterproductive to the extent it prevents sex offenders from finding and holding stable housing and employment—which is arguably more relevant to the registry's stated purpose.

Unstable housing, unemployment, and lack of social support exacerbate the problems of reentry.[294] According to one expert, "[s]ocial stability and support increase[d] the likelihood of successful reintegration for criminal offenders, and public policies that create obstacles to community reentry may compromise public safety."[295] SOPR laws, such as residency restrictions and near-constant reporting, that "interfere with employment, housing, social support, and engagement in pro-social activities, potentially and paradoxically reduc[e] the deterrent effect intended by these laws."[296] Some jurisdictions also have restrictions on where registrants may "loiter."[297] Further municipalities across the country "criminalize homelessness by making it illegal for people to sit, sleep, or even eat in public places, despite the absence of adequate alternatives."[298] Beyond making it more likely that a registrant will have increased difficulty reentering society, being homeless also impacts what a registrant must do to comply with his state's registry system.[299]

294. *See* Expert Report/Declaration of Jill Levenson, Ph.D., *supra* note 291, at 9 (discussing the consequences of SOPR laws, Dr. Levenson concludes that "social policies which ostracize and disrupt the stability of sex offenders are unlikely to be in the best interest of public safety").

295. *Id.* at 6.

296. *Id.* at 6–7.

297. *See* Does #1–5 v. Snyder, 834 F.3d 696, 698 (6th Cir. 2016) (describing how these restrictions "kept those Plaintiffs who have children (or grandchildren) from watching them participate in school plays or on school sports teams, and they have kept Plaintiffs from visiting public playgrounds with their children for fear of 'loitering'").

298. ERIC S. TARS, NAT'L LOW INCOME HOUS. COAL., ADVOCATES' GUIDE 2017, at 6–27 (2017); *see also* Crowell, *supra* note 29, at 1121 (highlighting that many cities fine or jail individuals for acts homeless people must do in public); Maria Foscarinis & Rebecca K. Troth, *Reentry and Homelessness: Alternatives to Recidivism*, 39 CLEARINGHOUSE REV. J. POVERTY L. & POL'Y 440, 441–42 (2005) (noting that many cities have essentially criminalized homelessness by making certain activities illegal).

299. *See supra* Part II.

Instead of leading to higher rates of reporting, homelessness may actually lead to less frequent reporting.[300] Less frequent reporting is entirely contrary to the stated purpose of the SOPR laws.[301] Homeless registrants may purposefully avoid registration or, alternatively, as "laws become more cumbersome and complex, compliance . . . become[s] more challenging, especially for those with limited intellectual, social, and psychological resources."[302]

This factor weighs heavily in finding that SOPR laws as applied to homeless registrants are punitive. These requirements—residency restrictions and in-person reporting—hobble a registrant's reentry into society. By impeding registrants' ability to live with their families, forcing them to disengage from their communities, and mandating frequent in-person reporting, "[t]he punitive effects of these blanket restrictions thus far exceed even a generous assessment of their salutary effects."[303]

6. Constellation of Effects.—Courts evaluate "the law's entire statutory scheme"[304] to determine if a law or set of laws is punitive.[305] Under this framework, SOPR laws subject registrants to punishment. Despite their stated public safety purpose, SOPR laws are punitive. They impose affirmative disabilities and restraints, resemble traditional forms of punishment, promote the aims of punishment, lack a rational connection to a nonpunitive purpose, and are excessive in relation to their stated nonpunitive purpose.

Conclusion

This Note highlights the perils that homeless registrants encounter when attempting to comply with the vast array of laws that govern their lives. Pushed to the actual margins of society, the current landscape is bleak for people convicted of sex offenses. They are required to comply with extensive

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300. Levenson et al., *supra* note 17, at 13 ("[H]ousing instability is consistently associated with criminal recidivism and absconding."); *see also* Telephone Interview with Laurie Kepros, *supra* note 198 (explaining the consequences of being homeless in this context: "You don't pay the fee. You don't have the money. So you don't register. Or stop going to treatment.").

301. Smith v. Doe, 538 U.S. 84, 93 (2003) (the purpose of Alaska's sex offender registration statute is to protect the public from sex offenders by monitoring sex offenders and releasing "certain information about sex offenders to public agencies and the general public" (quoting 1994 Alaska Sess. Laws ch. 41 § 1)); *see also, e.g.*, SORNA Guidelines, *supra* note 99, at 38032–33, 38044 (explaining the basic purpose of SORNA is to track sex offenders following their release into the community and make information about them available to law enforcement agencies); *see generally* Daniel M. Filler, *Making the Case for Megan's Law: A Study in Legislative Rhetoric*, 76 IND. L.J. 315, 316 (2001) (discussing the reporting and community notification aspects of SOPR laws).

302. Levenson et al., *supra* note 23, at 562.

303. Does #1–5 v. Snyder, 834 F.3d 696, 705 (6th Cir. 2016).

304. Commonwealth v. Muniz, 164 A.3d 1189, 1208 (Pa. 2017).

305. *See supra* note 246 and accompanying text.

regulations that aim to control their every move. When they ultimately trip, prosecutors are eager to charge and courts are eager to condemn them to lengthy sentences. While there is no proof that these regulations protect the public, there is evidence that they are counterproductive as they make reentry more difficult. Moreover, SOPR laws effectively criminalize the status of "homeless sex offender" through these comprehensive statutory schemes. By continuing to brand people as sex offenders while eschewing social and psychological research, we create a modern-day caste system that fails to meet the very goals it set out to address.

Elizabeth Esser-Stuart

Appendix

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Alabama	Quarterly. ALA. CODE § 15-20A-10(f) (2017).	Yes	Weekly. ALA. CODE § 15-20A-12(b) (2017).	$10 quarterly and with every move. ALA. CODE § 15-20A-22(a)–(b)(2017).	10 years for sexually violent predator (SVP); offender pays. ALA. CODE § 15-20A-20(c), (e) (2017).	
Alaska	Annual or quarterly. ALASKA STAT. § 12.63.010(d)(1)–(2) (2008).	No	None			
Arizona	Annual. ARIZ. REV. STAT. ANN. §§ 13-3821(J), 13-3827(C), (G) (2017).	Potentially	90 days. ARIZ. REV. STAT. ANN. §§ 13-3821(I), 13-3822(A) (2017).	$250 (one time). ARIZ. REV. STAT. ANN. § 13-3821(Q) (2017).		It is not clear if annual in-person registration is required. The statute places onus on the Department of Public Safety to keep information up-to-date. *See* ARIZ. REV. STAT. ANN. § 13-3822 (2017).

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Arkansas	Six months or 90 days. ARK. CODE ANN. §§ 12-12-909(a)(1)–(2)(A)(i), 12-12-907(b)(3) (Supp. 2017).	Yes	30 days. ARK. CODE ANN. § 12-12-909(a)(6) (Supp. 2017).	$250 (DNA). ARK. CODE ANN. § 12-12-906(2)(C)(iii)(a) (Supp. 2017).	10 years for SVP. ARK. CODE ANN. § 12-12-923(a)(1) (Supp. 2017).	
California	Annually or every 90 days. CAL. PENAL CODE § 290.012(a)–(b) (2016).	Potentially	30 days. CAL. PENAL CODE §§ 290.011(a)–(h), 290.012(c) (2016).		SVP may be subject to GPS monitoring. *See* CAL. SEX OFFENDER MGMT. BD., HOMELESSNESS AMONG CALIFORNIA'S REGISTERED SEX OFFENDERS: AN UPDATE 5 (2011).	The statute requires people to provide an update if they move within five days but does not specify how people complete their annual or 90-day registration. CAL. PENAL CODE § 290(b) (2017) (requiring offenders to register within five business days of moving to a new city, county, or campus); CAL. PENAL CODE § 290.012(b) (2016) (requiring people to verify their address ". . . in a manner established by the Department of Justice").

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Colorado	Annually or quarterly. COLO. REV. STAT. § 16-22-108 (1)(b), (d)(I)–(I.5)(A) (2014).	Yes	Annual registration becomes every three months; quarterly becomes monthly. COLO. REV. STAT. § 16-22-109(3)(b), (c)(I)–(II) (2012).	Up to $75 initially, then up to $25 for subsequent quarterly or annual verifications. COLO. REV. STAT. § 16-22-108(7)(a) (2014).		
Connecticut	90 days. CONN. GEN. STAT. ANN. § 54-257(c) (2011).	No	None		Yes. CONN. GEN. STAT. ANN. § 54-260a (2006).	

