SERIAL ENTREPRENEURS AND SMALL BUSINESS BANKRUPTCIES

Douglas G. Baird* & Edward R. Morrison**

Chapter 11 is thought to preserve the going-concern surplus of a financially distressed business—the extra value that its assets possess in their current configuration. Financial distress leads to conflicts among creditors that can lead to inefficient liquidation of a business with going-concern surplus. Chapter 11 avoids this by providing the business with a way of fashioning a new capital structure. This account of Chapter 11 fails to capture what is happening in the typical case. The typical Chapter 11 debtor is a small corporation whose assets are not specialized and rarely worth enough to pay tax claims. There is no business worth saving and there are no assets to fight over. The focal point is not the business, but the person who runs it. She is a serial entrepreneur, searching for the business that best matches her skills. For the vast majority of cases, then, Chapter 11 is best seen through the lens of labor economics, not corporate finance. Chapter 11 offers the entrepreneur increased liquidity as well as a forum for renegotiating debts (such as unpaid withholding taxes) for which she as well as the corporation are liable. But Chapter 11 offers these benefits only to entrepreneurs who remain with their existing businesses. This lock-in effect is qualitatively no different from the one commonly associated with rent control. These effects, as well as the costs the process imposes on third parties, should be the focus of any assessment of how well Chapter 11 works.

INTRODUCTION

This Article presents a comprehensive study of businesses that make up the Chapter 11 docket of a large bankruptcy court over the course of a year.1 The typical Chapter 11 cases are strikingly different from the cases

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1. Our study is the first of its type. The empirical works studying typical Chapter 11 cases to date have been largely mechanical time-and-motion studies of bankruptcy courts, focusing on such questions as the length of each case and the number that resulted in a successful plan of reorganization. Scant attention has been paid to the businesses themselves beyond such matters as the number of creditors and the amount they are owed. See generally Steven H. Ancel & Bruce A. Markell, Hope in the Heartland: Chapter 11 Dispositions in Indiana and Southern Illinois, 1990–1996, 50 S.C. L. Rev. 343 (1999)
one ordinarily hears about. Instead of Uniteds, Enrons, or Kmarts, we see small businesses. There are few assets beyond the entrepreneur’s human capital, and these rarely have more value inside the business than outside.\(^2\) It is therefore a mistake to ask whether the corporate entity that is the subject of the bankruptcy case is worth saving. For small businesses, the relevant unit of analysis is the owner and operator of the business, not the business itself.

A small business is typically a spell in the life of its owner-operator. The owner-operator’s human capital is fully portable and is used to start a string of businesses over her lifetime. She moves from business to business—often in the same industry—until finding a good match between her human capital and a particular business model.\(^3\) Much like the process of job shopping by workers,\(^4\) this search is the process by which a

\(^{(\text{reporting case outcome and duration); Samuel L. Bufford, Chapter 11 Case Management and Delay Reduction: An Empirical Study, 4 Am. Bankr. Inst. L. Rev. 85 (1996) (same, but also reporting effects of a case management program on duration); Lisa Hill Fenning \& Craig A. Hart, Measuring Chapter 11: The Real World of 500 Cases, 4 Am. Bankr. Inst. L. Rev. 119 (1996) (same, but also reporting demographic characteristics—e.g., whether debtor was business or nonbusiness and, if business, its legal structure, total assets and debt, and industrial classification); Stephen P. Ferris \& Robert M. Lawless, The Expenses of Financial Distress: The Direct Costs of Chapter 11, 61 U. Pitt. L. Rev. 629 (2000) (reporting case outcome and duration, total assets and debt, and total fees); Elizabeth Warren \& Jay Lawrence Westbrook, Financial Characteristics of Businesses in Bankruptcy, 73 Am. Bankr. L.J. 499 (1999) [hereinafter Warren \& Westbrook, Financial Characteristics] (cataloging information listed on petitions and other schedules filed with the bankruptcy court). Such studies reveal little about the nature of the underlying business beyond what can be gleaned from the crude classification scheme on the bankruptcy petition itself. This scheme does not, for example, distinguish an importer of men’s suits from a restaurant. This Article extends Edward R. Morrison, Bankruptcy Decisionmaking: An Empirical Study of Continuation Bias in Small Business Bankruptcies, J.L. \& Econ. (forthcoming) (manuscript on file with the Columbia Law Review) [hereinafter Morrison, Continuation Bias].\(^1\)

2. See Morrison, Continuation Bias, supra note 1 (manuscript at 8) (using 1998 data on Chapter 11 filings in the Northern District of Illinois, Eastern Division, and finding that roughly 80% of businesses had fewer than twenty employees, 75% had less than $1 million in assets, and about 50% had fewer than $100,000 in assets); Warren \& Westbrook, Financial Characteristics, supra note 1, at 529, 548 (using 1994 data on Chapter 11 filings in twenty-three districts and finding that 75% of businesses had twenty-four or fewer employees, 70% had less than $1 million in assets, and 50% had fewer than $351,000 in assets). The characteristics of the typical Chapter 11 match those of small businesses generally, which account for half of both GDP and nongovernment employment in the United States. U.S. Small Bus. Admin., The Small Business Economy: A Report to the President 5 (2004).


scarce resource (the owner’s human capital) gravitates toward its most productive use. The owner-operator’s human capital is not tied to any particular business enterprise; it can be redeployed when opportunities outside the existing enterprise are more attractive than those inside, which is precisely why most entrepreneurs are *serial* entrepreneurs. Just as taking account of job mobility is a fundamental feature of employment law,5 serial entrepreneurship should be central to any discussion of small business bankruptcies.6 In the world of small businesses, Chapter 11 is first and foremost a labor-market intervention.

The standard account of Chapter 11 has a very different focus. It begins with a fundamental insight of corporate finance;7 we must distinguish the question of who *owns* assets from the question of how they are *deployed*. Chapter 11 comes into play when these two questions are con founded.8 A business that cannot pay its creditors has a problem with its capital structure. No matter how well run, a business that generates operating income of $100 a year cannot support annual interest obligations of

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5. For example, there have been studies of the lock-in created by employer-provided health insurance. See generally Jonathan Gruber & Brigitte Madrian, Health Insurance, Labor Supply, and Job Mobility: A Critical Review of the Literature, in Health Policy and the Uninsured 97 (Catherine McLaughlin ed., 2004) (reviewing vast literature on health insurance, labor supply, and job mobility and discussing possible welfare implications).

6. The large Chapter 11 cases, while only a tiny fraction of all Chapter 11s, are crucially different in this respect. In this context, a focus on the legal entity makes sense. The business of WorldCom, United Airlines, or Kmart cannot be meaningfully separated from the corporation (or, more precisely, corporate group) that files the bankruptcy petition. The corporate entity that formally enters bankruptcy owns the assets, employs the workers, and contracts with the rest of the world. Everyone understands, of course, that the boundary between a business and the rest of the world is permeable and necessarily fuzzy at the edges. See generally Michael C. Jensen & William H. Meckling, Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure, 3 J. Fin. Econ. 305, 310–11 (1976) (suggesting that nature of firm as nexus for contracting relationships moots discussions of precise corporate boundaries). Nevertheless, sorting out the rights and obligations of the legal entity that houses a particular business is the principal challenge in these cases.

7. See Franco Modigliani & Merton H. Miller, The Cost of Capital, Corporation Finance, and the Theory of Investment, 48 Am. Econ. Rev. 261, 268–73 (1958) (setting out conditions under which a company’s value is independent of how much debt, as opposed to equity, is in its capital structure); Merton H. Miller, The Modigliani-Miller Propositions After Thirty Years, J. Econ. Persp., Fall 1988, at 99, 99–102 (noting acceptance of original Modigliani-Miller propositions and discussing their impact on field of corporate finance).

$200. Such a business is in financial distress. This is a problem that goes to the ownership of the assets, not the way they are used. Sorting out the rights of competing creditors when there is not enough to pay them in full does not mean that anything is unsound with the underlying business. Financially distressed businesses are not necessarily in economic distress.9 The archetypal example is the railroad. Even if it costs too much to build, once built, its best use is as a railroad. The operating costs are comparatively small and the assets—narrow strips of land and steel rails—have little value in any other use. The railroad's assets are optimally deployed within the existing business structure even though it cannot pay what it owes.10

Again, according to the usual account, without bankruptcy law, the problems with the capital structure (the ownership issue) lead to inefficient liquidations (an asset deployment issue). Chapter 11 ensures this does not happen. It is a sorting mechanism.11 It aims to identify the businesses that have greater value as going concerns than in piecemeal liquidation and provide a process for these businesses to acquire a capital structure consistent with their economic circumstances. The remaining businesses—those without going-concern value—are filtered out and exposed to liquidation.

The tools of corporate finance also identify the costs of Chapter 11. As it accomplishes its sorting function, Chapter 11 allows the owner of the assets—the debtor—to make decisions about their deployment. As a result, one worries that Chapter 11 will distort ex ante investment decisions. When the managers of the business are the shareholders, or are beholden to them, they may engage in strategic behavior that reduces the creditors' payoffs in bankruptcy.12 Anticipating this, creditors may be unwilling to invest in the business in the first place. Similarly, one worries

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that the managers' desire to keep their jobs will also delay the redeplo-
ment of assets that are best used elsewhere. There may be alternatives
to Chapter 11 that take better advantage of capital markets. Options
and derivatives can solve financial distress problems at low cost.

Thus runs the standard account. But none of this matters in the
typical small business bankruptcy. Whatever filtering is done has nothing

13. See Douglas G. Baird, The Uneasy Case for Corporate Reorgani-
zations, 15 J. Legal Stud. 127, 139–41 (1986) (explaining that managers are biased toward reorganization as
opposed to liquidation even when latter is more efficient); Michael Bradley & Michael
Rosenzweig, The Untenable Case for Chapter 11, 101 Yale L.J. 1043, 1050–51 (1992)
(arguing that benefit of saving going-concern value in Chapter 11 must be weighed against
risk that managers will make suboptimal and self-interested decisions during reor-
ganization); Lawrence A. Weiss & Karen H. Wruck, Information Problems, Conflicts of
Interest, and Asset Stripping: Chapter 11's Failure in the Case of Eastern Airlines, 48 J.
Fin. Econ. 55, 58 (1998) (asserting that management's exclusive right to file plan of
reorganization in first 120 days of Chapter 11 case gives it opportunity to mismanage
company at expense of its creditors).

14. See, e.g., Mark J. Roe, Bankruptcy and Debt: A New Model for Corporate
alternative in which reorganized firm's capital structure would consist entirely of equity,
which would be valued by floating a fraction of it on capital markets).

15. See generally Barry E. Adler & Ian Ayres, A Dilution Mechanism for Valuing
Corporations in Bankruptcy, 111 Yale L.J. 83 (2001) (setting forth particular options-based
mechanism as alternative to Chapter 11); Lucian Arye Bebchuk, A New Approach to Corporate

16. Alternative approaches to Chapter 11 emphasize goals beyond preserving going-
concern value. See, e.g., Charles J. Tabb, The Future of Chapter 11, 44 S.C. L. Rev. 791,
802–07 (1993). These approaches usually include arguments to the effect that a finan-
cially distressed corporation should take account of every party with a stake in the business and
its future—not only creditors and shareholders, but workers, suppliers, customers, tort
victims, and anyone else the business affects. See, e.g., Karen Gross, Failure and
Forgiveness: Rebalancing the Bankruptcy System 248–49 (1997). Bankruptcy's
distributional scheme should not merely respect the rights of investors, but also ensure
that workers, tort victims, and other nonadjusting creditors are treated fairly. Powerful
creditors should not be able to commandeer the process to advance their own interests to
the exclusion of others. As Warren and Westbrook put it:

[The current bankruptcy system] constrain[s] the collection rights of each
creditor individually in order to promote a somewhat more efficient liquidation
or reorganization for the benefit of all concerned. This is accomplished by
shrinking the collection rights of the most powerful creditors in order to achieve
somewhat greater distribution among all those who have a stake in the debtor.

Elizabeth Warren & Jay Lawrence Westbrook, Contracting out of Bankruptcy: An
Westbrook, Contracting]. Bankruptcy judges must retain sufficient discretion to ensure a
collective process that brings everyone to the table. A Chapter 11 corporate reorganiza-
tion is a collective process in which interested parties take stock of the business and decide on
its future. See Donald R. Korobkin, Rehabilitating Values: A Jurisprudence of Bankruptcy,
91 Colum. L. Rev. 717, 765–71 (1991) (discussing presence of a "competition of diverse
human values that are fundamentally incommensurable" in each bankruptcy case).

Much of the work in this vein articulates these other goals and the need to balance
everything simultaneously in terms so vague and abstract as to admit of no contradiction.
See, e.g., id. at 722 (describing bankruptcy as a kind of "group therapy," or "a system with
varied contours and dimensions, having the distinct function of facilitating the expression

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to do with preserving going-concern value, as there are few, if any, specialized assets and the entrepreneur can (and often does) recreate the same business at little or no cost. Distortions of ex ante investment decisions are irrelevant when the dominant creditor is a taxing authority, not a market actor making an investment decision. And, as there are few physical assets and even fewer specialized assets, ensuring efficient redeployment of assets is not a primary concern either. When there are few assets other than human capital, it makes no sense to focus on the corporate entity and its capital structure. The focus should instead be on the owner-operator, around whom the business is organized. In the world of small business, labor economics rather than corporate finance provides the relevant tools.

Seen from the vantage point of labor economics, a Chapter 11 corporate reorganization is just one of many government policies targeting small businesses, such as the Small Business Administration’s loan, investment, and bonding programs. Its benefits include “breathing space,” temporary liquidity, greater bargaining power with particular creditors and recognition of those diverse values important in dealing with financial distress); Elizabeth Warren, Bankruptcy Policy, 54 U. Chi. L. Rev. 775, 811 (1987) (“I have offered a dirty, complex, elastic, interconnected view of bankruptcy from which I can neither predict outcomes nor even necessarily fully articulate all the factors relevant to a policy decision.”). Nevertheless, these approaches focus squarely on the business and its future. See, e.g., Warren & Westbrook, Contracting, supra, at 1254 (“Bankruptcy is the forum in which our society makes its final decisions about the life and death of a business and who gets what. To that forum come bank lenders and pensioners, tort victims and trade creditors, . . . each with a different economic relationship with the debtor.”).

Such approaches, like the standard law and economics critique, are centered on the business and keeping it alive. This focus makes no sense in the context of the typical case. The focus should be on the owner-operator rather than the legal entity that houses the business or its general creditors who will, in any event, be left with nothing. Only by understanding the benefits that Chapter 11 brings the owner-operator (and the corresponding costs it imposes on her as well as others) can we begin to assess the current system and how it works in the typical case.

17. See infra Part II.A.1.
22. Although Chapter 11 (and bankruptcy law generally) is frequently described as “breathing space” for debtors, e.g., A. Mechelé Dickerson, The Many Faces of Chapter 11: A Reply to Professor Baird, 12 Am. Bankr. Inst. L. Rev. 109, 116 n.42 (2004); George G. Triantis, The Interplay Between Liquidation and Reorganization in Bankruptcy: The Role of Screens, Gatekeepers, and Guillotines, 16 Int'l Rev. L. & Econ. 101, 110 (1996), we stress the Code’s function as breathing space not for the corporate debtor but for its owner-operator.
(especially landlords), and an opportunity to renegotiate debts—owed to banks and the Internal Revenue Service—that have been personally guaranteed by the owner-operator.24

While most programs designed to aid small entrepreneurs are available to any business that is sufficiently small,25 Chapter 11 provides its benefits in a way that is narrow and arbitrary. Entrepreneurs must remain with their current business to enjoy Chapter 11’s benefits.26 Hence, Chapter 11 encourages entrepreneurs who do business in corporate form to remain with that particular corporate form longer than they might otherwise. This lock-in effect is the principal cost of the small business bankruptcy and yet it has been wholly neglected in the literature.

One can argue that Chapter 11 facilitates the transition from one business to another, and that the bankruptcy process smooths the entrepreneur’s path. Chapter 11 might overcome bargaining failures that undermine out-of-court workouts between a business and a lending bank.27 Alternatively, Chapter 11 might be an effective way to renegotiate owner-operators’ personal guarantees of their corporations’ indebtedness. The bank may be willing to renegotiate the guarantee, particularly because the owner is a serial entrepreneur who will likely succeed in a future business, but be unwilling to do so without credible evidence that the original business has failed. Chapter 11 may offer a relatively low-cost mechanism for verifying the assets of the business and assessing their value.28

24. We discuss these benefits in detail in Part III. The owner-operator “guarantees” that withholding taxes are turned over to the IRS in the sense that the IRS imposes on individuals a “trust fund recovery penalty” equal to the amount of unpaid taxes for businesses whose affairs they controlled. I.R.C. § 6672 (Thomson 2005).

