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The Inefficient Evolution of Merger Agreements

Jeffrey Manns  
*George Washington University Law School, jmanns@law.gwu.edu*

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The Inefficient Evolution of Merger Agreements

*Robert Anderson† and Jeffrey Manns††*

**Abstract**

Transactional law is one of the most economically significant areas of legal practice and accounts for a large percentage of the profits and staffing at most elite law firms. But in spite of its economic importance, there has been almost no empirical work on the legal drafting process and the evolution of transactional documents over time. We have sought to fill this gap by analyzing the evolution of public company merger agreements in a dataset that encompasses 12,000 merger agreements over a 20-year period. Using computer textual analysis, we are able to identify the precedent, an earlier merger agreement, which serves as the template for the drafting of each deal. This approach allows us to construct comprehensive “family trees” of merger agreements, which we use to show how agreements are created and how they change over time.

We use this innovative approach to explore whether transactional drafting is driven by a rational process that minimizes the cost of deal documentation and risk to clients or by an ad hoc process that increases billable hours and risk. We show that a high level of “editorial churning,” ad hoc edits that appear to be cosmetic rather than substantive, takes place in legal drafting. Over half of the text of merger agreements is routinely rewritten during the drafting process even though the substantive provisions of merger agreements have similar features. Significant variation exists among merger agreements.

† Associate Professor, Pepperdine University School of Law.
†† Associate Professor, George Washington University Law School. We would like to thank participants in the AALS Section on Transactional Law and Skills for their helpful comments.
agreements even involving the same firm as there is no evidence of firm-specific templates or industry-specific templates in most cases. Lawyers appear to choose earlier merger agreements as deal templates based on familiarity with past deals rather than based on the economic needs of clients or cost mitigation. Our empirical findings provide strong evidence of significant (structural) inefficiency in the drafting process which raises costs and risk to clients.

We argue that this inefficiency calls for an industry-wide solution of creating standardized templates for merger agreements that could be used across firms. The use of standardized documentation would help to minimize the time consuming (and expensive) drafting process of lawyer- and firm-specific edits that do little, if anything, to protect clients or affect the substance of the transaction. Furthermore, deal term standardization would have positive externalities as judicial opinions crystalize the meaning of standardized text. In addition, our analysis suggests that, somewhat counterintuitively, the failure to standardize text actually may stifle true innovation in the transactional context. We argue that by establishing an industry-wide set of “base documents,” lawyers could create the technological platform on which to create truly innovative solutions for clients at lower cost. While lawyers may not have the self-interest to embrace a standardized set of documents on their own, we argue that repeat-player private equity firms or trade associations for the private equity industry may have the economic interest and leverage to push for greater standardization.
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Introduction

Transactional law accounts for approximately 32% of the revenue of Am Law 50 firms, nearly as much as litigation,\(^1\) and is an outsized driver of profitability and prestige for elite firms.\(^2\) Transactional lawyers draft the terms contained in documents that delineate the rights and duties for trillions of dollars of transfers every year.\(^3\) This work product has potentially staggering importance as the legally operative terms in these agreements have the potential to meet or frustrate the economic motivations of enormous transfers of capital in the United States and world economy.

In spite of its economic importance, there has been almost no empirical work on the legal drafting process in transactional law.\(^4\) Most articles about transactional drafting either deal with pedagogical issues in teaching legal drafting or with specific substantive aspects of law.\(^5\) In contrast, the process by which transactional lawyers draft documents that shape capital flows of trillions of dollars remains almost completely unstudied.\(^6\)

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4 There have been many studies of specific deal terms, such as MAC Clauses. See, e.g., Talley & O’Kane, *The Measure of a MAC: A Machine-Learning Protocol for Tokenizing Force Majeure Clauses in M&A Agreements*, 168 J. INST. & TH. ECON. 181 (2012); Eric L. Talley, *On Uncertainty, Ambiguity, and Contractual Conditions*, 34 DEL. J. CORP. L. 755 (2009). However, most studies do not address transactional practice overall, but specific provisions within that practice.

5 See, e.g., Afra Afsharipour, *Transforming the Allocation of Deal Risk Through Reverse Termination Fees*, 63 VAND. L. REV. 1161, 1165–67, 1175, 1181 (2010) (discussing attempts at reallocating deal risks through reverse termination fees that compensate target companies should the buyer walk away and

One notable exception is Ronald Gilson’s seminal article on the value-added from transactional lawyers, which focused attention on the constructive role of transactional lawyers. See, e.g., Ronald J. Gilson, *Value Creation by Business Lawyers: Legal Skills and Asset Pricing*, 94 YALE L.J. 239, 243, 254–55 (1984) [hereinafter Gilson, *Value Creation*] (observing that “the academic literature assume[s] that business lawyers increase the value of a transaction” and arguing that M&A lawyers add value by designing provisions in acquisition agreements that reduce transaction costs and increase mutual gain); see also Steven L. Schwarz, *Explaining the Value of Transactional Lawyer*, 12 STAN. J.L. BUS. & FIN. 486, 487–88, 506–07 (2007) (using survey data from transactional lawyers and their clients to argue that lawyers add value to transactions primarily by reducing regulatory costs through legal expertise rather than more broadly reducing transactions costs or adding reputational value).
We have sought to fill this gap by analyzing the evolution of public company merger agreements in a dataset that encompasses 12,000 merger agreements over a 20-year period. Using computer textual analysis, we are able to identify the precedent, an earlier merger agreement, which serves as the template for the drafting of each deal.\(^7\) This approach allows us to construct comprehensive “family trees” of merger agreements, which we use to show how agreements are created and how they change over time.

We use this innovative approach to explore whether transactional drafting is driven by a rational process that minimizes the cost of deal documentation and risk to clients or by an ad hoc process that increases billable hours and risk. We show that a high level of “editorial churning,” unnecessary and ad hoc edits that appear to be cosmetic rather than substantive, takes place in legal drafting. This churning appears to go far beyond the necessary deal-specific edits,\(^8\) with over half of the text of merger agreements are routinely rewritten even though the substantive provisions of merger agreements have similar features.

We show that public merger agreement terms are not based off a common “form” agreement, but rather are the product of an “evolution” over many generations. This is true even within large law firms, where drafts are based on prior agreements rather than standardized form language. The absence of even firm-specific forms has led to

\(^7\) See, e.g., Tina L. Stark, Drafting Contracts: How and Why Lawyers Do What They Do 335-36 (2007) (discussing the benefits of heightened efficiency and legal certainty from precedent-based legal drafting).

haphazard and inconsistent lawyering as lawyers add significant amounts of extraneous information to each deal and inadvertently retain deal-specific information from prior deals. This fact underscores the inefficiency of current deal drafting processes and undercuts the argument that merger agreements are distinctively crafted (at great expense!) to suit the needs of clients.

We argue that the remarkable heterogeneity of acquisition agreements reflects lawyers’ tendency to use precedents that they are more familiar with or relate to the particular client they are dealing with, rather than those that may be more readily adapted to the transaction at hand. The result is a path dependent process of deal term evolution that thwarts standardization even within firms and leads to systematic inefficiencies in the acquisition agreement drafting process which raises costs and risk to clients.

The high degree of drafting inefficiency suggests the desirability of a transition to greater standardization of acquisition agreements, and we provide an approach that could assist that process. Our technique enables drafters to see the edits that have been made over the past few generations of a draft lineage, allowing them to more easily reverse non-standardized text embedded in a precedent document. This approach would help to transform acquisition agreements from opaque, byzantine documents into easily comparable agreements that would entail lower cost to produce and would create higher legal certainty. We suggest how private equity firms (or trade associations representing

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the private equity industry) could take the lead in the standardization process based on their repeat player interaction with law firms.

Although we focus on the public company merger context, our argument may extend to a far broader spectrum of transactional contexts. If there is evidence of systematic inefficiency in the merger agreement context where there is transparency of the end product, we would expect there is an even greater risk of an absence of standardization and editorial churning in other transactional contexts where there is little to no transparency of the deal documents.\(^\text{10}\) Deal lawyers face a paradox – standardization reduces transaction costs and thus helps their clients, but also may cut into the bottom line of their firm’s revenues.\(^\text{11}\) We argue that just as merger agreement standardization may allow transactional lawyers to focus on where they can add value to a merger or acquisition that the same logic applies in other transactional contexts. But a similar challenge exists across transactional law as lawyers have every temptation to stick with the lucrative status quo unless clients themselves push for greater standardization across the spectrum of transactional law contexts.\(^\text{12}\)

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\(^{11}\) See, e.g., Maurits Dolmans, Standards for Standards, 26 FORDHAM INT’L L.J. 163, 166 (discussing how standardization reduces barriers to entry).