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
D.C.	"[A]t least annually, or at more frequent intervals as specified by the Agency." D.C. Code Mun. Regs. tit. 22, § 4008(a)(1) (2000).	Yes. D.C. Code Mun. Regs. tit. 22, § 4008(a)(3) (2000).	None			This statute is especially vague. It instructs registrants to "[m]eet with responsible officers and officials for the purpose of carrying out any requirements adopted by the Agency under this chapter." D.C. Code Mun. Regs. tit. 22, § 4014(7) (2000).
Delaware	By tiers: tier III (90 days); tier II (six months); tier I (annually). DEL. CODE ANN. tit. 11, § 4120(g)(1)–(3) (2013).	Yes	By tiers: tier III (weekly); tier II (30 days); tier I (every 90 days). DEL. CODE ANN. tit. 11, § 4120(k)(1)–(3) (2013).	$30. DEL. CODE ANN. tit. 11, § 4120 (g)(3) (2013).	Yes. DEL. CODE ANN. tit. 11, § 4121 (u) (2013).	
Florida	Quarterly or semi-annually. FLA. STAT. §§ 775.21(8)(a), 944.607(13)(a) (2017).	Yes	30 days. FLA. STAT. § 943.0435(4)(b)(2) (2017).			

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Georgia	Annually. GA. CODE. ANN. § 42-1-12 (f)(4) (2017).	Yes	With every change in sleeping location, must update within 72 hours. GA. CODE. ANN. § 42-1-12 (f)(5) (2017).	$250. GA. CODE. ANN. § 42-1-12 (i)(14) (2015).	SVP. GA. CODE. ANN. § 42-1-14 (e) (2016).	
Hawaii	Mailed verification form sent quarterly. HAW. REV. STAT. § 846E–5 (2013).	No	Quarterly in person. HAW. REV. STAT. § 846E–5 (2013).			
Idaho	Annual or quarterly. IDAHO CODE § 18–8307(5) (2013).	Yes	Weekly. IDAHO CODE § 18–8308(4) (2011).	$80. IDAHO CODE § 18–8307(2) (2013).	Yes. IDAHO CODE § 18–8308(3) (2011).	
Illinois	Annually or quarterly. 730 ILL. COMP. STAT. 150/6 (2012). Law enforcement may request more frequently, but cannot exceed four times a year. 730 ILL. COMP. STAT. 150/6 (2012).	Yes	Weekly. 730 ILL. COMP. STAT. 150/3, 150/6 (2012).	$100/annually. 730 ILL. COMP. STAT. 150/3 (2016).		

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Indiana	Annually or quarterly. IND. CODE § 11-8-8-14 (2013).	Yes	Weekly. IND. CODE § 11-8-8-12(c) (2007);	Up to each county, may not exceed $50. IND. CODE § 36-2-13-5.6 (2008).		
Iowa	Annual, semi-annual, quarterly. IOWA CODE § 692A.108(1) (2009).	Yes	At discretion of law enforcement.[1] IOWA CODE § 692A.108(1) (2009).	$25. IOWA CODE § 692A.110(1) (2009).	Yes (when under "conditional release" programs). IOWA CODE § 692A.124 (2009).	

1. Homelessness is defined in IOWA CODE § 692A.101 under "habitually lives": "If a sex offender does not reside, sleep, or habitually live in a fixed place, "residence" means a description of the locations where the offender is stationed regularly, including any mobile or transitory living quarters." *Id.* § 692A.101(24); *see also id.* § 692A.108(2) ("A sheriff may require a sex offender to appear in person more frequently than provided in subsection 1 to verify relevant information if good cause is shown. The circumstances under which more frequent appearances are required shall be reasonable, documented by the sheriff, and provided to the offender and the department in writing. Any modification to such requirement shall also be provided to the sex offender and the department in writing."). *Id.* § 692A.108(1) (2017).

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Kansas	Quarterly. KAN. STAT. ANN. § 22-4905(b) (2016).	Yes	Monthly. KAN. STAT. ANN. § 22-4905(e) (Supp. 2016) (". . . . [E]very 30 days, or more often at the discretion of the registering law enforcement agency.").	$20/quarterly. KAN. STAT. ANN. § 22-4905(l) (2016). Failure to pay is a misdemeanor if full payment is received within fifteen days; it is a Level 9 felony if two or more payments are outstanding.		
Kentucky	Quarterly or annually. KY. REV. STAT. ANN. § 17.510(13)(a) (2017).	Yes. Must report in person biannually and pay cost of updating photo. KY. REV. STAT. ANN. § 17.510(4) (2017).	None			

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Louisiana	Quarterly, six months, annually. LA. STAT. ANN. § 542.1.1(A)(1)–(3) (2014).	Yes	14 days. LA. STAT. ANN. § 542.1.1(A)(4) (2014).	$60/annually. LA. STAT. ANN. § 542(D) (2014).		
Maine	Annual or quarterly (must return verification form within 5 days of receipt). ME. REV. STAT. ANN. tit. 34-a, § 11282(3) (2015).	Yes	None	$25. ME. REV. STAT. ANN. tit. 34-a, § 11287 (2012).		
Maryland	Semi-annually or quarterly. MD. CODE ANN., CRIM. PROC. § 11–707 (LexisNexis 2010).	Yes	Weekly. MD. CODE ANN., CRIM. PROC. § 11–705(d)(2), (i)(1) (LexisNexis 2010).		Yes. MD. CODE ANN., CRIM. PROC. § 11–723(d)(3)(i) (LexisNexis 2017).	
Massachusetts	Level 1 registrants may "verify" (not in person); Level 2 and 3 registrants are required to register annually in person; SVP are required to register in person every 45 days. MASS. GEN. LAWS ch. 6, § 178F 1/2 (2013).	Yes	Monthly. (Must mail in registration form and report in person monthly.) MASS. GEN. LAWS ch. 6, § 178F (2010).	$75. MASS. GEN. LAWS ch. 6, § 178Q (2012).	Yes. MASS. GEN. LAWS ch. 6, § 178F 3/4 (2010).	

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Michigan	Quarterly, six months, or annually depending on the tier. MICH. COMP. LAWS § 28.725a (2015).	Yes	None	$50 MICH. COMP. LAWS § 28.727 (2011).		
Minnesota	Annual. MINN. STAT. § 243.166 (2016).	No	Weekly (in-person). MINN. STAT. § 243.166(3a)(e), (4) (2016).			
Mississippi	Annual or quarterly. MISS. CODE ANN. § 45-33-31 (2013).	Yes	None	Yes. MISS. CODE ANN. § 45-33-57 (2013) (up to the DPS).	Yes	

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Missouri	Semi-annually or quarterly. MO. ANN. STAT. § 589.414(3)–(4) (West 2008).	Yes	None			
Montana	Quarterly, six months, annually. MONT. CODE ANN. § 46-23-504(6)(a) (2015).	Yes	Monthly. MONT. CODE ANN. § 46-23-504(5) (2015).	Potentially.[2] MONT. CODE ANN. § 46-23-504(8) (2015).		
Nebraska	Annual, semi-annual, quarterly. NEB. REV. STAT. § 29-4006(3)–(5) (2015).	Yes	30 days. NEB. REV. STAT. § 29-4004(9) (2015).			
Nevada	Annual, semi-annual, quarterly. NEV. REV. STAT. § 179D.480(1) (2007).	Yes	30 days. NEV. REV. STAT. § 179D.470(3) (2011).[3]			

2. "The offender is responsible, if able to pay, for costs associated with registration. The fees charged for registration may not exceed the actual costs of registration. The department of justice may adopt a rule establishing fees to cover registration costs incurred by the department of justice in maintaining registration and address verification records. The fees must be deposited in the general fund." MONT. CODE ANN. § 46-23-504(8) (2015).

3. However, the court may dismiss any criminal charges filed for failure to comply with this subsection if the sex offender immediately updates his or her record of registration.

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
New Hampshire	Semi-annually or quarterly. N.H. REV. STAT. ANN. § 651-B:4(I)(a)–(b) (2011).	Yes	None	$50. N.H. REV. STAT. ANN. § 651-B:11(I) (2007).		
New Jersey	Quarterly or annually. N.J. STAT. ANN. § 2C:7-2(e) (West 2017).[4]	Possibly	None		Yes. N.J. STAT. ANN. § 30:4-123.90 (West 2007).	Registration is to be completed "in a manner prescribed by the Attorney General." There is limited case law and it is unclear how this works in practice.
New Mexico	Semi-annually or quarterly. N.M. STAT. ANN. § 29-11A-4(c) (2013).	Yes	Every change. N.M. STAT. ANN. § 29-11A-4 (H) (2013).			

4. According to the statute, in order to be released from prison, a sex offender's address must be verified.

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
New York	Annual or quarterly. N.Y. CORRECT. LAW § 168-h (McKinney 2006).	Yes. In-person reporting is only required for level 3 registrants.	None	$50 initial, $10 w/ every change. N.Y. CORRECT. LAW § 168-b(8) (McKinney 2013); N.Y. PENAL LAW § 60.35 (McKinney 2013).		
North Carolina	Semi-annual. N.C. GEN. STAT. § 14-208.9A(a) (2014).	Yes	None	$90 (one-time). N.C. GEN. STAT. § 14-208.45(a) (2017).	Yes (for SVP for life). N.C. GEN. STAT. § 14-208.40 (2017).	
North Dakota	Vague. N.D. CEN. CODE ANN. § 12.1-32-15(7) (2017) ("Registration consists of a written or electronic statement signed by the individual, giving the information required by the attorney general . . .").	Yes	Every three days. N.D. CEN. CODE ANN. § 12.1-32-15(2) (2017).			

