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DOCTRINAL ANALYSIS AND STATISTICAL MODELING IN LAW: THE CASE OF DEFECTIVE INCORPORATION

FRED S. MCCHESENEY*

“[W]hat the courts do is of far more importance than what they say; and if we find that the courts, although vigorously asserting that a certain body is not a corporation *de jure* or *de facto*, give the stockholders the same rights and immunities as if it were a *de facto* corporation, and if we further are unable to find any other theory on which these rights and immunities can be supported, we may be justified in saying that the courts have in reality done what they insist that they are unwilling to do, and have treated the organization as a *de facto* corporation.”

— Merrick Dodd
(*Harvard Law Review*¹)

* Robert T. Thompson Professor of Law and Business and Professor of Economics, Emory University. Research and editorial assistance from Virginia Carron is acknowledged with particular gratitude, as is advice on the empirical model from Christopher Curran and Jinook Jeong. Very helpful comments on an earlier draft were provided by Jennifer Arlen, Ian Ayres, Frank Buckley, William Carney, Louis De Alessi, Deborah DeMott, Frank Easterbrook, Richard Epstein, Jill Fisch, David Haddock, Robert Hamilton, D. Bruce Johnsen, Andrew Kleit, Jonathan Macey, Geoffrey Miller, Richard Posner, Mark Ramseyer, Roberta Romano, and Mark Zupan. Improvements suggested by Theodore Eisenberg and Robert Thompson were especially useful. Comments from participants in presentations at the following are also acknowledged with gratitude: the University of Chicago, George Mason University, University of Kansas, Northwestern University, and the annual meetings of the Southern and Western Economic Associations and the American Law and Economics Association.

1. E. Merrick Dodd, Jr., *Partnership Liability of Stockholders in Defective Corporations*, 40 HARV. L. REV. 521, 531-2 (1927).

"When the final showdown came to pass/A law book was no good."

— Gene Pitney
(*The Man Who Shot Liberty Valance*²)

I. INTRODUCTION

This Article has two purposes. Substantively, it investigates and seeks to explain courts' decisions concerning "defective incorporation." In numerous cases, courts purport to specify conditions under which a firm's owners who failed to satisfy the statutory formalities requisite to forming a legal (*de jure*) corporation may be deemed, nevertheless, to have limited liability. Under the doctrines of "de facto corporation" and "corporation by estoppel," courts hold that despite the failure to create a legal corporation, a constructive corporation was formed and thus the firm owners are shielded by limited liability.

Legal commentators have largely despaired, however, of specifying *ex ante* the factors that will incline a court to apply these defective incorporation doctrines and grant limited liability.³ Professor Frey's oft-cited, extensive review of the cases prior to the first Model Business Corporation Act (MBCA) concluded that the doctrine "is just so much jargon," of such uncertain application that it "ought to be abandoned."⁴ Thus, the MBCA in its various iterations for years sought to achieve legal certainty by banning limited liability in cases of defective incorporation.⁵ Those attempts were largely unsuccessful; courts have clung to their discretion to grant limited liability despite failure to satisfy the statutory formalities.⁶ A recent update of Frey's survey finds that in the post-Model-Act cases the standards applied by courts remain "fuzzy" and

2. H. DAVID & B. BACHARACH, *THE MAN WHO SHOT LIBERTY VALANCE*, (Famous Music Corp., ASCAP).

3. See, e.g., Alexander H. Frey, *Legal Analysis and the "De Facto" Doctrine*, 100 U. PA. L. REV. 1153 (1952); NORMAN D. LATTIN, *THE LAW OF CORPORATIONS* 170-200 (2d ed. 1971); ALFRED H. CONARD, *CORPORATIONS IN PERSPECTIVE* 245-50 (1976); HARRY G. HENN & JOHN R. ALEXANDER, *LAW OF CORPORATIONS AND OTHER BUSINESS ENTERPRISES* 326-44 (3d ed. 1983).

4. Frey, *supra* note 3, at 1178. Frey's review of the defective incorporation cases is "exhaustive" and continues to be cited as the best review of the common law of defective incorporation. Larry E. Ribstein, *Limited Liability and Theories of the Corporation*, 50 MD. L. REV. 80, 123 & n.189 (1991). For another discussion of Frey's "extensive compilation of cases," see Thilo von Bodungen, *The Defective Corporation in American and German Law*, 15 AM. J. COMP. L. 313, 319-20 & n.24 (1967).

5. See *infra* note 10.

6. See *infra* text at notes 37-39.

unpredictable.⁷

The first purpose of this Article is to suggest that more substance may exist in the defective incorporation cases than has been evident heretofore. The Article investigates the reasons for the apparent fuzziness and proposes alternative grounds for explaining the cases explored. In particular, recent learning about the standards that courts apply in piercing the corporate veil offers a different perspective on the rationale underlying defective incorporation doctrines. Because the issues presented in the two sorts of cases are very similar, one naturally wonders whether the criteria judges invoke in piercing the veil decisions are also influential in defective incorporation decisions.

Second, the Article suggests that the difficulty of identifying standards in any line of cases, including defective incorporation, may lie as much in deficiencies of legal research techniques as in any judicial "fuzziness." Rarely, if ever, do judges claim to rely on only a single factor in deciding disputes in a given domain of law. Rather, judges announce a number of factors, each of which, all other things equal, will make a decision for one side or the other more likely. With several factors at work simultaneously, predicting judicial outcomes becomes a more complicated task which, therefore, requires more sophisticated statistical techniques. This Article uses one such method, multiple regression, to determine, from the same sample used by Frey, the relative importance of different factors that might explain judges' decisions in defective incorporation cases.

The Article is organized as follows. Part II reviews the defective incorporation doctrines of de facto corporation and corporation by estoppel. Part II then notes the similarity between the issues of defective incorporation and piercing the corporate veil. Part III presents a statistical analysis of the defective incorporation cases, modeling limited liability as a function of the various factors identified. As discussed in Part IV, the empirical results support several new inferences concerning defective incorporation and indicate also why traditional legal modes of doctrinal analysis are often insufficient.

II. THE LAW OF DEFECTIVE INCORPORATION

A. Background

By statute, corporations come into existence upon the performance of

7. Wayne N. Bradley, Comment, *An Empirical Study of Defective Incorporation*, EMORY L.J. 523, 574 (1990).

certain formalities. These formalities have traditionally included filing the articles of incorporation with some state functionary (typically the Secretary of State), the owners' payment into the firm of a certain minimum capital, and so forth.⁸ Completion of the statutory requirements makes the firm a *de jure* corporation, with limited liability for its stockholders.⁹

The problem of defective incorporation usually arises when the firm's incorporators have not completed one or more of the statutory conditions precedent to the formation of a *de jure* corporation, but owners or other parties—often unaware of any deficiency and believing a valid corporation to exist—undertake to act on behalf of the supposed corporation.¹⁰ When a plaintiff allegedly injured by the firm files suit and learns that the firm has insufficient assets to satisfy a judgment, the plaintiff then discovers that the firm in fact was not a valid corporation. The plaintiff then seeks to satisfy any judgment against the owners' personal assets as well.

Determining whether and under what circumstances to shield firm owners from personal liability in a defectively incorporated firm has vexed courts since general incorporation statutes were first promulgated. The problems derive to a considerable extent from the conflicting overlaps among three related areas of law: contract, agency, and partnership. Under traditional contract law, the parties' intentions would decide the dispute. If both parties intended limited liability to apply to dealings between them, then no personal liability would come about in the event of subsequent breach of contract. Statutory compliance would be irrelevant. If the parties' understandings with respect to personal liability were different, the rules of contract for unilateral mistake would then operate.¹¹ The contract rules would not, of course, apply to torts com-

8. REVISED MODEL BUSINESS CORPORATION ACT (hereinafter RMBCA), Ann. §§ 2.02, 2.03. Minimum capital requirements now have disappeared from the typical state incorporation statute. Other traditional requirements include organizational meetings, adoption of by-laws, election of directors, and issuance of shares.

9. *Id.* § 6.22.

10. The various versions of the MBCA have attempted to limit or abolish judicial discretion to award limited liability when a *de jure* corporation has not been achieved. Some courts have followed the letter of the statute. *See, e.g.,* *Timberline Equipment Co. v. Davenport*, 514 P.2d 1109 (Or. 1973); *Robertson v. Levy*, 197 A.2d 443 (D.C. Ct. App. 1964). But in most jurisdictions courts have continued to grant limited liability to owners of defectively incorporated firms, usually without distinguishing or even discussing the applicable corporation statute. *See generally* Bradley, *supra* note 7.

11. *See, e.g.,* 17 AM. JUR. 2D §§ 146-49.

mitted in pursuit of the supposed corporation's business.

Traditional agency principles, however, would dictate a different set of results. A firm's agent who purported to contract with others on the basis that the firm was a corporation, when it was not, would effectively act as an agent for a nonexistent principal. The agent then would be personally liable.¹² This would be true whether the agent was an owner or not. A purely "passive" owner would not be directly liable when an agent (including an agent-owner) acted for a nonexistent principal. However, a passive owner might be vicariously liable, depending whether the court deemed that the agent was acting on behalf of the (non-corporate) firm within the scope of his employment.

Under the law of partnership, a third set of rules would apply. If owners of a firm are not legally incorporated, they satisfy the common-law and statutory definitions of a partnership: co-owners of a business being operated for a profit.¹³ If so, the acts of any owner or even an agent in furtherance of the firm's business make all owners personally liable.¹⁴

The differences are perhaps seen more easily by example. Suppose that *A* and *B* own a firm and that *B* has contracted with vendor *C* in the ordinary course of the firm's business. Suppose also that *B* claims incorrectly to *C* that the business is a corporation. If the sales contract is breached, but the firm has insufficient assets to compensate the seller (*C*), the fact that both sides dealt on the basis that the firm was a corporation would mean that neither *A* nor *B* would be personally liable under standard contract principles. Application of agency law, however, would hold any agent (including owner *B*) who contracted on the basis that his firm was a corporation personally liable because no such corporation (i.e., principal) existed. Owner *A*, not involved in the formation of the contract, could be vicariously liable if the agent-owner was acting within the scope of his employment. A court would certainly adjudge owner *A* liable if the court deemed the firm a partnership. As for a tort committed by *B* against *C*, the contract theory by definition provides no decision

12. RESTATEMENT (SECOND) OF AGENCY §§ 326, 330.

13. Uniform Partnership Act, § 6.

14. In other words, there is a default concept that a multi-owner firm that is not a legal corporation must be a partnership, and thus that all owners must be liable for the acts of agents (including owners) within the scope of employment. For an early argument along those lines, see Dodd, *supra* note 1. That view has never met with unanimous approval and rests on questionable premises. See Calvert Magruder, *A Note on Partnership Liability of Stockholders in Defective Corporations*, 40 HARV. L. REV. 733 (1927) (objecting to the claim that "the legal waifs and strays which have been rejected for the corporation fold must be embraced within the partnership family").

rule. The agency rule would again hold only the tortfeasor (*B*) directly liable but might hold *A* vicariously liable. Partnership principles would deem all owners liable for the acts committed by an agent (including a co-owner) within the scope of his employment.

B. De Facto Incorporation and Corporation by Estoppel

The contract, agency, and partnership rules and modes of analysis discussed above are perfectly general. Using them to solve a problem of defective incorporation would involve the familiar lawyerly task of applying legal rules established in one context to factual situations encountered more frequently in another. But with well established common-law rules yielding somewhat disparate results (depending whether contract, agency or partnership law is applied), courts instead have fashioned a separate set of corporate law doctrines to deal with the specific problems of defective incorporation.¹⁵ If individual owner-defendants can establish that the firm was nonetheless a "de facto corporation," they will be protected by limited liability just as if a true de jure corporation had been perfected by completion of the statutory requirements. Similarly, if the court treats the firm as a "corporation by estoppel," defendants will be protected by limited liability. Both doctrines draw somewhat from common-law principles of contract, agency, and partnership, but neither is perfectly consistent with any one body of law.¹⁶

Three requirements are typically cited for application of the de facto corporation doctrine.¹⁷ There must have been: (1) a statute in existence by which incorporation was legally possible; (2) a "colorable" attempt to comply with the statute; and (3) some actual use or exercise of corporate

15. *But see* Johnson v. Corser, 25 N.W. 799 (Minn. 1886) (unusual case in which the defective incorporation issue was resolved as a contract question).