\(^{12}\) See, e.g., Gilson, Value Creation, supra note 6, at 289-93 (discussing how the focus of transactional lawyers is often on upholding their reputations); Jeffrey Manns & Robert Anderson, The Merger Agreement Myth, 98 CORNELL L. REV. 1143, 1173-74 (2013) (discussing how much of the perceived value-added from M&A lawyers appears to be from their reputational intermediary role and due diligence function); Steven L. Schwarcz, Regulating Complexity in Financial Markets, 87 WASH. U. L. REV. 211, 260 n.279 (2009) (discussing the significance of the role of transactional lawyers as “reputational intermediaries”).
We organize this paper by first describing in Part I the background to transactional practice that is necessary to understand the approach we take. Next, in Part II we will describe our dataset of merger agreements. In Part III we will demonstrate that in contrast to the degree of standardization or convergence we expected to see, we find an incredible degree of variety in the agreements studied.

In Part IV, we will create several “phylogenetic trees” of the set of merger agreements, showing how agreements have evolved over time. We find clear evidence that in most cases there are no standardized “forms,” but rather “lineages” of agreements that drift rapidly from their original forms. In Part V, we will explain why the agreements have evolved in this way. We show that it is predominantly prior firm connection, rather than similarity of the deals, that drives precedent selection. We also discuss the problems associated with the random drift of deal documents. The lack of standardization makes agreements more costly and difficult to interpret, it results in less case law and therefore more uncertain legal outcomes. In Part VI, we will offer some steps toward solutions that will better integrate legal practice with the needs of modern capital markets.

I. Transactional Practice Background

The deal drafting process has been all but ignored by legal scholars. This issue is not limited to mergers and acquisitions as legal scholarship has explored remarkably little about the deal drafting process.\textsuperscript{13} Most corporate law professors’ understanding of deal

\textsuperscript{13} The seminal article on legal drafting is Ronald Gilson’s article on the value added by transactional lawyers. See Gilson, \textit{Value Creation}, supra note 6, at 254–55. But Gilson’s work and others who have written on transactional law have largely overlooked the legal drafting process, and instead have focused on
making appears formed by their own idiosyncratic experience in practice in corporate law that was shaped by the law firm they worked for as well as the partners and associates they worked with. The emphasis is on the word idiosyncratic as even a cursory examination of the products of transactional law reveals the remarkable degree of divergence in deal design, not only from firm to firm but also from transaction to transaction for deals involving particular firms. This fact raises the concern that surveys of lawyers or other more anecdotal ways of gathering information about the deal making process would fail to capture what is actually happening in deal making across firms.

The dearth of academic research on legal drafting is so severe that little is known about where deal documents come from beyond the rudimentary insight that transactional lawyers start off with precedents from past deals as a template for the new deal. Even less is known about how deal documents evolve over time and who shapes the de facto standard setting process. The stakes are high as developing a better understanding of how deal terms develop and diverge in different areas of transactional law is key to creating incentives for greater standardization and reducing inefficiency, so that lawyers can focus on truly adding value for their clients.

For this reason we seek to step back from individual lawyers’ perspectives and deploy quantitative techniques to compare the deal documents that lawyers produce. Our study addresses a number of unanswered empirical questions concerning legal drafting.

abstract questions of value creation, see infra note 6, or more narrow questions concerning the interpretation of particular merger agreement provisions. See infra notes 4 & 5. The irony is that the legal drafting process itself is at the heart of the question of value creation as inefficiencies in the drafting process both raise cost and as importantly distract lawyers from focusing on where they can add value to their clients.
Where do the terms contained in these documents come from? How standardized are the terms across transactions? How does the evolution of deal documents shape their form and substance? The answers to these questions have broad implications for transactional law scholarship, for the training of law school students and lawyers in transactional law practice, and for clients to assess the degree of inefficiency in transactional lawyering.

To be able to assess the work product of lawyers, it is important to have an understanding of the goals of the transactional drafting process. The bulk of the work in transactional law practice involves memorializing deal terms in documents that delineate the deal’s details and structure. To create these documents, deal lawyers do not write new documents from scratch. Instead, they work from “precedents” from past deals that provide a template of established law and practice with provisions that reflect firm-specific or partner-specific conventions. For example, lawyers representing an acquirer in an M&A transaction typically choose the precedent used in the deal which sets the defaults and baseline for negotiations among the lawyers (and their clients).

The widespread use of precedent-based drafting means that the first draft of the terms of virtually every deal are based upon and adapted from a prior deal, its “precedent.” This approach mitigates some of the inherent uncertainties by leveraging

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14 See, e.g., Scott J. Burnham, Drafting and Analyzing Contracts 5-6 (2003) (discussing how attorneys “rarely start to draft on a blank slate … [and generally] start with an existing contract or form”).
16 See, e.g., Scott Austin, Acquirers Back in the Game, But VCs Advised to Tread Carefully, WALL ST. J., Apr. 29, 2009 (discussing norm for acquirers to make the first draft of the merger agreement).
past experience and saves time and money compared to drafting from scratch.\textsuperscript{18} In each case, the precedent document must be adapted to the present transaction, which involves decustomizing the terms specifically crafted for the last transaction and recustomizing the terms specifically crafted for the present transaction.\textsuperscript{19} Although some decustomization is obvious (such as names and dates), other terms in a precedent document may appear generic but were actually specifically crafted for the particular situation of the precedent deal.

The precedent-based drafting approach makes it possible to systematically study transactional practice. If the precedent for each deal is known, then we can study the changes made from deal to deal, as well as the overall evolution of the deal terms. The ability to compare a document to its precedent exposes each and every edit made during the drafting process, offering an unparalleled view into the work that transactional lawyers do. The barrier to conducting this type of research is the difficulty of finding a complete corpus of documents and their precedents as well as the ability to trace the ancestry of individual documents in such a corpus.

We surmount this obstacle by using documents from the one segment of transactional practice where almost all precedents are publicly available—public company mergers. Public company merger agreements offer a unique opportunity to


study the evolution of transactional documents for three reasons. First, public company merger agreements are among the most visible and high-profile documents in all of transactional legal practice, and therefore reflect the investment of considerable legal time and attention.  

Second, we are able to construct an almost complete genealogy of these documents as virtually all public company merger documents are based on other publicly available merger documents. SEC disclosure rules allowed us to acquire each of the 12,000 public company merger agreements from 1994 to 2014, and we can put together a comprehensive picture of the evolution of merger agreements. Third, these documents almost always identify the law firms and lawyers who generated them, making it possible to trace their connection to specific firms and individuals who may serve as the catalysts for innovation (or for standardization). These features allow us to examine the drafting work performed by transactional lawyers from one deal to the next and to analyze the evolution of documents both within and across law firms.

In this precedent-based drafting process, the choice of precedent becomes significant in setting the defaults and baselines for the negotiating process among lawyers (and their clients). Generally lawyers believe that the ability to create the first draft offers an advantage in giving lawyers the chance to choose the precedent and shape it to meet the

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20 See, e.g., Gilson, Value Creation, supra note 6, at 243, 254–55 (observing that corporate acquisition agreements are “among the highest forms of the business lawyer's craft”).

21 Our dataset consists of 12,407 merger agreements filed with the Securities and Exchange Commission between 1994 and 2014. We obtained this data from the Archive Indices of the SEC EDGAR Database. See http://www.sec.gov/cgi-bin/edgar_archive_indices.

22 See Securities & Exchange Commission, Form 8-K, Item 1.01 (requiring companies to disclose material definitive agreements outside of the ordinary course of business, a category which includes merger agreements).
needs of the new deal. The convention in an M&A deal is that the acquirer’s counsel typically creates the first draft, which entails choosing the precedent. The acquirer’s counsel then forwards the draft to the target’s counsel, who will propose a set of changes. Target counsel rarely rewrite the agreement, and instead generally seek to work within the basic framework of the document to meet his or her client’s objectives as it is considered a breach of deal etiquette for the seller’s counsel to change the “form” of the agreement.