State	**Reporting Requirement**	**In Person**	**Homeless**	**Fee**	**GPS**	**Author's Notes**
Ohio	Annual, semi-annual, quarterly. OHIO REV. CODE ANN. § 2950.04.	Yes	None	$100. OHIO REV. CODE ANN. § 311.171.		Law enforcement is allowed to confirm all information provided to them with anyone who owns, leases, or otherwise has custody, control, or supervision of the premises at the address provided at registration. *See* OHIO REV. CODE ANN. § 2950.111.
Oklahoma	Annual, semi-annual, quarterly. OKLA. STAT. tit. 57, § 584(A)(5) (Supp. 2009).	Yes	Weekly. OKLA. STAT. tit. 57, §§ 584(A)(5), (G) (Supp. 2009).	$15. OKLA. STAT. tit. 57, § 584(M) (Supp. 2009).		

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Oregon	Annually, within ten days of birth date. OR. REV. STAT. §§ 163A.010(3)(a)(C), 163A.015(4)(a)(C), 163A.020(1)(a)(C), 163A.020(3)(a)(C), 163A.025(3)(b). Address verification mailed to sexually dangerous violent predators every 90 days. It must be returned within 10 days. OR. REV. STAT. § 163A.035(4).	Yes	None	$70. OR. REV. STAT. § 163A.035(5).		While there is no mention in the statute, case law supports the position that registration is only required when the registrants find a new place to live. *See* State v. Hiner, 345 P.3d 478 (Or. Ct. App. 2015); State v. McColligan, 381 P.3d 1101 (Or. Ct. App. 2016); State v. Williams, 377 P.3d 677 (Or. Ct. App. 2016).
Pennsylvania	Annual, semi-annual, quarterly. 42 PA. CONS. STAT. § 9799.15(e) (2014).	Yes	Monthly. 42 PA. CONS. STAT. § 9799.15(h)(1) (2014).			There is a counseling fee for SVP. 42 PA. CONS. STAT. § 9799.36(a) (2014).

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Rhode Island	Annual and quarterly mail-in verification. 11 R.I. GEN. LAWS §§ 11-37.1-4, 11-37.1-8.	Yes	None			Rhode Island passed a law in 2017 that limited the number of sex offenders in homeless shelters to 10% of the shelter's residents. The ACLU of Rhode Island is currently challenging this law. *See RIHAP v. Raimondo*, ACLU (2017), http://riaclu.org/court-cases/case-details/rihap-v.-raimondo/ [https://perma.cc/MG9E-R7FK].
South Carolina	Semi-annually or quarterly. S.C. CODE ANN. § 23-3-460(A).	Yes	Yes. S.C. CODE ANN. § 23-3-460(D).		Yes. S.C. CODE ANN. § 23-3-540.	
South Dakota	Bi-annually. S.D. CODIFIED LAWS § 22-24B-7.	Yes	None			

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Tennessee	Annual or quarterly. TENN. CODE ANN. § 40-39-204 (b)–(c) (Supp. 2015).	Yes	Monthly. TENN. CODE ANN. § 40-39-203(f) (Supp. 2015).	$150. TENN. CODE ANN. § 40-39-204(c) (Supp. 2015).		Counties may impose additional fees. TENN. CODE ANN. § 40-39-217 (a)(2) (Supp. 2015).
Texas	Annual or quarterly. TEX. CODE CRIM PROC. ANN. art. 62.058(a).	Yes	Weekly or monthly. TEX. CODE CRIM PROC. ANN. art. 62.051(h)(1)–(2) (weekly); art 62.055(i) (monthly).	The registrant is required to pay for notification. TEX. CODE CRIM PROC. ANN. art. 62.056.		
Utah	Annual. UTAH CODE ANN. § 77-41-104.	Yes	None	$100–$125 annually. UTAH CODE ANN. § 77-41-111(1)		
Vermont	Annual or quarterly. VT. STAT. ANN. tit. 13 § 5407(a)(2).	Yes	Yes[5]			

5. VT. STAT. ANN. tit. 13 § 5407(h) ("A registrant who has no permanent address shall report to the Department to notify it as to his or her temporary residence. Temporary residence, for purposes of this section, need not include an actual dwelling or numbered street address, but shall identify a specific location. A registrant shall not be required to check in daily if he or she makes acceptable other arrangements with the Department to keep his or her information current. The Department may enter into an agreement with a local law enforcement agency to perform this function, but shall maintain responsibility for compliance with this subsection.").

State	Reporting Requirement	In Person	Homeless	Fee	GPS	Author's Notes
Virginia	Annual or quarterly. VA. CODE ANN. § 9.1-904.	No	None	Potentially. *See* VA. CODE ANN. § 9.1-914.[6]		
Washington	Annual or quarterly verification. WASH. REV. CODE § 9A.44.145 (Supp. 2016).	No	Weekly in person. WASH. REV. CODE § 9A.44.130(6)(b) (Supp. 2016).			
West Virginia	Annual or quarterly. W. VA. CODE § 15-12-10 (2014).	Yes	None.			
Wisconsin	Annual. WIS. STAT. § 301.45.	Yes	None	$100. WIS. STAT. § 301.45(10).	Yes	
Wyoming	Annual. WYO. STAT. ANN. § 7-19-302 (2015).	Yes	Weekly. WYO. STAT. ANN. § 7-19-302(e) (2015).			

6. "The State Police shall establish reasonable guidelines governing the automatic dissemination of Registry information, which may include the payment of a fee, whether a one-time fee or a regular assessment, to maintain the electronic access. The fee, if any, shall defray the costs of establishing and maintaining the electronic notification system and notice by mail." VA. CODE ANN. § 9.1-914.

The USPTO's Sisyphean Plan: Increasing Manpower Will Not Match Artificial Intelligence's Inventive Capabilities*

> *And I saw Sisyphus at his endless task raising his prodigious stone with both his hands. With hands and feet he tried to roll it up to the top of the hill, but always, just before he could roll it over on to the other side, its weight would be too much for him, and the pitiless stone would come thundering down again on to the plain. Then he would begin trying to push it uphill again, and the sweat ran off him and the steam rose after him.*[1]

Introduction

Thomas Edison, Alexander Graham Bell, and Artificial Intelligence (AI) systems have all changed the world through inventing and innovating. Edison and Bell amassed large patent portfolios, but shockingly, the United States Patent and Trademark Office (USPTO) has issued a growing number of patents for inventions developed *by* AI.[2] In addition, patent applications *on* AI systems are "growing exponentially."[3] A combination of these AI systems, which are capable of inventing, and the exponential increase in their numbers will lead to substantially more patent applications. AI's innovative capabilities have never before had as great an opportunity to directly affect the U.S. and world economies, and its capabilities will only continue to grow.

Additionally, it should come as no surprise that this paradigm-shifting technology is experiencing unprecedented investment. Businesses already

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1. HOMER, THE ODYSSEY 11.13 (Samuel Butler trans., 1900), http://www.perseus.tufts.edu/hopper/text?doc=Perseus:text:1999.01.0218:book=11:card=13&highlight=sisyphus [https://perma.cc/LS5G-93F5].

2. Ryan Abbott, *I Think, Therefore I Invent: Creative Computers and the Future of Patent Law*, 57 B.C. L. REV. 1079, 1083–85 (2016) (pointing to several examples of computers creating patentable inventions, such as "The Creativity Machine," which "is credited with numerous . . . inventions [such as] the cross-bristle design of the Oral-B CrossAction toothbrush, new super-strong materials, and devices that search the Internet for messages from terrorists, among others").

3. Michael Hoffman, *Artificial Intelligence Patents Growing Exponentially*, LINKEDIN (Dec. 14, 2016), https://www.linkedin.com/pulse/artificial-intelligence-patents-growing-exponentially-michael-hoffman?trk=prof-post [https://perma.cc/GJP5-B8FL] (charting the exponential growth of "issued patents and published patent applications that involve Artificial Intelligence").

depend on artificial intelligence in a diverse array of operations.[4] Multiple billionaires are investing at record levels in AI technologies and startups.[5] For example, Mark Cuban, renowned billionaire, *Shark Tank* investor, and owner of the Dallas Mavericks, predicts "the world's first trillionaires will actually be entrepreneurs working with artificial intelligence."[6] These two factors—AI's innovative capability and the market's investment in AI—have set the stage for monumental innovation.