25. “Small” is defined in terms of employment (e.g., less than 500 employees for most manufacturing and mining industries) or average annual receipts (e.g., less than $6 million for most retail and service industries). See U.S. Small Bus. Admin., Frequently Asked Questions (FAQs) About Small Business Size Standards, at http://www.sba.gov/size/indexfaqs.html (last visited Sept. 18, 2005) (on file with the Columbia Law Review).

26. The focus in this Article is on corporate reorganizations, not on the ability of individual entrepreneurs to discharge personal indebtedness and thereby obtain a “fresh start.” Individuals can use Chapter 11 as well as Chapter 7 and, when used for this purpose by flesh and blood individuals, Chapter 11 does not tie entrepreneurs to a particular business venture. Indeed, as shown below, see infra notes 39, 50, the presence of the lock-in effect in corporate Chapter 11s, but not individual Chapter 11s, renders seriously problematic any study of Chapter 11 that conflates the two.


But it is equally plausible that Chapter 11 hinders the transition from one business to another. Rewarding entrepreneurs to stay put is suspect. Few would advocate for a policy that forgives an individual’s tax liabilities only if she remains with her current employer. Yet Chapter 11 has precisely the same structure. Indeed, it closely resembles rent control. Rent control prevents landlords from raising the rent on existing tenants and thereby induces tenants to stay too long in an otherwise undesirable apartment. Chapter 11 may likewise encourage entrepreneurs to stay too long with the wrong business.29

As we assess the costs and benefits of Chapter 11 in the typical case, we should also be careful not to exaggerate the stakes. Perhaps only ten to fifteen percent of all failing businesses ever file a bankruptcy petition.31 An even smaller fraction use Chapter 11.32 For the typical corporations that enter Chapter 11, the benefits and costs are both modest.33


30. The effect is, of course, not limited to rent control and Chapter 11. It happens whenever the law induces people to keep assets longer than they would otherwise. Another example is taxation of realized, but not unrealized, appreciation in the value of an asset. Because the tax has to be paid only when the asset is sold, it encourages investors to hold onto appreciating assets. See David A. Weisbach, An Efficiency Analysis of Line Drawing in the Tax Law, 29 J. Legal Stud. 71, 72 (2000).

31. It appears that only a small fraction of troubled businesses ever file a bankruptcy petition. Reliable data on this issue is unavailable. Among other things, identifying what counts as a discrete business is elusive. Millions who are employed full-time by someone else earn some income on the side. Each of these sidelines, or indeed anything that generates Schedule C income, might be considered a discrete business. Dun & Bradstreet, a supplier of credit ratings and other business information, appears to apply a less expansive definition; its data indicate that for every one hundred businesses that close their doors, only ten to fifteen will ever file a bankruptcy petition. See Leora Klapper et al., Business Environment and Firm Entry: Evidence from International Data, at Annex 3 (Nat’l Bureau Econ. Research, Working Paper No. 10380, 2004), available at http://www.nber.org/papers/w10380.pdf (on file with the Columbia Law Review). These liquidity-constrained businesses are surely deterred by the prospect of paying thousands of dollars of upfront legal fees merely to file a petition. A business will often pay over $5,000 upfront merely to obtain the assistance of an attorney. Telephone Interview with Karen J. Porter, Partner, The Law Offices of Karen J. Porter (Oct. 29, 2004). Ms. Porter and her former business, Minchella & Porter, represented six percent of the businesses in our study.

32. Most business bankruptcy filings are made under Chapter 7, not Chapter 11. During the twelve months ending September 2004, for example, the courts received 34,817 business filings. Only 9,436 of these were filed under Chapter 11; 20,234 were filed under Chapter 7. Admin. Office of the U.S. Courts, Judicial Business of the United States Courts 2004, tbl.F-2, available at http://www.uscourts.gov/judbus2004/contents.html (last visited Sept. 18, 2005) (on file with the Columbia Law Review).

33. The primary focus of this Article is the lock-in effect, which is an indirect cost of the bankruptcy process. We should not, however, neglect the direct costs. During the pendency of a Chapter 11 case, median (mean) administrative costs will amount to about 2% (17%) of a business’s total assets, as measured at the time of the petition. See Arturo Bris et al., The Costs of Bankruptcy 19 & tbl.9 (Yale Int’l Ctr. for Fin., Working Paper No. 04-13, 2004), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=5239562 (on file with the Columbia Law Review) (using combined data on large and small Chapter 11s
The "breathing space" is short-lived: Judges identify and shut down most failing businesses within six months.34 Moreover, the businesses that remain in Chapter 11 the longest (and where lock-in is potentially the most costly) are usually those businesses in which the serial entrepreneur can match his or her human capital with a business within the same corporate shell.35 These are typically situations in which the business has suffered distress as a result of overexpansion (such as opening a second store that fails). The socially optimal strategy for the entrepreneur is to shed the excess capacity and retreat to the core business that she once ran successfully. Staying with the same business therefore imposes few costs. She is like the tenant who would continue to live in the same apartment even without rent control; there is no efficiency loss when tenants living in rent-controlled apartments are the same tenants who would pay the most to live in those apartments.36

A change in academic and political debates about Chapter 11 is in order. We need to move the debate about Chapter 11 and its effects on particular businesses to one that focuses squarely on the serial entrepreneur. Chapter 11 should help (or at least not distort) the efforts of entrepreneurs to find businesses that best suit their skills. It can do this best by providing an efficient forum for resolving disputes and disposing of assets. Current academic thinking about small business bankruptcy pushes in exactly the wrong direction by promoting the business, not the entrepreneur.

Part I describes our methodology and our dataset. Part II shows that small businesses in bankruptcy generally lack specialized assets and, as a result, have little going-concern surplus. These findings indicate that Chapter 11 serves no purpose if it focuses on preserving the entity that houses nonspecialized assets. They also raise questions about the reasons why owner-operators find Chapter 11 attractive. If the Code does not play an important role in preserving going-concern surplus, why do entrepreneurs ever put their businesses in Chapter 11? Part III explores several possible answers, all of which underscore the principal and altogether neglected cost of Chapter 11: It discourages small entrepreneurs from exiting existing businesses and finding new, sometimes better matches with their human capital—either a new business or an employment opportunity.

34. Morrison, Continuation Bias, supra note 1 (manuscript at 12-13).
35. See infra Part III.C.4.
I. The World of Corporate Chapter 11

When a flesh and blood entrepreneur files her own personal bankruptcy petition either in Chapter 7 or Chapter 11, the principal consequence is the discharge of her individual debt. Bankruptcy’s fresh start unequivocally facilitates her search for a new business because the fresh start is not in any way conditioned on continuing the old business. Corporate Chapter 11s, the cases of interest to us, are dramatically different. When the entrepreneur places her corporation in bankruptcy, her personal debts are unaffected. Whatever benefits the entrepreneur enjoys from Chapter 11 are conditioned upon the old corporation remaining intact. Because it ties her fate to the business, regardless of whether it makes sense for her to remain there, Chapter 11 can interfere with the entrepreneur’s effort to find the right match for her human capital.

A. Methodology and Data

This Article examines the docket of one bankruptcy court over the course of a single year, the corporate Chapter 11 cases filed in the Eastern Division of the Northern District of Illinois (Northern District) during calendar year 1998. The Northern District’s jurisdiction encompasses Chicago, Cook County, and outlying areas—a large and diverse economy. Relative to the economy of the country as a whole, there is less

37. For an overview of consumer bankruptcy, see generally Douglas G. Baird, Elements of Bankruptcy 30–61 (3d ed. 2001) [hereinafter Baird, Elements of Bankruptcy].

38. Fan and White, for example, show that homeowners are significantly more likely to own a business and to start new businesses if they live in states with high or unlimited Chapter 7 exemption levels than if they live in states with low exemption levels. Wei Fan & Michelle J. White, Personal Bankruptcy and the Level of Entrepreneurial Activity, 46 J.L. & Econ. 543, 556 (2003).

39. It is for this reason that this Article focuses exclusively on corporate Chapter 11 cases. Pooling corporate and individual Chapter 11 cases together, as other studies do, is a serious mistake. See, e.g., Warren & Westbrook, Contracting, supra note 16, at 1208 (“Debtors in the sample [used in the article] are a mix of human beings, partnerships, corporations, and other forms of legal entities.”). It masks the most important features of Chapter 11 as it applies to corporate and individual debtors respectively. Of course, to understand what was happening in corporate Chapter 11 cases, we need to know whether the owner of the business filed a personal bankruptcy petition herself, either at the same time as the Chapter 11, before it, or afterwards. This is one of the many pieces of information we gathered for our database. Real estate ventures also file Chapter 11 petitions, but typically involve investment vehicles with a single creditor and no operating business. See Douglas G. Baird, Remembering Pine Gate, 38 J. Marshall L. Rev. 5, 15–16 (2004) (stating that most Chapter 11 cases concern “[s]mall businesses and failed real estate deals,” and that most real estate bankruptcies involve only two people, a secured creditor and an investor “with a leaky tax shelter”). Looking at all types of cases is, however, appropriate in an empirical study of the bankruptcy process itself. See, e.g., Douglas G. Baird & Edward R. Morrison, Adversary Proceedings in Bankruptcy: A Sideshow, Am. Bankr. L.J. (forthcoming) (manuscript at 22–31, on file with the Columbia Law Review) (examining both consumer and corporate bankruptcy cases in study of adversary proceedings in bankruptcy and identifying differences between them).

40. See Morrison, Continuation Bias, supra note 1 (manuscript at 5).
agriculture and more manufacturing, but it is as suitable a place as any to take the pulse of economic activity generally and corporate Chapter 11 cases in particular. 41 Calendar year 1998 is recent enough that the docket is accessible electronically, but far enough in the past such that we can see what happened to the business once Chapter 11 had run its course. 42

The Northern District was also chosen because of the rich supply of data. The court’s judges permitted access to a database 43 containing copies of every filing and judicial order in these cases. We reviewed the docket of each case, including the bankruptcy petition, the schedules, and any filings (such as disclosure statements) that discuss the underlying business. These sources give detailed information about each business’s finances (assets, debt, cash flow, etc.), history (including events that led to the bankruptcy petition), experience in bankruptcy (e.g., time in bankruptcy, types of motions filed by the debtor and its creditors, types of court orders), and information about the career history of the owner-operator.

We augmented this career-history information using data collected by the Secretary of State of Illinois and made available on LexisNexis, such as whether the owner-operator in a Chapter 11 case established other businesses, the nature of these businesses, and their histories. We then returned to the bankruptcy court files and searched for any other bankruptcy petitions filed by the same corporation or the principal of the corporation. We also consulted newspaper stories about the businesses and the people running them. When necessary, we contacted the principals of these businesses or those who succeeded them, purchased the business’s assets, or leased the same premises. When necessary, we also visited the businesses themselves.

The Northern District’s bankruptcy judges are highly respected professionals. Its members in 1998 included prominent members of the National Conference of Bankruptcy Judges, the American College of Bankruptcy, and the National Bankruptcy Conference. 44 One was later

41. See id. (showing that Northern District is similar to other large, metropolitan areas across the country).

42. This was a time of relative economic prosperity, so our data describe the typical cases that arise in nonrecessionary times. Bankruptcy cases in bad times might, of course, look different.

43. The database, Public Access to Court Electronic Records (PACER), can be accessed for a fee at http://www.pacer.uscourts.gov (last visited Sept. 18, 2005). The Northern District waived the fee for this study.

appointed to the District Court.\textsuperscript{45} There is little danger that the peculiarities or eccentricities of this bench distorted the types of cases filed there.\textsuperscript{46} For these reasons, we believe our sample is representative of small business Chapter 11 cases and, at least in industrial composition, representative of small businesses generally.

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As Table 1 indicates, the Northern District received 184 Chapter 11 filings during 1998. For this Article, we focus on a subset of these filings: small corporations owned and operated by the same person—the owner-operator.\textsuperscript{47} Table 1 also shows that we consolidated seven filings by sister companies (the court consolidated these cases as well), and eliminated

\begin{footnotesize}
\begin{itemize}
  
  
  \textsuperscript{46} There are two potential distortions worth noting. First, the motions practice of the Northern District is somewhat different from that of other courts. As one of us has discussed elsewhere, this motions practice may have the effect of making the court more responsive to abuses or more likely to dismiss cases early in the process. See Morrison, Continuation Bias, supra note 1 (manuscript at 14 n.35). Second, the IRS is a large presence in our cases. Id. To the extent that local IRS practices vary (and are known to vary), this too could affect the population of cases that file in the Northern District.
  
  \textsuperscript{47} Our dataset includes twenty-two real estate cases and forty-two filings by flesh and blood individuals. For the reasons noted above, we are not focusing on them in this Article.
\end{itemize}
\end{footnotesize}
four repeat filings by the same businesses and one involuntary petition filed days before the business filed its own voluntary petition. Finally, we eliminated two filings by large, publicly traded corporations and two filings by moderately sized corporations that were not owner managed. The two publicly traded corporations had over seven hundred employees each, far more than the five-hundred-employee cutoff used by the Small Business Administration as an indicator of a "small business." The two moderately sized businesses had fewer than five hundred employees but were different from the other businesses in this study because they exhibited the classic separation of ownership and control associated with large corporations. It should be noted, however, that the results reported below are unaffected by the exclusion of these moderately sized businesses. After making these exclusions and consolidations, our sample of Chapter 11 filings falls from 184 to 104 observations.

The cases in our sample are, to the extent we can tell, similar to Chapter 11 cases filed elsewhere in terms of the amount of debt, the amount of assets, and other characteristics reported in other studies.

48. See supra note 25.

49. By "separation of ownership and control" we mean the decision by the owners of a business to allocate decisionmaking authority to agents (managers) who own only a fraction of the business and, therefore, bear only a fraction of the costs and benefits of their decisions. This phenomenon is a fundamental characteristic of modern corporations and a central focus of modern corporate finance scholarship, as emphasized by Berle and Means, and Jensen and Meckling, among others. See Adolf A. Berle & Gardiner C. Means, The Modern Corporation and Private Property 127–52 (1932); Jensen & Meckling, supra note 6, at 308–10. The two large, publicly traded corporations—Mercury Finance and First Enterprise Financial Group—exhibited such separation: The owners were widely dispersed shareholders; the managers held minority ownership interests. The two moderately sized businesses—Tradetech Americas and Abtox, Inc.—exhibited the same separation. Only 35% of Abtox’s equity was held by directors of the corporation; the rest was owned by a broad range of pension funds, insurance companies, and individual investors. Statement of Financial Affairs Item 19, In re AbTox, Inc., No. 98-22583 (Bankr. N.D. Ill. July 22, 1998). Although about 70% of Tradetech’s equity was held by its top three executives when creditors filed an involuntary petition, List of Equity Security Holders, In re Tradetech Am., Inc., No. 98-21105 (Bankr. N.D. Ill. Dec. 1, 1999), control over the corporation was in the hands of other investors. On July 10, 1998, the day after Tradetech’s Chapter 11 filing, the top executives were replaced. Statement of Financial Affairs at Item 20.b, In re Tradetech Am., No. 98-21105. Six months later the firm was sold to one of its institutional investors. See Order Approving Disclosure Statement, Confirming Debtor’s Plan of Liquidation, and Authorizing Sale of Certain Assets out of the Ordinary Course of Business, In re Tradetech Am., No. 98-21105; see also Motion for Approval of Sale of Assets and for Related Relief at 6, In re Tradetech Am., No. 98-21105 (explaining that substantially all of debtor’s assets would be sold to a corporation headed by Richard Lynch, who had been one of debtor’s directors).

50. See Morrison, Continuation Bias, supra note 1 (manuscript at 8–10) (comparing 1998 data on Northern District to data presented in other studies of Chapter 11). As shown there, conclusions about the comparability of our sample to cases filed in other bankruptcy courts are necessarily tentative. Id. Our work can be compared with other studies using only the crude classifications on the bankruptcy petition itself, as other scholars typically have not gone beyond them. See supra note 1. Nevertheless, wherever others have gone beyond the face of the petition, their findings are consistent with ours.
Indeed, the businesses themselves look much like businesses as a whole in the economy. By examining Tables 2 and 3 together, we can compare the characteristics of businesses in our sample to those of corporations in the 1998 Survey of Small Business Finance (SSBF), a representative national sample of small businesses administered by the Federal Reserve Board. The industry composition of businesses in our sample differs from the distribution of SSBF corporations in a few respects. Wholesale Trade is underrepresented in our sample; Eating and Drinking Places and Business Services are overrepresented. The percentage of businesses with fewer than twenty employees is about the same, around 80%, in both samples. Relative to SSBF businesses, however, the ones in our sample are markedly younger: The median age is 6.8 years, relative to 13 years in the SSBF. And, not surprisingly, the businesses in our sample have fewer assets, more debt, and much more leverage than the average business in the SSBF. In short, the distressed businesses in our sample are somewhat smaller, younger, and more concentrated in the eating and drinking and services sectors. Similar patterns characterize corporate Chapter 7 filings in the Northern District.