The end product is often quite different from the original precedent. But the fingerprints or DNA of the original document are never fully erased. This is because much of the idiosyncratic wording of the precedent document is retained in the final product, even after heavy editing. This fact allows us to recreate the entire “family tree” of public company merger agreements by comparing the text of the documents word-for-word and linking precedents to their antecedents. Because of SEC disclosure rules, we are able to acquire each public company merger agreement over a twenty-year period and can put together a comprehensive picture of the evolution of merger agreements.

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23 See James C. Freund, Anatomy of a Merger: Strategies and Techniques for Negotiating Corporate Acquisitions 26-27 (1975). (discussing how the power to make the first draft gives the drafter leverage over other parties).
25 See David C. Burgess et al., Drafting Business Contracts §1.21 (2015) (discussing the limitations lawyers face in suggesting revisions to a draft).
26 See Freund, supra note 20, at 28 (“Typically, the seller should live with the purchaser’s form of agreement, without being precluded in any way from negotiating any and all substantive matters”) (emphasis in original).
27 See Securities & Exchange Commission, Form 8-K, Item 1.01 (requiring companies to disclose material definitive agreements outside of the ordinary course of business, a category which includes merger agreements).
Public company acquisition agreements illustrate the role of precedents. Acquisition agreements generally follow the broad contours of earlier agreements with standardized categories of provisions, but they are also products of extensive negotiations tailored to the particulars of the transaction. Transaction-specific provisions identify the transaction’s structure and the timing and location of the closing, as well as the price and payment formula for converting or buying shares.

The more generic provisions include representations and warranties, contractual constraints on the target company during the pre-closing period, and conditions to closing. These provisions combine standardized provisions and highly negotiated terms. Representations and warranties entail assertions about the target company’s business, balance sheets, and potential liabilities to address uncertainties uncovered in the pre-signing due diligence review of the target. Covenants and closing conditions define the rights and responsibilities of the parties during the pre-closing period and the extent of

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29 See JAMES C. FREUND, ANATOMY OF A MERGER: STRATEGIES AND TECHNIQUES FOR NEGOTIATING CORPORATE ACQUISITIONS 140 (1975) ("[M]ost agreements utilized in the merger and acquisition field . . . [include] abundant instances of nearly identical words, phrases and clauses, suggesting that respectful plagiarism is indeed the order of the day."); Gilson, Value Creation, supra note 6, at 257–62, 257 n.45; EVAN L. GREEBEL, KEY PRIORITIES FOR BUYERS AND SELLERS IN ACQUISITIONS OF PUBLIC AND PRIVATE COMPANIES 2–8 (Aspatore 2011) (discussing lawyers’ focal points in negotiating merger agreements).

30 See THERESE H. MAYNARD, Mergers and Acquisitions: Cases, Materials, and Problems 317 (2009) (discussing how “the basic architecture of any acquisition agreement follows a certain convention regardless of deal structure”); Gilson, Value Creation, supra note 6, at 257–62 (discussing the standardization of the form of acquisition agreements).


32 See Alyssa A. Grikscheit & Gavin D. Solotar, Key Issues in Drafting and Negotiating Acquisition Agreements, in DRAFTING AND NEGOTIATING CORPORATE AGREEMENTS 183–89 (2012 Practicing Law Institute, PLI Order No. 34774, Jan. 25, 2012) (detailing the types of contractual constraints that parties face in mergers).

33 See Gilson, Value Creation, supra note 6, at 259–60; Kling et al., supra note 13, at 781–95.
the parties’ obligations to close the transaction. 34 These contractual constraints delineate how breach of warranties and representations, failures to satisfy conditions, or other circumstances that the parties agree upon can trigger walk-away rights for one or both parties and/or termination fees. 35 The tension in covenant and closing condition negotiations is that target company lawyers generally seek to heighten the certainty of closing, 36 while the acquirer’s lawyers seek to preserve flexibility to withdraw or rework the deal if the expectations are not met. 37

Law firms have traditionally emphasized the distinctiveness of their acquisition agreement precedents as a virtue. This study shows how that this alleged virtue is a potential vice for clients as firms have failed to put together standardized agreements and instead rely on labor-intensive edits that churn billable hours rather than add value to clients. Our study offers a first look at the significant degree of divergence in acquisition agreement provisions, as well as the degree to which merger negotiations lead to extraneous changes from deal to deal.

34 See William J. Carney, Mergers and Acquisitions: Essentials 106–09 (2009). Material Adverse Change (or Material Adverse Event) clauses specify which events entitle an acquirer to call off a deal if events occur between signing and closing that make the deal less advantageous than expected. See Schwartz, Standard Clause, supra note 5, at 817–23. Deal Protection provisions are designed to reduce the likelihood that the target board will walk away from the agreement or to require the target to compensate the acquiring company if the target does walk away in favor of a third-party bidder. See Stephen M. Bainbridge, Exclusive Merger Agreements and Lock-Ups in Negotiated Corporate Acquisitions, 75 Minn. L. Rev. 239, 242–46 (1990).

35 See Afsharipour, supra note 5, at 1163–64, 1179–1184 (discussing MAC/MAE termination fees paid for by either the purchaser or seller depending on the terms of the acquisition agreement); Gilson, Value Creation, supra note 6, at 259–60; Kling et al., supra note 12, at 781–94; see also Choi & Triantis, supra note 5, at 892–93.


37 See Choi & Triantis, supra note 5, at 860–65 (arguing that in negotiations, acquirers aim to preserve as great a degree of flexibility as possible in order “to terminate, cancel, or be excused from [their] obligations”).
II. The Merger Agreement Dataset

Our dataset consists of 12,407 merger agreements filed with the Securities and Exchange Commission between 1994 and 2014. We obtained this data from the Archive Indices of the SEC EDGAR Database. A computer script was used to visit each URL contained in these indices and determine which filings contained exhibits labeled Exhibit 2, which is where acquisition agreements are typically filed. The computer script collected the full text of each agreement for analysis.

We refined this initial set of agreements by including only agreements whose titles contained the terms “merger” or “reorganization.” This refines the focus to the narrow category of merger agreements that are reliably filed on the EDGAR system, and excludes other agreement types also filed under Exhibit 2. The data were further curated to eliminate exact and near duplicates as well as very short agreements that were intra-firm reorganizations, such as mergers to reincorporate from one state to another.

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39 Exhibit 2 is the exhibit where merger agreements are filed, along with any other “plan of acquisition, reorganization, arrangement, liquidation or succession.” See 17 CFR 229.601(b)(2). Such agreements can also be filed under Exhibit 10, but primarily when they relate to other companies such as subsidiaries.
40 This approach eliminates agreement types that may overlap, such as “Contribution Agreement,” “Stock Purchase Agreement,” “Asset Purchase Agreement,” “Transaction Agreement,” “Share Exchange Agreement,” “Arrangement Agreement,” and the like. Although these agreements certainly contain overlapping language, we focused on documents that were clearly public company acquisition agreements. We also eliminated very short documents that are less than 15,000 characters because these agreements likely did not address the complex issues raised in larger public company acquisitions. We also excluded mutual holding company conversions.
41 Near duplicates were defined as those documents filed within 100 days of each other and having 97% or more similarity to one another. Most of these were the identical document, but some were amended and restated versions of the same document. Many of the documents contained extraneous text such as attachments to the main merger agreement. To remove this text, we disregarded text following the first occurrence (if any) of “In witness whereof,” which typically signals the end of a merger agreement.
With our dataset of agreements thus compiled, we used a combination of computer scripts and hand-coding to identify the law firms representing the acquiring company and the target company in each transaction.\textsuperscript{42} In addition, we collected the SIC codes for the company filing the agreement and the dates of the filings.

The heart of our analysis is our word-for-word comparison of each agreement to each other agreement using the “edit distance” (also called Levenshtein distance) between each pair of agreements.\textsuperscript{43} When one document is copied from another, it retains substantial word-for-word similarity to its precedent, even after significant editing. This similarity is not present among documents that were not copied directly or indirectly from one another, even when the documents deal with identical subject matter. The techniques we use are similar to those used to detect plagiarism in writing,\textsuperscript{44} which can detect common ancestry of texts even after significant editing.