Courts often justify going outside the common-law principles because the corporation is said to be a creature of statute, not voluntary private orderings like contract, agency, or partnership. Ribstein, *supra* note 4, at 120-24. However, Professor Warren suggested years ago that the doctrine of de facto corporation, at least, has a common-law basis in judges' forbidding anyone other than the state to challenge a state's grant of any authority by statute. Edward H. Warren, *Collateral Attack on Incorporation*, 20 HARV. L. REV. 456, 456-57 (1907).

16. For example, the corporation by estoppel doctrine rests on legal principles only partly linked to estoppel in contract law. "A problem with the estoppel theory is that it is not a single theory, but a cluster of very different rules covering cases that fall into very different categories. Only one of these categories involves a true estoppel, that is, reliance by one party on the other's representation." WILLIAM L. CARY AND MELVIN A. EISENBERG, *CASES AND MATERIALS ON CORPORATIONS* 148 (6th ed. 1988).

17. *See, e.g.,* Cantor v. Sunshine Greenery, Inc., 398 A.2d 571 (N.J. Super. Ct. App. Div. 1979).

privileges. Because every state has a corporation statute and defendants ordinarily have been acting under the aegis of a supposed corporation, the three factors typically dissolve into one: whether defendants' attempts to incorporate had gone far enough to be deemed "colorable compliance." For example, an attempt to file the articles of incorporation, albeit unsuccessful, has frequently sufficed as the necessary attempt at statutory compliance.¹⁸ "In addition, some cases and commentators have added good faith of corporation or associates as a fourth element. [The good faith requirement] is often omitted, however, because a colorable compliance with the incorporation statute usually encompasses a good faith attempt to incorporate."¹⁹

When the firm does not meet the requirements for a de facto corporation, limited liability may nonetheless be granted under the rules of corporation by estoppel. By that doctrine, a party who deals with the firm, believing a de jure corporation exists, will be estopped in subsequent litigation from denying a corporate existence. For example, a creditor who extends a loan to a firm, believing erroneously that it is a corporation, will be estopped to deny corporateness and seek satisfaction against owners personally in any legal action on the debt. The firm need not make an attempt to comply with the statute. In the typical case, for example, the firm owners have agreed privately as to the articles of incorporation, but the attorney handling the matter fails to file them.²⁰

The generally acknowledged formulae for the two doctrines have several implications. First, for de facto corporate status to be granted, the three or four factors listed above are supposedly sufficient: where they are present, limited liability should follow. On the other hand, these requisites are not necessary for limited liability in the face of defective incorporation, because corporation by estoppel does not require them. By the same token, there is a single requirement for corporation by estoppel, which also is sufficient for a grant of limited liability: plaintiff's willingness to deal with the firm on the basis of limited liability.

Second, de facto corporate status apparently depends on what defendants have done—whether a good faith attempt to comply with the statute was made—not on anything that plaintiffs have or have not done. This is in keeping with the fundamental reason offered for the de facto doctrine,

18. *Id.*

19. HENN AND ALEXANDER, *supra* note 3, at 330 (citations omitted).

20. Frey, *supra* note 3, at 1158. See, e.g., Cranson v. International Business Machines Corp., 200 A.2d 33 (Md. 1964).

that a defendant who has in good faith tried but failed by a mere technicality to complete the statutory requirements ought not suffer such harsh punishment as personal liability.²¹ However, in estoppel cases, a plaintiff's belief that he is dealing with a corporation, rather than what defendants have done or failed to do, is supposedly the controlling factor. Thus, defendant's ability to establish that the conditions for de facto status had been fulfilled would essentially render irrelevant whether plaintiff had dealt with the firm as a corporate entity.²²

Third, no relevant distinction would exist, for purposes of the de facto corporation doctrine, between tort and contract disputes. Limited liability would be accorded even against a tort-victim plaintiff as long as the court found that the defendant had in good faith attempted compliance. But the distinction between contract and tort would be of considerable importance in cases involving corporation by estoppel, because outside parties ordinarily learn about the firm's supposed corporate form only in the course of contractual dealings.²³

Last, under neither doctrine is the grant of limited liability affected by defendants' actions in the day-to-day operations of the firm. Owners active in the firm would be just as likely as purely passive ones to benefit from the defective incorporation doctrines.²⁴ The issues would be simply whether there had been a good faith colorable attempt at compliance (de facto corporation) or whether plaintiff was content to deal with the firm on a corporate basis (corporation by estoppel).

In jurisdictions recognizing the doctrines of de facto corporation and corporation by estoppel, there is virtual unanimity as to the elements of each. As a practical matter, though, case reviews by legal commentators have repeatedly found that courts do not generally follow the supposed requirements—indeed, it is not clear that courts understand the differ-

21. See, e.g. LATTIN, *supra* note 3, at 183.

22. "[T]he would-be shareholders would not need to resort to the estoppel theory if they could establish that their business had de facto corporate status." CARY & EISENBERG, *supra* note 16, at 149.

23. "[T]he nub of the estoppel theory in such cases is that the third party has dealt with the business as if it were a corporation. Presumably, therefore, the theory would not apply to a tort claimant, or other involuntary creditor, who was a stranger to the business before his claim arose. In contrast, the de facto theory can be applied to such claimants." CARY & EISENBERG, *supra* note 16, at 149.

24. Of course, active owners who themselves were tortfeasors would be personally liable, regardless whether the firm was deemed a corporation.

ence between the two.²⁵ Consider the following judicial explanation: the de facto status of the corporation suffices to absolve [defendant] from individual liability. Plaintiffs in effect are estopped from attacking the legal existence of the corporation collaterally because of the nonfiling [of the articles of incorporation] in order to impose liability on the individual when they have admittedly contracted with a corporate entity which had de facto status."²⁶

With the separate elements of the two doctrines so frequently confused, it is not surprising that reviews of the cases also find that few of the implications of the two doctrines have held.

1. *Attempted Compliance and Corporate Dealings*

In his classic empirical article on the de facto corporation, Frey looked at 72 cases in three categories of de facto corporations, all involving acts that seemingly constituted good faith attempts at compliance with the applicable statute, but had failed to create de jure corporations.²⁷ The timing of the Frey Article is noteworthy. It was published at about the time of the first Model Business Corporation Act, which attempted to eradicate statutorily any award of limited liability without de jure corporate status. As discussed further below, the Model Act's antipathy toward limited liability with defective incorporation has much to do with Frey's own conclusions.

The de facto corporation cases in Frey's sample concerned: (1) local filing of the articles but failure to file with the Secretary of State, when both filings were statutorily required; (2) filing with the Secretary of State but failure to file locally, when both were required; and (3) failure to meet the statutory requirements of minimum paid-in capital, although the incorporators correctly filed the articles. In every instance, the incor-

25. As Cary and Eisenberg summarize, "Neither the precise contours of the estoppel theory nor its relationship to the de facto theory has ever been entirely clear. It is sometimes said that the estoppel theory differs from the de facto theory in that it is effective for only a specific transaction. However, the de facto theory also may be effective only for a specific transaction. . . ." CAREY & EISENBERG, *supra* note 16, at 148.

More recently, the importance of the distinction between de facto corporation and corporation by estoppel as defenses against personal liability has grown because some states have abolished the de facto corporation doctrine but apparently have preserved corporation by estoppel. See David Barber, *Incorporation Risks: Defective Incorporation and Piercing the Corporate Veil in California*, 12 PAC. L.J. 829, 835-44 (1981).

26. *Cantor*, 398 A.2d at 573.

27. Frey, *supra* note 3. Frey reports that his sample included "all the reported American cases" dealing with the defects he discusses. Frey, *supra* note 3, at 1156. *But see infra* note 96.

porators attempted in good faith to comply with the statute, seemingly meaning that the sufficient condition for grant of limited liability had been met. Judicial recognition of de facto corporation status would follow automatically.

Yet this does not necessarily happen. Only in slightly more than half of the cases (42 of 72) did courts accord limited liability. Satisfaction of the supposed requirements for de facto corporation status thus has not been sufficient for courts actually to accord limited liability. Bradley's recent update of Frey's work finds that the sufficiency of attempted compliance has, if anything, declined. His survey of 1970-1989 cases reveals that courts granted limited liability in only 54 percent (32 of 59) of the defective incorporation cases involving attempted compliance.²⁸

Similarly, fulfillment of the supposedly sufficient condition for corporation by estoppel did not necessarily result in grant of limited liability. Frey found 38 cases in which no attempt to comply with the statute had been made, but plaintiffs had dealt with the firm as a corporation. Defendants escaped personal liability in only 34 percent of those cases (13 of the 38).

In Frey's de facto corporation cases, the importance of attempted compliance was reduced even further by the fact that courts awarded limited liability only when the plaintiff was already dealing with the firm as a corporation. In *no* cases where dealings were not on a corporate basis did defendants' good faith attempts at statutory compliance result in limited liability. In other words, in all of the cases where courts invoked the de facto corporation doctrine to uphold limited liability, defendants had satisfied the test for corporation by estoppel anyway. Courts seemed frequently to confuse the two doctrines, making the relevance of the distinction even less clear.²⁹

Conversely, Frey's results also indicated that outcomes in the estoppel cases were apparently influenced by steps defendants had taken to achieve corporation status. Frey reported two groups of estoppel cases. In neither was an attempt at statutory compliance made, obviating doctrinally the possibility of de facto corporate status. But in one group the defendants had taken some steps toward incorporation (e.g., drawing up and signing articles of incorporation) and apparently believed in good faith that they were acting as a corporation.³⁰ In the second group, the

28. See Bradley, *supra* note 7, at 542 (Table 2).

29. For a good example of the confusion, see *Curtis v. Meeker*, 62 Ill. App. 49 (1895).

30. "A typical instance is where the articles are drafted and executed in due form and turned

firm's principals had no reason to think they were acting as a corporation, yet held the firm out as such. As long as corporation by estoppel was the defense, the distinction should make no difference in those cases where plaintiffs had dealt with the firm as a corporation. Yet limited liability was granted in 44 percent of the first group of cases (11 of 25) but almost never (8 percent) in the second group (2 of 13 cases). Thus, just as estoppel elements appear important in the de facto corporation cases, the elements of de facto corporate status (attempted compliance) apparently influence judges to decree corporations by estoppel.

Finally, Frey considered whether courts were influenced by defendant-owners' being active in the management of the business. It is not clear why Frey chose to isolate this element. The active-passive criterion harks back to the agency-law distinctions discussed above, but is never included in "black letter" law discussions of the defective incorporation doctrines.³¹ Doctrinally, neither de facto corporation nor corporation by estoppel seemingly has anything to do with one's status as an active or passive owner. Either there was an attempt to incorporate or not; either plaintiff did or did not deal with the firm as a corporation. But having, for whatever reason, included the active-passive criterion in his survey, Frey concluded that the distinction was not "an important factor in predicting the probable impact of a defect in incorporation upon the liability of the members."³²

2. *Criticism of the Doctrines*

Given the results, the cases involving defective incorporation have understandably engendered considerable criticism. Most obviously, the value of the stated formula for de facto corporate status—an attempt to comply with a state's corporation statute—seems to supply little guidance to those whom the law would guide. Equally unproductive, appar-

over to an attorney for recordation, but he neglects to place the articles on any public record. . . ." Frey, *supra* note 3, at 1158.

31. *But see* HENRY W. BALLANTINE, *BALLANTINE ON CORPORATIONS* 71 (1927): "The most important problem [in defective incorporation cases], on which there is the greatest conflict of authority, relates to when the associates, active or passive, with or without knowledge of the defects, may be held personally liable on debts of the supposed incorporation." Ballantine does not explain why the level of activity in the firm should matter in any judicial decision concerning defective incorporation.