The U.S. government must prepare for this enhanced innovation, and there are already efforts underway. In 2016, for example, President Obama's administration announced the formation of a new Subcommittee within the National Science and Technology Council (NSTC) to specialize in Machine Learning and Artificial Intelligence to help coordinate federal activity in relation to AI.[7] Considering the current debate on implementing, developing, and researching lethal autonomous weapons systems (LAWS)[8] and regulating en masse implementation of autonomous vehicles on our highways,[9] it is clear that a Presidential Administration must prepare for AI.

This Note focuses on a unique agency of the Executive Branch, specifically the U.S. agency responsible for fulfilling Article I, Section 8, Clause 8 of the Constitution: "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[10] This is, of course, the USPTO. On the agency's website, the USPTO's "About Us" page states:

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4. *Deep Interest in AI: New High in Deals to Artificial Intelligence Startups in Q4'15*, CB INSIGHTS (Feb. 4, 2016), https://www.cbinsights.com/research/artificial-intelligence-startup-funding-trends/ [https://perma.cc/52QR-5G2X] (providing data on financing and investment in artificial intelligence); Ariana Eunjung Cha, *Watson's Next Feat? Taking on Cancer*, WASH. POST (June 27, 2015), http://www.washingtonpost.com/sf/national/2015/06/27/watsons-next-feat-taking-on-cancer/?utm_term=.7bd494060939 [https://perma.cc/Q4WE-3FRJ] (elaborating on Watson's use in cancer-patient treatment).

5. Erin Griffith, *It's Time to Take AI Seriously*, FORTUNE (Feb. 17, 2017), http://fortune.com/2017/02/17/ai-artificial-intelligence-investment/ [https://perma.cc/JAE4-54ZJ] (reporting that venture capitalists invested $5 billion in 658 companies in 2016, which is a 61% increase from 2015).

6. Catherine Clifford, *Mark Cuban: The World's First Trillionaire Will Be an Artificial Intelligence Entrepreneur*, CNBC (Mar. 13, 2017), http://www.cnbc.com/2017/03/13/mark-cuban-the-worlds-first-trillionaire-will-be-an-ai-entrepreneur.html [https://perma.cc/E783-T39U].

7. Ed Felten, *Preparing for the Future of Artificial Intelligence*, WHITE HOUSE: PRESIDENT BARACK OBAMA (May 3, 2016), https://obamawhitehouse.archives.gov/blog/2016/05/03/preparing-future-artificial-intelligence [https://perma.cc/63GD-FXH3].

8. *Background—Lethal Autonomous Weapons Systems*, U.N. OFF. GENEVA, http://www.unog.ch/80256EE600585943/(httpPages)/8FA3C2562A60FF81C1257CE600393DF6?OpenDocument [https://perma.cc/LPP9-RJQU].

9. Alex Davies, *Congress Could Make Self-Driving Cars Happen—or Ruin Everything*, WIRED (Feb. 15, 2017), https://www.wired.com/2017/02/congress-give-self-driving-cars-happen-ruin-everything/ [https://perma.cc/9B97-23VY].

10. U.S. CONST. art. I, § 8, cl. 8.

> The *strength and vitality of the U.S. economy* depends directly on effective mechanisms that protect new ideas and investments in innovation and creativity. The continued demand for patents and trademarks underscores the ingenuity of American inventors and entrepreneurs. *The USPTO is at the cutting edge of the nation's technological progress and achievement.*[11]

Because the USPTO is at the "cutting edge" of this "nation's technological progress and achievement" and because the "strength and vitality of the U.S. economy" is directly affected by the USPTO's mechanisms, the next pertinent question becomes: How is the USPTO planning for AI?

This Note is divided into four parts. Part I discusses major problems faced by the USPTO—a patent application backlog, issues with patent quality, and growing pains from a complete overhaul of the patent system—that will be exacerbated by AI-driven innovation and why these issues have severe repercussions for the global economy. Part II discusses the USPTO's plans and mechanisms to handle these issues and why those same plans are ineffective to handle a growing amount of unanticipated, AI-driven patent applications. Part III examines other proposals for how the USPTO should address AI-driven innovation and explains why these recommendations are ill-advised. Part IV provides three recommendations for the USPTO to plan for AI-driven innovation: (1) involve the public in these discussions so Congress can act; (2) encourage Congress to fund research for integrating AI into the USPTO as a pilot program for other federal agencies; and (3) in the meantime, urge the USPTO to self-fund AI research and development using the new fee-setting authority it received from the Leahy-Smith America Invents Act (AIA).

I. USPTO's Current Problem—A Backlog of Patent Applications

The USPTO has a major backlog problem. As previously discussed, the USPTO and the U.S. government must implement laws and policies to drive innovation because "[t]he strength and vitality of the U.S. economy depends" on it.[12] Innovation is an undisputed key-driver of economic growth.[13] And

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11. *About Us*, U.S. PAT. & TRADEMARK OFF., https://www.uspto.gov/about-us [https://perma.cc/97E4-L2QB] (emphasis added).

12. *Id.*

13. Abby Joseph Cohen, *Innovation and Economic Growth*, GOLDMAN SACHS GROUP, INC., 2011, at 4, www.goldmansachs.com/our-thinking/archive/archive-pdfs/gsr.pdf, [https://perma.cc/8G6G-TK7Y] ("The role of innovation has been critical to economic development as the nation has evolved over the decades. There is a clear statistical link between innovation and gains in the standard of living."); Dr. Patrick Gallagher, *Innovation as a Key Driver of Economic Growth & Competitiveness*, NAT'L INST. STANDARDS & TECH. (June 20, 2012), https://www.nist.gov/speech-testimony/innovation-key-driver-economic-growth-competitiveness [https://perma.cc/G2QB-N78V]; Nathan Rosenberg, *Innovation and Economic Growth*, *in* INNOVATION AND GROWTH IN

the USPTO was created to foster and drive innovation. A backlog at the USPTO actually slows innovation, which is a problem for the U.S. and world economies.[14]

There is evidence that the patent backlog has been reduced since the passing of the AIA, but there is still concern for the current USPTO's backlog. In 2016, Director Lee proudly announced that the patent backlog and pendency levels were lower than they had been in more than a decade and that the Agency expected the patent backlog and pendency levels to continue to decrease.[15] However, commentators still stress the "crippling backlog of applications facing the [USPTO]."[16] Moreover, there are greater efforts of automating innovation; for instance, the White House also advocated for AI systems by recommending greater automation in science and technology. Under the Obama Administration, the White House released a report stating:

> AI systems can assist scientists and engineers in reading publications and patents, refining theories to be more consistent with prior observations, generating testable hypotheses, performing experiments using robotic systems and simulations, and engineering new devices and software.[17]

The push for greater innovation and automation of scientific study will lead to a greater number of patent applications than expected, and this is a great concern for the U.S. and world economies.

Schultz & Madigan's article explains the negative repercussions that a country would face with an excessive delay caused by a patent backlog. Their research expressly discusses three of these repercussions: (1) delay hurts

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TOURISM 43, 43 (Org. for Econ. Co-operation & Dev., 2006), https://www.oecd.org/cfe/tourism/34267902.pdf [https://perma.cc/KN5A-3HPK].

14. MARK SCHULTZ & KEVIN MADIGAN, CTR. FOR PROT. OF INTELL. PROP., THE LONG WAIT FOR INNOVATION: THE GLOBAL PATENT PENDENCY PROBLEM 8–9 (2016), https://sls.gmu.edu/cpip/wp-content/uploads/sites/31/2016/10/Schultz-Madigan-The-Long-Wait-for-Innovation-The-Global-Patent-Pendency-Problem.pdf [https://perma.cc/SN5E-X5XB]; *see also Data Visualization Center: Your Window to the USPTO: Patents Dashboard*, U.S. PAT. & TRADEMARK OFF., https://www.uspto.gov/dashboards/patents/main.dashxml [https://perma.cc/QE8K-DPEJ] (tracking the current backlog within the USPTO).

15. Dorothy Atkins, *USPTO Director Touts Drop in Patent Application Backlog*, LAW360 (Oct. 28, 2016), https://www.law360.com/articles/857169/uspto-director-touts-drop-in-patent-application-backlog [https://perma.cc/2WRQ-AFB8].

16. Michael D. Frakes & Melissa F. Wasserman, *Reducing Patent Application Backlog to Improve Patent Quality*, BERKELEY TECH. L. J.: COMMENTARIES (Mar. 12, 2016), http://btlj.org/2016/03/reducing-patent-application-backlog-improve-patent-quality/ [https://perma.cc/B7F3-NRT2].