To determine the similarity of the merger agreements, we used a computer program to compute the “edit distance” between each pair of agreements. Edit distance is an inexact or “fuzzy” matching approach to measuring of textual similarity or dissimilarity based on the number of insertions and deletions (i.e., “edits”) necessary to transform one document

\textsuperscript{42} In some cases there truly was no “acquiring” and “target” company, as in a some “merger of equals” transactions in which a holding company structure is used. \textit{See} LOU R. KLING & EILEEN NUGENT, NEGOTIATED ACQUISITIONS OF COMPANIES, SUBSIDIARIES AND DIVISIONS 1-15 (2015) (describing such a structure). In such cases the first company listed in the notice provision was arbitrarily treated as the acquiring company.

\textsuperscript{43} \textit{See} DAN GUSFIELD, ALGORITHMS ON STRINGS, TREES, AND SEQUENCES: COMPUTER SCIENCE AND COMPUTATIONAL BIOLOGY 215-216 (1997).

\textsuperscript{44} \textit{See}, e.g., Zhan Su; Byung-Ryul Ahn; Ki-Yol Eom; Min-Koo Kang; Jin-Pyung Kim; Moon-Kyun Kim, Plagiarism Detection Using the Levenshtein Distance and Smith-Waterman Algorithm, INTERNATIONAL J. INNOVATIVE COMPUTING INFORMATION AND CONTROL 569 (2008).
into the other. The concept is very similar to what is displayed when one document is “blacklined” or “redlined” against another document. Thus, this process is similar to blacklining documents against one another (about 77 million times) and looking for those blacklines with the fewest edits. The word-for-word comparisons of 77 million pairs of documents requires substantial computing resources, so we used certain techniques to speed the comparisons.

We focus our analysis on pairs of documents with edit distance of less than 75% (i.e., pairs that are more than 25% similar to each other). Although 25% similarity may not sound very similar, in fact it is quite unusual to find two merger agreements with greater similarity under the edit distance measure. The number of matches for any given agreement increases dramatically below 25% similarity, so similarity below this level is generally not meaningful.

**Descriptive Statistics**

The most striking feature of our initial analysis of merger agreements is the high degree of diversity both in terms of their textual provisions and their antecedent merger templates. Although merger agreements are thought to have a great deal of substantive similarity, textually the vast majority of merger agreements have very little in common. Table I underscores the small degree of commonalities across merger agreements. The

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46 Specifically, we compressed the documents by eliminating the 500 most common words in the dataset from each agreement. This approach reduced the total amount of text in the average agreement by approximately 50%, but had almost no effect on the accuracy of the computations. This “compressed” version of the documents produced pairwise distance comparisons that correlated at .953 with the original documents in the range of distances we examine (greater than 20% similarity).
mean degree of similarity among documents is 19.5% (7.4% on the compressed scale),
and the median degree of similarity is 19.9% (7.8% on the compressed scale). Thus, only
a tiny fraction of agreements “match” (similarity of 25% or more on the compressed
scale). Indeed, 99.76% of individual pairs of agreements are less than 25% similar on the
compressed scale. This fact suggests that there is remarkable heterogeneity in merger
agreements in spite of the fact that all of these agreements deal with the same general
type of transaction and each agreement begins with a precedent acquisition agreement
from an earlier deal.

<table>
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<tr>
<th>Table I. Similarity distribution of the data.</th>
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<tbody>
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<tr>
<td>More than 30% Similar</td>
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<td>Full Documents</td>
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<tr>
<td>0.5%</td>
</tr>
<tr>
<td>Compressed Documents</td>
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<tr>
<td>&lt;0.1%</td>
</tr>
<tr>
<td>25-30% Similar</td>
</tr>
<tr>
<td>Full Documents</td>
</tr>
<tr>
<td>3.8%</td>
</tr>
<tr>
<td>Compressed Documents</td>
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<tr>
<td>0.1%</td>
</tr>
<tr>
<td>20-25% Similar</td>
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<td>Full Documents</td>
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<tr>
<td>44.7%</td>
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<td>0.2%</td>
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<td>15-20% Similar</td>
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<td>1.4%</td>
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<tr>
<td>10-15% Similar</td>
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<tr>
<td>7.4%</td>
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<tr>
<td>Compressed Documents</td>
</tr>
<tr>
<td>15.3%</td>
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<tr>
<td>Less than 10% Similar</td>
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<tr>
<td>Full Documents</td>
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<tr>
<td>3.4%</td>
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<tr>
<td>Compressed Documents</td>
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<tr>
<td>83%</td>
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<tr>
<td>Median</td>
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<tr>
<td>19.9%</td>
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<tr>
<td>Mean</td>
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<tr>
<td>19.5%</td>
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<tr>
<td>Compressed Documents</td>
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<tr>
<td>7.4%</td>
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<tr>
<td>7.8%</td>
</tr>
</tbody>
</table>

*Based on sample of 50,000 random comparisons drawn from the documents. The
correlation between the compressed distances and the full document distances was .953
in the range of our analysis (greater than 25% similarity).

III. An Empirical Take on Transactional Practice

Our method was able to identify a clear precedent deal for most of the agreements
in the dataset. This fact means that most merger agreements were copied from another
merger agreement that served as a template. The fact that we can identify the sources of
merger agreements means that we can also observe the changes that were made in the
drafting process, something previously only known to the drafters themselves. Thus,
using this data we are able to empirically derive systematic conclusions about
transactional legal practice that were previously based only on extrapolation of lawyers’ personal experience.

We are interested in using this information to address three main questions. First, how are precedent documents chosen by lawyers? What are the factors that lead toward the decision to use a particular agreement as a model rather than another? Second, what are the changes that are made from the precedent to the draft? How many edits are made and why types of edits are made? Is text that was contained in the precedent document inadvertently retained in the new draft? Third, how do these documents evolve over time?

The conventional wisdom would predict four principal criteria on which law firms are likely to choose precedents. First, law firms are more likely to choose precedents from past deals in which the same firm was involved.47 Second, law firms are more likely to choose precedents from past deals in the same or a related industry.48 Third, law firms are more likely to prefer more recent precedents to older ones.49 Fourth, law firms are more likely to prefer precedents from similar deal structures (e.g., cash versus stock consideration, merger of equals versus acquisition, strategic versus financial acquisition, etc.).50 We investigate each of these assumptions empirically below.

47 See, e.g., Gur Huberman, *Familiarity Breeds Investment*, 14 REV. FIN. STUD. 659, 659-60 (2001) (discussing “familiarity bias” which tilts decision-making in favor of contexts of existing knowledge, rather than exploring what is optimal)
48 See, e.g., Geoffrey P. Friesen et al., *Price Trends and Patterns in Technical Analysis: A Theoretical and Empirical Examination*, 33 J. BANKING & FIN. 1089, 1099 (2009) (discussing “representativeness bias,” the tendency to choose related samples as representative, which in the merger agreement context leads lawyers to choose precedents from the same industry).
50 See, e.g., Therese H. Maynard, *Mergers and Acquisitions* 10-11 (2d ed. 2009) (discussing the differences in design of a range of types of merger and acquisition deal structures).
First, we examine the identity law firms of involved in the precedent deal and each law firm’s role in the precedent transaction compared to their identities and roles in the current transaction. Table II illustrates the counts for each category.

<table>
<thead>
<tr>
<th>Table II. Role of each law firm in precedent deal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Represented acquirer in precedent deal</td>
</tr>
<tr>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Acquirer firm’s role in precedent deal</td>
</tr>
<tr>
<td>Target firm’s role in precedent deal</td>
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</tbody>
</table>

The results provide strong empirical confirmation of the conventional wisdom among deal lawyers. The largest number of precedents are ones in which the same law firm represented the acquirer in both deals. The conventional wisdom suggests that the acquirer’s counsel chooses the precedent, and the acquirer’s counsel prefers a precedent in which the acquirer’s counsel represented the acquirer. Our data confirms this pattern of behavior. One reason for this is that acquirer’s counsel are frequently repeat players for the same acquirer client in which case they heavily borrow both substantive and firm-specific provisions related to their client from an earlier precedent. The pattern is evident even when repeat acquirers are excluded, however, suggesting other reasons.