32. Frey, *supra* note 3, at 1178. It is worth noting, however, that Frey's factual characterizations of the cases with respect to owner activity or passivity have been criticized as frequently incorrect. Bradley, *supra* note 7, at 538 n.109. After reading the Frey cases, this author can only agree with that criticism.

ently, is a plaintiff's willingness to deal with the firm as a corporation, which should, but typically does not, result in declaration of a corporation by estoppel. The judicial outcomes therefore must depend on other factors. If these other factors were readily identified *ex ante*, of course, the doctrinal formulae could be modified. But more often, the surveys find no explanation for what these other factors are. Frey summarizes the cases concerning failure to record the articles of incorporation locally:

The reasoning to be found in these cases is as unsatisfactory as in those in the preceding sections. Almost invariably the opinions in favor of the defendants offer in justification the mere assertion that a "de facto" corporation has been formed, despite the failure to record the articles locally. In the cases in which the plaintiff's claim against the shareholders personally is upheld, the opinions do no more than aver that, until the articles are recorded locally, corporate existence does not begin, or that the shareholders are subject to the liability of partners. Such statements simply assume the answer to the issue in question, and do not provide a reason for the decision.³³

The same tautological, conclusory reasoning characterized the cases concerning corporation by estoppel, where Frey found that the cases in which courts granted limited liability were "not particularly different on their facts" from those in which courts imputed individual liability.³⁴ As an explanation of the cases overall, Frey could offer only this summary: "The significant distinction is in the attitude of the court."³⁵

No dissenting voice on this point can be found. Another authority described the defective incorporation decisions as "a discouraging and baffling maze. . . . To classify and generalize the results of the mass of decisions in this field is a task which is not easy nor are satisfying formulae or mechanical rules ready made to solve all the cases to be expected."³⁶ For a generation, drafters of successive versions of the MBCA have tried to extirpate doctrines of defective incorporation from corporate law.³⁷ At least in part, the antipathy towards limited liability in

33. Frey, *supra* note 3, at 1168.

34. Frey, *supra* note 3, at 1162.

35. Frey, *supra* note 3, at 1162.

36. BALLANTINE, *supra* note 31 at 71.

37. The position of the Model Act since its inception in 1950 has been simple: limited liability only attaches when a valid, *de jure* corporation has been formed. "Under the unequivocal provisions of the Model Act, any steps short of securing a certificate of incorporation would not constitute apparent compliance. Therefore a *de facto* corporation cannot exist under the Model Act." MBCA Ann. § 56 ¶ 2, at 205 (1971). This position was relaxed somewhat in 1984 with section 2.04 of the

cases of defective incorporation is due to the same apparent lack of principle in the case results that Frey and others noted before the advent of the model statute.³⁸ As recent official commentary on the Model Act stated, "These doctrines were widely criticized as being confusing, result-oriented, overlapping and involving legal conceptualism that tended to hide the true basis for decision."³⁹

Thus, the traditional approach to legal reasoning—reading a body of cases and distilling the governing principles to predict future outcomes—has been declared inapplicable to the issue of defective incorporation. In the end, the analysis usually offered today arrives at criteria such as "fairness," "public policy," and avoidance of "injustice." As one leading treatise states, "Even when the required elements [of a *de facto* corporation] are found, the application of the doctrine also depends on the nature of the case and the fairness to the parties under the circumstances."⁴⁰ The doctrine of *de facto* incorporation "must find [its] support in considerations of public policy."⁴¹ The *de facto* doctrine developed "[t]o prevent injustices."⁴² For incorporation by estoppel, "In the final analysis the circumstances and equities of a particular case control."⁴³

It is difficult to understand how these newer linguistic formulae address the complaints made about the older formulations of the defective incorporation doctrine. Even if the traditional doctrine was result-driven

RMBCA, which would impose personal liability on those who "act as or on behalf of a corporation, knowing there was no incorporation under this Act." For discussion, see WILLIAM M. FLETCHER, *CYCLOPEDIA OF THE LAW OF PRIVATE CORPORATIONS* 3911 (1992).

38. At least two other factors also are given for the aversion shown in the Model Business Corporation Act to limited liability without *de jure* corporate status. First, it is said that the doctrine is unnecessary because *de jure* incorporation has been made so easy. "Abolition of the concept of *de facto* incorporation, which at best was fuzzy, is a sound result. No reason exists for its continuance under general corporate laws, where the process of acquiring *de jure* incorporation is both simple and clear. The vestigial appendage should be removed." MBCA Ann. § 149 ¶ 4, at 909 (1971). The continuing volume of defective incorporation cases, see Bradley, *supra* note 7, indicates that, however simple and clear, the process of incorporation still results in mistakes. Second, it is claimed that awarding limited liability without performance of the statutory formalities diminishes the incentive to comply with the statute in the first place. "[T]o recognize limited liability in this situation threatens to undermine the incorporation process, since one then may obtain limited liability by consistently conducting business in the corporate name." MBCA Ann. § 2.04, at 132 (1992 Supp.).

39. MBCA Ann. § 2.04, at 135 (1992 Supp.).

40. HENN AND ALEXANDER, *supra* note 3, at 329.

41. Warren, *supra* note 15, at 458.

42. von Bodungen, *supra* note 4, at 315.

43. HENN AND ALEXANDER, *supra* note 3, at 336.

or hid the true basis for the decision, words like "fairness" and "justice" hardly furnish a predictive rationale.⁴⁴ "Fairness" is an especially peculiar description for the corporation by estoppel cases, in which plaintiffs win more than half the time, despite having freely contracted with defendants on the basis of limited liability only.

One also encounters a variant on the notion of equity, a claim that the cases can be explained by evolution over time toward a more liberal grant of limited liability. Says one commentator, "Reflecting the early distrust of all corporations, courts at first required strict conformity with incorporation statutes before bestowing corporate privileges. Later cases showed a tendency to bend the rules where equity demanded. . . ."⁴⁵ Some courts have explicitly referred to such a trend in the defective incorporation cases.⁴⁶

However, no one has ever examined whether such a trend actually exists. On the basis of the cases cited in the Frey Article, Figure 1 reports the percentages of published cases in which limited liability was awarded, despite the absence of a *de jure* corporation. As shown, limited liability apparently was granted with greater frequency in defective incorporation cases, at least during the 1890-1930 period. Figure 2, from the same data, shows the cumulative percentage of defective incorporation cases in which limited liability was granted. This percentage generally increases during the period of the Frey sample.

Although the trend has been of interest to both commentators and judges, its doctrinal importance is rather unclear. There is no principled reason why, absent a change in the factual composition of the cases themselves, judges should increasingly be inclined to grant limited liability in defective incorporation cases. But one cannot tell from the trend whether the cases themselves have changed over time in such a way that courts' increased likelihood of granting limited liability merely reflects a different factual composition of the adjudicated cases. In any event, the apparent trend cannot necessarily be ascribed to increasing judicial concern for equitable concerns such as "fairness" or "justice."

44. Areeda and Turner observe in another context that "'fairness' is a vagrant claim applied to any value that one happens to favor." PHILIP AREEDA & DONALD TURNER, *ANTITRUST LAW* 13 (1978).

45. Fritz Ziegler, Comment, *De Facto Incorporation and Estoppel to Deny Corporate Existence in Louisiana*, 37 LA. L. REV. 1121, 1122 (1977) (citations omitted).

46. See, e.g., *Aetna Life Ins. Co. v. Weatherhogg*, 4 N.E.2d 679, 683 (Ind. Ct. App. 1936) ("The doctrine that members of a corporation *de facto* are protected from liability as partners seems to be generally adopted in more recent cases. . . .").

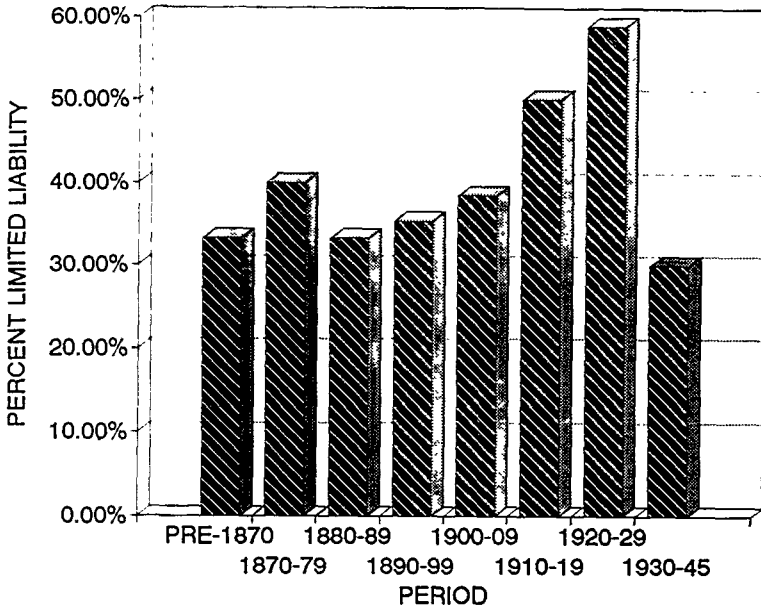


FIGURE 1

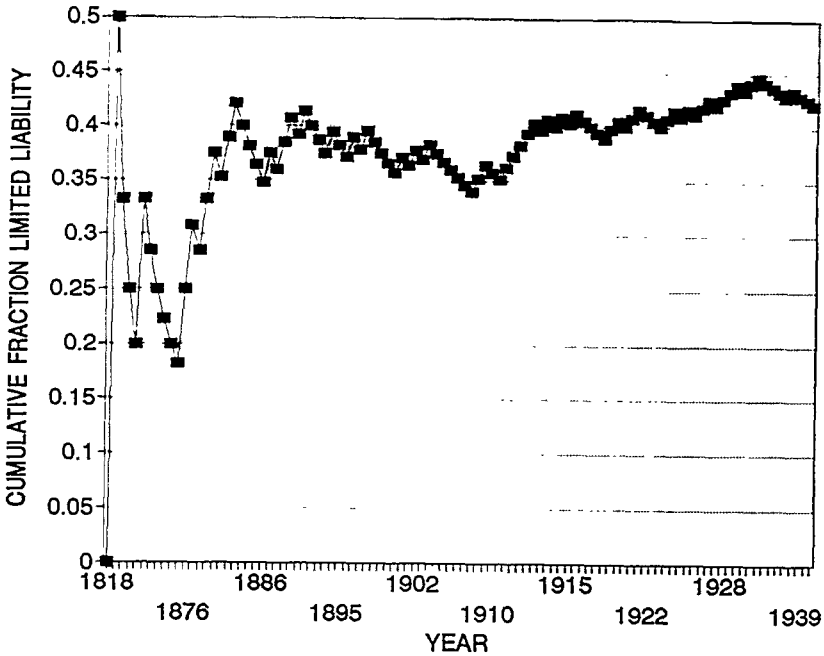


FIGURE 2

C. *Defective Incorporation and Piercing the Corporate Veil*

If existing analyses provide so little understanding of defective incorporation, where else might one turn? One possibility is suggested by the realization that the defective incorporation cases present issues that are the reverse of those in cases about "piercing the corporate veil." The essence of the defective corporation doctrines is that, under certain (heretofore unclear) conditions, courts may accord limited liability to firm owners who have failed to perform the statutory requirements for a de jure corporation. Cases of piercing the veil concern denial of limited liability under certain conditions even though firm owners have completed the statutory requirements for a de jure corporation.⁴⁷

Occasionally commentators have noted in passing the similarity between defective incorporation and piercing the veil.⁴⁸ Apparently no one has investigated the possibility that the factors accounting for decisions in the latter domain may also explain the rules applied to defective incorporation.⁴⁹ The idea that a single explanation might apply to domains as similar as piercing the corporate veil and defective incorporation has obvious intuitive appeal.⁵⁰ But until recently, no one could explain coherently the body of piercing the veil cases, either. Indeed, the opinions were afflicted with an enormous number of "verbal characterizations, ep-

47. Also like de facto corporation and corporation by estoppel, piercing the veil is an extra-statutory, even anti-statutory judicial doctrine, because completion of the statutory formalities supposedly bars any challenge to the firm's corporate status by anyone but the state. RMBCA § 2.08(b). But while the drafters of the Model Business Corporation Act have actively sought to suppress the doctrines of defective incorporation, see *supra* text accompanying notes 37-39, they have held no such animus toward judicial discretion in piercing the veil, despite the statute's seemingly mandatory language on limited liability for owners of de jure corporations. RMBCA § 6.22.

48. "Disregard of corporateness in various cases of technically-correct incorporation—often called 'piercing the corporate veil'—is the converse of the recognition of corporateness in instances of defective incorporation." HENN AND ALEXANDER, *supra* note 3, at 344. Frey mentioned piercing the veil on the first page of his article, in discussing limited liability generally, but he did not consider whether the standards applied in those cases might explain the defective incorporation cases which he analyzed. Frey, *supra* note 3, at 1153.