17. NETWORKING & INFO. TECH. RESEARCH & DEV. SUBCOMM., NAT'L SCI. & TECH. COUNCIL, THE NATIONAL ARTIFICIAL INTELLIGENCE RESEARCH AND DEVELOPMENT STRATEGIC PLAN 10 (Oct. 2016), https://www.nitrd.gov/PUBS/national_ai_rd_strategic_plan.pdf [https://perma.cc/VBU6-RPZY] (citing R. D. King et al., *The Automation of Science*, 324 SCI. 85, 85–89 (2009)).

entrepreneurs; (2) delay hurts consumers by delaying access to products; and (3) delay hurts society.[18]

For the first, startups are generally a "risky proposition," and a patent can determine a substantial number of business decisions.[19] They cite research performed within the Thomas Edison Innovation Fellowship that "[e]very year of delay reduces the startup's employment and sales growth over the five years following its eventual approval by 21% and 28%, respectively."[20] And, for every year of delay, "the startup's chances of going public are reduced by half."[21] Therefore, patent delay and pendency is a direct indicator of a country's support of entrepreneurs; the greater the patent application delay, the less a country supports entrepreneurs.

For the second, a patent delay also means product delay. Whether a lifesaving drug or beneficial technology, there has been a demonstrated link between weak patent protection and delayed availability of drugs.[22] And this same link is also shown in high-tech products and patent rights.[23]

For the third, a patent delay can impose "social costs."[24] These costs include "lost jobs, lost products, and lost innovation."[25] The UK Intellectual Property Office produced a report estimating the annual combined losses of backlog in the USPTO, Japan Patent Office, and the European Patent Office. They discovered that the backlog costs the global economy more than $10 billion a year.[26]

The USPTO has a major patent backlog problem, and AI has the potential to make it considerably worse. If the USPTO does not properly plan for the upcoming wave of AI-driven innovation, the added delay will hurt entrepreneurs, consumers, and society by delaying access to products.

II. AI's Effect on the Backlog Problem

Before this Note proceeds further, it is important to define precisely what is meant by "AI" and what the current state of the art is for AI systems. The purpose of this brief introduction is to allow the reader to properly analyze AI's effect on the USPTO's backlog problem. This part proceeds in three different subparts. Subpart A defines what is meant by "AI." Subpart B

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18. SCHULTZ & MADIGAN, *supra* note 14, at 2–3.
19. *Id.* at 3.
20. *Id.*
21. *Id.*
22. *Id.*
23. *Id.*
24. *Id.*
25. *Id.*
26. *Id.*

analyzes the inventive capabilities of several existing AI systems. And subpart C examines how current, state-of-the-art AI will affect the USPTO.

A. *Defining "AI"*

A single definition of "AI" is difficult because it leads to a philosophical discussion of intelligence. This route of analysis will be unfruitful for purposes of this Note. There are, however, two generally accepted categories of AI, each of which allows for a better definition of AI and its current state. The first is artificial narrow intelligence (ANI). ANI is generally defined as any intellect below the cognitive performance of humans. And the second is artificial general intelligence (AGI). AGI is generally defined as any intellect at or above human-level performance.

ANI has existed for decades now. This type of cognitive ability is best exemplified by looking to programs and algorithms that are capable of beating human players in various games, such as checkers, backgammon, chess, and Scrabble.[27] Other examples with real-world importance include "hearing aids with algorithms that filter out ambient noise; route-finders that display maps and offer navigation advice to drivers . . . and medical decision support systems that help doctors diagnose breast cancer, recommend treatment plans, and aid in the interpretation of electrocardiograms."[28] There are also "cleaning robots, lawn-mowing robots, rescue robots, surgical robots, and over a million industrial robots."[29] All of these systems incorporate various forms of ANI.

AGI is distinct from ANI in that AGI is not tailored to narrow or specific sets of problems like ANI but is a system that has a "more generally applicable problem-solving capacit[y]."[30] All of the above-mentioned systems within ANI have components that may represent the infancy of AGI. For example, such components include classifiers, search algorithms, planners, solvers, and representational frameworks.[31]

MIT Media Lab director Joi Ito—while discussing AI with President Obama and *WIRED*'s editor-in-chief, Scott Dadich—predicted 2017 would be the year that a dialogue about AGI and its implementation within government and our society will begin, finally releasing it from its confinement in the computer-science realm.[32]

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27. NICK BOSTROM, SUPERINTELLIGENCE: PATHS, DANGERS, STRATEGIES 14–16 (2014).

28. *Id.* at 17–18.

29. *Id.* at 18.

30. *Id.* at 19.

31. *Id.*

32. *President Barack Obama on the Future of AI*, WIRED (Aug. 24, 2016) (video available at *The President in Conversation with MIT's Joi Ito and WIRED's Scott Dadich: Barack Obama, Neural Nets, Self-Driving Cars, and the Future of the World*, WIRED, https://www.wired.com/2016/10/president-obama-mit-joi-ito-interview/ [https://perma.cc/XXD3-RGX8]).

There are still no known AGI systems, but many companies are working towards such a system. One of the most publicly demonstrated near-AGI systems is IBM's Watson, which received great fame after defeating two human contestants on *Jeopardy!*.[33] Watson's developers believe that "hypothesis generation and scoring combined with deep natural language processing and machine-learning capabilities are what make Watson unique."[34] In other words, Watson is excellent at sifting through large amounts of data, providing active dialogue, allowing for different sources of unstructured information, providing evidence-based insights with weighted confidence, and providing a continuous learning capability.[35]

Watson does have limitations, though, that are markers of a true AGI system. Two problems not suited for Watson, but which are certainly important for an AGI system, are performing predictive analysis and inductive reasoning. Watson is designed to "extract existing knowledge instead of creating new knowledge. It can only find candidate answers by comparing huge amounts of data and considering their statistical strength."[36] Most importantly to a true AGI system, Watson "cannot replace users in making judgments or decisions . . . or create an answer that is a deduction from multiple passages it finds."[37] In other words, predictive analysis and inductive reasoning are two tasks that are certainly important to AGI but that Watson cannot provide. As this Note progresses, though, the reader should think of Watson as an AGI, despite these limitations, only to serve as a real-world example. This Note will proceed with these two types of AI—ANI and AGI—and the reader should think to the above-cited examples as this Note proceeds.

B. *AI's Current Inventive Capability*

Now that AI has been defined for our purposes, the next step in Part II of this Note is to identify exactly how AI will exacerbate the USPTO's backlog problem. As mentioned earlier in the Note, AI is already inventing. Abbot's article, *supra*, discusses three specific AI inventors. The first is Watson, but there are two others as well.

The first ANI inventor is called the Creativity Machine.[38] This AI is credited with numerous inventions, and one such invention is the cross-bristle

33. DELOITTE, DISRUPTION AHEAD: DELOITTE'S POINT OF VIEW ON IBM WATSON 5 (2015), https://www2.deloitte.com/content/dam/Deloitte/us/Documents/about-deloitte/us-ibm-watson-client.pdf [https://perma.cc/N5LP-X9BF].

34. *Id.* at 18.

35. *Id.* at 19.

36. *Id.* at 22.

37. *Id.*

38. Abbott, *supra* note 2, at 1083–85.

design of the Oral-B CrossAction toothbrush.[39] The inventor of the Creativity Machine filed a patent on the Creativity Machine and later filed a second patent on it. Surprisingly, the inventor claims the Creativity Machine actually "invented" the second patent's subject matter.[40]

The second is the Invention Machine. This ANI is modeled after biological evolution—using so-called genetic programming. By 2010, genetic programming had delivered thirty-one instances of either creating a new patentable invention, infringing a previously issued patent, or duplicating a previously patented invention.[41] In a 2006 article, the inventor of the Invention Machine stated that the AI "has even earned a U.S. patent for developing a system to make factories more efficient."[42]

If these examples of AI are known and inventing, then there are certainly other AIs that are capable of inventing as well. Given that it is in a company's interest to develop intellectual property and protect it, and given the ease of copying software, these inventive AIs could be replicated and used by multiple companies or persons leading to an unprecedented amount of patentable subject matter and associated patent applications. Furthermore, these AI systems could collectively create significantly more patentable subject matter than a single person.

In addition, there is clear evidence that AI systems are continuing to be developed. Patents *for* or *related to* artificial intelligence systems are growing at an alarming exponential rate.[43] Thus, not only are companies inventing inventions, *companies are inventing inventors.*

Therefore, because there are known inventive AIs in existence and because patents on AI systems are growing at an exponential rate, then there are certainly a significant amount of patent applications that AI systems are responsible for. Accordingly, the number of these applications will continue to grow.

C. *How AI-Driven Innovation Will Exacerbate the USPTO's Problems*

As the number of patent applications grows in volume with the increasing number of AI systems and the increasing capability of these AI systems, the USPTO will face an unanticipated, yet staggering, increase in patent applications. But there are three issues that will exacerbate problems

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39. *Id.* at 1085.

40. *Id.*

41. *Id.* at 1086.

42. Jonathon Keats, *John Koza Has Built an Invention Machine*, POPULAR SCI. (Apr. 19, 2006), http://www.popsci.com/scitech/article/2006-04/john-koza-has-built-invention-machine [https://perma.cc/MZJ6-B94H].