We next examine the industry of the company that filed the precedent document compared to the industry of the company that filed the current document. The industry is given by the (3-digit) SIC codes attached to the party that filed the agreement.\(^{51}\)

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\(^{51}\) In some cases the filer is the acquiring company and in some cases it is the target company.
The “All 3 Digit SIC Codes” column of Table III reveals that although there is some preference for drawing a precedent from the same SIC code, agreements are often (even usually) copied from precedent documents from other industries. When commercial banking deals are excluded (SIC codes beginning with 602), the preference for the same industry is even weaker, at only 28%. The “Banking” column reveals, however, that this pattern is flipped in commercial banking (SIC codes beginning with 602), where the vast majority (75%) of precedents are drawn from within commercial banking. It appears that the industry of the precedent document is highly relevant for the banking industry, but not very relevant for precedent selection in other industries.52

While we do not have conclusive evidence to explain the higher degree of same-industry precedents for commercial banking deals, the most plausible explanation is the high degree of regulation of the financial industry which requires more specialized industry-specific provisions.53

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52 This figure may reflect some bias in favor of finding differences between banking and other industries. This is because almost all banking combinations are between banking companies. Thus, the SIC code will be a banking SIC code whether the filer is the acquiring company or the target company.

We next investigate the age of the precedents that firms use using the dates on which our agreements were filed. We would expect firms to favor precedent documents drafted more recently than those drafted longer in the past. The age of precedent documents used gives some indication of how quickly language obsolesces. The following chart shows the distribution of how old the precedents are relative to the resulting document.

![Figure 1. Age of Precedent Documents.](image-url)
The median number of days between a document and its precedent is 423.5, meaning that the median precedent document is just over a year old. This reflects a fairly strong preference for more recent precedents. Precedents more than three years old are very unusual, suggesting a high perceived rate of obsolescence of contract text.

We now examine how many edits drafters make between the precedent document and the resulting document. Figure 2 below shows the percentage textual similarity between documents and their precedents.
The Figure reveals that documents are quite heavily edited during the drafting process. Although the degree of editing from precedent to final document varies widely, the largest number of documents share about 50% textual similarity to their precedents. Although there are a handful of documents with more than 80% similarity to the underlying precedents, most of those are repeat acquisitions for the same acquiring company.
These figures allow us to make rough estimates of the time lawyers are investing in making edits throughout the drafting and negotiation process. The median number of word edits between a precedent and a document is 21,866, meaning that in the typical drafting process approximately 22,000 words are deleted or inserted in documents that are typically about 27,000 words in length. This fact suggests a remarkable level of editorial churning takes place throughout the drafting process and underscores the lack of standardization even within a given firm.

The results suggest the possibility of excessive editing of the precedent and the final document. It is possible for heavy editing to be necessary between documents because of relevant differences between the two deals, but it is also possible that the heavy editing results from inefficient precedent selection and document design. We explore these topics in more detail below, first by building “family trees” of merger agreement lineages in Part IV, then by examining the relationships among these family lineages in Part V.

IV. A Phylogenetic Tree of Merger Agreements

The analysis above suggests that drafts diverge significantly from their precedent documents, with approximately 50% of the text edited. This fact does not fully answer the question of whether agreements are based off standard forms, because it is possible for documents based off the same standard form to differ significantly if the forms have a large number of variable text or “blanks.” To answer the question of whether standard forms underlie these documents, therefore, we need to examine the network of precedent documents.
Because agreements are created by duplicating a “parent” agreements with edits, we argue that a genetic evolutionary analogy offers the best way to understand the creation and dispersion of legal language in transactional documents. Envisioning legal language as a form of “DNA” of transactions, we use computer textual analysis to identify the likely ancestors and descendants of each agreement, allowing us to build the equivalent of a phylogenetic tree of thousands of agreements. Techniques originally developed for analyzing genetic sequences have been applied in a variety of textual contexts, such as in the analysis of historical manuscripts copied by scribes.

The fact that we can identify likely precedent documents means that we can answer several types of questions that were previously impossible to analyze. For example, how many “lines” or “versions” of agreement forms are there? To what extent do we witness evolutionary dead ends in terms of precedent lineage through a selection process? To what extent is their convergent evolution among different lines of precedents as they incorporate standardized provisions? To what extent is there speciation as precedent lines split or evolve into different versions?

The network of relationships of the agreements shows that there is no one “ancestor” of all agreements, but rather a series of “lineages” that are clustered largely by

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54 A phylogenetic tree is a statistical reconstruction of evolutionary relationships among organisms based on their genetic code. See Masatoshi Nei and Sudhir Kumar, Molecular Evolution and Phylogenetics 73 (2000).

55 Applying phylogenetic methods to text is an example of “phylomemetics,” applying evolutionary theory to explain other processes that incorporate aspects of both path development and change over time. See, e.g., Christopher J. Howe & Heather F. Windram, Phylomemetics—Evolutionary Analysis beyond the Gene, PLOS BIOL. May 2011; 9(5).
law firm. The following three illustrative figures show precedent relationships for clusters of agreements dominated by particular law firms.

**Figure 3. Davis Polk Cluster**
Figure 4. Sullivan & Cromwell Cluster
Figures 3, 4, and 5 represent Davis Polk, Sullivan & Cromwell, and Cooley LLP clusters, respectively. In each figure, documents are represented by the points and the lines connect the documents to their precedents. All three figures serve as evidence of many “lineages” of merger agreements, rather than clusters of agreements based off a form. However, Figures 3 and 4 have different characteristics from Figure 5, although the differences are somewhat subtle. In all three Figures, most agreements have at most one or two descendants, with only a handful having more than two. However, in Figures 3
and 4, there are no “hubs” that account for a large portion of the total number of documents. In contrast, in the Cooley cluster, there is one very important hub that has dozens of descendants within a few generations.

The Davis Polk and Sullivan & Cromwell networks suggest that standardized forms are not widely used within those firms, and that pattern is true of most firms we studied. Even in the Cooley example where forms do appear to be used, most of the agreements do not appear to stem from the form. The merger agreements appear to form precedent “lineages,” in which agreements strongly resemble other individual agreements rather than any apparent attempts to standardize acquisition agreements based on a standardized form. The result is that the text of each agreement reflects a somewhat idiosyncratic path-dependent process of evolution, rather than a standardized design from an industry-wide or even firm-specific standard form.

One striking finding is that standard form agreements are not widely used, even within a given firm. At most firms appear to recycle precedent from a given client, but there is little consistency in acquisition agreements even within a given firm. Instead, there are “lineages” of acquisition agreements that bear the fingerprints of their earlier progenitor precedents. The lack of standardization even within firms suggests there are systematic inefficiencies to the precedent selection and acquisition agreement drafting process.
This practice is illustrated rather dramatically with the case of the American Bar Association’s Model Merger Agreement for the Acquisition of a Public Company, published in 2011. This model agreement, drafted by the ABA’s Mergers and Acquisitions Committee’s Subcommittee on the Acquisition of Public Companies, took over 15 years to produce with the contributions of hundreds of attorneys.56 If any industry-wide model could have the potential to standardize text in the public company market, the ABA’s Model Merger Agreement would be it. Our analysis reveals, however, that the text of the Model Merger Agreement has not been used as the basis for many negotiated merger agreements. Indeed, only one public company merger agreement in our data set of 12,000 mergers appears to have more than a 50% resemblance to the “model.”

The problem is likely not with the Model Merger Agreement itself (as it is hard to imagine a more in-depth attempt at standardization), but with the culture and practice of mergers and acquisitions. A model agreement, no matter how carefully drafted, is not as appealing to practitioners as a negotiated document.

Our analysis suggests the possibility of suboptimal precedent selection and inefficiently high levels of editing. One caveat to this conclusion is that each merger agreement is the product of the union of two or more law firms’ vision for the acquisition agreement. Each document therefore reflects at least a partial cross-fertilization of law

firms’ approaches to drafting. While the acquirer’s counsel takes the lead and chooses the precedent, provisions or changes that the target’s counsel believes are integral will shape the evolution of the agreement. Therefore, it is possible that a significant percentage of agreements reflect the melding of multiple “parent” sources into one. We address this possibility and its implications further in Part VI, below.