49. Traditionally, the subject of defective incorporation is taught as part of the material on how to form a corporation. See, e.g., ROBERT W. HAMILTON, *CASES AND MATERIALS ON CORPORATIONS* (4th ed. 1990). But see CHARLES R. O'KELLEY & ROBERT B. THOMPSON, *CORPORATIONS AND OTHER BUSINESS ASSOCIATIONS* (1992) (juxtaposing piercing the veil and defective incorporation as two aspects of the overall issue of allocating risk between corporate insiders and outsiders). Many estimable texts and treatises on corporate law discuss piercing the veil but ignore defective incorporation problems. See, e.g., ROBERT C. CLARK, *CORPORATE LAW* (1986); FRANK H. EASTERBROOK & DANIEL R. FISCHEL, *THE ECONOMIC STRUCTURE OF CORPORATE LAW* (1991).

50. See generally J. TREFIL, *READING THE MIND OF GOD: IN SEARCH OF THE PRINCIPLE OF UNIVERSALITY* (1989).

ithets, and metaphors" that obscured rather than elucidated any true theory or principle running through the cases.⁵¹ For lack of any coherent judicial substance, the traditional explanations of courts' veil-piercing rationales were—like explanations of the defective incorporation cases—unhelpfully couched in terms of fairness, equity, and the like.⁵²

Recent analyses of piercing the veil are more rigorous, however. Easterbrook and Fischel,⁵³ building on an earlier contribution by Manne,⁵⁴ hypothesize that piercing the veil should predictably occur when the economic benefits ordinarily available from limited liability are not present or when a grant of limited liability would entail relatively high costs.⁵⁵ The principal benefit of limited liability, Easterbrook and Fischel argue, is facilitating the division of labor in large public corporations. In particular, the costs of raising capital, monitoring its use, transferring its ownership, and diversifying investors' portfolios all decline with limited liability. The principal cost of limited liability is the undesirable incentive it creates for firm owners to impose negative externalities on others because their investment is the limit of their potential liability.

This model of limited liability leads Easterbrook and Fischel to offer four predictions—all empirically testable—about when courts will override statutory limited liability and pierce the corporate veil. First, piercing the veil should occur mostly in small corporations, in which the gains from division of labor and thus the benefits of limited liability are minor.⁵⁶ Second, piercing the veil should occur disproportionately in parent-subsidiary contexts in which it "does not create unlimited liability for any people. Thus, the benefits of diversification, liquidity, and monitoring by the capital market are unaffected."⁵⁷ Third, because contracting

51. HENN AND ALEXANDER, *supra* note 3, at 344 n.2 (providing numerous examples). See also P. BLUMBERG, *THE LAW OF CORPORATE GROUPS* 8 (1983). In general, until recently, no underlying principles seemed to explain veil-piercing decisions. "'Piercing' seems to happen freakishly. Like lightning, it is rare, severe, and unprincipled. There is a consensus that the whole area of limited liability, and conversely of piercing the corporate veil, is among the most confusing in corporate law." Frank H. Easterbrook & Daniel R. Fischel, *Limited Liability and the Corporation*, 52 U. CHI. L. REV. 89, 89 (1985).

52. "The test is simply whether or not recognition of corporateness would produce unjust or undesirable consequences inconsistent with the purpose of the concept [of limited liability]." HENN AND ALEXANDER, *supra* note 3, at 346.

53. Easterbrook & Fischel, *supra* note 51.

54. Manne, *Our Two Corporation Systems: Law and Economics*, 53 VA. L. REV. 259 (1967).

55. For a more general discussion of limited liability and its implications for other areas of corporate law, see Ribstein, *supra* note 4.

56. Easterbrook & Fischel, *supra* note 51, at 109-10.

57. Easterbrook & Fischel, *supra* note 51, at 111.

parties will force the corporation to pay for any increased risks created by the possibility of limited liability, the temptation toward externalities is largely limited to future torts. Hence, courts should more likely disregard the corporate veil in tort cases, particularly those in which the firm undertook relatively risky activities.⁵⁸ Finally, because intentional undercapitalization is a particular way to avoid the firm's tort liabilities, it will frequently cause courts to pierce the veil.⁵⁹

Robert Clark hypothesizes that a different rationale should explain the veil-piercing cases.⁶⁰ Consistent with his grander theme that much corporate law is really a specific application of more general fraudulent conveyance law, Clark believes that judges pierce the veil when shareholders have used the corporate form fraudulently.⁶¹ Some shareholders might perpetrate fraud to induce extension of credit that would otherwise not be extended; for example, a firm might overstate its value. But creditors can guard against this sort of fraud by making their own investigations at the time of the loan. Subsequently, however, the corporate form can be used to hinder a bona fide creditor in his attempt to collect his debt; for example, the firm might pay unusually high dividends. It is in these situations—use of the corporate form to escape legitimate debts, rather than to advance more productive corporate purposes—that Clark expects to find courts piercing the veil.

The Easterbrook and Fischel and the Clark Articles derive from a common belief that the verbal formulae of judicial holdings ("alter ego" and so forth) are less helpful in understanding and predicting case outcomes than a model of what judges are really trying to achieve in these cases: "balance the benefits of limited liability against its costs" for Easterbrook and Fischel,⁶² penalizing "behavior that would invoke fraudulent conveyance law" for Clark.⁶³ Because they proceed from different constructs, the implications of the two models are not always comparable.⁶⁴

But the two models do yield some different implications. First, as

58. Easterbrook & Fischel, *supra* note 51, at 112.

59. Easterbrook & Fischel, *supra* note 51, at 113.

60. CLARK, *supra* note 49.

61. CLARK, *supra* note 49, at 71-74.

62. Easterbrook & Fischel, *supra* note 51, at 109.

63. CLARK, *supra* note 49, at 72.

64. For example, Easterbrook and Fischel do not discuss use of the corporate form to perpetrate fraud on creditors, and Clark does not indicate whether fraudulent conveyance is more likely by a parent owning a subsidiary corporation or by non-corporate shareholders of a corporation.

noted above, Easterbrook and Fischel state that courts pierce the veil most often in tort cases.⁶⁵ Clark states the opposite, that since piercing the veil is about fraud, most such cases concern contracts.⁶⁶ Likewise, again in contrast to the prediction of Easterbrook and Fischel, Clark says inadequate capitalization should not be an important factor leading courts to pierce the veil because contracting parties will reflect the risk premium associated with the firm's level of wealth in the terms of their agreement.⁶⁷

Both the Easterbrook and Fischel and Clark discussions of veil piercing are noteworthy. Unlike too much writing about the law, each contains a model of the process being considered and clearly specifies implications of the model. Finally, and perhaps most importantly, the implications are empirically falsifiable.⁶⁸ Thus, readers can decide who is right, depending on what the empirical evidence shows.

But like too much economic writing about the law, both sides claim empirical victory without empirical evidence.⁶⁹ For an empirical resolution of the conflicting claims, one must turn to Robert Thompson's recent study, in which he reviewed some 1600 cases to determine "the nature of the corporations, the plaintiffs, the courts, and the reasons given by the courts for piercing or not piercing the corporate veil."⁷⁰ His investigation included the empirical implications raised by Easterbrook

65. Reasoning similar to Easterbrook and Fischel's has led other commentators also relying on economics to call for an end to corporate limited liability in tort cases. See Henry Hansmann & Reinier Kraakman, *Toward Unlimited Shareholder Liability for Corporate Torts*, 100 YALE L.J. 1879 (1991); Paul Halpern et al., *An Economic Analysis of Limited Liability in Corporation Law*, 30 U. TORONTO L.J. 117 (1980).

66. CLARK, *supra* note 49, at 78-79. One exception is the case where the tort victim has already reduced her claim to judgment, at which point the firm owners begin to shift assets out of the firm to the owners personally to defeat the victim's claim. However, this is no different from an ordinary fraudulent conveyance in a contract setting. CLARK, *supra* note 49, at 80.

67. CLARK, *supra* note 49, at 74, 81.

68. For further discussion of the desirability of greater methodological rigor in economic analyses of law, see Fred S. McChesney, *Positive Economics and All That: A Review of Easterbrook and Fischel's Economic Structure of Corporate Law*, 61 GEO. WASH. L. REV. 272 (1992).

69. See McChesney, *supra* note 68. In one area where the models differ sharply in their predictions, whether courts pierce the veil more frequently in tort or contract cases, Easterbrook and Fischel state that "Courts are more willing to disregard the corporate veil in tort than in contract cases." The authors support this empirical statement with a single case and a 1929 law review article. Easterbrook & Fischel, *supra* note 51, at 112 & n.41. Similarly, Clark claims that "[a] careful review" of the cases indicates that only "[v]ery rarely" does inadequate capitalization by itself lead a court to pierce the veil, but he offers no such review. CLARK, *supra* note 49, at 74.

70. Robert B. Thompson, *Piercing the Corporate Veil: An Empirical Study*, 76 CORNELL L. REV. 1036 (1991).

and Fischel and by Clark. In areas in which the two models differed, the evidence supported Clark. Courts pierce the veil more frequently in contract than in tort cases, and are particularly sensitive to the potential for fraud.⁷¹ Also, contrary to Easterbrook and Fischel's predictions, undercapitalization does not appear to be an important rationale for piercing the veil.⁷² Overall, "[t]he results seem to confirm Robert Clark's point that the most recurring problems in the piercing area are fraudulent transfers and similar contract related claims."⁷³ Finally, Thompson also found that a defendant's status in the firm—serving as an active manager rather than a passive investor—increased the likelihood that courts would pierce the veil.⁷⁴ Activity in the firm is not ordinarily viewed as relevant to piercing the corporate veil, nor do Easterbrook and Fischel or Clark discuss it, yet it apparently influences judicial decisions whether to respect or abrogate limited liability.

D. Piercing the Veil Models and Defective Incorporation

If courts determine whether to maintain limited liability for owners of de jure corporations according to the reasons advanced either by Easterbrook and Fischel or by Clark, one would think that the same reasons would be important in courts' determinations whether to award limited liability to owners of defective incorporations. Under the Easterbrook and Fischel model, limited liability would be granted more readily when establishment of the firm required raising capital from several dispersed shareholders, who would not have invested if the investment involved exposure to unlimited personal liability. Under the Easterbrook and Fischel model, limited liability would be upheld rarely in parent-subsidary cases. Limited liability would be upheld less frequently in tort cases,

71. "[C]ourts pierce the veil in almost all cases in which they find misrepresentation. But even if misrepresentation cases are deleted from the contract and tort cases, courts still pierce more often in contract than in tort." Thompson, *supra* note 70, at 1059.

72. "[U]ndercapitalization is not among the factors most frequently cited by the courts in piercing the veil, nor is it among the factors associated with the greatest likelihood of piercing. The relative infrequency with which courts cite undercapitalization in tort-related piercing cases suggests it is an issue that appeals to commentators for reasons other than its predictive significance." Thompson, *supra* note 70, at 1067.

73. Thompson, *supra* note 70, at 1068-69 (citation omitted).

74. "Defendants who served only as shareholders were less likely to be successful targets of piercing suits than shareholders who also served as directors or officers. Further, in the few cases that characterized potential defendants as passive shareholders rather than active in the business as directors, officers, or otherwise, the courts almost always found no liability." Thompson, *supra* note 70, at 1056.

where courts would be sensitive to the moral hazard problem leading firm owners protected by limited liability to take supra-optimal risks and to undercapitalize.

Under the Clark view, courts instead would be sensitive to the possibility of fraud in defective incorporation cases. The potential for fraud in defective incorporation cases is similar to that in piercing the veil cases, and courts in many of the cases identified by Frey did demonstrate concern for this and other sorts of deceitful manipulation. For example, in anticipation of protection by limited liability, owners of a defectively incorporated firm could shift money out of the firm to avoid its availability to the firm's creditors.⁷⁵ The defective corporation cases reveal other ways that firms could defraud potential plaintiffs with incorrect claims that the firm is a corporation. For the period of the Frey sample of cases, for example, incorporation entailed satisfying minimum capital requirements; a plaintiff facing a firm described as a corporation might assume a certain level of assets available that defendants had not actually invested.⁷⁶ In another case, a loan was obtained using stock certificates as collateral when no shares had ever been issued nor the firm validly incorporated.⁷⁷ A court could avoid these sorts of manipulations by denying limited liability when incorporation was defective, just as it does by piercing the veil.