For example, Sullivan et al. supplemented data from the petitions and schedules with telephone interviews, and their findings are consistent with our finding that the principals of Chapter 11 corporate debtors are serial entrepreneurs. See Teresa A. Sullivan et al., Financial Difficulties of Small Businesses and Reasons for Their Failure 30 (U.S. Small Bus. Admin., Working Paper No. SBA-95-0403, 1998), available at http://www.sba.gov/advo/research/rs188tot.pdf (on file with the Columbia Law Review) (finding that three-quarters of debtors have previous experience as an owner or manager of another business). This study, however, looked at debtors in Chapters 7, 11, and 13 and did not distinguish corporate debtors from individuals for the purposes of its analysis. Id. at 5, 17–18. Some of the debtors whom they found to have started new businesses likely were associated with corporations that had filed Chapter 11 petitions, but there is no way to know how many. Again, one can draw only limited inferences from a dataset that fails to distinguish between individuals and corporations. This is especially true with respect to an issue where, depending on whether the debtor is an individual or a corporation, the Bankruptcy Code pushes in opposite directions, in the former case facilitating the search for a match between human capital and the right business, and in the latter case putting a brake on it. See supra notes 37–39 and accompanying text.


52. That eating and drinking establishments are overrepresented in bankruptcy squares with anecdotal evidence, but again one must caution against generalizing. Other empirical studies of Chapter 11 do not look at the underlying businesses enough to even know how many are eating and drinking establishments. See, e.g., Warren & Westbrook, Financial Characteristics, supra note 1, at 529–32 (reporting only broad business categories—e.g., "Retail/Wholesale," "Manufacturing/Mining"—listed on face sheets of bankruptcy filings); Bris et al., supra note 33 (not reporting industrial characteristics of sample businesses).

53. We confirmed this by randomly sampling 75 of the more than 300 corporate Chapter 7 filings from the Northern District in 1998. We identified these filings by searching court records for cases in which the debtor's name included "Co.," "Corp.," "Inc.," or another identifier of a corporate entity. These filings matched the Chapter 11
Table 2: Statistics, Corporate Chapter 11 Filings in Northern District of Illinois During 1998

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>% (freq)</th>
<th>Under 20 Employees, % (sd)</th>
<th>Age in years, median (sd)</th>
<th>Asset Value, $ (mean) (sd)</th>
<th>Debt, $ (mean) (sd)</th>
<th>Leverage, % (mean) (sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15–17)</td>
<td>13.5</td>
<td>76.9 (12.5)</td>
<td>7.0 (12.5)</td>
<td>467,201 (1,236,721)</td>
<td>825,977 (2,797,048)</td>
<td>2.8 (4.6)</td>
</tr>
<tr>
<td>Manufacturing (20–39)</td>
<td>11.5</td>
<td>91.7 (31.6)</td>
<td>28.4 (1,541,870)</td>
<td>405,163 (11,300,000)</td>
<td>1,130,172 (5.7)</td>
<td></td>
</tr>
<tr>
<td>Transportation (40–48)</td>
<td>3.9</td>
<td>100.0 (5.3)</td>
<td>4.5 (103,350)</td>
<td>253,512 (378,912)</td>
<td>1.8 (1.8)</td>
<td></td>
</tr>
<tr>
<td>Wholesale (4813, 50–51)</td>
<td>2.9</td>
<td>100.0 (8.4)</td>
<td>10.1 (24,826)</td>
<td>1,210,366 (1,022,860)</td>
<td>7.3 (29.1)</td>
<td></td>
</tr>
<tr>
<td>Retail Trade (52–59)</td>
<td>13.5</td>
<td>71.4 (11.5)</td>
<td>6.5 (950,756)</td>
<td>221,116 (2,425,506)</td>
<td>1,230,304 (6.3)</td>
<td></td>
</tr>
<tr>
<td>Eating and Drinking Places (58)</td>
<td>18.3</td>
<td>71.4 (11.7)</td>
<td>3.5 (204,455)</td>
<td>56,172 (705,415)</td>
<td>272,882 (6.1)</td>
<td></td>
</tr>
<tr>
<td>Insurance and Finance (60–69)</td>
<td>2.9</td>
<td>100.0 (12.5)</td>
<td>13.1 (24,332)</td>
<td>26,652 (1,521,266)</td>
<td>341,012 (44.5)</td>
<td></td>
</tr>
<tr>
<td>Business Services (47–49, 70–79)</td>
<td>17.3</td>
<td>81.3 (9.9)</td>
<td>7.3 (686,330)</td>
<td>149,225 (828,243)</td>
<td>515,238 (12.4)</td>
<td></td>
</tr>
<tr>
<td>Professional Services (80–89)</td>
<td>16.4</td>
<td>85.7 (9.8)</td>
<td>6.8 (367,101)</td>
<td>130,970 (800,688)</td>
<td>382,518 (46.4)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>81.5 (13.1)</td>
<td>6.8 (715,532)</td>
<td>148,090 (2,513,199)</td>
<td>550,048 (15.7)</td>
<td></td>
</tr>
</tbody>
</table>

If we look closely at the bankruptcy experience of the businesses in our sample, some important patterns emerge. Table 4 shows that the majority of these (62.5%) will be shut down in bankruptcy or will have their petitions dismissed and thereby be exposed to liquidation under state law. In other words, in over 60% of the cases, Chapter 11 "fails" in the sense that the distressed business leaves Chapter 11 with its problems unresolved. In another eight cases (7.7%), the business is sold off as a going concern. In still another eight cases, the debtor solves the problems that brought it into bankruptcy (such as a threat of eviction by the landlord) without going through the process of confirming a formal plan of reorganization (such as reaching a side deal with the landlord). In only 25 of the 104 cases (22.1%) do we see something resembling a traditional reorganization, and only 14 of these remain in business, as Table 5 shows. In the others, the reorganized business subsequently cases in debts, assets, age, number of employees, and other characteristics. In observing this, however, we are not claiming that they are identical. The Chapter 7 cases, for example, included twice as many construction businesses and half as many restaurants. Again, different forces are at work.
TABLE 3: SUMMARY STATISTICS, CORPORATIONS IN 1998 SSBF
(EXCLUDING MINING AND REAL ESTATE)

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>% (freq)</th>
<th>Under 20 Employees % (se)</th>
<th>Age in years median (mean) (se)</th>
<th>Asset Value, $ median (mean) (se)</th>
<th>Debt, $ median (mean) (se)</th>
<th>Leverage median (mean) (se)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15–17)</td>
<td>11.2 (187)</td>
<td>80.6 (2.79)</td>
<td>14 (14.6) (.94)</td>
<td>520,706 (756,062) (131,999)</td>
<td>317,040 (544,899) (109,672)</td>
<td>.74 (.72) (.095)</td>
</tr>
<tr>
<td>Manufacturing (20–89)</td>
<td>11.7 (287)</td>
<td>71.1 (3.07)</td>
<td>15 (14.6) (.83)</td>
<td>1,682,902 (1,499,328) (170,572)</td>
<td>796,000 (854,470) (99,758)</td>
<td>.59 (.57) (.032)</td>
</tr>
<tr>
<td>Transportation (40–48)</td>
<td>3.3 (74)</td>
<td>75.2 (5.30)</td>
<td>11.5 (10.5) (1.59)</td>
<td>854,219 (953,939) (228,740)</td>
<td>673,488 (668,717) (146,548)</td>
<td>.73 (.70) (.094)</td>
</tr>
<tr>
<td>Wholesale Trade (4813, 50–51)</td>
<td>11.3 (179)</td>
<td>84.4 (2.45)</td>
<td>14 (14.7) (1.38)</td>
<td>795,000 (1,149,670) (151,521)</td>
<td>400,000 (729,278) (125,948)</td>
<td>.54 (.64) (.080)</td>
</tr>
<tr>
<td>Retail Trade (52–59)</td>
<td>15.2 (263)</td>
<td>84.0 (2.11)</td>
<td>15 (14.7) (.91)</td>
<td>360,000 (764,249) (97,563)</td>
<td>203,000 (474,712) (66,630)</td>
<td>.64 (.62) (.069)</td>
</tr>
<tr>
<td>Eating and Drinking Places (58)</td>
<td>3.6 (102)</td>
<td>59.2 (6.05)</td>
<td>14.5 (13.2) (1.10)</td>
<td>254,667 (306,869) (53,990)</td>
<td>138,875 (172,569) (28,709)</td>
<td>.61 (.56) (.084)</td>
</tr>
<tr>
<td>Insurance and Finance (60–69)</td>
<td>2.7 (35)</td>
<td>91.5 (3.59)</td>
<td>13 (17.4) (2.28)</td>
<td>116,880 (368,816) (92,524)</td>
<td>121,000 (570,641) (226,900)</td>
<td>.70 (1.55) (.663)</td>
</tr>
<tr>
<td>Business Services (47–49, 70–79)</td>
<td>23.9 (372)</td>
<td>90.3 (1.31)</td>
<td>10 (11.9) (.56)</td>
<td>141,273 (376,597) (65,905)</td>
<td>71,891 (262,987) (64,171)</td>
<td>.55 (.70) (.173)</td>
</tr>
<tr>
<td>Professional Services (80–89)</td>
<td>17.1 (505)</td>
<td>86.2 (1.83)</td>
<td>12 (13.4) (.75)</td>
<td>123,214 (373,878) (87,058)</td>
<td>64,849 (231,567) (52,637)</td>
<td>.55 (.62) (.119)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.0 (1804)</td>
<td>83.1 (0.56)</td>
<td>13.0 (13.7) (.323)</td>
<td>320,971 (713,023) (36,472)</td>
<td>191,660 (462,848) (29,056)</td>
<td>.59 (.65) (.034)</td>
</tr>
</tbody>
</table>

Note: Reported means are estimates of population averages (with associated standard errors) and were computed using survey weights. Reported medians are simply the 50th percentile of the raw, unweighted data.

failed and either filed another bankruptcy petition or was liquidated under state law. Failure typically occurred within two and a half years of reorganization.

B. Viewing Chapter 11 Outcomes Through the Lens of Labor Economics

Do these different legal outcomes matter? Does the success or failure of Chapter 11 affect the economic productivity of the business? These are generally thought to be easy questions with an obvious answer—namely, that a business will die and its productivity disappear if its
Chapter 11 filing is unsuccessful. These questions, however, are not so easy. To be sure, a few Chapter 11 filings involve corporations in which a focus on the corporate entity makes sense. There are businesses that exist independently of whoever happens to own them, and they are qualitatively similar to the large Chapter 11 cases that make the headlines. A restaurant/microbrewery is sold as a going concern, as are a chain of Mrs. Field’s cookie franchises and a hotel. A manufacturer of furnace linings sorts out its asbestos liabilities in Chapter 11. But these businesses—like Chapter 11 filings involving large corporations—are rare.

54. See United States v. Whiting Pools, Inc., 462 U.S. 198, 203 (1983) (“In proceedings under the reorganization provisions of the Bankruptcy Code, a troubled enterprise may be restructured to enable it to operate successfully in the future. . . . Congress presumed that the assets of the debtor would be more valuable if used in a rehabilitated business than if ‘sold for scrap.’”); Robert L. Jordan et al., Bankruptcy 683 (5th ed. 1999) (“[S]ociety is better off also when a firm that is worth more alive than dead is successfully rehabilitated.”); Mark S. Scarberry et al., Business Reorganization in Bankruptcy 1–2 (2d ed. 2001) (“Chapter 11 of the federal Bankruptcy Code gives financially distressed businesses an opportunity to reorganize and avoid liquidation. . . . The fundamental premise of chapter 11 of the Bankruptcy Code is that reorganization is desirable.”).

59. For such a business to exist, it must, at a minimum, have brought together people or assets in a way that cannot be replicated at little or no cost. It is for this reason that the archetype of the business most suited for reorganization is the railroad. The assets possess

---

**Table 4: Bankruptcy Outcomes, by Industrial Classification**

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>Frequency</th>
<th>% reorganized (sd)</th>
<th>% restructured without plan (sd)</th>
<th>% sold off (sd)</th>
<th>% shut down or dismissed (sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15–17)</td>
<td>14</td>
<td>21.4</td>
<td>0.0</td>
<td>0.0</td>
<td>78.6</td>
</tr>
<tr>
<td>Manufacturing (20–29)</td>
<td>12</td>
<td>25.0</td>
<td>16.67</td>
<td>25.0</td>
<td>33.3</td>
</tr>
<tr>
<td>Transportation (40–48)</td>
<td>4</td>
<td>0.0</td>
<td>25.0</td>
<td>0.0</td>
<td>75.0</td>
</tr>
<tr>
<td>Wholesale Trade (4813, 50–51)</td>
<td>3</td>
<td>33.3</td>
<td>0.0</td>
<td>0.0</td>
<td>66.7</td>
</tr>
<tr>
<td>Retail Trade (52–59)</td>
<td>14</td>
<td>28.6</td>
<td>14.3</td>
<td>14.3</td>
<td>42.9</td>
</tr>
<tr>
<td>Eating and Drinking Places (58)</td>
<td>19</td>
<td>21.5</td>
<td>5.3</td>
<td>10.5</td>
<td>63.2</td>
</tr>
<tr>
<td>Insurance Agents (60–69)</td>
<td>3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Business Services (47–49, 70–79)</td>
<td>18</td>
<td>27.8</td>
<td>0.0</td>
<td>5.6</td>
<td>66.7</td>
</tr>
<tr>
<td>Professional Services (80–89)</td>
<td>17</td>
<td>17.7</td>
<td>11.8</td>
<td>0.0</td>
<td>70.6</td>
</tr>
<tr>
<td>Total</td>
<td>104</td>
<td>22.1</td>
<td>7.7</td>
<td>7.7</td>
<td>62.5</td>
</tr>
</tbody>
</table>

---

Much more common are businesses organized around the skills of the owner-operator. The business and its owner-operator are one and the same. The business may be a livery service, a small trucking business, or a travel or insurance agency. In each case, it is impossible to separate the business from the person running it. As a result, any effort to sort out the rights and obligations of the corporation in bankruptcy has only a tangential effect on the business itself. These businesses consist of relationships, not assets, and the relationships belong to the individual, not the corporation. If you were happy with the work per-

<table>
<thead>
<tr>
<th>Industrial (SIC No.)</th>
<th>Business failed after reorganizing (frequency) (n)</th>
<th>Mean years until failure until reorganizing (sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15-17)</td>
<td>1 (3)</td>
<td>.9</td>
</tr>
<tr>
<td>Manufacturing (20-39)</td>
<td>1 (3)</td>
<td>4.5</td>
</tr>
<tr>
<td>Transportation (40-48)</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Wholesale Trade (4813, 50-51)</td>
<td>0 (1)</td>
<td>.</td>
</tr>
<tr>
<td>Retail Trade (52-59)</td>
<td>1 (4)</td>
<td>1.8</td>
</tr>
<tr>
<td>Eating and Drinking Places (58)</td>
<td>1 (4)</td>
<td>2.5</td>
</tr>
<tr>
<td>Insurance Agents (60-69)</td>
<td>.</td>
<td>.</td>
</tr>
<tr>
<td>Business Services (47-49, 70-79)</td>
<td>2 (5)</td>
<td>2.5</td>
</tr>
<tr>
<td>Professional Services (80-89)</td>
<td>3 (3)</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9 (23)</strong></td>
<td><strong>2.5</strong></td>
</tr>
<tr>
<td></td>
<td>(39.1) (49.90)</td>
<td>(1.54)</td>
</tr>
</tbody>
</table>

value only if kept together. The right-hand rails are worth little without the left-hand ones. Our data, however, shows the absence of assets or anything else that would give the business value as a going concern. As one of us has observed elsewhere, there are no railroads here. Edward R. Morrison, Bankruptcy Decision-Making: An Empirical Study of Small-Business Bankruptcies 57 (2003) (unpublished Ph.D. dissertation, University of Chicago) (on file with author). Our work here ties to other scholarship suggesting that even large financially distressed businesses lack going-concern value and the other attributes traditionally used to justify a regime such as Chapter 11. See, e.g., Douglas G. Baird & Robert K. Rasmussen, The End of Bankruptcy, 55 Stan. L. Rev. 751, 768-77 (2002) [hereinafter Baird & Rasmussen, End of Bankruptcy].