V. The Geometry of Merger Agreements

The trends we have observed in merger agreement drafting can be thought of geometrically. We could imagine a spectrum of drafting that ranges from a completely standardized form on one end to a completely artisanal “craft” document on the other. One end of the spectrum is the pure fillable form that consists of fixed text (boilerplate) and variable text (blanks). Such pure forms (often referred to as adhesion contracts) are ubiquitous in small transactions in everyday commerce. In such cases, the pure form’s tenth descendant will not be much more distant from the original than will the ninth, eighth, seventh, or even the second. This is because each time the document is reproduced, the variable text is changed and the fixed text remains intact, meaning that the text overall does not drift much from the original. Although such forms are perhaps most often associated with consumer transactions, they are not limited to that context. The International Swaps and Derivatives Association’s Master Agreement serves as an

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57 There is a rough analogy in the context of molecular evolution with the concept of horizontal gene transfer, in which genes are transferred not from parent to offspring but from one fully developed organism to another. See Carlos F. Amábile-Cuevas & Marina E. Chicurel, Horizontal Gene Transfer, 81 AMER. SCIENTIST 332 (1993).

58 See, e.g., E. Allan Farnsworth, Contracts 296 (3rd ed. 1999) (explaining that “in routine transactions the typical agreement consists of a standard printed form that has been prepared by one party and assented to by the other with little or no opportunity for negotiation”).
example of how a standardized set of terms can serve as a basic framework for hundreds of trillions of dollars of credit risk.\textsuperscript{59}

On the other end of the spectrum is the “artisanal” model where there is no distinction between “fixed” and “variable” text—everything is negotiable.\textsuperscript{60} Although documents are created by copying precedents and therefore immediate descendants will bear a resemblance to their immediate ancestor, remote ancestors quickly become distant from even relatively recent ancestors. When virtually all text in the agreement is negotiable, after many generations the text tends to drift quite far from its original moorings. Much legal drafting falls more in this category than the “fill-in-the-blanks” category.\textsuperscript{61} This type of random selection would foster rapid “speciation” of agreements but would also make it very difficult for any degree of standardization to develop.

In theory, the degree of editing of variable text and the degree of standardization of the “fixed” text are separate. One could have a preprinted boilerplate form with many, many blanks but otherwise fixed text. One could also have a free-form agreement where there is no text but that hews closely to its precedent document. In practice, however, the number of edits and the percentage of fixed text is likely closely connected. Documents

\textsuperscript{59} See, e.g., Norman Menachem Feder, Deconstructing Over-the-Counter Derivatives, 2002 Colum. Bus. L. Rev. 677, 737 (discussing how the ISDA Master Agreement was the first widely used template for swaps); See ROY GOODE, PRINCIPLES OF CORPORATE INSOLVENCY LAW 52-53 (4th ed. 2011) (discussing how the ISDA Master Agreement is one of the most broadly used standardized agreements).


\textsuperscript{61} See, e.g., SUSAN L. BRODY ET AL., LEGAL DRAFTING 3-5 (1994) (discussing “the myth that drafting is merely a fill-in-the-blank activity and explaining the context-specific nature of legal drafting).
that are heavily edited from their precedents are likely to be completely negotiable, and documents that are lightly edited are likely to be mostly non-negotiable.

The empirical reality we observe in our dataset is far closer to the “artisanal” model than the “standardized form” model. Figure 6 shows the distance from the original “ancestor” agreement in lineages that span ten or more generations.
The slope of the line shows that the edits from one generation to another tend to accumulate, meaning that within a few generations the descendant bears much less similarity to its ancestor. The horizontal dashed line is the median similarity of randomly selected documents. Although after ten generations the median similarity to the ancestor remains higher than that of random documents, the graph shows fairly clearly that a document is not much more similar to its ancestor after ten generations than is a random document from the dataset.

The data therefore show that lawyers not only make a significant number of changes while editing a document, but that those changes tend to persist in later generations of descendants of the document, resulting in a marked degree of “drift” from the original text. The high degree of changes from one “generation” of precedent to the next and the persistence of those changes over time suggests that lawyers are making little effort to standardize their agreements.

The excessive editing, together with the other observations made above, reflects a further pathology in drafting—the precedent selection process. It appears that lawyers engage in little effort to identify agreements whose terms are most applicable to the challenges of a particular deal. Instead, lawyers tend to choose very recent precedents from their own firms, rather than more applicable precedents that may be older or drafted by another firm. Thus, the haphazard precedent selection process appears to engender excessive editing, because an ill-fitting precedent will need substantial reworking to suit the needs of the transaction.
The likely reason for the precedent selection pathology is one that most transactional lawyers are familiar with: being tasked by a partner or senior associate to find an example from a firm’s data bases of a past set of deal documents and randomly selecting one of those deal documents to serve as a template. But if a firm had some standardization to its agreements, the firm’s standardized terms would still rise to the surface even from randomly selected agreement templates.

The one exception to this rule is that lawyers appear to use merger agreement templates that involve the same client if the client is a repeat-player. In such cases, the average similarity is generally over 70% from one transaction to another. But this finding only highlights the randomness in other cases. The fact that the same precedent can be adapted with relatively few changes from one target company to another suggests that the extensive edits are not “necessary” in other agreements. The key difference is that in such cases, it is likely client pressure that disciplines the drafting process and keeps the draft document from differing markedly from its precedent. Whether this repeat-player client pressure comes from in-house counsel expecting their earlier deals to serve as templates because of familiarity or demanding greater efficiency from their lawyers, the effect is the same in leading to a greater degree of repeat-player client standardization.

The irony is that indiscriminate copying from past merger actually leads to a large divergence in deal documents over time both because extraneous artifacts live on from one deal to another, and lawyers have to make more changes that may lead to a greater
risk of error or poor drafting that raises risks for clients. Both of these points underscore the desirability of a greater move towards standardization of acquisition agreements. We explore these facets of the analysis in Parts VI and VII, below.

VI. Implications

This project represents a first step in understanding the role of precedents in the deal making process. But our data analysis gives a clear picture of how precedents set the defaults for merger agreement negotiations. The high degree of divergence of the final products from their precedent agreements highlights how the absence of standardization imposes a high cost on clients both in terms of higher billable hours from extensive edits and greater legal uncertainties from the absence of uniform language.

We identify four costs that arise from the system of precedent selection that contribute to the inefficiencies of the drafting process. First, there is the cost of expending efforts to become familiar with deal documents.\textsuperscript{62} Paradoxically, the very cost of familiarity with a multiplicity of agreement forms is what sustains the multiplicity of agreement forms in the first place and thwarts standardization.\textsuperscript{63} Senior associate and junior partner deal lawyers do not have the luxury of time of determining which precedent is best, and instead are likely to start off looking at their own firm’s database of past deals. Even to the extent more senior lawyers are involved in the selection of deal

\textsuperscript{62} Cf. Brian J. Broughman & Darian M. Ibrahim, Delaware’s Familiarity, 52 SAN DIEGO L. REV. 273 (2015) (discussing how familiarity with Delaware law reduces transaction costs and conversely how switching to another state governance regime would significantly raise transaction costs).

\textsuperscript{63} See, e.g., Marcel Kahan & Michael Klausner, Standardization and Innovation in Corporate Contracting, 83 VA. L. REV. 713, 727-29 (1997) (discussing the significant impact of switching costs on corporate contracting).
documents, they are likely to choose deal templates that they are familiar with, rather than to invest the time and energy in figuring out what previous agreement would be best suited for the needs of their clients. The precedent selection process therefore inhibits the ability to standardize agreements.

This cost should not be understated as lawyers are focused on their immediate needs and do not have the luxury of becoming familiar with the diverse array of acquisition agreements that are publicly available. Transactional lawyers frequently scramble to start a deal on short notice and lack incentives to do more than the bare minimum to select a plausible precedent from their firm’s database. Whenever possible, they would likely start and end their search on precedent that relate to their acquirer client. Their search also would be limited to deal documents within their law firm. While each merger agreement reflects a degree of cross-fertilization between firms through the back-and-forth of drafting edits, this focus on a law firm’s own agreements also hinders the potential for standardized deal documents to emerge.

Second, because lawyers choose documents they are familiar with they likely expend more resources than necessary to adapt a familiar draft to a new situation. Simply put, lawyers may have the natural tendency to choose past deals they have worked on for precedents, rather than choosing precedent that is more on point for the industry or particular challenges of a given deal. This will result increased drafting efforts for both sides of the transaction and will lead to higher costs for the client. These

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costs could be mitigated through the selection of precedent that was more on point for the situation.

The third related point is that there are a host of residual costs from imperfect familiarity. Lawyers replicate the same type of precedent selection inefficiencies from deal to deal which thwarts any move towards standardization even within firms. This point raises the concern that agreement lineages within a given firm may reflect the default choices of the partner or senior associate in charge of the initial template selection, rather than any more cogent selection process.