In summary, investigations of defective incorporation have focused on three factors: defendants' attempted compliance with the corporation statute, plaintiffs' dealing with the defectively formed firm as a corporation, and the extent of defendants' activity in the firm. None of these factors has seemed to furnish a consistent model to predict judicial grant of limited liability for defective incorporation. However, investigations of a closely related subject, judicial denial of limited liability for effective incorporation, do apparently locate factors of predictive value in that domain, including defendants' attempted fraud and level of activity in the firm.

Because the issues in defective incorporation are mirror images of those in piercing the veil, the veil-piercing factors may help explain the defective incorporation decisions. To determine whether the veil-piercing factors are beneficial in this context, a more fully specified model—

75. *See, e.g.,* Christian & Craft Grocery Co. v. Fruitdale Lumber Co., 25 So. 566 (Ala. 1899).

76. *See, e.g.,* Crouch v. Gray, 290 S.W. 391 (Tenn. 1926). *See also* Burns v. Beck, 10 S.E. 121 (Ga. 1889); Davidson v. Hobson, 59 Mo. App. 130 (1894).

77. Provident Bank & Trust Co. v. Saxon, 40 So. 778 (La. 1906).

one that includes the traditional factors Frey considered in addition to those in the veil-piercing cases—is needed. That, in turn, requires more sophisticated statistical techniques than have been brought to bear on the question.

The statistical inquiry that follows falls short of a fully specified economic model, insofar as it makes no assumptions about what state of the law is efficient or what judges seek to achieve (maximize) in deciding defective incorporation cases.⁷⁸ In part, this reflects the fact that the literature on what judges maximize is only beginning to make empirical headway on the question, particularly in common-law domains.⁷⁹ Moreover, perhaps the most prevalent model—that judges maximize efficiency in deciding common-law cases but adjudicate statutory cases to further the aims of legislators⁸⁰—is not immediately applicable to defective incorporation, which represents a common-law doctrine in derogation of statute. Noting judges' "rather poor articulation" of the law of defective incorporation, "with resultant scholarly confusion," one paper has suggested recently that the modern defective incorporation cases can be understood as a type of judicial fine-tuning of the statutory scheme to extract firms' rents through filing fees, taxes, and so forth.⁸¹ While this perspective seems promising a priori, it may be premature to conclude that more traditional factors do not explain judges' opinions. Scholars' perceptions of judges' doctrinal confusion may just as well reflect an inadequacy of scholarly empirical techniques.

78. However, the model presented and tested here necessarily assumes that judges correctly report the facts of the cases that they decide. See *infra* note 106.

79. See, e.g., Richard S. Higgins & Paul H. Rubin, *Judicial Discretion*, 9 J. LEGAL STUD. 129 (1980) (presenting evidence judges' decisions apparently not motivated by desire for promotion). But see Mark A. Cohen, *The Motives of Judges: Empirical Evidence from Antitrust Sentencing* 12 INT'L REV. L. & ECON. 12 (1992) (presenting evidence that judges in antitrust cases are motivated by promotion opportunities); Harold W. Elder, *Property Rights Structures and Criminal Courts: An Analysis of State Criminal Courts*, 7 INT'L REV. L. & ECON. 21 (1987) (presenting evidence of political influence on judicial criminal decisions).

80. Concerning the common law, see RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 325-27 (1st ed. 1972); Paul H. Rubin, *Why is the Common Law Efficient?* 6 J. LEGAL STUD. 51 (1977); but see Peter H. Aranson, *The Common Law as Central Economic Planning*, 3 CON. PO. ECON. 289 (1992). Concerning statutory law, see William M. Landes & Richard A. Posner, *The Independent Judiciary in an Interest-Group Perspective*, 18 J. L. & ECON. 875 (1975). For an extended discussion of the Landes-Posner model and several empirical studies that corroborate it, see WILLIAM F. SHUGHART, *ANTITRUST POLICY AND INTEREST-GROUP POLITICS* 121-27 (1990).

81. Anastassiou & Haddock, *The Law and Economics of Defective Incorporation* 2 (manuscript 1992).

III. EMPIRICAL ANALYSIS

A. *Problems with Traditional Empirical Modes*

Though clearly an advance in the level of corporate law discourse, the rethinking begun by Clark and by Easterbrook and Fischel and carried forward by Thompson is not wholly satisfactory methodologically. Merely counting cases and sorting them into various pigeonholes according to expressed judicial rationales (the process used by Thompson for veil-piercing cases and by Frey in studying defective incorporation) suffers from at least two deficiencies relevant to analyzing defective incorporation.⁸²

First, the stated reasons for judges' holdings may not always explain the complete rationale for their decisions. This is a familiar problem for lawyers, who learn to distinguish cases not just on the basis of the explicit holding but also on particular facts or subsidiary rationales (including dicta) that are also recited in the cases. The basic point of both Clark and of Easterbrook and Fischel is that courts' stated rationales for holdings in the veil-piercing cases may not be very helpful to understanding the true rationales underlying the decisions.

Second, courts typically designate more than one factor as relevant or important in the ultimate decision, rather than expound a bright-line, single-factor rule. Frey showed that the defective-incorporation cases, supposedly comprehensible in terms of a single factor—attempted compliance for de facto corporation, plaintiff's willingness to deal with the firm as a corporation for corporation by estoppel—in fact manifest no bright-line reasoning. This leaves open the possibility that several factors, rather than any single one, might explain the defective incorporation outcomes. In the veil piercing cases, Thompson found, "Courts frequently give more than one reason for their decisions."⁸³

However, usefully discerning the relevant factors poses three potential difficulties. The first is the sheer calculation problem entailed in examining the variety of factual configurations present when multiple factors are at work. The second difficulty is assigning weights to the different fac-

82. Thompson is aware of the methodological shortcomings of merely sorting cases, and reports that he is at work on a multiple regression model for the veil-piercing cases. See Thompson, *supra* note 70, at 1046 n.62. For another, more complex, instance of empirics by case-sorting, see Daniel T. Ostas, *Predicting Unconscionability Decisions: An Economic Model and an Empirical Test*, 29 AM. BUS. L.J. 535 (1992).

83. Thompson, *supra* note 70, at 1045.

tors. Finally, it is often difficult to disentangle the separate effects of factors that tend to operate simultaneously.

1. *Calculation Difficulties*⁸⁴

Any quantitative analysis of the reasons for case holdings will probably encounter daunting computational problems, if only from the sheer number of possible factual situations presented by the cases. Frey identifies three factors, attempted compliance, plaintiff's belief about the firm's corporateness, and defendant's activity in the firm, as potentially relevant independent variables to explain whether defendant-owners of a defectively incorporated firm will ultimately be shielded by limited liability. A fourth variable, whether limited liability is granted, is dependent on (i.e., a function of) the other three. In the simplest model, each of the four variables can take on two values: compliance was or was not attempted, plaintiff did or did not deal with the firm as a corporation, defendant was active or inactive in managing the firm, limited liability was or was not granted. Thus, there are 16 possible factual situations.⁸⁵

In a more realistic model of judicial decisions, however, the number of possible factual situations would be even greater, because the three independent variables (attempted compliance, plaintiffs belief about the firm's corporate status, defendant's involvement in managing the firm) would predictably not all be mentioned in each opinion. Each independent variable could then take on three values: present in the case, not present, or not discussed. For example, statutory compliance could have been attempted, not attempted, or not mentioned in the opinion. If one includes the possibility that the opinion does not discuss the factor at all the number of possible factual situations confronting the researcher is increased to 54.⁸⁶

Trying to sort out the importance of the many factors as they appear in different factual combinations with the other factors obviously is an

84. The difficulties referred to here concern only the quantitative calculations themselves. An anterior problem is the rule or criterion by which quantitative importance is to be measured. Multiple regression, for example, derives its measures using the Gaussian criterion of minimizing the sum of squared prediction errors. GARY SMITH, *STATISTICAL REASONING* 475-78 (2d ed. 1988). But this is not the only possible criterion.

85. With four variables each taking on two possible values, the number of factual situations that possibly may be encountered is $2^4 = 16$.

86. With the three independent variables taking on three possible values, the number of possible outcomes of the independent variables is $3^3 = 27$. Since the dependent variable then can assume two different values, the total number of outcomes is $2 \times 27 = 54$.

enormous task. But the magnitude of the computational problem also depends on the size of the case sample studied; indeed, as the size of the case sample grows, the task becomes superhuman. Yet relatively large sample sizes are clearly desirable.⁸⁷ The more cases sampled, the better justified any inferences about the state of the law.⁸⁸

2. *Weighing of Different Factors*

If more than one factor is present in a case, how is one to say what the "real" reason for a particular decision is?⁸⁹ The lawyer would probably answer: as more of the important factors are present, the likelihood of according limited liability increases; a single relevant factor might not suffice, but as more and more are found the probability of one party or the other prevailing changes. This response is not necessarily helpful and may not even be true.

The response is not helpful because even if each supposed factor has independent relevance in courts' decisions (an empirical question in itself), it is highly unlikely that courts give each factor equal weight. A court predictably would not just tote up the number of factors present in a given case; certain things would be more important than others. In the doctrinal analysis of defective incorporation, for example, having attempted to comply with the corporation statute is supposedly more important than defendant's being active or passive in managing the firm. Simply registering the presence or absence of certain factors in the cases cannot disclose the relative importance of each factor individually. This

87. At the other end of the spectrum from large-sample statistical analysis is "storytelling," currently enjoying an academic vogue. See generally Daniel A. Farber & Suzanna Sherry, *Telling Stories Out of School: An Essay on Legal Narratives*, 45 STAN. L. REV. 807 (1993). A story is just a sample of one. The inferential value of the story naturally depends in part on whether, among other things, the story is "typical" (i.e., close to the mean) of the experiences of others similarly situated. *E.g., id.* at 838-40. Of course, the validity of statistical inferences also depends on the randomness of the sample used. But samples greater than one also allow measure of the variance of experiences, not just the means. The extent to which storytelling is a useful complement to or substitute for the sorts of larger-sample statistical inference used in this article is not addressed here.

88. The intuitive sense that one's conclusions are better justified by increasing the number of cases sampled reflects the underlying statistical truth that the margin of error in any statistical inference declines with increased sample sizes. See, e.g., SMITH, *supra* note 84, at 343-45.

89. As one attempt to distill one state's defective incorporation cases concluded, "Providing a completely accurate formulation of the two doctrines [de facto corporation and corporation by estoppel] as they were applied in Louisiana prior to 1968 is impossible Innumerable variations of fact prevent isolating the effect of a single defect in formation. Authorities have complained of the same difficulty when dealing with the many common law cases." Ziegler, *supra* note 45 (citing *inter alia* Frey, *supra* note 3).

problem with multi-variable tests is encountered frequently in the law, including other areas of corporate law.⁹⁰ Understandably, it is a frequent source of complaints from practitioners who must divine for themselves the relative importance of various factors set out indiscriminately in legal opinions.⁹¹

3. *Simultaneity of Several Factors*

Moreover, it is not necessarily true that each factor presented in a multi-factor list has a separate influence on the judicial outcome. Mere taxonomy of case holdings based on the presence of certain factors does not account for the simultaneous presence of other relevant variables that may be the true cause of any supposed relationship. Consider the claim, discussed above,⁹² that the passage of time is an important factor for understanding the body of defective incorporation decisions. It is true, as Figures 1 and 2 illustrate, that the percentage of cases has risen in which courts have granted limited liability despite the absence of de jure status. But, simultaneous with the passage of time, other factors of relevance may also have changed. Firm owners may have increasingly attempted to comply with local incorporation statutes, for example, increasing the likelihood that courts will adjudge the firm a de facto corporation.

To take an issue of perhaps even greater significance to the defective incorporation cases, de facto corporations are commonly distinguished from corporations by estoppel on the basis that the defendants' have attempted to comply with the corporation statute. Yet as discussed above, Frey reports that in all cases where courts found a de facto corporation

90. Ownership of corporate opportunities is one very vexing area not helped by the plethora of tests, prongs, and factors cited by judges in the cases. For illustrative cases, see, e.g., *Solimine v. Hollander*, 16 A.2d 203, 215 (N.J. Eq. 1940); *Guth v. Loft, Inc.*, 5 A.2d 503 (Del. Ch. 1939).