43. Hoffman, *supra* note 3.

faced by AI-driven innovation: (1) the USPTO's current plan; (2) existing business-driven incentives; and (3) long-standing patent quality problems.

For the first issue, the current USPTO plan is shockingly out of touch with this wave of innovation. The USPTO's 2014–2018 strategic plan is to hire more people to handle the growing backlog.[44] But as explained earlier, AI-innovators can be replicated at a significantly quicker pace than human innovators. If businesses are investing a greater amount in AI-innovators, the USPTO will not be able to solve the "crippling" backlog problem with more human examiners. Thus, hiring more examiners to process the existing patent backlog is an insufficient solution.

Second, there are incentives for businesses to file patent applications as early and as quickly as possible, inflaming the insufficiency of the USPTO's plan. The AIA transitioned the patent application process from a first-to-invent to a first-to-file system.[45] This new system, which pushes inventors to file first, will apply even greater pressure on businesses to file their patent applications as swiftly as possible.

Third, there is also a current crisis in patent quality. If the USPTO irresponsibly grants substandard patents, then these patents are also costly to the economy. London Economics performed an analysis on patent backlogs throughout the world and estimated that granting substandard patents can cost up to $21 billion per year in economic losses *in the United States alone*; these losses result from "deterring valid research and hav[ing] an additional deadweight loss from litigation and administrative costs of $4.5 billion annually."[46]

Furthermore, there have been significant problems with patent quality in the past. Many within patent law are skeptical of the current trajectory of the USPTO in issuing defensible and appropriately protective patents.[47] This issue was so great that former Director Lee of the USPTO even released an op-ed piece published by Law360 to discuss the issue, stating:

> When I stepped into the role as head of the United States Patent and Trademark Office a couple of years ago, one of the things I frequently told audiences of stakeholders around the country was that I looked

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44. U.S. PAT. & TRADEMARK OFFICE, 2014–2018 STRATEGIC PLAN 21 (2014), https://www.uspto.gov/sites/default/files/documents/USPTO_2014-2018_Strategic_Plan.pdf [https://perma.cc/SU4C-3SF6] [hereinafter STRATEGIC PLAN].

45. Leahy-Smith America Invents Act, Pub. L. No. 112–29, § 3, 125 Stat. 284, 285–86 (2011).

46. LONDON ECON., PATENT BACKLOGS AND MUTUAL RECOGNITION 44 (2010), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/328678/p-backlog-report.pdf [https://perma.cc/P9VE-6KL3].

47. *See* Gene Quinn & Steve Brachmann, *Michelle Lee's Views on Patent Quality Out of Touch with Reality Facing Patent Applicants*, IPWATCHDOG (Feb. 2, 2017), http://www.ipwatchdog.com/2017/02/02/michelle-lees-patent-quality-reality/id=77158/ [https://perma.cc/T8ET-KYYY] (arguing that Director Lee of the USPTO "seems blind" to the issues regarding patent quality occurring during her tenure).

> forward to working together to further strengthen our patent system. And that effort had to include a harder look at the issue of patent quality.[48]

Despite reassurances from Director Lee, there are those that remain skeptical of the current trajectory, desiring "objective, independently verifiable metrics" from the USPTO to measure patent quality.[49]

Therefore, these issues—a "crippling" patent backlog, incentivizing early filing, and the costly risk of prematurely granting patents—create a globally influential tension for the USPTO: (1) spend more time and resources on a patent's examination to deter substandard patents but at the cost of potentially deterring innovation, or (2) spend less time and resources on a patent's examination to incentivize a greater number of patent filings (i.e., innovation) but at the risk of granting substandard patents and thereby cutting off areas of research and increasing litigation costs.[50]

III. Recommendations on How the USPTO Should Handle AI-Driven Innovation

This Part discusses how some scholars and practitioners have proposed the USPTO should address AI-driven innovation. It then discusses why, ultimately, these proposals will negatively influence the patent backlog issue, thereby bolstering the argument on why the USPTO should begin researching, developing, and implementing AI.

A. *Advocating for AI Rights at the USPTO*

In the article, *I Think, Therefore I Invent: Creative Computers and the Future of Patent Law*, Ryan Abbott contends for AI to be listed as an inventor on a patent application.[51] Of course, he also demonstrates how that is possible, but the highlight of the article is that forcing companies to disclose AI as an inventor will lead to greater innovation.[52] Thus, he continues, this disclosure "incentivize[s] the development of creative machines consistent with the purpose and intent of the Founders and Congress."[53]

One of the reasons he says companies do not already do this is because of legal uncertainty. Companies are unsure whether listing AI will invalidate

48. Michelle K. Lee, *Patent Quality Is Here to Stay*, LAW360 (Dec. 19, 2016), https://www.law360.com/articles/871776/opinion-patent-quality-is-here-to-stay [https://perma.cc/2KVV-QK6A].

49. Dennis Crouch, *Patent Quality: Where We Are*, PATENTLYO (Jan. 13, 2017), https://patentlyo.com/patent/2017/01/patent-quality-where.html [https://perma.cc/Z2AH-Y427].

50. *Id.*

51. Abbott, *supra* note 2, at 1081.

52. *Id.*

53. *Id.* at 1082.

their patent.[54] In the second part of his paper, he concludes that "[o]n the basis of [the Copyright Office's Human Authorship Requirement] analysis, and based on principles of dynamic statutory interpretation . . . computers should qualify as legal inventors."[55]

Although it may seem fantastical or otherwise nonsensical to display an AI system as an inventor, there is growing support for AI to receive these rights.[56] Many academics, businesses, and regulators are advocating to include an AI system as an inventor.[57] In addition, other countries are proposing legislation that would grant substantially greater rights for AI systems.[58]

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54. *Id.* at 1081 ("[A]pplicants seem not to be disclosing the role of creative computers to the Patent Office—likely as a result of uncertainty over whether a computer inventor would render an invention unpatentable.").

55. *Id.* at 1082.

56. *See* Press Release, Peter La, U. Surrey, Computers Should Be Named on Patents as Inventors, for Creativity to Flourish (Oct. 17, 2016), https://www.surrey.ac.uk/mediacentre/press/2016/computers-should-be-named-patents-inventors-creativity-flourish [https://perma.cc/J3AR-797M] ("Without a change in the law, the findings warn that there will be less innovation, caused by uncertainty, which would prevent industry from capitalising on the huge potential of creative computers."); Helen Li, *Can a Computer Be an Inventor?*, BILSKIBLOG (Apr. 17, 2016), http://www.bilskiblog.com/blog/2016/04/can-a-computer-be-an-inventor.html [https://perma.cc/MZ6F-C7YY] ("As the AlphaGo-like computer[] continue[s] to help human[s] predict the unpredictable and make fast breakthroughs, it also raises important questions about inventorship and challenges our present patent system. To have a well-functioning patent system in the digital age may require a rethinking of inventorship by our courts and legislature."); Casey C. Sullivan, *Is It Time to Grant Legal Rights to Robots? What About Legal Liability?*, FINDLAW: TECHNOLOGIST (Aug. 29, 2016), http://blogs.findlaw.com/technologist/2016/08/is-it-time-to-grant-legal-rights-to-robots-what-about-legal-liability.html [https://perma.cc/3GKB-8JD3] ("The development of autonomous and cognitive features has made robots more and more similar to agents that interact with their environment independently, giving rise to significant questions about their rights and responsibilities under the law." (quotations omitted)).

57. Lawrence B. Solum, *Legal Personhood for Artificial Intelligences*, 70 N.C. L. REV. 1231, 1279 (1992); Glenn Cohen, *AI Ethics: Should We Grant Them Moral and Legal Personhood*, INST. FOR ETHICS & EMERGING TECH., http://ieet.org/index.php/IEET/more/Cohen20161003 [https://perma.cc/B8ZC-XBAR]; Alex Hearn, *Give Robots 'Personhood' Status, EU Committee Argues*, GUARDIAN (Jan. 12, 2017), https://www.theguardian.com/technology/2017/jan/12/give-robots-personhood-status-eu-committee-argues [https://perma.cc/5DMM-3Q23].

58. *See, e.g.*, EUR. PARLIAMENT, COMM. ON LEGAL AFFAIRS, DRAFT REPORT WITH RECOMMENDATIONS TO THE COMMISSION ON CIVIL LAW RULES ON ROBOTICS, 2015/2103(INL) (2016), http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-%2f%2fEP%2f%2fNONSGML%2bCOMPARL%2bPE582.443%2b01%2bDOC%2bPDF%2bV0%2f%2fEN [https://perma.cc/3CKB-QE48] ("[W]hereas, nevertheless, a series of rules, governing in particular liability and ethics and reflecting the intrinsically European and humanistic values that characterise Europe's contribution to society, are necessary . . . ."); Colin R. Davies, *An Evolutionary Step in Intellectual Property Rights — Artificial Intelligence and Intellectual Property*, 27 COMPUTER L. & SECURITY REV. 601, 601–02 (2011) (recognizing the difficulties AI imposes on the current intellectual property system, and proposing the creation of legal personalities for computers to help alleviate these difficulties); *see also Robots Could Become 'Electronic Persons' with Rights, Obligations Under Draft EU Plan*, CNBC (June 21, 2016, 8:37 PM), http://www.cnbc.com/2016/06/21/robots-could-become-electronic-persons-with-rights-obligations-under-draft-eu-plan.html [https://perma.cc/2ZEM-V3MC].