Lastly, there is the residual cost of an “estopped” bargaining position. The absence of standardized acquisition agreements means that the acquirer’s counsel has incentives to use precedent selection as a tool to create leverage vis-à-vis the seller’s counsel. Because the target’s counsel cannot easily push back and demand sweeping changes in negotiations, acquirer’s counsel have incentives to use non-standardized terms that stack the deck in favor of their clients. The net result is that deal terms are highly path dependent in ways that thwart standardization and heighten the inefficiencies of the M&A process.

The irony of the strategic value of framing the negotiations is that individual law firms may have not standardized firm-specific merger agreements in a systematic way in order to gain a greater advantage over the counsel of target companies. The logic may be

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65 See, e.g., DAVID C. BURGESS ET AL., DRAFTING BUSINESS CONTRACTS §1.21 (2015) (discussing the limitations lawyers face in suggesting revisions to a draft).
that too high a degree of standardization would make it easier for repeat-player target
counsel to anticipate and blunt key provisions of firm-specific agreements. Standardization also would reduce barriers to entry to competitors that could erode the
market share of leading firms as there is no intellectual property barrier to copying
another firm’s merger agreement template. As importantly, even though greater firm-
specific standardization might improve firms’ bargaining position, the tradeoff of
foregone billable hours might pose too stark a tradeoff. Here, industry-wide
standardization could help to resolve the prisoner’s dilemma faced by the acquirer’s
counsel.

The fact that precedents appear chosen primarily for familiarity to the acquirer’s
counsel underscores the significant costs to becoming familiar with a precedent. Since
precedents appear chosen primarily for familiarity rather than deal isomorphism, there is
a strong case to be made for creating a lingua franca among deal lawyers by developing a
model acquisition agreement form. This approach would dramatically reduce the costs of
becoming familiar with precedents and focus lawyers on deal-specific issues rather than
being caught up in a game of path development and wasteful haggling among firms.

A related point is that the legal details of merger agreements do not appear to
have much, if any, salience to financial markets.66 Instead, markets appear to value the
reputational intermediary role and the due diligence role that transactional lawyers

66 See Jeffrey Manns & Robert Anderson, The Merger Agreement Myth, 98 CORNELL L. REV. 1143, 1145-
48 (2013).
provide.\textsuperscript{67} This fact reinforces the case for standardization as there does not appear to be any significant market value to law firm’s idiosyncratic process of selecting and tweaking precedents. The use of a standardized master agreement would also have the added value of facilitating the creation of a body of precedent to build up interpreting standard agreements as a whole. Courts in Delaware and elsewhere could more easily scrutinize deviations from a standard form, which over time would lead to greater legal certainty and reduced transaction costs.

\textbf{VII. Steering Law Firms or Their Clients Toward Standardization}

Our goal for this study is to point out the inefficiencies of the deal design process to motivate lawyers to move towards either firm-specific standardization or the broader development of industry standard deal agreements. Greater standardization would help clients by reducing the costs of transactions as well as by reducing the uncertainties created by myriads of ad hoc edits by lawyers.\textsuperscript{68} Moves towards greater standardization would help lawyers by creating a lingua franca of default provisions that could be authoritatively interpreted by courts.\textsuperscript{69} Even if leading firms developed firm-specific standard agreements, it would foster greater fluency.\textsuperscript{70} Law firms would be better

\textsuperscript{67} Id. at 1147-48.
\textsuperscript{70} See, e.g., Abraham L. Wickelgren, Standardization as a Solution to the Reading Costs of Form Contracts, 167 J. INST. & THEORETICAL ECON. 30 (2011) (explaining how moves towards greater use of standard form documents reduces reading costs and enhances fluency among users).
positioned to negotiate on behalf of their clients by focusing on the substantively distinct issues to each deal rather than repeatedly redrafting the same provisions.

The principal barriers to standardization are not the obvious ones of upfront costs. It is true that assembling a standardized merger agreement form for a particular firm entails a substantial investment of upfront, unbillable time and energy and would produce a work product that other firms could easily mimic. But we have strong anecdotal evidence that such “forms initiatives” are common within law firms despite these obstacles. The problem appears to be that such form initiatives are generally unsuccessful because lawyers tend not to use the forms. The attorney creating a document under time pressure tends to start with the precedent that is most familiar, rather than the one that is most standardized. The result is that the documents drift farther and farther over time as edits accumulate across generations.

The individual habits of precedent selection could be overcome by strong pressure from law firm leaders, but they have little incentive to undertake the expense of such initiatives. Although the long-term benefits to clients and the lawyers themselves may be significant, lawyers would likely suffer from the same short-term myopia that leads to increased complexity of computer programs in the software context. Risking the economic model of transactional law for speculative long-term gains from a standardized merger agreement template would likely represent an unacceptable trade off. The lack of

71 Many law firms have collected sample forms for transactional drafting which are available on their intranet sites, and therefore not accessible for citation.

72 Many concepts in software development are analogous to this problem, such as the “law of increasing entropy” as applied to software. See L.A Belady & M.M Lehman, A Model of Large Program Development, IBM SYSTEMS J. 225, 228 (1976) (proposing the “law of increasing entropy” as applied to software).
industry-wide standards has the indirect effect of creating having barriers to entry into the merger and acquisition legal practice since a small number of law firms dominate the market.\textsuperscript{73} The costs of enforcing standards would be borne by firms undertaking the initiatives, while the benefits to standardization would be a public good.\textsuperscript{74}

The reluctance to use industry-wide precedents is a strong cultural norm within law firms. Many large firms have strong cultural norms that their own work product is superior to that of other firms, leading to distrust of forms drafted by others. Our data illustrates this point dramatically through the fact that the ABA Model Merger Agreement, which is the product of many years of work by prominent specialists, has been almost completely ignored as a source of precedent.\textsuperscript{75} We would be naïve not to note, however, that this cultural norm serves to further the self-interest of the incumbents in large law firm practice. Deal lawyers benefit from inefficiency in the drafting process which generates billable hours, and therefore they would not have an economic incentive to invest non-billable hours into creating templates for deal agreements.\textsuperscript{76}

Because the law firm industry itself may not have the appropriate incentives to create standardized text, the next best strategy would be to seek to shame deal lawyers

\textsuperscript{73} See, e.g., Michael L. Katz & Carl Shapiro, \textit{Systems Competition and Network Effects}, 8 J. ECON. PERSP. 93, 107 (Spring 1994) (arguing that firms with good reputations or large existing networks tend to oppose standardization even if it benefits the firm, while firms with smaller networks or weaker reputations tend to favor moves towards standardization to level the playing field).

\textsuperscript{74} See, e.g., Robert B. Ahdieh, \textit{Making Markets: Network Effects and the Role of Law in the Creation of Strong Securities Markets}, 76 S. CAL. L. REV. 277, 310-12 (2003) (discussing how firms are understandably reluctant to invest in the creation of standards that may lower the barriers to entry for competition).

\textsuperscript{75} See \textit{supra} text accompanying note 51.

\textsuperscript{76} See, e.g., Leslie Larkin Cooney, \textit{Walking the Legal Tightrope}, 47 SAN DIEGO L. REV. 421, 435-36 (2010) (discussing how the billable hour rewards inefficiency by creating a conflict of interest between attorneys who are compensated based on time and clients who are solution-oriented).
into addressing the inefficiencies of the drafting process. Shaming is a challenging strategy because lawyers are notorious both for their dearth of shame and the zeal with which they point to technicalities to justify their actions.\textsuperscript{77} For this reason highlighting the shortcomings of M&A lawyers writ large for fostering inefficiency in deal drafting would have little chance of shaming lawyers into moving towards standardization. Lawyers may be quick to point to the intangibles of the drafting process, or they may pin the blame on the intrinsic challenges of negotiating across firms that require back-and-forth nitpicking. Either way lawyers are remarkably skilled at externalizing responsibility or coming up with excuses for problems that they dismiss as systemic.

Our analysis anticipates the ability of lawyers to deflect collective blame. For this reason we focus on leading law firms both to highlight the degree to which individual law firms have failed to develop standardized templates for deals, as well as to focus our shaming efforts on firms who have more to lose from scrutiny. This strategy rests on sounder footing because the leading M&A firms act as reputational intermediaries. The value of their advice and their above-market pricing for their services turns on their reputations as gold standards of the industry for deal-making. Because M&A advising is a significant part of law firm’s overall rankings, leading firms may be particularly vulnerable to transparency that highlights their inefficiencies in drafting. Our approach allows the ranking of law firms based on the degree to which they appear to be engaging in editorial churning, creating the potential to highlight the relative dysfunction of the drafting process.