91. For example, there is considerable unhappiness with the state of the law concerning punitive damages, following the Supreme Court's opinion in *Pacific Mutual Life Insurance Co. v. Haslip*, 111 S. Ct. 1032 (1991). The majority in *Pacific Mutual* approved Alabama's use of seven factors to determine whether a punitive damage award violates the Due Process Clause. For a discussion of the reaction to the opinion, see Paul M. Barrett, *High Court Vagueness On Punitive Damages Leads to Legal Chaos*, WALL ST. J., March 24, 1993, at A1.

John Paul Stevens and Justice Blackmun [the author of the majority opinion] favor what lawyers call multifactor balancing tests. These are legal standards consisting of lists of relevant considerations, rather than clear-cut rules. Admirers of Justices Blackmun and Stevens praise their attention to nuance; detractors argue that jurists trying to juggle too many factors tend not to decide much. Whatever its potential advantages, the balancing approach produces perplexity when it isn't clear which factors are most important or how they should be weighed . . . Besides not ranking the Alabama factors, the opinion didn't indicate which, if any, were now mandatory for other states.

92. See *supra* text accompanying notes 45 & 46.

(and so granted limited liability), plaintiffs had dealt with the firm as a corporation anyway. Thus, in every case in which courts granted de facto corporation status, application of the doctrine of corporation by estoppel would have shielded defendants from personal liability. It would be impossible, therefore, to decide from those cases whether attempted compliance, plaintiff estoppel or both explained the judicial outcome. However, the reverse is not true: many cases exist in which plaintiff dealt with the firm as a corporation but the firm did not attempt to comply with the statute. In some, but not all of those cases, courts granted limited liability. All in all, then, what additional significance does attempted compliance have? (Have corporate law teachers afflicted students all these years with a bogus distinction between de facto corporations and corporations by estoppel?)

B. Regression Model and Data

Multiple regression is a statistical technique that can solve the problems of calculating the influence of individual case factors, identifying their relative weights, and accounting for the simultaneous presence of different factors.⁹³ This Article may be the first to use multiple regression to discern the separate legal reasons for judicial decisions in a purely common-law domain. However, applications of regression analysis in similar legal contexts show how it can be used to explain and even predict judicial decisions.⁹⁴ Indeed, as Franklin Fisher has observed, it is

93. It must be admitted, however, that regression analysis sometimes may only provide a partial solution to particular problems involving simultaneous appearances of two or more factors. Known as "multicollinearity," this possible problem and its solutions are discussed in all basic regression texts. See, e.g., A.H. STUDENMUND & HENRY J. CASSIDY, *USING ECONOMETRICS: A PRACTICAL GUIDE* 179-208 (1987). The problem of multicollinearity in the context of the defective incorporation cases is discussed further below.

94. For other examples of the technique, see Michael O. Moore, *Rules or Politics?: An Empirical Analysis of ITC Anti-Dumping Decisions*, 30 *ECON. INQ.* 449 (1992); Theodore Eisenberg & Sheri L. Johnson, *The Effects of Intent: Do We Know How Legal Standards Work?*, 76 *CORNELL L. REV.* 1151 (1991); Malcom B. Coate et al., *Bureaucracy and Politics in FTC Merger Challenges*, 33 *J. L. & ECON.* 463 (1990); Christopher C. Klein, *Predation in the Courts: Legal Versus Economic Analysis in Sham Litigation Cases*, 10 *INT'L REV. L. & ECON.* 29 (1990); Jeffrey A. Segal, *Predicting Supreme Court Cases Probabilistically: The Search and Seizure Cases, 1963-1981*, 78 *AM. POL. SCI. REV.* 891 (1984).

Regression models have been used frequently to measure the impact of various factors on civil or criminal sanctions. See, e.g., Cohen, *supra* note 79; John L. Lott, *An Attempt at Measuring the Total Monetary Penalty from Drug Convictions: The Importance of an Individual's Reputation*, 21 *J. LEGAL STUD.* 159 (1992); John L. Lott, *Do We Punish High Income Criminals Too Heavily?*, 30 *ECON. INQ.* 583 (1992); Phyllis Altroggee & William F. Shughart, II, *The Regressive Nature of Civil Penalties*, 4 *INT'L REV. L. & ECON.* 55 (1984).

difficult to see how anyone could reach conclusions in legal proceedings involving large-sample, multivariable situations *without* resort to multiple regression.⁹⁵

The sample of cases used here is that originally chosen by Frey.⁹⁶ Frey cited 123 cases of supposed defective incorporation, but surprisingly, many of them did not involve that issue at all.⁹⁷ Culling those irrelevant cases leaves a sample of 102 cases truly involving defective incorporation.

Use of the Frey cases was dictated for two reasons. First, Frey's analysis remains the most often cited summary of the common law of defective incorporation. Second, the rise of statutory intrusion into common law was based on claims, exemplified by Frey's conclusions, that the judicial holdings were indecipherable. Frey's conclusions, however, have never been subjected to any sophisticated testing.⁹⁸ One cannot assess the proper role of the statutes without first investigating the performance of the prior common law.⁹⁹

The regression model used here models a court's decision whether to accord limited liability to owners of a defectively incorporated firm.

95. Franklin M. Fisher, *Multiple Regression in Legal Proceedings*, 80 COLUM. L. REV. 702, 730 (1980). See also Daniel L. Rubinfeld, *Econometrics in the Courtroom*, 85 COLUM. L. REV. 1048 (1985); Michael O. Finkelstein, *Regression Models in Administrative Proceedings*, 86 HARV. L. REV. 1442 (1972).

96. This sample included cases from 1818 to 1945. The 1818 case, however, is the only one prior to 1860 in Frey's sample. Frey reports that his study is based on an analysis of "all the reported American cases." Frey, *supra* note 3, at 1156. It is unclear what he means; certainly not all defective incorporation cases are included in the sample reported in his article. But there is no reason to think that his sample is anything other than a random sample. A major point of the present Article, in any event, is a demonstration of how better statistical techniques would lead to very different conclusions concerning Frey's survey.

97. For example, in several cases that Frey included as supposedly involving defective incorporation, the court clearly held that the firm was a valid *de jure* corporation. See *Moe v. Harris*, 172 N.W. 494 (Minn. 1919); *First Nat'l Bank of Deadwood v. Rockefeller*, 93 S.W. 761 (Mo. 1906).

98. Simultaneous with Frey's analysis, different state corporation statutes began to adopt versions of the MBCA, which attempted to abolish the common-law doctrines of defective incorporation. See *supra* text accompanying notes 10 & 37-39. The different versions of the statutes actually adopted, plus the fact that the statutes are often ignored by judges, see Bradley, *supra* note 7, would now make it vastly more difficult to analyze the factors that govern the law of defective incorporation. The question addressed here remains, however: was the common law of defective incorporation so unprincipled that statutory intervention was warranted in the first place?

99. The possible disadvantage of using the classic common-law decisions, of course, is the uncertainty whether the same decision rules are being followed today in defective incorporation cases. But again, the passage of statutes designed to remove judicial discretion in defective incorporation situations already complicates, perhaps to the point of impossibility, the task of predicting modern decisions.

TABLE 1
LIST OF VARIABLES FOR REGRESSION ANALYSIS

Dependent Variable:	1 = grant limited liability (43 cases)		
	0 = hold personally liable (59 cases)		
Independent Variables:	1 = factor explicitly present		
	0 = factor not mentioned in opinion		
		Expected	No.
		Sign	Cases
A. Traditional Variables (Frey)			
1.	Attempted Compliance with Statute	+	58
2a.	Plaintiff Dealt with Firm as Corporation	+	59
2b.	Plaintiff Did Not Deal with Firm as Corporation	-	11
3a.	Defendant Passive in Firm Management	+	12
3b.	Defendant Active in Firm	-	67
B. Variables Identified in Veil-Piercing Cases			
4a.	Need for Many Investors to Raise Capital	+	20
4b.	No Need for Many Investors to Raise Capital	-	50
5.	Tort Case	+/-	3
6.	Parent-subsidiary Corporation	-	1
7a.	Firm Undercapitalized	-	7
7b.	Firm Adequately Capitalized	+	0
8.	Risky Activity	-	2
9a.	Indication of Fraud	-	16
9b.	No Indication of Fraud	+	12
C. Other			
10a.	Defendant Believed Firm a Corporation	+	50
10b.	Defendant Did Not Believe Firm a Corporation	-	21
11.	Limited Liability Granted in Lower Court	+	53

That decision is estimated using probablistic analysis (probit),¹⁰⁰ as a function of the several independent (explanatory) variables shown in Table 1. The explanatory variables are the factors identified in the more traditional analysis of defective incorporation (variables 1 through 3b) plus factors derived from the analysis of piercing the corporate veil (variables 4a through 9b).¹⁰¹ Table 1 also shows the number of instances,

100. In the probit model, $\text{Prob}[\text{LIMLIAB} = 1] = f[\alpha X]$, where f is the normal distribution function and αX is a linear combination (to be estimated) of the explanatory variables, listed in Table 1. See R. HILL ET AL., *THE THEORY AND PRACTICE OF ECONOMETRICS* 767 (1985).

101. For several of the potentially relevant decision factors, it was useful to include two dummy variables to allow for judges' failure to discuss the factor one way or the other. For example, with perfect information, defendants' active or inactive role in the firm could have been treated with a

from the 102-case sample, in which a particular variable was present and the expected sign on each regression coefficient. Positive signs indicate variables (e.g., attempted compliance) whose presence in a case one would expect to increase the grant of limited liability; negative signs indicate that the presence of the factor (e.g., possibility of fraud) is expected to reduce the probability of limited liability.

Table 1 also lists three other variables. The first two (10a and 10b) measure whether the defendant owner did or did not believe the firm was a corporation.¹⁰² The final factor (variable 11), reports whether the court below granted limited liability. Only one case in the Frey sample was a trial court opinion.¹⁰³ However, that case was discarded here because the court held that the firm was a de jure corporation. Because the sample used for regression analysis included only appellate opinions, the model was also estimated with an additional variable that measured whether the lower court granted limited liability. Which party prevailed in the lower court has been found to be a significant variable in other regression analyses of court opinions.¹⁰⁴ As shown in Table 1, limited liability was granted in the lower court in 53 of the 102 cases.

The data set for each factor listed in Table 1 was assembled as follows. My research assistant and I read each case independently, separately noting from the court's discussion which potentially relevant factors were present in the case. We then compared notes. In almost all cases, our perceptions were identical. In those unusual instances where our evaluations did not match (typically, because it was difficult to tell whether or

single dummy variable. But whether defendant was active (variable 3a) or inactive (variable 3b) could only be determined in 79 of the 102 cases. In the other 33, there was no judicial discussion of the point. Thus, two variables were used. The first was coded 1 if the case made it clear that the defendant was active in the firm; the second was likewise coded 1 if the defendant was clearly inactive. If defendant's role in the firm was unclear, both variables were coded 0. The advantage of this approach is that it takes into account judicial silence or ambiguity on a particular point. The disadvantage is the possibility of multicollinearity, in the event that silence or ambiguity arises in relatively few cases. That problem is discussed further below.

102. Although defendant's belief is sometimes listed as a separate factor in the de facto corporation cases, it is thought to be largely captured by whether or not defendant attempted to comply with the incorporation statute. See *supra* text accompanying note 19.

103. *First National Bank of Salem v. Almy*, 117 Mass. 476 (1875).

104. See, e.g., Eisenberg & Johnson, *supra* note 94, at 1182. I am grateful to Ted Eisenberg for pointing out the importance of including a variable to measure the lower-court outcome. See also Theodore Eisenberg & Stewart J. Schwab, *What Shapes Perceptions of the Federal Court System?*, 56 U. CHI. L. REV. 501 (1989) (discussing how judgment about a line of cases may differ, depending whether the observer is studying the trial or appellate level).

not the court had actually considered a certain factor), we reread the case together and agreed as to what was being said.