64. If the corporation had an existence apart from the small entrepreneur, it could force her to sign a covenant not to compete. This would, in effect, give the corporation a sort of "ownership" over the relationships the entrepreneur established. Many states have limitations on the enforceability of such covenants, however. See Ronald J. Gilson, The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete, 74 N.Y.U. L. Rev. 575, 627-28 (1999). More to the point, the entrepreneur who owns and controls the company has no reason to tie her hands this way. In theory, a large institutional lender might insist on such covenants, but such lenders insist that the entrepreneur bond themselves with personal guarantees, rather than with covenants not to compete. See infra Table 17.
formed last year and want to use the same people again, you are indifferent to the existence of the corporation. You might reengage this entrepreneur without ever knowing (or caring) that the corporate form she is using this year is different from the one she used last year.65 For such entrepreneurs and everyone who does business with them in the future, the bankruptcy of the corporation has virtually no effect.

Small-business entrepreneurs have a taste for running their own businesses. They start their businesses and continue to run them even though they would earn more elsewhere,66 and even though owning such a business requires tying up much of their wealth—typically about half—in the business. The strongest predictor of whether an individual will open a business is whether his parents did.68 It is not a question of children being brought into the family business. Most of those who run their own business run a business different from that of their parents.69 A parent’s self-employment experience has a large and statistically significant effect on a son’s likelihood of becoming self-employed, even after controlling for parental wealth and the son’s wealth (and other covariates).70

65. The customer is indifferent because the corporate form does little more than partition assets. See Henry Hansmann & Reinier Kraakman, The Essential Role of Organizational Law, 110 Yale L.J. 387, 390 (2000). The creditors of the corporation know that they cannot reach the home or the personal bank account of the entrepreneur. On the other hand, these same creditors know that if the corporation has an account receivable, they will be able to reach it before either the entrepreneur or her personal creditors. See id. at 390, 393–95, 397 tbl.1 ("The truly essential aspect of asset partitioning is . . . the shielding of the assets of the entity from claims of the creditors of the entity’s owners or managers.").


69. See id. at 290 (finding that “36% of second-generation self-employed sons would be classified as entering a family business”).

70. See id. at 296–99. A son’s probability of becoming self-employed rises .015 (relative to an average probability of becoming self-employed equal to .051) when either of his parents is self-employed. Id. at 299; see also id. at 297 tbl.6 (showing that effect is highly statistically significant). In other words, a parent’s self-employment experience increases the son’s probability of becoming self-employed by about 50%. The phenomenon is also independent of wealth. Self-employed parents are three times wealthier than non-self-employed parents, see id. at 292, and greater parental wealth increases the probability that a son will become self-employed, id. at 297–98. But the effect is modest. A $10,000 increase in parental assets raises the probability of a son’s annual
Many small businesses fail each year. Indeed, over 30% of new start-ups close within two years; over 50% close within four years.\textsuperscript{71} The failure of the business, however, does not mean that the person who ran it returns to work for someone else never to try again; many are serial entrepreneurs. The founders of 20% to 30% of all small businesses have started other businesses in the past.\textsuperscript{72} Indeed, starting a business, then closing it, and beginning another is no more a failure than accepting one job, then leaving it, and going to another.\textsuperscript{73} There is an optimal amount of time to spend at one job before looking for another. The same is true for these owner-operators. Although patterns vary across industries,\textsuperscript{74} one basic pattern emerges: The longer you are in business for yourself, the less likely you are to return to working for someone else.\textsuperscript{75} Serial entrepreneurship is the most persistent and most telling characteristic of small business bankruptcies. The entrepreneurs with business ventures that end up in Chapter 11 are overwhelmingly committed to self-employ-


\textsuperscript{73} Optimal job search is the subject of a vast literature. See, e.g., Kenneth Burdett, A Theory of Employee Job Search and Quit Rates, 68 Am. Econ. Rev. 212 (1978); Johnson, supra note 4; Boyan Jovanovic, Firm-Specific Capital and Turnover, 87 J. Pol. Econ. 1246 (1979); Jovanovic, Job Matching, supra note 4.

\textsuperscript{74} Most obviously, startup costs vary by industry. Manufacturing, wholesaling, and retailing have relatively high capital intensity, including startup costs. Timothy Bates, Analysis of Young, Small Business Firms that Have Closed: Delineating Successful from Unsuccessful Closures, 20 J. Bus. Venturing 343, 351 (2005). Service industries, such as professional services, finance and insurance, and real estate, are skill-intensive and have relatively low startup costs. Id. In the construction industry, those who run their own businesses at one time regularly switch to working for someone else and then back to working for themselves again, depending upon the economy and the work that is available. Id.

ment. Although they are not committed to any particular business, they are committed to being in business for themselves.

Before we focus upon serial entrepreneurship explicitly, however, we first want to show how the data do not support the traditional account of Chapter 11. That account depends crucially on the existence of assets tied to a particular legal entity that are worth more if kept together, or worth more with the human capital of the entrepreneur or the relationships she has built over time. The next part of the Article turns to this question.

II. Asset Specificity and Going-Concern Value

If the assets of a small business are worth more in the hands of the current owner than anywhere else and if Chapter 11 can help ensure that they stay together, then we can justify Chapter 11 on the ground that it preserves going-concern value.76 To the extent that the assets of a distressed business are specialized and more valuable inside the business than outside it, Chapter 11 might prevent the dispersal of a business’s assets when the best use of those assets is in that business. This Part shows, however, that Chapter 11 does not in fact serve this function. The typical, distressed small business in Chapter 11 has little in the way of business-specific capital.

In the first subpart, we analyze the raw data for all of the businesses in our sample and offer two different tests of asset specificity. Both point to its absence in all cases but one, restaurants. The second subpart illustrates this point with a case study of a typical nonrestaurant establishment. The concluding subpart looks at restaurants, the only type of case where asset specificity is potentially important.

A. Two Empirical Tests of Asset Specificity

A policy directed towards saving businesses makes sense only if social value is lost when a business dies. Social value is lost if the assets generate greater value in their current configuration than in a market sale. This difference—the “going-concern surplus”—exists only if the assets are worth more inside the business than anywhere else.77 Assets are sometimes customized to meet a business’s idiosyncratic needs or the needs of businesses in the same industry; examples include railroad tracks and brewery equipment. These specialized assets cannot be readily

76. See infra Part II.A.
redeployed by other businesses if the assets are business specific or by businesses outside the industry if they are industry specific. As a result, plant, equipment, and other specialized assets are relatively illiquid.\textsuperscript{78} There are few buyers for the assets, and any potential buyers will value the assets significantly less than the seller does.\textsuperscript{79} A basic function of bankruptcy law is to protect these illiquid assets and give the business the chance to continue using them. If creditors seized and sold these assets, they would fetch only “fire-sale” prices, and the business’s going-concern surplus would be destroyed.\textsuperscript{80}

The liquidation of a corporation is often viewed as irreversible.\textsuperscript{81} Even if it were possible to resurrect the business by reacquiring or recreating its specialized assets, it is costly to do so. Asset specificity, then, is central to traditional theories of Chapter 11. In the absence of business-specific or industry-specific assets, a business is not worth reorganizing. Because an outsider values the assets at least as much as they are worth inside the existing business, no value is lost if the business is liquidated. Indeed, liquidation in this case avoids the direct and indirect costs of Chapter 11.\textsuperscript{82}

Even a casual glance at the data suggests that Chapter 11 has little to do with preserving the value of small businesses as going concerns.\textsuperscript{83} The bulk of small businesses in bankruptcy—the contractors, the livery services, the retailers—are organized around the skills of the entrepreneur. The physical capital of these businesses consists of generic tools and equipment. The only significant asset is the human capital of the entre-

\textsuperscript{78} Phillip G. Berger et al., Investor Valuation of the Abandonment Option, 42 J. Fin. Econ. 257, 261–62 (1996).

\textsuperscript{79} See, e.g., Oliver E. Williamson, Corporate Finance and Corporate Governance, 43 J. Fin. 567, 579–81 (1988) (showing that this effect raises cost of debt financing).

\textsuperscript{80} See generally Andrei Shleifer & Robert W. Vishny, Liquidation Values and Debt Capacity: A Market Equilibrium Approach, 47 J. Fin. 1343 (1992). The authors show that when financial distress is correlated within an industry, bankruptcy law prevents inefficient liquidation of industry-specific assets. In the absence of bankruptcy law, these assets would be sold at fire-sale prices to lower-value users outside the industry; the assets will not be purchased by higher-valuing users within the same industry because they too are suffering distress and are therefore liquidity constrained. For empirical evidence supporting this theory, see Todd C. Pulvino, Do Asset Fire Sales Exist? An Empirical Investigation of Commercial Aircraft Sale Transactions, 53 J. Fin. 999, 966–68 (1998); Per Strömberg, Conflicts of Interest and Market Illiquidity in Bankruptcy Auctions: Theory and Tests, 55 J. Fin. 2641, 2669, 2675, 2679 (2000).

\textsuperscript{81} This is implicit in the notion that Chapter 11 is needed to preserve going-concern value. See supra note 54. If liquidation is reversible, it is little or no threat to going-concern value. See, e.g., White, supra note 11, at 273 (presenting model in which firms are unlikely to reopen after shutdown).

\textsuperscript{82} For recent work on these costs, see Bris et al., supra note 33, at 8–23. Again, we are focusing on the typical bankruptcy case, not the handful of cases involving tens of millions of dollars or more in assets. One can argue that asset specificity does not matter in large cases either. See, e.g., Baird & Rasmussen, End of Bankruptcy, supra note 59, at 768–77. But that is not our focus here.

\textsuperscript{83} See supra Table 4.
preneur, and it can be readily deployed in different businesses.\textsuperscript{84} Similarly, the relationships with suppliers, customers, and workers are tied to the entrepreneur, not to the business. However valuable they are, they are not at risk if the corporate entity ceases to exist. Absent serious liquidity constraints, the photographer, electrician, lawyer, and restaurateur can shut down one operation and open another and be just as productive. In this Part, we confirm this impression with two empirical tests.

1. \textit{A Direct Test of Asset Specificity}. — We begin with the standard test of asset specificity used in corporate finance literature.\textsuperscript{85} We measure the extent to which a business has invested in relatively illiquid assets, such as plant and equipment. The value of plant and equipment—and perhaps other specialized assets—is divided by total assets to form an index of asset specificity. The larger this index, the greater the importance of specialized assets in a given business. This test is, of course, imperfect. It does not account for the possibility that some assets, like office furniture, may be customized in the case of some businesses but not others. Nonetheless, the direct test is illuminating and the results striking.

\begin{table}[h]
\centering
\caption{Measures of Asset Specificity for Median Business, Corporate Chapter 11 Filings}
\begin{tabular}{llll}
\hline
Industry (SIC No.) & Land & Equipment & Nonoffice  \\
& & equipment & equipment  \\
& & (\% of assets) & (\% of assets) & (\% of assets) \\
\hline
Construction (15–17) & 12.1 & 10.0 & 7.8  \\
Manufacturing (20–39) & 16.1 & 8.2 & 4.9  \\
Transportation (40–46) & 1.1 & 1.1 & 0.0  \\
Wholesale Trade (4813, 50–51) & 3.1 & 3.1 & 0.0  \\
Retail Trade (52–59) & 16.3 & 15.7 & 1.3  \\
Eating and Drinking Places (58) & 62.0 & 57.4 & 50.9  \\
Insurance Agents (60–64) & 22.1 & 22.1 & 0.0  \\
Business Services (47, 4959, 70–79) & 78.7 & 59.5 & 6.9  \\
Professional Services (80–89) & 16.2 & 7.6 & 0.0  \\
\textbf{All Businesses} & 28.9 & 16.5 & 5.5  \\
\textbf{All Businesses Except Eating/Drinking} & 17.1 & 10.6 & 2.2  \\
\hline
\end{tabular}
\end{table}

\textsuperscript{84} See infra Part II.A.2.

\textsuperscript{85} See, e.g., Berger et al., supra note 78, at 261–62, 268–69 (characterizing assets by degree of specificity and computing specificity indices); Strömbärg, supra note 80, at 2664 (same).
Table 7: Asset Specificity of Median Business, 1998 SSBF Data for Corporations (Unweighted)

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>Land &amp; equipment (% of assets)</th>
<th>Equipment (% of assets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15–17)</td>
<td>18.9</td>
<td>17.0</td>
</tr>
<tr>
<td>Manufacturing (20–39)</td>
<td>29.9</td>
<td>29.6</td>
</tr>
<tr>
<td>Transportation (40–46, 48–49)</td>
<td>41.5</td>
<td>38.3</td>
</tr>
<tr>
<td>Wholesale Trade (50–51)</td>
<td>11.0</td>
<td>9.8</td>
</tr>
<tr>
<td>Retail Trade (52–57, 59)</td>
<td>13.7</td>
<td>11.8</td>
</tr>
<tr>
<td>Eating and Drinking Places (58)</td>
<td>65.4</td>
<td>47.7</td>
</tr>
<tr>
<td>Insurance Agents (60–64)</td>
<td>18.2</td>
<td>18.2</td>
</tr>
<tr>
<td>Business Services (47, 4959, 70–79)</td>
<td>24.8</td>
<td>21.0</td>
</tr>
<tr>
<td>Professional Services (80–89)</td>
<td>21.1</td>
<td>10.9</td>
</tr>
<tr>
<td>Total</td>
<td>21.8</td>
<td>19.0</td>
</tr>
<tr>
<td>Total Without Eating/Drinking</td>
<td>20.2</td>
<td>17.9</td>
</tr>
</tbody>
</table>

Table 8: Measures of Asset Specificity for Mean Business, Corporate Chapter 11 Filings

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>Land &amp; equipment (% of assets) (sd)</th>
<th>Equipment (% of assets) (sd)</th>
<th>Nonoffice equipment (% of assets) (sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15–17)</td>
<td>21.4 (28.08)</td>
<td>19.7 (28.51)</td>
<td>15.7 (25.35)</td>
</tr>
<tr>
<td>Manufacturing (20–39)</td>
<td>33.6 (39.48)</td>
<td>25.2 (35.10)</td>
<td>22.1 (30.12)</td>
</tr>
<tr>
<td>Transportation (40–46)</td>
<td>1.1 (1.51)</td>
<td>1.1 (1.51)</td>
<td>0.0 (0.00)</td>
</tr>
<tr>
<td>Wholesale Trade (4813, 50–51)</td>
<td>3.7 (4.07)</td>
<td>3.7 (4.07)</td>
<td>0.6 (1.16)</td>
</tr>
<tr>
<td>Retail Trade (52–59)</td>
<td>25.9 (27.10)</td>
<td>18.7 (16.95)</td>
<td>9.4 (14.17)</td>
</tr>
<tr>
<td>Eating and Drinking Places (58)</td>
<td>61.3 (27.12)</td>
<td>55.8 (28.94)</td>
<td>53.9 (28.26)</td>
</tr>
<tr>
<td>Insurance Agents (60–64)</td>
<td>18.3 (11.98)</td>
<td>18.3 (11.98)</td>
<td>3.1 (5.37)</td>
</tr>
<tr>
<td>Business Services (47, 4959, 70–79)</td>
<td>60.5 (34.91)</td>
<td>54.2 (38.10)</td>
<td>34.4 (39.87)</td>
</tr>
<tr>
<td>Professional Services (80–89)</td>
<td>49.9 (40.85)</td>
<td>20.1 (30.74)</td>
<td>5.4 (14.75)</td>
</tr>
<tr>
<td>All Businesses</td>
<td>40.6 (36.45)</td>
<td>31.9 (33.60)</td>
<td>22.9 (31.04)</td>
</tr>
<tr>
<td>All Businesses Except Eating/Drinking</td>
<td>35.8 (36.79)</td>
<td>28.4 (32.31)</td>
<td>16.2 (27.16)</td>
</tr>
</tbody>
</table>

Table 9: Asset Specificity of Mean Business, 1998 SSBF Data for Corporations (Weighted)

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>Land &amp; equipment (% of assets) (sd)</th>
<th>Equipment (% of assets) (sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15–17)</td>
<td>28.2 (26.49)</td>
<td>25.0 (25.11)</td>
</tr>
<tr>
<td>Manufacturing (20–39)</td>
<td>34.2 (26.46)</td>
<td>32.8 (25.75)</td>
</tr>
<tr>
<td>Transportation (40–46, 48–49)</td>
<td>41.1 (34.38)</td>
<td>39.4 (33.94)</td>
</tr>
<tr>
<td>Wholesale Trade (50–51)</td>
<td>17.9 (21.48)</td>
<td>15.6 (18.65)</td>
</tr>
<tr>
<td>Retail Trade (52–57, 59)</td>
<td>23.1 (24.38)</td>
<td>19.4 (20.95)</td>
</tr>
<tr>
<td>Eating and Drinking Places (58)</td>
<td>57.6 (33.59)</td>
<td>47.2 (31.37)</td>
</tr>
<tr>
<td>Insurance Agents (60–64)</td>
<td>27.0 (30.19)</td>
<td>25.6 (29.35)</td>
</tr>
<tr>
<td>Business Services (47, 70–79)</td>
<td>34.3 (32.96)</td>
<td>30.6 (30.26)</td>
</tr>
<tr>
<td>Professional Services (80–89)</td>
<td>31.0 (31.02)</td>
<td>28.7 (29.07)</td>
</tr>
<tr>
<td>Total</td>
<td>31.25 (30.07)</td>
<td>28.1 (27.84)</td>
</tr>
<tr>
<td>Total Without Eating/Drinking</td>
<td>29.7 (29.11)</td>
<td>26.9 (27.20)</td>
</tr>
</tbody>
</table>

Tables 6 through 9 present the results of this direct test. Tables 6 and 8 present various indices of asset specificity for the median and mean business. The broadest definition of specialized assets would include land (real estate used for a gas station, for example, is costly to convert to
other purposes) and equipment. Using this definition, about 29% of the median business’s assets are “specialized.” This definition is overbroad. Land is rarely specialized; indeed, economists typically lump real estate together with other nonspecialized assets such as cash.\textsuperscript{86} Additionally, the “equipment” of a small business includes computers, chairs, desks, and other office equipment, none of which is specialized in any meaningful sense. The columns in Tables 6 and 8 show the effect of excluding these assets from the definition of “specialized” assets. Excluding land, the percentage drops to 16.5% for the median business. The estimates of asset specificity in our sample drop even further when we exclude office equipment. For the median business, the percentage drops to 5.5%. The means are larger under all these measures (40.6%, 31.9%, and 22.9% respectively).