\textsuperscript{77} See Jonathan Macey, The Death of Corporate Reputation 5-11 (2013) (discussing the decline in reputational constraints on Wall Street actors and financial intermediaries).
One problem with this more focused shaming strategy is that leading M&A firms benefit from the elastic nature of reputation. Since leading M&A firms are trusted advisors with longstanding reputations in the field, it would be difficult to erode the faith that clients place in their services even in the face of evidence of editorial churning which increases billable hours. For this reason we seek to appeal to the self-interest of clients to move towards standardization. Clients who are involved in only occasional mergers and acquisitions may have every reason to look past the bills and focus on the reputational imprimatur that a leading law firm conveys. They may wrongfully believe in the overstatement that each deal has to be carefully tailored to meet the specifics of the clients. While deal-specific provisions are important, lawyers can stretch the deal-specific dimension of deals into a justification for billable efforts that could easily be supplanted by standardized terms.

The hope is that clients who are repeat players in the M&A context would have the economic incentive and ability to scrutinize their lawyers’ work product and to overcome the self-interest and lack of shame of deal lawyers. Large institutional clients such as the Carlyle Group or other private equity firms would have the leverage and the economic incentive to push for standardized acquisition agreements to reduce their overhead costs. The in-house counsel at private equity firms would be in the position to appreciate the inefficiencies of the process (since they generally have started


out on the other side of the process as associates or partners for outside counsel). Since private equity firms are repeat players, their in-house counsel could at minimum demand client-specific standardization which could form a building block towards greater standardization across deals.

The problem may be that even though the costs of M&A lawyers appear high, they are still only a small fraction of the cost of M&A transactions.\textsuperscript{80} This fact may explain why in-house counsel at institutional clients have not invested energy and time in pushing for greater acquisition agreement standardization (or have not sought transaction-based pricing which could create similar incentives for standardization within a given firm). A related challenge is that since in-house counsel at private equity firm are generally trained by elite law firms, they may accept inefficient drafting as a natural part of the process since that’s what they (likely) did when they were partners and senior associates. The general counsel of private equity firm likely choose their outside counsel based on preexisting company-specific and/or individual relationships and may not have the economic interest to extract greater value from their law firms by pushing for intra-firm standardization of deal documents. But highlighting the inefficiencies of the drafting process may give general counsel the tools they need to push for standardized deal templates that reduce the risk that law firms will reinvent the wheel for each transaction through editorial churning. The fact that merger agreements for repeat-player clients have a significantly higher degree of overlap (approximately seventy percent) suggests the plausibility of this strategy. If repeat-player private equity firms were

\textsuperscript{80} See Gilson, \textit{Value Creation}, supra note 6, at 241-42 (discussing how businesspeople often view lawyering costs as a transaction cost which amounts to only a small percentage of the deal).
presented with more clear evidence of the degree of editorial churning, this fact would give them a powerful tool to push for greater firm-specific standardization and efficiency in the drafting process.

The push for a standardized agreement may be difficult given how a small coterie of law firms dominate the M&A market who may enjoy their lucratively inefficient ways. But it is not unprecedented for standardized agreements to arise when there is broad consensus for the desirability for standardized terms and legal certainty in spite of the practice of ad hoc drafting. For example, credit agreements with banks typically follow a standardized forms which reduces risk and uncertainty for the banking industry.

What may be missing is a trade association or other standard setting organization who could represent the interests of corporate clients in having standardized forms. This type of standard-setting organization has arisen in other contexts where all parties involved would benefit from standardization. While the American Bar Association’s Model Agreement ostensibly represents the work product and interest of American lawyers as a whole, it does not represent the interests of the clients of lawyers who are far more likely to have an economic interest in standardization. This fact may help to explain why the ABA’s Model Merger Agreement has been largely ignored as the

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83 See, e.g., Tamar Frankel, Cross-Border Securitization: Without Law, But Not Lawless, 8 DUKE J. COMP. & INT’L L. 255, 280 (1998) (using the example of the development of cross-border securitizations as an illustration of how private sector firms can have convergent incentives both to innovate and standardize).
primary beneficiaries were not involved in the drafting of the Model Merger Agreement and have failed to pressure their lawyers to adopt this template. The leading law firms that dominate M&A activity have therefore had little interest in embracing the Model Merger Agreement in their drafting.

In contrast, the International Swaps and Derivatives Association (ISDA) is a clear example of how self-interest can fuel standardization. ISDA’s membership did not consist solely of service providers, but rather represented a cross section of end users of derivatives, such as financial institutions, who had much to gain financially from reduced transaction costs and greater legal uncertainty from the standardization of derivatives.84 As a result, standardized swaps and derivatives agreements have become the staple for the industry which offer a clear template, but also provide for flexibility to adjust the terms to meet the needs of the counterparties in each swap or derivative transaction.85 Private equity firms could similarly band together to champion standardized acquisition agreements that would mitigate the inefficiencies of the M&A process.

Similarly, industry groups and trade associations may have both the economic interest and collective interest to push for greater standardization of other types of transactional documents. Document standardization has emerged on a large-scale in the

84 See https://www2.isda.org/membership/member-types/ (providing an overview of the membership of ISDA).
85 See, e.g., Norman Menachem Feder, Deconstructing Over-the-Counter Derivatives, 2002 Colum. Bus. L. Rev. 677, 737 (discussing how the ISDA Master Agreement was the first widely used template for swaps); See ROY GOODE, PRINCIPLES OF CORPORATE INSOLVENCY LAW 52-53 (4th ed. 2011) (discussing how the ISDA Master Agreement is one of the most broadly used standardized agreements).
low-end of the transactional world, and the key would be identifying and motivating industry groups with the stakes and leverage to bring standardization to the higher end of the transactional legal drafting process. The development of new technologies may play the largest role. Indeed, our approach itself, by allowing lawyers to see the evolutionary history of a particular document may have the ability to discipline drafting.

The critique of this approach is that it may be too much to hope that self-interest could erode an entrenched practice of inefficient precedent selection and deal making. Trade associations and other industry groups are most effective when the stakes for their industry are high, and the industry is united in pushing for statutory or regulatory changes. While all companies, and in particular private equity companies, would benefit from greater standardization of deal documentation, the benefit may be small enough that it will be difficult to motivate industry groups to pressure law firms to change their inefficient ways.

The more modest strategy would be to seek to reinvigorate the ABA’s Model Merger Agreement or to enlist another legal body to forge a model acquisition agreement that could serve as a reference point amidst the current sea of distinctive acquisition agreements. The textual analysis used in this study can serve as a tool towards this end. It would be plausible to identify substantive provisions that are consistent with a large cross section of acquisition agreements that could form a foundation for a model agreement. The logic of this approach is that it may be difficult to induce leading law

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firms to work together to forge a standardized merger agreement (that they are likely to embrace) either through shame or external pressure. But it may be easier to work backward from existing merger agreements to put together a standardized merger agreement that reflects both common terms and the best practices of the industry. A synthesis of the best practices from existing merger agreements would not necessarily change the drafting process at law firms. But it would equip clients with a greater tool to push back against editorial churning and to demand explanations for why the terms of an agreement differ from the model agreement.

**Conclusion**

By constructing lineages of acquisition agreements we will seek to capture for the first time a picture of the complexity and opaqueness of the transactional drafting process. This study has shown the role of path dependency in the evolution of merger agreements and highlighted the resulting inefficiencies from the precedent selection and drafting process. The result is that the acquisition agreement a client ends up with depends heavily on the path the agreement took to get there.

This idiosyncratic process and results highlight the need for greater standardization of acquisition agreements. The nature of merger negotiations necessarily entails extensive negotiations to resolve deal-specific issues and uncertainties involving the target and acquirer. But creating standardized acquisition agreement templates would facilitate a focus on deal-specific issues. It would also reduce the often wasteful process of firms’ haggling over the use of precedents and tinkering with legal provisions whose meaning has been conclusively established through past legal and judicial interpretations.
Standardized forms would not inhibit innovation, but rather would focus the energy of lawyers on justifying departures from standard provisions and explaining how changes would add value to their client or to both parties in a transaction.