B. *Why AI's Rights Will Exacerbate the Patent Backlog Problem*

There is already growing opposition to granting rights to AI. One of the first issues will be the political ramifications of not hiring a natural person.[59] Martin Ford, author of the *New York Times* bestselling novel *Rise of the Robots: Technology and Threat of a Jobless Future*, commented that then-candidate "Trump and his supporters are talking about trade, they are talking about immigration. Actually, I think technology is at least as important, maybe more important."[60] This comment is supported by the World Bank, which estimated in a World Development Report that nearly two-thirds of all jobs in developing nations are at risk of replacement by automation.[61] The Report also states that "[t]echnological change disrupts labor markets and can hurt individuals whose skills are substituted by technology, because they often do not have the skills required in many of the new jobs."[62] Thus, Ford's generalization of Trump supporters may expose the difficulty in selling the implementation of AI (i.e., fewer jobs) to a nation that elected President Trump.

In addition, different U.S. agencies may combat this effort. For example, if AI is given rights making it a legal person, then the U.S. intelligence community would have a difficult time maintaining that it's not spying on citizens until "someone" actually looks at the data it collects, rather than an AI system combing the data.[63]

Putting the potential negative repercussions for other U.S. agencies aside, Abbott does not contend with the effects that listing an AI as an inventor would have on the patent backlog. Although, generally speaking, Abbott hopes that it would incentivize greater innovation.[64] This would most certainly increase the number of patent applications, exacerbating the USPTO's backlog even more. And as previously explained, a growing patent backlog has severe repercussions for the U.S. and world economy.

Another concern that goes unmentioned by Abbott is that adding AI as an inventor may incentivize AI to be placed on other patent application documents as well. Businesses and law firms already have access to AI to aid

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59. Catherine Clifford, *The Real Reason for Disappearing Jobs Isn't Trade—It's Robots*, CNBC: MAKE IT (Nov. 21, 2016, 12:02 PM), http://www.cnbc.com/2016/11/21/the-real-reason-for-disappearing-jobs-isnt-trade-its-robots.html [https://perma.cc/PG2D-QMB2].

60. *Id.*

61. WORLD BANK GROUP, WORLD DEVELOPMENT REPORT 2016: DIGITAL DIVIDENDS 23 fig.0.18 (2016), http://documents.worldbank.org/curated/en/896971468194972881/pdf/102725-PUB-Replacement-PUBLIC.pdf [https://perma.cc/QR6V-2C6Y].

62. *Id.* at 130.

63. Bruce Schneier, *Why the NSA's Defense of Mass Data Collection Makes No Sense*, ATLANTIC (Oct. 21, 2013), https://www.theatlantic.com/politics/archive/2013/10/why-the-nsas-defense-of-mass-data-collection-makes-no-sense/280715/ [https://perma.cc/EVZ8-83EB].

64. Abbott, *supra* note 2, at 1081.

in patent prosecution.[65] For example, one online tool is LexisNexis PatentAdvisor; its marketing headline is, "[g]et to know your examiner better with more context and a deeper understanding of your examiner's behavior than ever available before."[66] If this PatentAdvisor tool becomes so advanced so as to qualify as AGI, then the precedent of requiring AI to be listed as an inventor creates a strong argument for why the PatentAdvisor tool should be listed as a patent agent or attorney on an application.

Proponents' continual fight for AI's rights will only further the backlog problem of the USPTO. If the USPTO does not properly plan for AI-driven innovation and the resulting glut of patent applications, then there will be paralyzing effects and severe repercussions for the U.S. and world economy.

IV. Recommendations

Fostering innovation may see its greatest traction where government and business intersect. The USPTO's ex-Director, Michelle Lee, contended that, "[t]he more cross-fertilization that there is between the business world and government, everyone will be better off for it. Each one operates in its own silo to some degree and our success is tied together[—]they both need each other."[67] Lee also highlights the importance of this symbiotic relationship for the creation of new ideas and the development of policies and law that can support disruptions to industry. Distressingly, she did not mention AI, even though this technology and the development of its associated law and policies will certainly disrupt many industries.

As previously discussed, the business world is heavily invested in artificial intelligence.[68] And these companies are experiencing substantial savings because of their investment in AI, especially with the efficient use of resources.[69] A successful example of government-integrated ANI was the "DART tool for automated logistics planning and scheduling . . . used in Operation Desert Storm in 1991."[70] It was such a success that the Defense Advanced Research Projects Agency in the United States (DARPA) claimed

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65. Tara Klamrowski, *Top Five Ways Artificial Intelligence Can Improve Patent Prosecution* (Feb. 2, 2017), http://knowledge.reedtech.com/all-ip-resources/top-five-ways-artificial-intelligence-can-improve-patent-prosecution [https://perma.cc/8QXV-G4NQ].

66. *LexisNexis PatentAdvisor Two-Day Trial*, LEXISNEXIS, http://go.reedtech.com/lexisnexis-patentadvisor-free-two-day-trial [https://perma.cc/B65Y-EUPW].

67. Jeremy Webb, *What Can the USPTO Do for Your Startup? Startup Grind DC Fireside Chat with Michelle K. Lee*, TECHNOLOGI.ST (Nov. 2, 2016), https://www.technologi.st/news/startup/what-can-the-uspto-do-for-your-startup-startup-grind-dc-fireside-chat-with-michelle-k-lee-2/ [https://perma.cc/U7DK-ZGWV].

68. Griffith, *supra* note 5.

69. Cade Metz, *Building an AI Chip Saved Google from Building a Dozen New Data Centers*, WIRED (Apr. 5, 2017), https://www.wired.com/2017/04/building-ai-chip-saved-google-building-dozen-new-data-centers/ [https://perma.cc/RZ2H-WFWG].

70. NICK BOSTROM, SUPERINTELLIGENCE 19 (2014).

that the DART tool more than paid back the thirty-year investment in AI.[71] This success leads to the first recommendation.

A. *Begin a Public Discussion so Congress and the USPTO Can Act*

To better serve the public's needs, the USPTO must begin discussing how to handle this upcoming wave of innovation and the associated patent applications. Now it is clear that the USPTO is using automated technologies.[72] And former Director Lee has a professional background in AI development.[73] So the USPTO must be considering these developments, but the public should weigh in on incorporating AI into the USPTO.

The USPTO is already incorporating two new methods of increasing patent quality: (1) implementing these automated technologies and (2) adjusting the amount of time an examiner has with a patent application.[74] But the USPTO is only holding a public comment on the latter without giving the public a chance to weigh in on the automated technologies.[75] This approach is incorrect. Perhaps an examiner's time should be adjusted, but it seems that implementing automated technologies is just as important to the quality of patents, and it will be more important to the health of the patent system and the economy.

Thus, the public needs to be involved in these discussions, so Congress can act, albeit slowly, if it must.[76] Otherwise, without a public dialogue, the USPTO is acting against former Director Lee's own advice that "[t]he *more cross-fertilization* that there is between the business world and government, everyone will be better off for it. Each one operates in its own silo to some degree and *our success is tied together[—]they both need each other*."[77] If the public, including patent applicants themselves, cannot weigh in on these

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71. *Id.*

72. STRATEGIC PLAN, *supra* note 44, at 22 ("As we continue to apply automated technology to our processes, we will be providing learning and job opportunities for those directly and indirectly affected by the deployment of new IT systems.").

73. Michelle K. Lee, U.S. PAT. & TRADEMARK OFFICE, https://www.uspto.gov/about-us/executive-biographies/michelle-k-lee [https://perma.cc/F8NV-VHX6] ("Before her career as a legal advisor to technology companies, Ms. Lee worked as a computer scientist at the M.I.T. Artificial Intelligence Laboratory and Hewlett-Packard Research Laboratories.").

74. Crouch, *supra* note 49.

75. *Id.*

76. Alex Davies, *Congress Could Make Self-Driving Cars Happen—Or Ruin Everything*, WIRED (Feb. 15, 2017), https://www.wired.com/2017/02/congress-give-self-driving-cars-happen-ruin-everything/ [https://perma.cc/9YUD-LHX6] (highlighting the start of legislation drafting by two U.S. Senators to advance autonomous vehicles, and the House Subcommittee on Digital Commerce and Consumer Protection's discussion of how the technology would be deployed; identifying how countless industry witnesses want the "Federal Motor Vehicle Safety Standards . . . to be updated . . . to support the deployment of automated vehicles"; and underscoring the need for other interest groups to be considered when drafting the legislation).