But even these numbers are upper bounds for the vast majority of businesses. They are heavily influenced by the presence of establishments in the eating and drinking (in which 50.9% of the assets of the median business consist of nonoffice equipment), construction (7.8%), and business services (6.9%) sectors, as the final columns of Tables 6 and 8 illustrate. Exclude eating and drinking and the estimates fall to 2.2% for the median business and 15.8% for the mean business. If we also exclude construction and business services, the figures fall to 0.1% and 9.8% respectively.

Eating and drinking establishments have specialized assets (an issue we confront below), but construction and business services often do not. The estimates for these two sectors overstate the extent of business-specific capital in excavators, drywallers, photographers, graphic designers, and similar establishments. The nonoffice equipment of the typical construction business consists of forklifts, hammers, excavation equipment, and other tools. Not only do these tools have thick resale markets, but many businesses lease the equipment from third parties.\textsuperscript{87} If an otherwise healthy business lost this equipment through theft or fire, it could buy or lease the equipment and continue, perhaps without even a break in operations.\textsuperscript{88} The same is true for business services, as we can see from one of the cases in our dataset. Advance Photo & Video Imagery was a photo processing shop that owned $45,000 worth of photo developing

\textsuperscript{86} See, e.g., Berger et al., supra note 78, at 268–69 (characterizing land as less-specialized fixed asset); Strömberg, supra note 80, at 2664 (characterizing land as “nonspecific asset”).

\textsuperscript{87} Thick resale and leasing markets are hallmarks of low asset specificity (at the firm level); they show vividly that construction equipment has significant value in many different firms. These markets have become even more liquid because of the Internet. Online services include Heavy Equipment Sales, at http://www.heavy-equipmentsales.com (last visited Aug. 12, 2005), and American Contractors, at http://www.americancontractors.com (last visited Aug. 12, 2005).

\textsuperscript{88} For a sense of the variety of the services readily available (including daily rental of equipment), see NES Rentals, at http://www.nesrentals.com (last visited Aug. 16, 2005).
equipment (cameras, flash meters, film processors, and computers). This accounted for 92% of its assets. Indeed, among business services in our sample, Advance Photo had the highest ratio of nonoffice equipment to total assets. Yet this equipment was not specialized. Indeed, it represented only about half of the photo developing equipment used at the business and was not different in kind from the remaining equipment, and this remaining equipment was leased, a hallmark of low asset specificity. What we see at Advance Photo we find elsewhere as well. When we look closely at each business with a high fraction of assets invested in equipment, we find, in the main, fungible, standardized assets.

Our estimates of asset specificity, then, are biased upward by the presence of a few businesses (such as Advance Photo) with high ratios of standardized nonoffice equipment to total assets. This bias has its largest effect on our estimates for the mean business; means are sensitive to outliers. For this reason, the estimates for the median business—which are less vulnerable to outliers—are more reliable estimates of the significance of asset specificity in all businesses except restaurants. By this measure, the typical business has 2.2% of its assets invested in specialized equipment. In other words, the typical small business has a small, perhaps trivial, investment in specialized assets. Only restaurants present something of a special case, and, as we shall see, the case for specialized assets with significant value is hard to make even there.

Interestingly, the picture is not much different when we look at healthier businesses in the SSBF sample. As Table 7 shows, about 22% of the median business’s assets consist of land and equipment, which is slightly lower than the 29% figure in our sample. The difference narrows substantially if we exclude restaurants: The median business in the general population has about 20% of its assets invested in land and equipment; the figure is about 17% in our sample. Similarly, equipment makes up 17.9% of the median SSBF business’s assets (excluding restaurants);

90. Motion of Pinnacle Bank for Modification of Automatic Stay at Exhibit D, In re Advance Photo, No. 98-27435 (showing that debtor’s equipment included camera, flash unit and meter, camera bag, tape recorders, video editor/mixer, and densitometers).
91. Debtor leased an enlarger, photo processor, monitor, recorder, mixer, printer, workstation, and other equipment worth over $160,000. See Proof of Claim Filed by First Sierra Financial, Inc., Exhibit A at 1–2, In re Advance Photo, No. 98-27435; Proof of Claim Filed by JLA Credit Corp. at 1, In re Advance Photo, No. 98-27435; Proof of Claim Filed by M&C Leasing Co., Schedule A at 1, In re Advance Photo, No. 98-27435; see also Schedule D at 1, In re Advance Photo & Video Imagery, Inc., No. 98-15534 (Bankr. N.D. Ill. May 19, 1998) (stating debtor estimated value of leased equipment in prior Chapter 11 filing).
92. See infra Part II.C.
93. Publicly traded businesses have significantly more in the way of specialized assets. In their study of publicly traded businesses, Berger et al. found a median of 31.9% of assets invested in plant and equipment. Berger et al., supra note 78, at 269 tbl.1 (reporting that “fixed assets” (plant, equipment, and land) account for 33.6% of assets in median business and that land accounts for 5.2% of “fixed assets”).
the figure for businesses in our population is about 11%. SSBF data do not allow us to distinguish between office equipment and nonoffice equipment. These results, however, suggest that the low levels of asset specificity observed in our data are not unique to distressed small businesses.

2. An Indirect Test of Asset Specificity. — Tables 6 through 9 present a direct test of asset specificity that distinguishes between assets with highly liquid markets (cash) and those with less liquid markets (machinery). This simple test suffers many limitations. It does not identify businesses with assets that are sufficiently illiquid that they would generate “fire-sale” prices. It can only indicate whether some firms have more specialized assets than others. More importantly, the test can easily mischaracterize the specificity of particular assets. Land is nonspecialized in some cases, such as a vacant tract in an industrial park, and specialized in others, such as land in which a petroleum storage tank has been installed. Yet the test characterizes all land as either specialized or nonspecialized. Even office equipment can be specialized to serve the needs of a particular firm. It may, for example, be modified to serve the physical needs of the owner-operator.

The limitations of the direct test suggest that we look for an alternative test of the importance of business-specific or industry-specific assets. Instead of asking whether specialized assets are present in distressed businesses, as the direct test does, we propose asking whether liquidation of assets—specialized or nonspecialized—is an irreversible event. If a business’s going-concern value depends on specialized assets that are hard to recreate or reacquire after they have been sold off, liquidation should be irreversible or very costly to reverse. If we observe the opposite—that the owner-operator routinely recreates her businesses—we can conclude either that the business did not depend on specialized assets, or that, if it did depend on them, the owner-operator was able to reacquire the assets. For example, she may have been the high bidder at the liquidation auction. Either conclusion seriously undermines the conventional case for Chapter 11. In the absence of specialized assets, there is no going-concern surplus to preserve or fire sale to avoid. If specialized assets are easily reacquired after liquidation, Chapter 11 is equally irrelevant because owner-operators can preserve going-concern surplus without the law’s help. By testing whether liquidation is irreversible, then, we look for the consequences of asset specificity. This “indirect” test complements the “direct” test of the previous subpart, which assesses the presence of asset specificity through a simple but imperfect categorization of assets.

We implement the indirect test by looking at the career histories of the owner-operators of businesses that filed Chapter 11 petitions. If owner-operators are able to establish new, similar businesses soon after their businesses are liquidated in Chapter 11, we infer that business-specific assets are relatively unimportant or easy to reacquire. In either case, there is little support for the efficiency-based theory of Chapter 11. Simi-
larly, if the business in bankruptcy is one of many similar businesses established in the past by the owner-operator, we also infer that asset specificity is unimportant. We must also consider the possibility that the owner-operator will start a different kind of business after her business is liquidated in Chapter 11, and the possibility that she established different businesses in the past. Indeed, the literature on small-business entrepreneurs indicates that they may move between different kinds of businesses as they search for an optimal "match."94 If we see this kind of "business shopping," we can at least conclude that the owner-operator's human capital is not tied to the entity that is in Chapter 11.

Tables 10 through 15 report the results of this indirect test. Table 10 shows that, among businesses that were liquidated in bankruptcy ("shutdowns"), the owner-operator had founded a similar business before or went on to found a similar business in the future in nearly 80% of the cases. The percentage rises to 85% if we count any business founded by the owner-operator, regardless of its similarity to the business in our sample.95

Table 10: Whether Owner-Operator Started a Similar or Dissimilar Business Before or After the Chapter 11 Case

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>Started Similar Business</th>
<th>Started Dissimilar Business</th>
<th>Started Any Business</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% (n) (sd)</td>
<td>% (n) (sd)</td>
<td>% (n) (sd)</td>
</tr>
<tr>
<td>Construction (15-17)</td>
<td>77.8 (9)</td>
<td>20.0 (5)</td>
<td>66.7 (9)</td>
</tr>
<tr>
<td>Manufacturing (20-39)</td>
<td>75.0 (4)</td>
<td>50.0 (8)</td>
<td>25.0 (4)</td>
</tr>
<tr>
<td>Transportation (40-48)</td>
<td>100.0 (2)</td>
<td>100.0 (2)</td>
<td>0.0 (2)</td>
</tr>
<tr>
<td>Wholesale Trade (4813, 50-51)</td>
<td>50.0 (2)</td>
<td>100.0 (1)</td>
<td>0.0 (2)</td>
</tr>
<tr>
<td>Retail Trade (52-59)</td>
<td>100.0 (3)</td>
<td>63.6 (11)</td>
<td>66.7 (3)</td>
</tr>
<tr>
<td>Eating/Drinking Places (58)</td>
<td>57.1 (7)</td>
<td>66.7 (12)</td>
<td>14.3 (7)</td>
</tr>
<tr>
<td>Insurance Agents (60-69)</td>
<td>50.0 (2)</td>
<td>100.0 (1)</td>
<td>0.0 (2)</td>
</tr>
<tr>
<td>Business Services (47-49, 70-79)</td>
<td>83.3 (6)</td>
<td>33.3 (12)</td>
<td>50.0 (6)</td>
</tr>
<tr>
<td>Professional Services (80-89)</td>
<td>100.0 (5)</td>
<td>83.3 (12)</td>
<td>0.0 (5)</td>
</tr>
<tr>
<td>Total</td>
<td>77.5</td>
<td>59.4</td>
<td>32.5</td>
</tr>
</tbody>
</table>

94. See, e.g., Holmes & Schmitz, Turnover, supra note 3, at 1006–07 (using a matching model to explain various empirical regularities characterizing small businesses).

95. These estimates, it should be noted, are lower bounds because they are based solely on data contained in records maintained by the Secretary of State of Illinois. We have not searched the records of other states to determine whether the entrepreneurs in our sample ever established out-of-state businesses.
The next three tables decompose the business experience of owner-operators. Table 11 focuses on their experience prior to the Chapter 11 filing in our sample. It shows that between 45% and 47% of all owner-operators had founded at least one business that failed before they filed the cases in our sample. There is little difference between owner-operators whose Chapter 11 filings led to shutdown ("failures") and those whose businesses survived the bankruptcy process ("successes"). Owners of failures were just as likely as owners of successes to have founded a similar (37.5% and 35.9%, respectively) or dissimilar (15.0% and 17.2%) business that failed in the past.

Table 11: Whether Owner-Operator Started a Similar or Dissimilar Business that Failed Before the Chapter 11 Case

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>Started Similar Business</th>
<th>Started Dissimilar Business</th>
<th>Started Any Business</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% (n) (sd)</td>
<td>% (n) (sd)</td>
<td>% (n) (sd)</td>
</tr>
<tr>
<td>Construction (15-17)</td>
<td>33.3 (9)</td>
<td>35.3 (9)</td>
<td>44.0 (9)</td>
</tr>
<tr>
<td>Manufacturing (20-39)</td>
<td>0.0 (4)</td>
<td>25.0 (4)</td>
<td>25.0 (4)</td>
</tr>
<tr>
<td>Transportation (40-48)</td>
<td>0.0 (2)</td>
<td>0.0 (2)</td>
<td>0.0 (2)</td>
</tr>
<tr>
<td>Wholesale Trade (4813, 50-51)</td>
<td>0.0 (2)</td>
<td>100.0 (1)</td>
<td>100.0 (1)</td>
</tr>
<tr>
<td>Retail Trade (52-59)</td>
<td>100.0 (3)</td>
<td>0.0 (3)</td>
<td>100.0 (3)</td>
</tr>
<tr>
<td>Eating/Drinking Places (58)</td>
<td>42.9 (7)</td>
<td>14.3 (7)</td>
<td>57.1 (7)</td>
</tr>
<tr>
<td>Insurance Agents (60-69)</td>
<td>50.0 (2)</td>
<td>0.0 (2)</td>
<td>50.0 (2)</td>
</tr>
<tr>
<td>Business Services (47-49, 70-79)</td>
<td>33.3 (6)</td>
<td>16.7 (6)</td>
<td>33.3 (6)</td>
</tr>
<tr>
<td>Professional Services (80-89)</td>
<td>60.0 (5)</td>
<td>25.0 (12)</td>
<td>60.0 (5)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37.5 (49.03)</td>
<td>15.0 (36.16)</td>
<td>45.0 (50.38)</td>
</tr>
</tbody>
</table>

Table 12 looks at the postbankruptcy experience of owner-operators. Among businesses that were shut down in bankruptcy, the owner-operators went on to found another business in 50% of the cases. In about 38% of the cases, the new business was similar to the one that was liquidated in bankruptcy. The percentages are, not surprisingly, much lower for owner-operators whose businesses survived the bankruptcy process. An owner-operator surely has less incentive to establish a new business if his or her existing business continues.

Table 12, however, underestimates the frequency with which owner-operators start over again when their businesses fail. Many small entrepreneurs run multiple businesses simultaneously. Instead of increasing the size of the legal entity when opening a new outlet, the small entrepreneur may put the new operation into an entirely separate corporation. Or the entrepreneur may diversify her business portfolio and establish a
completely different business, again in a new and freestanding corporation. As with any diversification strategy, by owning multiple businesses, an entrepreneur effectively avoids the costs of starting over again when any one business fails; the death of any one business does not disrupt the others.