Necessarily, some interpretation of the relevant data is required.¹⁰⁵ But of course, interpretation is precisely what lawyers are routinely taught to do in deciding which factors are important in explaining judges' decisions. Thus, the exercise here is no different from what lawyers are supposed to do anyway. However, unlike traditional lawyering, assembling a systematic data set permits more sophisticated statistical testing and measurement of the significance and relative weights of the different factors mentioned by courts in the sample cases.¹⁰⁶

Preliminarily, Table 1 provides several interesting insights about the defective incorporation cases. First, in the entire sample of 102 cases, courts granted limited liability 43 times. But there were 59 cases in which either statutory compliance was attempted or the plaintiff dealt with the firm as a corporation—often, both factors were present. Thus, in almost 30 percent of the cases, presence of the supposedly sufficient factors for status as a de facto corporation or corporation by estoppel still did not result in limited liability.

Second, certain factors identified ex ante as possibly relevant to the grant of limited liability are almost totally absent from the defective incorporation sample. Only a few cases involved torts (variable 5),¹⁰⁷ a parent-subsidary relationship (variable 6),¹⁰⁸ discussion of capitalization

105. Courts routinely report some items, such as whether statutory compliance was attempted. Other items, such as whether defendants were active or passive in the firm and whether the firm's ownership structure entailed relatively large numbers of dispersed investors, had to be gleaned from more indirect evidence. For the latter, the deciding factor was often whether the business was family-owned (a very frequent occurrence) versus whether it was the sort of firm (railroad, bank) for which large numbers of dispersed owners typically would be expected.

106. It is assumed that judges correctly report the facts in their opinions, rather than concoct facts to support their decision. See *supra* note 78. An alternative method is to estimate the factors of importance to higher courts by using the facts of the case as found by the trial court. See, e.g., Segal, *supra* note 94, at 894. That approach is impossible here, however, because no published trial court opinions exist in many (if not most) of the cases.

107. For examples of two tort cases, see *infra* note 110. The absence of tort cases is surprising, as they make up an appreciable percentage (though not a majority) of the cases on piercing the corporate veil. Thompson, *supra* note 70, at 1058-59. Frey's evidence has been misinterpreted in this respect. About one quarter of his sample is reported to involve cases where plaintiffs' dealings with the firm were "not on a corporate basis," a phrase often interpreted to mean "not on a contractual basis," i.e., a tort. See, e.g., HAMILTON, *supra* note 49, 252. Frey makes clear, however, that most of his cases designated as "not on a corporate basis" were ones in which plaintiffs contracted with the firm without knowing whether it was a corporation. Frey, *supra* note 3, at 1160.

108. Granby Mining & Smelting Co. v. Richards, 8 S.W. 246 (Mo. 1888).

(variables 7a and 7b),¹⁰⁹ or risky acts (variable 8).¹¹⁰ Thus, these variables are deleted from the regression tests¹¹¹ leaving the following: attempted compliance; plaintiffs' and defendants' beliefs about whether the firm was incorporated; whether defendants were active or passive in the firm; whether the firm had a large number of dispersed owners; whether or not fraud appeared to be involved; and whether the lower court had granted limited liability.

Because few litigated cases exist in the categories omitted does not necessarily mean that there are few disputes of those sorts; litigated cases are not a random sample of overall disputes.¹¹² However, the works by Frey, Easterbrook and Fischel, and Clark are specifically directed at the litigated cases only, as are other commentators' complaints about the indecipherability of defective incorporation doctrines.¹¹³ The Model Act's campaign to abolish defective incorporation has likewise been based on claims about the published cases.¹¹⁴

The simple correlation coefficients for the included variables are shown in Table 2. One notes a relatively high correlation between the two variables measuring a plaintiff's belief that he was (PBELIEF) or was not (NOPBELIEF) dealing with a corporation. Likewise, and perhaps not surprisingly, there is a relatively high and positive correlation between

109. See, e.g., *Bank of De Soto v. Reed*, 109 S.W. 256 (Tex. Civ. App. 1908); *Pettis v. Atkins*, 60 Ill. 454 (1871).

110. The two cases in which the firm seemed to pursue unusually risky activities were *Frawley v. Tenafly Transp. Co.*, 113 A. 242 (N.J. 1921) (firm operated jitney buses, which collided and injured plaintiff-passengers); *Smith v. Warden*, 86 Mo. 382 (1885) (firm whose boiler exploded, injuring plaintiff as she sat in her home, maintained a plant for slaughter cattle, canning beef and shipping in middle of a city).

111. Intuitively, exclusion is appropriate because, if the sample reveals few instances of a particular independent variable actually occurring, its effects cannot be measured from the data. Technically, the exclusion is necessary, because inclusion creates extreme multicollinearity problems. See *supra* text accompanying note 93. Indeed, the problems in this case were fatal; inclusion of the variables resulted in such near-singular matrices that regression computations were impossible. See A. STUDENMUND & H. CASSIDY, *supra* note 93, at 42.

112. George L. Priest & Benjamin Klein, *The Selection of Disputes for Litigation*, 14 J. LEG. STUD. 1 (1984). See generally Robert D. Cooter & Daniel L. Rubinfeld, *Economic Analysis of Legal Disputes and Their Resolution*, 28 J. ECON. LIT. 1067 (1989). To what extent nonlitigated disputes concerning defective incorporation differ from the litigated cases is a subject not discussed in this Article. Inferences from the cases must also be tempered by the possibility that published and unpublished opinions in litigation may differ. See Peter Seigelman & John J. Donohue, III, *Studying the Iceberg from Its Tip: A Comparison of Published and Unpublished Employment Discrimination Cases*, 24 LAW & SOC'Y REV. 1133 (1990). But again, commentators' principal complaints about defective incorporation (as with piercing the veil) concern the published opinions.

113. See *supra* text accompanying notes 33-36.

114. See *supra* text accompanying notes 37-39.

TABLE 2 SIMPLE CORRELATION COEFFICIENTS OF REGRESSION VARIABLES

		<i>Variables:</i>					
		COMPLY: Defendants Attempted Compliance					
		PBELIEF: Plaintiffs Believed Was Corporation					
		NOPBELIEF: Plaintiffs Believed Was Not Corporation					
		DBELIEF: Defendants Believed Was Corporation					
		NODBELIEF: Defendants Believed Was Not Corporation					
		ACTIVE: Defendants Active in Firm					
		INACTIVE: Defendants Passive in Firm					
		DISPERSE: Dispersed Investments Required					
		NODISPER: Dispersed Investments Not Required					
		FRAUD: Fraud Possibly Involved					
		NOFRAUD: No Fraud Involved					
		LLBELOW: Limited Liability Granted by Lower Court					
		<i>Correlation Coefficients</i>					
		PBELIEF	NOPBELIEF	DBELIEF	NODBELIEF	ACTIVE	INACTIVE
COMPLY	0.201						
PBELIEF	-0.399						
NOPBELIEF	-0.080	-0.025		-0.499		-0.494	0.050
DBELIEF	0.221	0.102	0.214	-0.097		-0.100	-0.047
NODBELIEF	-0.438	-0.144	0.124	0.251	0.122	0.300	0.010
ACTIVE	0.019	-0.063	-0.029	0.059	-0.111	0.093	0.244
INACTIVE	-0.051	0.072	-0.092	-0.158	-0.129	-0.112	0.047
DISPERSE	-0.068	0.031	0.109	-0.153	0.447	0.093	0.010
NODISPER	-0.074	-0.113	-0.092	0.190	-0.111	-0.112	0.244
FRAUD	-0.223	-0.060	0.024	0.190	-0.111	-0.112	0.244
NOFRAUD	0.072	-0.051	0.069	0.190	-0.111	-0.112	0.244
LLBELOW	0.074	0.074	0.018	0.079	0.004	-0.012	0.047
DISPERSE		NODISPER	FRAUD	NOFRAUD			
	-0.475						
NODISPER	-0.009	0.071					
FRAUD	-0.104	0.075	-0.157				
NOFRAUD		0.021	-0.071	-0.075			
LLBELOW	0.030						

the defendant's disbelief that a corporation was organized (NODBELIEF) and a court's suspicion that defendant attempted to defraud the plaintiff (FRAUD). There is also a high and negative correlation between NODBELIEF and defendant's attempted compliance (COMPLY), the reason given by commentators for courts' often failing to treat as a separate factor defendants' beliefs about whether their firm is a corporation.¹¹⁵ Finally, one observes relatively high, negative correlation in two sets of paired variables: the variables measuring defendants' involvement in the firm (ACTIVE and INACTIVE) and those for the pattern of shareholding (DISPERSE versus NODISPERS) in the firm.

C. Results

The probit parameter estimates appear in Table 3, which reports three regressions.¹¹⁶ Regression I includes all variables (except those whose deletion was discussed above). All variable coefficients have the predicted signs. The variables measuring defendants' attempted compliance, plaintiffs' dealing with the firm as a corporation or not, defendants' passivity in the firm, the presence or absence of fraud, and the lower court's grant of limited liability are all statistically significant at conventional levels of Type I error. In other words, not only are attempted compliance and plaintiff beliefs about the corporateness of the firm important, but so too are the defendants' passivity in the firm and the court's perception regarding possible fraud involved in defective incorporation.

Regression I shows that the variables (variables 4a and 4b in Table 1) that measure the firm's need for many dispersed investors have an insignificant effect on a court's decision to grant limited liability.¹¹⁷ Regression II then reports the effect of excluding those unimportant variables on the other variables. As shown in Table 3, few important empirical inferences change. Attempted compliance, plaintiffs' beliefs about the firm as a corporation, defendants' active or passive role in the firm, courts' concerns about fraud, and the result below remain significant predictors of the decision to grant limited liability.

115. See *supra* text accompanying note 36.

116. These were the only regressions run, except as reported elsewhere in the text. See Edward Leamer, *Let's Take the Con Out of Econometrics*, 73 AM. ECON. REV. 31 (1983).

117. This result may well be due to collinearity between the two variables, discussed in connection with Table 2 in the text. Multicollinearity would reduce the overall size of the *t*-statistics and thereby lower reported significance levels. See A. STUDENMUND & H. CASSIDY, *supra* note 111, at 184.

TABLE 3
 PROBIT REGRESSION COEFFICIENTS
 DEPENDENT VARIABLE: GRANT OF LIMITED LIABILITY

	<i>Regression</i>		
	I.	II.	III.
	(Absolute <i>t</i> -statistics in parentheses)		
Constant	-1.871* (2.92)	-1.863* (3.32)	-1.8659* (3.59)
Defendants Attempted Compliance	1.177* (2.89)	1.126* (2.87)	1.248* (3.36)
Plaintiffs Believed Was Corporation	1.022* (2.57)	1.004* (2.56)	1.050* (2.78)
Plaintiffs Believed Was Not Corporation	-2.115** (1.72)	-1.883** (1.69)	-1.599*** (1.48)
Defendants Believed Was Corporation	0.325 (0.82)	0.383 (1.00)	—
Defendants Believed Was Not Corporation	-0.849 (0.94)	-1.129 (1.28)	—
Defendants Active in Firm	-0.487 (1.12)	-0.580*** (1.42)	-0.517*** (1.33)
Defendants Passive in Firm	1.634** (2.05)	1.462** (1.94)	1.759* (2.41)
Dispersed Investments Required	0.238 (0.49)	—	—
Dispersed Investments Not Required	-0.371 (0.80)	—	—
Fraud Possibly Involved	-1.662*** (1.55)	-1.524*** (1.76)	-2.194** (1.95)
No Fraud Involved	1.741** (2.079)	1.576** (1.98)	1.488** (2.10)
Limited Liability Below	1.008* (2.692)	1.017* (2.760)	0.958* (2.720)
Likelihood Ratio Test =	74.74*	73.04*	68.43*
Pseudo R-Squared =	.834	.826	.802
Fraction of Cases Correctly Predicted =	87/102	85/102	87/102

n = 102

* = significant at .01.