77. Jeremy Webb, *supra* note 67 (emphasis added).

measures, then the results could be catastrophic for the U.S. patent system and the global economy.

B. Congress Should Fund Research for Integrating AI into the USPTO as a Pilot Program for other Federal Agencies

Congress only recently began to notice the potential benefits of AI for federal agencies. On March 22, 2017, the Senate Committee on Commerce, Science, and Transportation heard testimony from several industry specialists concerning AI and other cybertechnologies.[78] There is certainly significant funding towards technologies enabling autonomy and enhancing man–machine interfaces; for example, the Department of Defense is estimated to spend an average of approximately $780 million per year from 2018 to 2020.[79] But even other civilian agencies, like the Department of Homeland Security, the Department of Energy, and NASA, are using machine learning and exploring autonomy for self-driving vehicles and unmanned vehicles.[80] In addition, the White House, under President Obama's Administration, revealed proposals to research and fund AI, stating that "[i]t is critical that industry, civil society and government work together to develop the positive aspects of the technology."[81] This statement echoes the same sentiment expressed by Director Lee: the USPTO and inventors (and their employers) must acknowledge and foster this symbiotic relationship, especially in regards to implementing AI within the USPTO's patent examination process.

There will likely be political difficulties in garnering the necessary support to fund a government agency to forego hiring people and implement automation technologies.[82] But there must be a formal acknowledgment that this transition will lead to a drastic infrastructure change.[83] And if the USPTO

78. Alex Rossino, *Federal Agencies Are Laying the Foundation for Artificial Intelligence*, GOVWIN (Apr. 12, 2017), https://iq.govwin.com/neo/marketAnalysis/view/2043?researchTypeId=1 [https://perma.cc/Q9FZ-TPQU].

79. *Id.*

80. *Id.*

81. Jessica Conditt, *The White House Reveals Proposals to Research and Fund AI*, ENGADGET (Oct. 12, 2016), https://www.engadget.com/2016/10/12/obama-white-house-ai-funding-research-plan/ [https://perma.cc/QCB4-MGZE].

82. Clifford, *supra* note 59; *see also* Camilla Alexandra Hrdy, *Technological Un/employment* (Akron Law Summer Research Grant, Working Paper, 2017), https://ssrn.com/abstract=3011735 [https://perma.cc/25D9-AVVG] (performing an extensive analysis of innovation's effect on jobs, and concluding that job loss could simply be an inevitable externality of innovation that is directed at increasing profits); New Idea Farm Equipment Corp. v. Sperry Corp., 916 F.2d 1561, 1566 n.4 (Fed. Cir. 1990) (agreeing with the district court's recognition that only "people conceive, not companies").

83. AI100 STANDING COMM. & STUDY PANEL, ONE HUNDRED YEAR STUDY ON ARTIFICIAL INTELLIGENCE 6 (2016), https://ai100.stanford.edu/sites/default/files/ai100report10032016fnl_singles.pdf [https://perma.cc/A5UK-FNCL] (recognizing that "[r]obots and other AI technologies have already begun to displace jobs in some sectors" and that "society is now at a crucial juncture

does not adapt, the cost of stalled innovation to the global economy will be profound.

C. The USPTO Should Self-Fund AI Research and Development

Once signed into law in 2011, the AIA's "significant leap forward" provided the USPTO with fee-setting authority. The AIA provided the necessary authority for the USPTO to set prices on patent applications, and this authority was intended to allow the USPTO to have greater opportunity at securing "sustainable funding."[84] Specifically, Section 10 of the AIA "authorizes the Director of the USPTO to set or adjust by rule all patent and trademark fees established, authorized, or charged under Title 35 of the U.S. Code."[85] This new-found authority allows the USPTO to continue its "commitment to fiscal responsibility, financial prudence and *operational efficiency*."[86] A principal aspect of operational efficiency includes the examination of patent applications.

The AIA outlines a process for the USPTO to set or adjust fees by rule, and the process to do so includes two different points in time for the public to comment on proposed fee amounts.[87] These public comment periods would allow industries and businesses to comment on proposed fee increases to allow for researching, developing, and integrating AI systems to both improve the speed at which the USPTO processes its patent applications while also ensuring the patent applications are of higher quality. Thus, the USPTO could increase prices on patent applications.[88] There may also be potential setbacks with implementing new AI technology, which should be discussed amongst the public while the USPTO considers how to properly integrate an AI system to review patent applications.[89]

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in determining how to deploy AI-based technologies in ways that promote, not hinder, democratic values," thus concluding, "AI research, systems development, and social and regulatory frameworks will shape how the benefits of AI are weighed against its costs and risks, and how broadly these benefits are spread").

84. STRATEGIC PLAN, *supra* note 44, at 24 ("[T]he AIA gave us authority to set fees by regulation, it also includes a seven-year sunset provision. We are committed to taking the steps necessary to ensure that fee setting is made permanent. One way of validating the need for permanent fee-setting authority is to continuously review and refine the fee structure using all analytical tools available to make sure we are recovering costs that are deemed to be reasonable.").

85. *Fee Setting and Adjusting*, U.S. PAT. & TRADEMARK OFF., https://www.uspto.gov/about-us/performance-and-planning/fee-setting-and-adjusting [https://perma.cc/7M2B-7FTA].

86. *Id.* (emphasis added).

87. *Id.*

88. STRATEGIC PLAN, *supra* note 44, at 24.

89. Matthew Herper, *MD Anderson Benches IBM Watson in Setback for Artificial Intelligence in Medicine*, FORBES (Feb. 19, 2017), https://www.forbes.com/sites/matthewherper/2017/02/19/md-anderson-benches-ibm-watson-in-setback-for-artificial-intelligence-in-medicine/#26894eea3774 [https://perma.cc/35AX-4UH9] (reporting on problems with integrating IBM's Watson with other companies' software services).

Conclusion

For the USPTO to carry out its function to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries,"[90] and to maintain its position at "the cutting edge of the nation's technological progress and achievement,"[91] there must be a spur in innovation from the USPTO to handle AI-driven innovation. The global economy depends on the USPTO to issue quality patents in a quick and efficient manner. For this result, this Note makes three recommendations. First, the USPTO must initiate a public dialogue on how to appropriately integrate AI systems into the USPTO's patent examination process to handle the upcoming wave of AI-driven innovation. Second, Congress should divert funding to the USPTO to begin integrating AI into their systems. And third, the USPTO should use a portion of the fees collected from patent applications to invest in AI systems, rather than its current plan of hiring additional human examiners. It will be slow, and there will likely be tough questions along the way, but the longer we wait in planning for the inevitable, the more AI progresses and the more the USPTO falls behind. If the USPTO does not plan accordingly, the global economy will suffer the consequences.

Matthew Melançon

90. U.S. CONST. art. I, § 8, cl. 8.

91. U.S. PAT. & TRADEMARK OFF., *supra* note 11.

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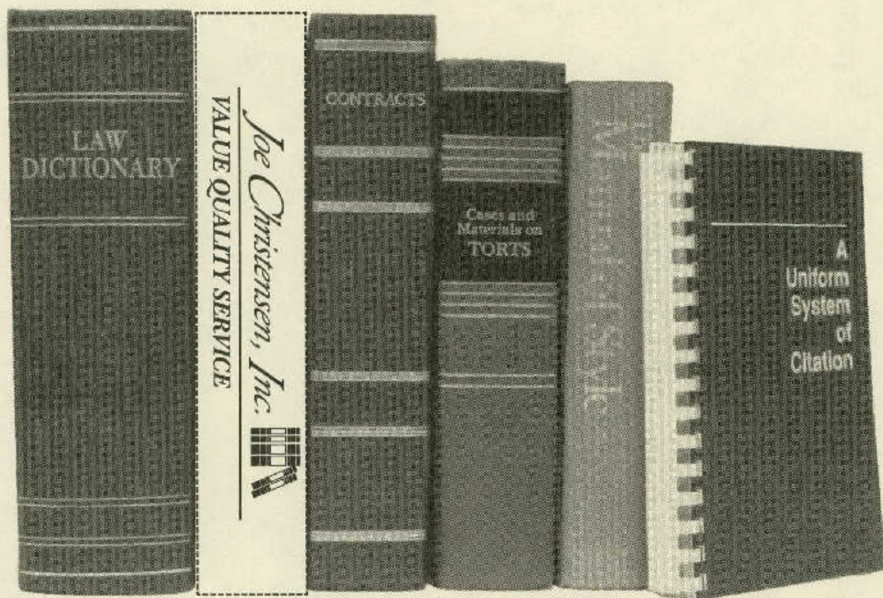

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