Table 12: Whether Owner-Operator Started a Similar or Dissimilar Business After the Chapter 11 Case

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>Started Similar Business % (n) (sd)</th>
<th>Started Dissimilar Business % (n) (sd)</th>
<th>Started Any Business % (n) (sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15–17)</td>
<td>33.3 (9)</td>
<td>20.0 (5)</td>
<td>44.4 (9)</td>
</tr>
<tr>
<td>Manufacturing (20–39)</td>
<td>75.0 (4)</td>
<td>12.5 (8)</td>
<td>100.0 (4)</td>
</tr>
<tr>
<td>Transportation (40–48)</td>
<td>100.0 (2)</td>
<td>50.0 (2)</td>
<td>100.0 (2)</td>
</tr>
<tr>
<td>Wholesale Trade (4813, 50–51)</td>
<td>50.0 (2)</td>
<td>0.0 (1)</td>
<td>50.0 (2)</td>
</tr>
<tr>
<td>Retail Trade (52–59)</td>
<td>0.0 (3)</td>
<td>27.3 (11)</td>
<td>66.7 (3)</td>
</tr>
<tr>
<td>Eating/Drinking Places (58)</td>
<td>14.29 (7)</td>
<td>33.3 (12)</td>
<td>14.3 (7)</td>
</tr>
<tr>
<td>Insurance Agents (60–69)</td>
<td>50.0 (2)</td>
<td>100.0 (1)</td>
<td>50.0 (2)</td>
</tr>
<tr>
<td>Business Services (47–49, 70–79)</td>
<td>33.3 (6)</td>
<td>8.3 (12)</td>
<td>50.0 (6)</td>
</tr>
<tr>
<td>Professional Services (80–89)</td>
<td>40.0 (5)</td>
<td>41.7 (12)</td>
<td>40.0 (5)</td>
</tr>
<tr>
<td>Total</td>
<td>37.5 (40)</td>
<td>26.6 (64)</td>
<td>50.0 (40)</td>
</tr>
<tr>
<td></td>
<td>(49.03) (44.52)</td>
<td>(36.16) (31.46)</td>
<td>(50.64) (48.36)</td>
</tr>
</tbody>
</table>

Table 13 takes account of an entrepreneur’s ability to “start over” either by founding a new business or by continuing other businesses when one fails. Owner-operators whose businesses were liquidated in bankruptcy started a new business or continued others in 70% of the cases. In 60% of the cases, the new or continued businesses were similar to the one shut down in Chapter 11.

In short, 85% of the owner-operators in our sample are serial entrepreneurs. For those whose businesses were shut down in bankruptcy, this legal outcome was a nonevent: Seventy percent of them moved on to other businesses. The only effect of Chapter 11 was to delay the time when they moved on. Those who use Chapter 11, then, are dedicated serial entrepreneurs. They start new businesses at a rate much higher than the general population. A panel study of young men, for example, found that the probability of self-employment over a fifteen-year period was only 18% generally and 32% among sons of fathers who were once self-employed. But our findings are unsurprising given what we know about those who run their own businesses. The median business in our

96. Dunn & Holtz-Eakin, supra note 68, at 286–89.
sample was about seven years old, as Table 2 showed, and about 40% of the entrepreneurs had founded businesses that failed before they filed the Chapter 11 petitions in our sample. Thus, a large fraction of the small-business owners in our sample had well over seven years of experience in self-employment. Previous empirical work has shown that, for entrepreneurs with this much experience, the probability of exiting self-employment is very low.97

These results reinforce the view that small businesses in bankruptcy possess little in the way of assets whose value depends upon their being kept together. Owner-operators face little or no difficulty in starting over again, taking their human capital and all the relationships they have established in their old business with them. Whatever benefit owner-operators enjoy from the Chapter 11 process (such as a reduction in their personal liability for the IRS obligations of the business), the outcome of a Chapter 11 proceeding—reorganization or liquidation—is largely irrelevant to what they do in the future. The drywall contractor will continue to hang drywall; the stand-alone travel agent will remain a stand-alone travel agent. Their customers will continue to use them (or not) independent of the legal entity in which they choose to operate.

97. In fact, the probability is zero among entrepreneurs with at least eleven years of experience. See Evans & Leighton, supra note 75, at 525.

### Table 13: Whether Owner-Operator Started or Continued Running a Similar or Dissimilar Business After the Chapter 11 Case

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>Started or Continued Running Similar Business</th>
<th>Started or Continued Running Dissimilar Business</th>
<th>Started or Continued Running Any Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15-17)</td>
<td>Shdowns (9) Other Cases (5)</td>
<td>Shdowns (9) Other Cases (5)</td>
<td>Shdowns (9) Other Cases (5)</td>
</tr>
<tr>
<td>Manufacturing (20-39)</td>
<td>55.6 (2) 20.0 (5)</td>
<td>44.4 (9) 0.0 (5)</td>
<td>66.7 (9) 20.0 (5)</td>
</tr>
<tr>
<td>Transportation (40-48)</td>
<td>100.0 (2) 100.0 (2)</td>
<td>0.0 (2) 0.0 (2)</td>
<td>100.0 (2) 100.0 (2)</td>
</tr>
<tr>
<td>Wholesale Trade (4813, 50-51)</td>
<td>50.0 (2) 0.0 (1)</td>
<td>0.0 (2) 0.0 (1)</td>
<td>50.0 (2) 0.0 (1)</td>
</tr>
<tr>
<td>Retail Trade (52-59)</td>
<td>0.0 (3) 45.5 (11)</td>
<td>66.7 (3) 27.3 (11)</td>
<td>66.7 (3) 63.6 (11)</td>
</tr>
<tr>
<td>Eating/Drinking Places (58)</td>
<td>57.1 (7) 41.7 (12)</td>
<td>0.0 (7) 25.0 (12)</td>
<td>57.1 (7) 66.7 (12)</td>
</tr>
<tr>
<td>Insurance Agents (60-69)</td>
<td>50.0 (2) 100.0 (1)</td>
<td>0.0 (2) 0.0 (1)</td>
<td>50.0 (2) 100.0 (1)</td>
</tr>
<tr>
<td>Business Services (47-49, 70-79)</td>
<td>66.7 (6) 16.7 (12)</td>
<td>33.3 (6) 0.0 (13)</td>
<td>66.7 (6) 16.7 (13)</td>
</tr>
<tr>
<td>Professional Services (80-89)</td>
<td>80.0 (5) 50.0 (12)</td>
<td>0.0 (5) 16.7 (12)</td>
<td>80.0 (5) 58.3 (12)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>60.0 (40) 99.1 (64)</td>
<td>22.5 (40) 17.2 (64)</td>
<td>70.0 (40) 51.6 (64)</td>
</tr>
<tr>
<td></td>
<td>(49.61) (49.17)</td>
<td>(42.29) (38.03)</td>
<td>(46.41) (50.37)</td>
</tr>
</tbody>
</table>
B. A Case Study of Asset Specificity

Nieman Industries was a maker of molded plastics for automobile, consumer products, computer, and electronic parts supply industries.\(^98\) It was the first corporation to file a Chapter 11 petition in the Northern District of Illinois in 1998.\(^99\) Nieman Industries might seem an example of an unsuccessful Chapter 11. No disclosure statement was ever filed and the petition was dismissed without a plan of reorganization being proposed, let alone confirmed.\(^100\) At the end, the business had been stripped of all of its assets.\(^101\) It might seem as if the entrepreneur would now have to turn elsewhere for his livelihood. He would no longer be able to run his own business in this industry. It turns out that, as in so many cases in our sample, this is emphatically not the case.

Like the vast majority of small corporations in Chapter 11, there was no going-concern value. Nieman Industries, the corporation, was a collection of entirely fungible equipment\(^102\) set up inside a nondescript building in an industrial park.\(^103\) It could be reassembled in almost no time at small cost. The equipment, while expensive, had no special value in this corporation as opposed to another that makes plastic parts.\(^104\) In-


\(^100\) Order Dismissing Chapter 11 at 1, In re Nieman, No. 98-00356.

\(^101\) Illinois records indicate that Nieman Industries underwent “voluntary dissolution” on April 8, 1998. See Illinois Secretary of State Public Records, available at LEXIS, ILREC Database (on file with the Columbia Law Review). When the case was dismissed, leased equipment was returned to lessors and collateral was turned over to secured lenders. Telephone Interview with Richard Nieman, Vice President, Treasurer, & Dir., Nieman Industries (Sept. 25, 2002) (on file with the Columbia Law Review).

\(^102\) The bulk of the debtor’s assets consisted of two injection-molding machines and a forklift. These assets were leased, a hallmark of fungibility. See Schedule G—Executory Contracts and Unexpired Leases, In re Nieman, No. 98-00356 (listing leased equipment and vehicle); see also Motion to Compel Debtor to Assume or Reject Truck Lease, Exhibit B at B-7, In re Nieman, No. 98-00356 (setting out schedule of payments for leased equipment). The undiscounted sum of payments equals about $310,000; at a discount rate of 10%, the payments have a present value of about $236,000, far more than the value of any equipment that the debtor actually owned. The schedules indicate that the debtor owned some equipment of “[u]nknown” value, but it was certainly worth no more than the purchase money security interest (worth about $78,000) encumbering it. See Schedule B at 3, In re Nieman, No. 98-00356; Schedule D, In re Nieman, No. 98-00356.

\(^103\) Nieman Industries was located in Bensenville, home to the sixth largest industrial park in Illinois. See DuPage County Dep’t of Econ. Dev., Village of Bensenville, at http://www.co.dupage.il.us/economicdevelopment/municipalities.cfm?doc_id=29 (last visited Oct. 18, 2005) (on file with the Columbia Law Review).

\(^104\) To the extent that equipment for making plastic parts requires customized dyes, these would belong not to Nieman, but to Nieman’s downstream customers. The idea that specialized equipment can be used in arms-length transactions in the market instead of being located within a particular business is one of the foundational ideas of industrial organization. Indeed, Nieman’s business (a supplier of parts to, among others, auto
deed, Nieman leased the equipment it used to manufacture its plastic parts. 105 By the time of the Chapter 11, the most valuable asset in the enterprise was the owner-operator’s set of relationships with various customers. Scott Nieman founded the business with help from his father 106 (who ran his own plastic-molding business 107 ) several years before, but his human capital was not business-specific. Scott had industry-specific human capital, and the challenge was one of creating a business that best matched this human capital. This asset did not belong to the corporation. The creditors of the corporation had no right to Scott’s human capital. This human capital—industry-specific, but not business-specific—would exist regardless of whether the corporation continued, and the Chapter 11 process had no effect on it.

Little is to be gained from keeping a business such as Nieman Industries alive. In other words, the stakes in this case had nothing to do with the corporation, but everything to do with Scott and his specialized human capital. Nothing prevented him from walking away from the corporation, free either to start another business or to work for someone else. Indeed, those in Scott’s position are often serial entrepreneurs. Scott’s father was the owner-operator of a different business in the same industry. This alone makes Scott about three times more likely than the average person to run his own business. 108 By upbringing and temperament, those in his position are willing to incur substantial costs and forego higher income elsewhere to run their own businesses. He is likely to keep starting businesses until he finds one that provides the best match with his human capital.

It would be a mistake for the policies governing the reorganization of Nieman Industries to distort Scott’s career choices—whether to continue with the current business, start a new one, or work for someone else. Yet Chapter 11 as written allows judges to do exactly this. It can be interpreted in a way that induces Scott to tie his human capital to Nieman Industries, Inc., regardless of whether it makes sense. The automatic stay and other bankruptcy rules provide a chance to divert assets from lessors, landlords, and general creditors that make keeping this business afloat relatively more attractive than starting another. 109

105. See supra note 102.
106. His father was Vice President, Treasurer, Director, and owner of 41.7% of the corporation’s stock. Statement of Financial Affairs at 6, In re Nieman, No. 98-00356.
108. See Dunn & Holtz-Eakin, supra note 68, at 289.
109. In this case, Chapter 11 could have provided two sorts of distortions. First, it may have allowed Scott to keep the leased equipment and pay something less than he would

manufacturers) is the iconic example of such relationships. Coase was, of course, the first to understand this. See R.H. Coase, The Nature of the Firm, 4 Economica 386, 388 (1937); see also R.H. Coase, The Acquisition of Fisher Body by General Motors, 43 J.L. & Econ. 15, 21–27 (2000).
If given the chance to take advantage of Chapter 11 in this manner, Scott would be acting rationally, just as those who remain in a rent-controlled apartment that is too small or too far from work are acting rationally. Moreover, such interpretations of Chapter 11 make it more likely at the margin that someone in Scott’s position will remain self-employed and not work for anyone else. But there is an economic distortion nevertheless. While it might be a good thing to encourage entrepreneurs like Scott to remain entrepreneurs, it is generally a bad idea to encourage them in a way that biases them towards keeping specific business ventures like Nieman Industries alive.

There might be businesses that look on the surface like Nieman Industries but fit the profile of the traditional candidate for a corporate reorganization. The equipment might have been specialized. A large group of creditors might have been closing in on the assets. The speed of the nonbankruptcy debt-collection process and an inability to renegotiate with everyone simultaneously might lead to a premature dismantling of the business. Chapter 11 might give the owner of the business time to form new contracts and put the business back on course. But these cases otherwise have to. Second, Scott had guaranteed a $78,000 secured loan from the bank. See Schedule D at 1, In re Nieman, No. 98-00356. By putting Nieman Industries in bankruptcy, Scott could ensure that whatever assets existed went to the bank rather than, let us say, to trade creditors, as would likely have happened if the business had continued to operate outside of bankruptcy.

110. Small entrepreneurs are liquidity constrained. Using data on entrepreneurs between 1981 and 1985, one study found that a $100,000 inheritance increased the probability of becoming self-employed by 3.3% (from 19.3% to 22.6%). See Douglas Holtz-Eakin et al., Entrepreneurial Decisions and Liquidity Constraints, 25 RAND J. Econ. 334, 342 (1994). An entrepreneur is more likely to stay in business if he or she receives a bequest. Douglas Holtz-Eakin et al., Sticking it Out: Entrepreneurial Survival and Liquidity Constraints, 102 J. Pol. Econ. 53, 69 (1994). Using data on entrepreneurs between 1981 and 1985, these authors found that a $150,000 inheritance increased the probability of survival by about 1.3 percentage points (the average probability of survival was 77.6%). Id. at 70–71. The implicit subsidy that Chapter 11 provides should work in the same way at the margin.

111. We are, however, skeptical that many such businesses exist. We find vanishingly few in our sample or elsewhere. Our economy includes a dwindling number of firms that look anything like a railroad, or other exemplars of businesses with going-concern value. See Greg Ip, Mind Over Matter: Why Many Highfliers Built on Big Ideas Are Such Fast Fallers, Wall St. J., Apr. 4, 2002, at A1 (stating that fifty years ago, tangible assets represented 78% of assets of nonfinancial corporations; today that figure is 53%). The proportion of employees working in the service industries has more than doubled over the last thirty years. Compare U.S. Dep’t of Labor, Handbook of Labor Statistics 61 (1977), with Handbook of U.S. Labor Statistics 70 tbl.1-14 (Eva E. Jacobs ed., 7th ed. 2004). As of 1997, more than twice as many people worked in service industries as in manufacturing. See U.S. Census Bureau, Statistical Abstract of the United States 544 tbl.867 (2000), available at http://www.census.gov/prod/2001pubs/ stabtab/sec17.pdf (on file with the Columbia Law Review). The ability to outsource has also left even large-scale manufacturers less dependent on their own plants and equipment. More than a third of Boeing’s latest airplane is being made in Japan. Peter Pae, Japanese Helping 787 Take Wing, L.A. Times, May 9, 2005, at C1.
are rare, as we showed in Part II.A, and Nieman Industries was not one of them. To the extent that the Bankruptcy Code is interpreted (as some advocate) to allow cases like Nieman to linger, we are not preserving going-concern value, but are instead distorting the career path of the owner-operator.

At least in the Northern District, however, the Bankruptcy Code causes relatively little distortion of the small entrepreneur’s career path. Judges are willing to make tough choices when the appropriate motions are put before them. When bankruptcy judges are willing to confront issues directly and resolve them quickly, Chapter 11 creates little or no distortion, and such was the case with Nieman Industries. One month after the filing, the equipment lessor moved to repossess the equipment; the same day, the debtor moved to dismiss, admitting it was unable to effectuate a plan. Both motions were continued to a hearing one month later, when the judge dismissed the case. The corporation was dissolved under state law a few weeks after that. Scott no longer had a business that manufactured plastic parts, but nothing kept him from starting a new one that did exactly the same thing. But Scott’s comparative advantage lay in identifying those who needed plastic parts and matching them with those who could make them, rather than in manufacturing the parts themselves. Scott’s next business took advantage of his expertise and his relationships, but without the fixed overhead costs that doomed Nieman Industries. He became a successful supplier of customized plastic parts who subcontracted the actual manufacturing to others. The court’s willingness to take decisive action induced Scott to find a business that better matched his skills with the marketplace. It is no more desirable that Scott Nieman spend his life overseeing a manufacturing operation than that Yo-Yo Ma play the violin.

112. See, e.g., Dickerson, supra note 22, at 117 (“Without chapter 11, it would be virtually impossible for the owner to continue his trade (as a lawyer, chiropractor, plumber, etc. . . .) or to start another small business (like an insurance company or funeral home) unless he could discharge the business debts before attempting to sort out his personal debts.”).

113. See Morrison, Continuation Bias, supra note 1 (manuscript at 11–16) (showing that over 60% of Chapter 11 filings were dismissed or converted to Chapter 7, that bankruptcy judges rendered over 40% of these orders within first three months of case and over 70% within first six months, and that “no party with a predictable bias—debtors or creditors—completely dominates the bankruptcy process; to the contrary, bankruptcy judges appear to play an important role in determining when a firm should be shut down”).