** = significant at .05.

*** = significant at .10.

In regressions I and II, defendants' own beliefs about whether they were incorporated have marginal influence empirically on judges' limited liability decisions. Holding constant all other variables, that is, defendants' independent understanding about whether their firm is a corporation apparently count for naught, statistically, in what judges do.¹¹⁸ In regression III of Table 3, therefore, the variables measuring defendants' understandings about their firms (variables 10a and 10b in Table 1) are deleted and the equation re-estimated. The results are qualitatively the same as before, except that deletion of the variables concerning defendants' beliefs about whether their firm was truly a corporation increases the size and significance levels of the variable measuring the possibility of fraud.¹¹⁹

Not surprisingly, in view of all the other results, the likelihood ratio and the pseudo R-squared statistics are quite high, regardless of the model estimated. Likewise, all specifications are highly predictive, correctly predicting about 85 percent of the case outcomes. Table 4 shows the distribution of predicted versus actual instances of limited liability granted (coded 1) or refused (0), using the estimates from regression III. As discussed in section II above, in only 58 percent of the cases in which

TABLE 4
PREDICTED AND ACTUAL CASE OUTCOMES

		<i>Predicted</i>		
		(from regression III, Table 3)		
		[0]	[1]	TOTAL
<i>Actual</i>	[0]	53	6	59
	[1]	9	34	43
TOTAL		62	40	102

statutory compliance was attempted and 33 percent of the cases where plaintiff dealt with the firm as a corporation was limited liability granted.

118. But recall that the correlation between two variables is relatively high, as discussed in connection with Table 2 in the text. The correlation between NODBELIEF and FRAUD is also relatively high. Thus, the reported non-significance of the variables concerning defendants' beliefs may well be an artifact of multicollinearity. See *supra* notes 93, 117.

119. This is perhaps not surprising, given the collinearity between defendants' not believing the firm was a corporation and court's concern about fraud, as discussed in connection with Table 2 above.

By specifying a model that includes *both* factors and contains additional factors suggested theoretically, one increases substantially the ability to predict actual case outcomes.

Finally, to test the claim that grants of limited liability in defective incorporation cases are somehow just a function of the passage of time, as some have claimed and as the time trend of the case outcomes seemingly validates,¹²⁰ a trend variable was created and included in the model. The earliest case (1818) was coded zero, and for every subsequent case the number of years since 1818 was noted. When added to the model estimated in regression III, the time-trend variable was actually negative, although insignificantly different from zero ($t = -.510$), with the signs and significance levels of the other explanatory variables unchanged.

IV. INTERPRETATION

These empirical results have useful implications for the law and the way it is presented to students and to courts. The implications concern, most obviously, the doctrines of defective incorporation. However, the implications also extend to the way that defective incorporation relates to other doctrines of corporate law and to the very process of legal reasoning.

A. Towards a Single Doctrine of Defective Incorporation

Defective incorporation is typically presented as consisting of two sets of legal dogma, vaguely related doctrinally but applied in different factual situations. *De facto* corporation is based on the notion that courts should not deprive defendants of limited liability for some technical defect in their filing, and thus largely depends on defendants' actions. Corporation by estoppel is based on the notion that plaintiffs should not obtain unlimited personal liability against persons with whom they were content to contract on the basis of limited liability, and thus depends particularly on plaintiffs' actions.

It is perhaps understandable that two doctrinal strains should develop, since they seem to grow out of two unrelated strains of contract law.

120. A simple regression of the percentage of cases granting limited liability on the time trend variable described in the text shows a significant, positive relationship, as the mapping in Figure 1 would suggest.

There is no general doctrine of "substantial compliance" with statutes,¹²¹ but any business firm, including the corporation, is largely an extra-statutory contract-based entity.¹²² In addition, the issue of defective incorporation arises almost exclusively in a contractual context, as noted above. "Substantial compliance" with a corporation statute (so as to attain de facto corporation status) has an analogue in the contract law doctrine of substantial performance. Likewise, estopping plaintiff from denying his willingness to deal with the firm as a corporation is analogous to estopping one who willingly makes a promise on which another relies, i.e., promissory estoppel. But in contract law, the doctrines of substantial performance and estoppel are not related to one another in any obvious ways, suggesting perhaps that de facto corporation (requiring substantial compliance) and corporation by estoppel should and would also be distinct concepts.

Yet, the defective incorporation cases themselves indicate that no such "bright-line" distinction exists. Frey's sample had already indicated that it is not unusual for defendants to seek to comply with the statute and at the same time for plaintiffs to deal with defendant(s) as a corporation. The empirical results here indicate that *both* factors affect judges' decisions in common-law defective incorporation situations. Given an attempt to comply with the statute, plaintiff's dealing with the firm as a corporation increases the likelihood of limited liability; given plaintiff's dealings with the firm as a corporation, attempted compliance increases the likelihood of limited liability. At the margin, courts will more likely accord defendants limited liability when they have tried to comply *and* plaintiffs have treated the firm as a corporation.

Thus, one should not view the cases as falling into the two traditional boxes, de facto corporation and corporation by estoppel. The results here make it easier to understand (if not excuse) judges' frequent inability to enunciate a clear distinction in the two subsets of cases. Evaluated by what they do, not by what they say, judges apply one unitary doctrine—that of defective incorporation. That doctrine should be viewed as con-

121. *But see* SAMUEL GREEN & JOHN V. LONG, MARRIAGE AND FAMILY LAW AGREEMENTS 80-81 (1984) ("Common-law marriage has been defined as 'a nonceremonial or informal marriage by agreement, entered into by a man and a woman having capacity to marry, ordinarily without compliance with such statutory formalities as those pertaining to marriage licenses' Common-law marriages frequently are the result of a defective ceremonial marriage. "); John H. Langbein, *Substantial Compliance with the Wills Act*, 88 HARV. L. REV. 489, 489-531 (1975).

122. For a recent discussion, see the papers presented at the symposium, *Contractual Freedom in Corporate Law*, collected in 89 COLUM. L. REV. 1395 (1989).

sisting of several factors, including defendants' attempt to comply with the statute and plaintiffs' treatment of the firm as a corporation. However, neither is sufficient; each merely adds to the likelihood that limited liability will be recognized. The apparent confusion shown by many judges in distinguishing the two doctrines reflects the fact that they are really not two doctrines at all.

Moreover, other factors are also important in the overall decision whether to grant limited liability. Evaluated by their decisions, courts apparently care whether defendants were active or passive in the firm. Likewise, courts pay attention to whether confusion about the firm's corporate status may have been created or used to deceive or defraud. These are factors heretofore ignored when commentators and teachers explain defective incorporation—except to the extent that terms like “fairness” and “equity” can be said to capture them.

B. Towards a Unified Doctrine of Limited Liability: Defective Incorporation and Piercing the Veil

The results here also indicate that lawyers' traditional dichotomy between the doctrines of piercing the corporate veil and defective incorporation should be revised. The inquiry in this Article was motivated to a considerable extent by the theoretical and empirical progress made by others in identifying the factors of importance in veil-piercing cases. Predictably, the same factors that induce judges to disallow limited liability when the statutory formalities have been completed would also play a role in their decisions to allow limited liability when the formalities have not been completed. One finds that the cases actually are similar in several respects.

In particular, judges' concern about potential fraud has significant influence in both sets of cases. The defective incorporation cases thus reinforce the lesson already learned from the veil-piercing cases, that the limited liability cases are largely related to contract-type problems.¹²³ Very few defective incorporation cases involve torts; tort-related problems potentially created by limited liability (undercapitalization, increased riskiness of firm activities) are virtually nonexistent in the cases. Plaintiffs' contractual understandings, defendants' involvement in the

123. Again, this finding concerns litigated cases only, and has no necessary implications for the set of all disputes that arise in the defective incorporation context.

firm's contracting and concerns about deception are the dominant factors that explain courts' decisions.

C. *Holdings vs. Dicta*

Finally, the empirical significance of defendants' activity in the firm and judges' perceptions of possible fraud is important for more than the way defective incorporation itself is understood. Generally, lawyers are taught to distinguish (and help judges distinguish) holdings from dicta. That distinction depends on yet another "bright-line," differentiating things that judges say form the basis of their decision (the holding) from other factors that are mentioned but supposedly are not determinative (dicta). A social scientist, hearing a lawyer explain what dicta are, would probably ask why judges bother in the first place to write about things that play no role in their decision. The empirical results here on defective incorporation suggest that putative dicta in fact do play a role in what judges decide, and thus explain why judges write them. In the defective incorporation sample utilized here, almost no case includes defendant passivity or the apparent absence of fraud in the decision rationale, i.e., the holding. Yet the results here show that these two factors—figuring only as dicta—have a predictable and significant influence on what judges actually decide.

V. CONCLUSION

Several professors of corporate law who commented on an earlier draft of this Article admitted that the defective incorporation doctrine has been a puzzle for most scholars. One professor referred to it as "an area of doctrine that has long been mystifying to me," a second as a subject "which I have always found mystifying." Another corporate law teacher commented, "This is an area that I have always had trouble teaching because I have never really been able to figure out [or] predict how a court will decide the cases." A fourth reported he has "generally believed that when courts specify multiple factors they are just creating a smoke screen for acting in an unprincipled manner."

In the face of the widespread perplexity, the results obtained here must be counted helpful, though not of course conclusive. Resort to inchoate notions of "fairness" and "justice" are unnecessary. The factors that judges rely on in defective incorporation cases are identifiable and rather specific. Assembling those factors into a multivariate model leads to the

demonstration that most of those factors in fact have a significant impact on judicial decisions. Perhaps better empirical evidence about what courts have really done will reduce the uncertainty heretofore complained of when judges have discretion to accord limited liability.

However, the lesson from the empirics extends further. In many instances, what courts purport to do is reducible to terms amenable to more sophisticated empirical work. Indeed, when courts purport to rely on more than one or two factors in their decisions, it is hard to see how one could confidently proclaim a line of cases chaotic *without* resort to multivariate statistical techniques. When the law of a particular subject consists of hundreds or even thousands of cases, the possible significance of even two different factors—and certainly their relative weights in judicial decisions—simply cannot be reliably assessed without statistical techniques. Inability to work with large sample techniques thus creates an incentive for researchers to draw inferences about the law by reading an unnecessarily small sample of cases. That, in turn, increases the variance of inferences permissible and thus reduces the value of the exercise in the first place.

The academic history of American law generally is replete with instances in which scholars have proclaimed traditional common-law modes of distilling “the law” from cases unworkable. Sometimes, as with defective incorporation, the alternative embraced is specific to a particular line of cases, although the alternatives (“fairness,” “justice”) seem rather unhelpful. But the more general claim that legal rules cannot be winnowed from the cases sometimes stimulates academic attempts at more overarching paradigm shifts in law, such as Legal Realism in the 1930s and Policy Science in the 1940s.¹²⁴ One can only wonder whether better empirical techniques, unavailable at the time, might have influenced scholars’ judgments regarding the workability of the more traditional approach to distilling the common law.¹²⁵

Statistical modeling is not a substitute for doctrinal analysis (including doctrinal analysis pursued by those with an economic bent). Statistics

124. For summaries of these schools of thought, see R. STEVENS, *LAW SCHOOL: LEGAL EDUCATION IN AMERICA FROM THE 1850S TO THE 1980S* 155-171, 264-288 (1983). For an empirical discussion of the influence of these schools on the development of law, see Fred S. McChesney, *Intellectual Attitudes and Regulatory Change: An Empirical Investigation of Legal Scholarship in the Depression*, 38 J. LEGAL ED. 211 (1988).

125. However, as suggested by the current popularity of “storytelling” in law school discourse, see *supra* note 87, the availability of more modern statistical methods will not necessarily cause academics to utilize them before deciding that the traditional ways of case analysis are unhelpful.

cannot create models of judicial decisions, only test them. It is the doctrinal analysis that must isolate the factors to be included in the statistical model, including analysis of supposed economic factors underlying judicial decisions. Once potentially relevant factors are identified, the empirical methodology is perfectly general. Statistics thus can usefully complement any analysis of legal doctrine.¹²⁶

The complementarity is the elementary one of substance and method. As the case of defective incorporation shows, discerning the significance and importance of several different factors invoked by judges in a large sample of cases sometimes requires more sophisticated empirical methodology than mere pigeonholing of cases. Traditional modes of legal analysis in the area of defective incorporation have only produced confusion and thus statutory attempts to abolish it—but not because the analysis itself was wrong in any doctrinal sense. The doctrines themselves do make sense. Why grant windfalls to plaintiffs who contract into limited liability? Why protect defendants who attempt to cheat plaintiffs? The problem, apparently, has been methodological. The apparent confusion (and thus lack of predictability) about which factors are important in judges' decisions has often negated the value of the defective incorporation doctrine itself. The results here indicate that the confusion is more an artifact of researchers' deficient empirical methods.

126. See Eisenberg & Johnson, *supra* note 94, at 1194-95 ("Such analysis may generate a rethinking of any legal area to which it is applied.").