114. Motion to Compel Debtor to Assume or Reject Truck Lease, In re Nieman, No. 98-00356.

115. Motion to Voluntarily Dismiss Chapter 11 at 1, In re Nieman, No. 98-00356.


117. See supra note 99.

118. Telephone Interview with Richard Nieman, supra note 101.

119. The analogy is Richard Thaler’s. See Richard Thaler, Address: “Finding Your Cello,” U. Chi. Rec., Nov. 6, 2003, at 7. As Thaler points out, Yo-Yo Ma began as an indifferent violinist and discovered his genius only when he switched to the cello. Id. If he
C. The Case of Restaurants

Restaurants require large capital investments relative to other small businesses. An investment of $150,000 is needed to start even a modest fast-food operation, such as a mid-range Subway sandwich shop.\(^{120}\) One million dollars or more is needed to open a fine-dining restaurant. It might seem that these businesses fit the conventional account of Chapter 11: They depend on specialized assets and may need the protection of Chapter 11 to ensure that the assets are not wasted and going-concern surplus destroyed. After all, a restaurateur cannot begin a new restaurant the way a travel agent or insurance broker can open a new office.

Here again, however, matters are more complicated than they appear. Restaurant kitchen equipment itself is not expensive.\(^{121}\) Indeed, the ovens and stoves used in restaurants cost less than high-end equipment for consumer use, as they have none of the insulation or finishes that home kitchens require. The ranges, ovens, and counters are often on wheels and in any event are readily moveable, and there is a robust secondary market for them. The capital costs lie elsewhere. First, converting generic retail space into space suitable for a restaurant is expensive. Merely meeting health code requirements for everything from hand sinks to grease traps to air vents can cost hundreds of thousands of dollars. But these investments are not tied to any particular restaurant venture. A Mexican restaurant can use the same walk-in refrigerator as readily as an Italian restaurant. Of course, if it turns out that the location is a poor one for a restaurant, any money spent converting space dedicated to that use will be lost, but Chapter 11 can do nothing to change this.

The build-out of the dining space can be costly. Moreover, it can be lost if a particular restaurant venture is shut down. While the kitchen of a three-star restaurant is barely distinguishable from one that serves the most pedestrian country club food, the dining rooms of such restaurants are different. These represent substantial capital investments that are tightly tied to the business plan of the owner-operator. Converting the décor of a dining room of an Italian restaurant to a seafood restaurant often runs into the hundreds of thousands of dollars. These huge sunk expenditures, however, are incurred only by a minority of restaurants. While the décor of the upscale fine-dining restaurant can run into the millions, the typical restaurant (and the one that typically ends up in Chapter 11) is a modest affair. More to the point, the money invested is a

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\(^{121}\) This paragraph and the two following recap Baird & Rasmussen, Twilight, supra note 77, at 685–89.
sunk cost. The value of the carpeting, wall cover, and eclectic furniture of a given restaurant turns entirely on the revenue they generate going forward. They have value only if they bring in business.

**Table 14: Debt Composition of Businesses in Chapter 11**

<table>
<thead>
<tr>
<th>Industry (SIC No.)</th>
<th>Businesses with bank debt % (n) (sd)</th>
<th>Secured debt as % of total debt, among businesses with secured debt (mean) (sd)</th>
<th>Businesses with IRS debt % (freq) (sd)</th>
<th>IRS debt as % of total debt, among businesses with IRS debt median (mean) (sd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction (15-17)</td>
<td>85.7 (14)</td>
<td>37.6 (36.9)</td>
<td>85.7 (14)</td>
<td>6.6 (11.1)</td>
</tr>
<tr>
<td>Manufacturing (20-39)</td>
<td>50.0 (12)</td>
<td>65.1 (68.8)</td>
<td>36.4 (11)</td>
<td>8.6 (34.3)</td>
</tr>
<tr>
<td>Transportation (40-48)</td>
<td>25.0 (4)</td>
<td>25.6 (25.6)</td>
<td>33.3 (3)</td>
<td>0.6 (.6)</td>
</tr>
<tr>
<td>Wholesale Trade (4813, 50-51)</td>
<td>100.0 (3)</td>
<td>52.1 (62.3)</td>
<td>33.3 (3)</td>
<td>6.5 (6.5)</td>
</tr>
<tr>
<td>Retail Trade (52-59)</td>
<td>57.1 (14)</td>
<td>41.8 (46.9)</td>
<td>41.7 (12)</td>
<td>1.5 (11.5)</td>
</tr>
<tr>
<td>Eating/Drinking Places</td>
<td>26.3 (19)</td>
<td>26.7 (40.8)</td>
<td>68.4(19)</td>
<td>21.0 (25.0)</td>
</tr>
<tr>
<td>Insurance Agents (60-69)</td>
<td>0 (3)</td>
<td>NA</td>
<td>66.7 (3)</td>
<td>1.6 (1.6)</td>
</tr>
<tr>
<td>Business Services (47-49, 70-79)</td>
<td>50.0 (18)</td>
<td>41.6 (46.1)</td>
<td>56.3 (16)</td>
<td>22.6 (29.8)</td>
</tr>
<tr>
<td>Professional Services (80-89)</td>
<td>52.9 (17)</td>
<td>52.4 (51.7)</td>
<td>76.5 (17)</td>
<td>22.4 (30.3)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>51.0 (104)</td>
<td>43.6 (47.1)</td>
<td>61.2 (98)</td>
<td>12.7 (22.0)</td>
</tr>
</tbody>
</table>

Our data suggest that restaurants in financial distress are also in economic distress. Restaurants are so prone to fail that they often have no institutional lenders at all. As Table 14 illustrates, only 26% of restaurants in Chapter 11 have any institutional debt, making this industry one of the least likely to have bank debt. Even among restaurants that do have bank debt, it accounts for only a quarter of the debt of the median business. Among businesses in other industries, it accounts for nearly half of the debt burden. With debt burdens so low, why are restaurants failing? It is because failing restaurants cannot pay for their ongoing operations. They are in financial distress because they are in economic distress. Restaurants are, for example, among the most likely to have IRS debt (68%). And among those with IRS debt, unpaid taxes account for 21% of total debt, a much higher percentage than we find in any other type of business outside of the services sector.

Most restaurants in Chapter 11, then, have business models that have failed. They begin with little or no debt in the capital structure, and they get into trouble because they cannot even meet their operating expenses. The restaurant stays in business by stretching out payments to trade creditors, falling behind on payments to the landlord, and then invading the trusts established for withholding taxes. The restaurant's inability to pay creditors signals that it has no future as a going concern. The hard assets
may be specialized, but they are not worth saving on that account. Specialized assets that cannot generate a positive cash flow are worthless; they are liabilities.  

Three restaurants in our sample did reorganize successfully. They remain in business today. The Chapter 11, however, had little to do with preserving going-concern value. Consider, for example, the Chapter 11 of a Subway sandwich shop that had been sold to a new owner only a few months before. The owner-operator of a Subway sandwich shop was inexperienced and the business operated at a loss. Mistakes included hiring too large a staff and overpaying sales tax. The short time spent in Chapter 11 allowed him to fix these problems. He fired full-time workers and replaced them with a succession of part-time workers in addition to other management changes. He proposed and confirmed a 100% plan and several years later sold the business to someone else and, as we have seen many times, went on to run another one.

This entrepreneur’s successful use of Chapter 11 is different from the usual story told about Chapter 11. The business had little in the way of specialized assets. The equipment in a Subway sandwich shop is usually leased and is readily moved. The money needed to convert a leased storefront to a Subway franchise is small. Indeed, it was sufficiently small that this business moved two doors down the street after the Chapter 11 ended. Far from the assets being tied to a particular location, it was possible to close at one location on one day and open at the new one (with the same equipment) the next. There was no collective decisionmaking involved either, but rather tough decisions (such as replacing all the permanent employees with part-time workers) that successful entrepreneurs need to make to survive. This case, unlike the over-

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124. First Amended Disclosure Statement of TC Restaurants, Inc. at 7, In re TC Rests., No. 98-09502 ("Debtor was new to the fast food industry. . . .").
125. Id. at 8 ("Debtor maintained its operations by using funds earmarked for the IRS and [Illinois Department of Revenue] for operating and rent related expenses.").
126. Id. at 7.
127. Id.
128. Id. at 1–2 (explaining that all creditors will be paid in full).
129. Telephone Interview with Manager, Subway Restaurant (Nov. 11, 2002) (on file with the Columbia Law Review).
131. Doctor’s Associates, Inc., supra note 120 (indicating that equipment is leased from Subway company, known formally as Doctor’s Associates, Inc.).
132. The Subway headquarters estimates that leasehold improvements range from $45,000 to $100,000. Id.
133. Telephone Interview with Manager, Subway Restaurant, supra note 129.
134. Id.
whelming majority of the other restaurants in the sample, had a business plan that was fundamentally sound.

A similar theme emerges from the case of Taco Fiesta. The owner-operator of a thriving Mexican restaurant opened another at a different location that failed. The business ended up owing the landlord at the second location almost $60,000. The owner-operator and a business partner were personally liable for this debt. In this case, the challenge the owner-operator faced was one of returning to his core competence. He likely could have done this by walking away from this restaurant, filing his own personal bankruptcy petition, and starting a new restaurant. But it was marginally easier to keep running this restaurant and use Chapter 11 to resolve disputes with the outstanding creditors.

Again, the problem in In re Taco Fiesta had little to do with preservation of specialized assets. Instead it was a case in which the serial entrepreneur was able to match his human capital with a business by returning to the sound business embedded inside the one that failed. The Chapter 11 succeeded not because it preserved going-concern value, but because it did not distort the entrepreneur’s decisionmaking. He would have continued running Taco Fiesta even if the benefits of Chapter 11 were not tied to the business itself.

As we show in Part III, this is the striking characteristic of the successful Chapter 11 reorganization. A successful business emerges only if the entrepreneur’s skills are matched with a business already inside the existing one. To be sure, Chapter 11 may reduce transaction costs in cases like In re Taco Fiesta. If an owner-operator successfully operates a business but fails in an effort to expand it, Chapter 11 can help him or her return to the old business. The net effect of Chapter 11, however, is unclear even here. The bankruptcy process comes with its own administrative costs. In any event, Chapter 11 rarely succeeds when there is no core business inside the existing corporate shell to which the entrepreneur can return. As we discuss in the next Part, the Chapter 11 process simply

137. Id. at 6–7.
138. Id. at 7 (noting that debtor and its principal were named defendants in landlord’s suit); Schedule H, In re Taco Fiesta, No. 98-06239 (listing business partner as codebtor on liabilities owed to landlord); see also Schedule F, In re Salud Cortez, No. 98-07714 (Bankr. N.D. Ill. Apr. 17, 1998) (acknowledging debt to landlord in owner-operator’s personal bankruptcy filing); Schedule F, In re Juan Corona, No. 98-06247 (Bankr. N.D. Ill. Apr. 6, 1998) (acknowledging debt owed by business partner to landlord in personal filing).
139. In this case, as in one other successful reorganization, the owner-operator filed a personal bankruptcy petition at the same time. See In re Salud Cortez, No. 98-07714. Personal bankruptcy petitions are relatively common at some point in the careers of the serial entrepreneurs in our sample. About forty percent filed their own personal bankruptcy petition at one time or another.
does not align itself with the needs of the serial entrepreneur in any other environment.

III. Why Chapter 11?

In Part II, we showed that entrepreneurs rarely use Chapter 11 to preserve going-concern surplus. This Part asks why entrepreneurs use Chapter 11 at all. If the typical small entrepreneur is searching for the right match between her human capital and a business, why would she use Chapter 11 to remain with her financially distressed business rather than start a new one? The short answer is that she does not. Fewer than 1% of entrepreneurs running a failing business turn to Chapter 11.\textsuperscript{140} The typical small entrepreneur does not linger with a financially distressed business. Entrepreneurs who try one business usually cut their losses and go on to start another when the first fails.

Even so, the appropriate question is not why so few entrepreneurs use Chapter 11, but why \textit{any} do, given that it does little or nothing to preserve going-concern value. Our study of the Northern District points to several possible answers: asset sales,\textsuperscript{141} bargaining leverage,\textsuperscript{142} temporary liquidity,\textsuperscript{143} and renegotiation of personal guarantees.\textsuperscript{144} Asset sales are often accomplished more easily and efficiently in a Chapter 11 proceeding than under state law. These cases, however, are only a minority of Chapter 11s.\textsuperscript{145} Most businesses enter bankruptcy not to avoid inefficiencies cured by Chapter 11 but rather to exploit potential inefficiencies \textit{created} by the Code, including the entrepreneur's enhanced bargaining power in disputes with a creditor, landlord, or some other third party.\textsuperscript{146}

\textsuperscript{140} Owner-operators shut down more than a million businesses each year. See Bureau of Labor Statistics, Business Employment Dynamics, Custom Tables, at http://data.bls.gov/PDQ/outside.jsp?survey=bd (last visited Oct. 17, 2005) (on file with the \textit{Columbia Law Review}) (showing that total closings of private establishments ranged from 1.1 to 1.4 million per year between 1994 and 2004). By contrast, only around 10,000 file Chapter 11 petitions. See Admin. Office of the U.S. Courts, 1990–2002 Calendar Year Bankruptcy Filings by Chapter and District, available at http://www.uscourts.gov/bankruptystats/Bk2000-1990Calendar.pdf (last visited Sept. 18, 2005) (on file with the \textit{Columbia Law Review}) (reporting 8,000 to 15,000 Chapter 11 filings per year between 1994 and 2002). Even this overstates the importance of Chapter 11, as many Chapter 11 filings involve individuals or represent multiple filings by related entities or serial filings by the same entity.

\textsuperscript{141} See infra Part III.A.

\textsuperscript{142} See infra Part III.B.

\textsuperscript{143} See infra Part III.C.

\textsuperscript{144} See infra Part III.C.

\textsuperscript{145} Over the population of Chapter 11 cases as a whole, asset sales take place only in a minority. See infra Table 15. If we focus on larger cases, however, sales are more common and may take place in half the cases or more. See Baird & Rasmussen, Twilight, supra note 77, at 675–76.

\textsuperscript{146} See infra Table 15 (presenting evidence of this type of strategic behavior in Panel B). Many others have noted that entrepreneurs commonly use Chapter 11 for this purpose. See, e.g., Brian A. Blum, The Goals and Process of Reorganizing Small Businesses in Bankruptcy, 4 J. Small & Emerging Bus. L. 181, 207 (2000). Indeed, this
Yet another benefit of Chapter 11 is the availability of temporary liquidity: Upon filing a petition, the entrepreneur can suspend debt service and defer or cap breach-of-contract claims.\textsuperscript{147} With this temporary liquidity, she can take steps to resurrect or reorient the business. Lastly there is the phenomenon of personal guarantees, which are ubiquitous in small business cases. Chapter 11 may offer an attractive venue for renegotiating these guarantees, perhaps because the bankruptcy petition is a way for the entrepreneur to credibly signal that her financial affairs have worsened to the point that renegotiation is necessary.

The latter two attractions of Chapter 11—temporary liquidity and renegotiation of personal guarantees—come with a cost. They encourage owner-operators to remain in existing business structures instead of founding new ones (or seeking employment). This lock-in effect distorts the career trajectories of entrepreneurs. Whether this distortion outweighs the benefits of Chapter 11 is unclear, but our data provide strong evidence that the lock-in effect is prevalent in small business bankruptcies. We present this evidence after exploring the reasons entrepreneurs are drawn to Chapter 11 in the first place.

A. Asset Sales

For small businesses as well as large ones, Chapter 11 offers a way\textsuperscript{148} for a financially distressed business to sell its assets free and clear of encumbrances and creditor claims\textsuperscript{149} and then divide the proceeds among the claimants. As Panel A of Table 15 shows, in about 11\% of the Chapter 11 petitions in the Northern District (eleven cases), the business entered bankruptcy to sell assets, with the bankruptcy judge typically serving as auctioneer, either by approving a motion to sell assets or by confirming a plan of reorganization that contemplated substantial assets sales. In about half of these cases (five cases), the business entered Chapter 11 solely to sell itself as a going concern to the highest bidder. The remaining six businesses entered bankruptcy primarily to sell assets and use the proceeds to increase cash flow sufficiently to overcome their financial distress. As Panel A indicates, for most of these businesses (five cases) the

\textsuperscript{147} Bankruptcy's automatic stay suspends obligations to general creditors for the duration of the case. See 11 U.S.C. § 362(a) (2000) (amended 2005). Prepetition obligations under executory contracts and leases are treated as ordinary claims in the event they are rejected and put in abeyance until assumption, something that may take many months. See id. § 365. Damages under real property leases are capped under § 502(b)(6).

\textsuperscript{148} See 11 U.S.C. § 363(b) (permitting sales outside ordinary course, after notice and hearing).

\textsuperscript{149} See id. § 363(f) (permitting sales "free and clear of any interest in [the] property," with some exceptions).
sale did not ensure a successful Chapter 11 by the traditional metric; they ended up in liquidation or with their cases dismissed.

Using Chapter 11 to effect a sale of the assets is especially likely when one of the potential buyers identified before the bankruptcy is allied with the current owner-operator. The Chapter 11 process ensures that the sale brings top dollar and prevents self-dealing.¹⁵⁰ Billy’s Good Life Café illustrates how assets are sold in Chapter 11.¹⁵¹ Billy Moss had opened other restaurants before attempting the Good Life Café.¹⁵² He had to make a large capital investment to convert the space into the café he desired.¹⁵³ When it failed, there was no possibility of a going-concern sale. Any restaurant on this site (even one run by Billy) would have to change the décor, the menu, and the market niche in order to succeed. Nevertheless, any new restaurant would be able to take advantage of the investment already made in converting the space into a restaurant. As a serial entrepreneur, Billy Moss might be the one who put the highest value on this space. Outside of bankruptcy, however, neither Billy nor a group allied with him could acquire the asset from the corporation and be confident that they could take it free from the debts of the existing business.¹⁵⁴ Chapter 11, however, provides a mechanism that allows Billy to bid for the asset and take it free of the claims of the creditors in the event he turns out to be the person who values it the most. As it happened, another group proved to be the high bidder.¹⁵⁵ Like the Good Life Café, the restaurant it opened failed too.¹⁵⁶ The space finally be-

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¹⁵⁰. Baird & Rasmussen, End of Bankruptcy, supra note 59, at 786–88 (emphasizing efficiencies of asset sales within Chapter 11).


¹⁵³. Debtor’s schedules indicate that it received over $700,000 in secured financing. In light of the fact that debtor filed its petition less than two years after opening its doors, it seems likely that most of this financing was used to convert the space into a café. See Schedule D at 2, In re Good Life Enters., No. 98-13120; Jacobs, supra note 152 (noting that Billy’s Good Life Café opened its doors in August 1996).

¹⁵⁴. And a group allied with Billy did want to purchase the restaurant. In bankruptcy, the top bid for the business was submitted by Billy’s brother-in-law (Billy’s wife was the restaurant’s president). See Emergency Motion to Stay Order Dated August 3, 1998 at 1, In re Good Life Enters., No. 98-13120; Motion for Authority to Sell Assets Pursuant to Section 363 of the Bankruptcy Code and for Other Relief at 3, In re Good Life Enters., No. 98-13120. The bid failed, however, because it was opposed by the café’s landlord. Motion for Authority, In re Good Life Enters., at 2.

¹⁵⁵. See Order Finding that [sic] the Wong Group to be a Good Faith Purchaser and Granting Other Relief, In re Good Life Enters., No. 98-13120.

came a successful restaurant (serving Mexican food) under its third owners.\textsuperscript{157} For both large cases and small, Chapter 11 is becoming the platform that allows the sale of assets free and clear of old claims and encumbrances. If one were designing a legal system from scratch, it is not obvious that one would want a mechanism originally designed for restructuring nineteenth century railroads to provide the avenue for a going-concern sale of assets.\textsuperscript{158} Nevertheless, Chapter 11 seems to work effectively in this environment.

\section*{B. Bargaining Power}

\begin{table}[h]
\centering
\caption{Reasons for Filing Chapter 11 Petitions, By Case Outcome}
\begin{tabular}{|l|c|c|c|c|}
\hline
 & Shutdowns & Restrstructurings & Going Concern Sales & All Cases \\
 & & without a & & \\
& & plan & & \\
& & \(n=8\) & & \(n=104\) \\
& & \% (freq) & & \% (freq) \\
\hline
\textbf{Panel A: Types of Chapter 11 Filing} & & & & \\
Asset sales & 7.7 (5) & 12.5 (1) & 62.5 (5) & 10.6 (11) \\
Exploiting bargaining power & 13.8 (9) & 50.0 (4) & 12.5 (13) & \\
Lock-In & & & 49.0 (51) & \\
Traditional Chapter 11s & & & & 26.9 (28) \\
\hline
\textbf{Panel B: Evidence of Lock-In} & & & & \\
Ignoring procedural requirements & 60.0 (39) & & 12.5 (1) & 38.5 (40) \\
Failing to pay ongoing expenses & 26.2 (17) & & & 16.3 (17) \\
Using Ch. 11 to favor insider-creditors & 1.5 (1) & & & 1.0 (1) \\
Any evidence of Lock-In & 76.9 (50) & & 12.5 (1) & 49.0 (51) \\
\hline
\textbf{Panel C: Evidence of “Traditional Cases”} & & & & \\
Overexpansion & 7.7 (5) & 47.8 (11) & 12.5 (1) & 25.0 (2) & 18.3 (19) \\
Prepetition fraud or other malfeasance & 7.7 (5) & & & 37.5 (3) & 7.7 (8) \\
Cash shortages from loss of customers & 9.2 (6) & 13.0 (3) & 12.5 (1) & & 9.6 (10) \\
Cost overruns from reconfiguring business & 3.1 (2) & 13.0 (3) & 25.0 (2) & & 6.7 (7) \\
Asbestos liability & & & & 4.3 (1) & 1.0 (1) \\
Any Traditional Event & 27.7 (18) & 78.3 (18) & 50.0 (4) & 62.5 (5) & 43.3 (45) \\
Traditional Events, excluding sales, lock-in, etc. & 7.7 (5) & 78.3 (18) & 12.5 (1) & 37.5 (3) & 26.0 (27) \\
\hline
\end{tabular}
\end{table}

\textsuperscript{157} The authors obtained this information by contacting the Bannockburn Village Hall on October 4, 2002. This story is not unusual. For an example of a restaurant that went through five incarnations (and two bankruptcies) before finding its niche, see Baird & Rasmussen, Twilight, supra note 77, at 687–89.

\textsuperscript{158} On the railroad origins of Chapter 11, see Skeel, supra note 10, at 48–70.
Some entrepreneurs are drawn to Chapter 11 because it gives them a unique opportunity to extract concessions from creditors. In at least thirteen cases in our sample (12.5%), as Panel A of Table 15 shows, the owner-operators filed a petition to exploit their leverage vis-à-vis landlords and other claimants. In many other cases, exploitation of bargaining power was an important part of the reason for filing.

Consider, for example, In re Myron & Phil's Steak House. The owners fired two employees, who subsequently brought suit. One alleged sexual harassment and age discrimination; the other racial discrimination. The first case went to trial, but less than fifteen minutes after it began, the owners put the restaurant in Chapter 11. This well-established restaurant had few problems other than these disgruntled employees. The Chapter 11 changed the dynamics of the negotiations between the owner-operators of the business and the employee. Once the lawsuit was settled, the case was dismissed.

Another case in which Chapter 11 was used to change bargaining dynamics is In re ABO Taxicab. In this case, the creditor that had financed the purchase of the medallions threatened to levy on the assets. As in In re Myron & Phil's, no other creditors were in the picture. The Chapter 11 again changed the bargaining dynamics and once the parties reached agreement, the case was dismissed. As in so many other Chapter 11 cases, there were no business-specific assets, and the entrepreneur was able to and did in fact start many other businesses. Indeed, the entrepreneur in ABO started at least ten other cab

159. We coded a case as “exploiting bargaining power” when the debtor remained in Chapter 11 only as long as necessary to reach a compromise with a single creditor (usually a tort victim or landlord) or when the primary issue in the case was a dispute with a landlord, which typically had commenced eviction proceedings prior to the filing.


161. Disclosure Statement at 4, In re Myron & Phil’s, No. 98-00726.

162. Emergency Motion to Lift Automatic Stay at 1–2, In re Myron & Phil’s, No. 98-00726.

163. Motion to Shorten Notice Under Bankruptcy Rule 2002(4) and to Dismiss Chapter 11 Bankruptcy at 2, In re Myron & Phil’s, No. 98-00726.


165. We infer this from the debtor’s motion to dismiss, which states that “[t]here is only a single Creditor in this case” and “[s]ince . . . filing Debtor and Creditor have reached an agreement on the subject of liabilities.” Motion for Dismissal of Case for Cause Under Section 1112(b) at 1, In re ABO Taxicab, No. 98-23646. Debtor, then, filed this Chapter 11 petition to buy time and obtain leverage in negotiations with the creditor.

166. Id.

companies, one of which also entered Chapter 11, again resolving a dispute with the creditor who had financed the purchase of the medallions. 168

Some cases involve both a sale and a strengthening of the bargaining hand. M&V Corp. 169 was a family-run music and video retailer founded January 31, 1983. 170 It entered Chapter 11 so it could sell a piece of real estate upon which state tax authorities would have otherwise foreclosed. 171 Once the sale took place, the case was dismissed. 172 The business itself subsequently closed, 173 but there was again no particular going-concern surplus associated with it. The owner-operator then directed his attention to a different music and video store—his third (at least). 174

In part because of the special treatment of leases and executory contracts, 175 entrepreneurs sometimes use Chapter 11 to improve their positions with their landlords or parties with whom they have long-term contracts. One case, for example, involved a Greek restaurant that had fallen behind on its rent. 176 Its landlord had the chance to sell the underlying real estate to a third party. By filing for bankruptcy and curing the default, the restaurant ensured that it could share in the premium that the landlord obtained from the sale. 177

168. In re First ABO, No. 03-36193.
170. See Statement of Financial Affairs at 3, In re M&V, No. 98-14680 (indicating that Jeanne and Edward Carter owned and managed business); Voluntary Petition at 1, In re M&V, No. 98-14680 (indicating that M&V Co. was "music and video enterprise"); Illinois Secretary of State Corporation and LLC Information, available at LEXIS, ILREC Database (on file with the Columbia Law Review) (indicating founding date of corporation).
171. Motion for Authority to Sell Real Property at 1–2, In re M&V, No. 98-14680.
172. Order Dismissing Case at 1, In re M&V, No. 98-14680.
173. Illinois records indicate that the business failed to file an annual report in 1999; as a result, in June 2000, the state coded the business as "dissolved." Illinois Secretary of State Public Records, available at LEXIS, ILREC Database (on file with the Columbia Law Review).
174. Illinois records indicate that Edward Carter founded Metro Music Corp. in December 1971 and Metro Records, Inc. in February 1997. Both businesses failed to submit 1999 annual reports to the state and were coded as "dissolved" in May and July 2000, respectively. See id.
176. In re Acropolis, Inc., No. 98-27045 (Bankr. N.D. Ill. Mar. 29, 1998); see also Motion for Authority to Assume Executory Lease at 2, In re Acropolis, No. 98-27045 ("Acropolis was in default under the terms of the [real estate] lease . . . .").
177. The purchaser would not buy the land unless Acropolis rejected its lease and surrendered possession of the premises. Acropolis used this condition to its advantage, forcing the landlord-seller to pay $154,000 in exchange for its commitment to reject the lease and move out. See Motion of Debtor in Possession to Reject It's [sic] Executory Lease at 2, In re Acropolis, No. 98-27045.

When Chapter 11 can be used to capture such substantive benefits, we should be aware that it will have an effect on bargaining that takes place outside of bankruptcy. A debtor who can credibly threaten to invoke section 365 in bankruptcy should be able to
C. Liquidity, Guarantees, and Lock-In

Asset sales and simple exploitation of bargaining power account for only about 23% of the sample. For the remaining cases, Chapter 11 largely serves as a venue in which a small-business owner can (temporarily) fend off landlords and trade creditors, increase short-term cash flow, and cut deals with large creditors—usually secured lenders and the IRS—to whom the owner had given personal guarantees of the business’s indebtedness.178 Thanks to the Bankruptcy Code’s automatic stay and priority rules,179 a small business can operate in bankruptcy free from creditor collection efforts and is barred from servicing its debt until a plan of reorganization is confirmed. Additionally, the business can assume profitable executory contracts, reject (i.e., breach) unprofitable ones, and defer paying breach-of-contract damages until a plan is confirmed (and, in the case of real estate leases, these damages will be capped).180 These provisions of the Code improve a small business’s liquidity, at least for a short while, largely at the expense of unsecured creditors and landlords.

1. Temporary Liquidity. — Liquidity is an important determinant of the lifespan of small businesses. While starting a new business is not costly,181 it is not costless either. Owner-operators do not have ready access to credit markets. The risks associated with any new business are large and much of the money needed to start the business is not recoverable unless the business succeeds.182 For outside investors, the costs of gathering enough information to distinguish the bad risks from the good are too large. Moreover, the owner-operators who run these businesses enjoy substantial nonmonetary returns. They are willing to accept less income and fewer prospects for growth in income to run the business.183

capture the benefits in bargaining with the landlord or contracting party without actually having to file.

178. A promise not to file for bankruptcy is ordinarily unenforceable. See United States v. Royal Bus. Funds Corp., 724 F.2d 12, 15 (2d Cir. 1983) (noting “the general rule that a debtor may not agree to waive the right to file a bankruptcy petition”). Exceptions typically arise only when there is a comprehensive workout outside of bankruptcy. See, e.g., In re Colonial Ford, 24 B.R. 1014, 1020 (Bankr. D. Utah 1982). Hence, the distortions Chapter 11 introduces cannot be cashed out in advance through Coasean bargaining.

179. See 11 U.S.C. §§ 362, 507. As a general matter, payments to general creditors are forbidden during the pendency of the case. See In re Kmart, 359 F.3d 866, 869 (7th Cir. 2004).

180. In the case of real estate leases, these damages will be capped. See 11 U.S.C. §§ 365, 502(b)(6).

181. Using data from the Panel Study of Entrepreneurial Dynamics, a survey of individuals preparing to start new businesses, a recent study found that the median estimated startup cost was $6,000 for solo ventures and $20,000 for ventures founded by teams of entrepreneurs. Blade Consulting Corp., Expected Costs of Startup Ventures 1–2 (2003), at http://sba.gov/advo/research/rs232tot.pdf (on file with the Columbia Law Review).

182. Over thirty percent of new businesses fail in their first two years. See Knaup, supra note 71, at 51.

183. Hamilton, supra note 66, at 622.
The psychic benefits they enjoy do not form the basis on which outsiders make investments. Thus, owner-operators are more likely to keep running their own businesses if they receive an inheritance.\textsuperscript{184} At the margin, anything that makes running a particular business cheaper will make an entrepreneur more likely to remain with that business.

2. Personal Guarantees. — In addition to providing short-term liquidity, Chapter 11 offers a venue in which the entrepreneur can strike deals with creditors to whom she will be personally liable if the business fails to repay them in full. The vast majority of small businesses (85\%, as shown in Table 17 below) will enter bankruptcy with debts that have been personally guaranteed by the owner-operator. These debts are generally owed to secured lenders and the IRS, both of whom are willing to renegotiate the debts and the personal guarantees if the entrepreneur brings her business into bankruptcy.\textsuperscript{185} This is true for several reasons. First, and perhaps most importantly, the bankruptcy process is a form of "costly state verification," much like an audit in the insurance context.\textsuperscript{186} Outside of bankruptcy, creditors have imperfect information about the value of the business's assets; although they may be willing to renegotiate the debts of the business and its entrepreneur, they may not trust the entrepreneur's representations regarding asset value. The bankruptcy process offers a mechanism for overcoming this information asymmetry, allowing creditors to verify (and entrepreneurs to demonstrate credibly) the value of the business's assets.\textsuperscript{187}

In theory, these benefits might justify the Chapter 11 process. But to make such a case for Chapter 11, it must be proven that alternative mechanisms cannot serve the same purpose at lower cost. Such proof is important because the costs of Chapter 11—particularly the lock-in effect—may be of little or no concern to banks, the IRS, and others interested in verifying the business's condition. Chapter 11 offers them a court-subsidized venue in which to achieve the same negotiations that they might under-

\textsuperscript{184} An entrepreneur is more likely to start a business if he or she has greater personal wealth or receives bequests. See David G. Blanchflower & Andrew J. Oswald, What Makes an Entrepreneur?, 16 J. Lab. Econ. 26, 35–43 (1998); Dunn & Holtz-Eakin, supra note 68, at 292–94; Holtz-Eakin et al., supra note 110, at 342–46.

\textsuperscript{185} The IRS generally does not pursue delinquent withholding taxes against an individual responsible for them while the Chapter 11 of the corporation is pending, nor while it is making payments under a plan of reorganization. See IRS, Internal Revenue Manual, 5.7.4.8.3, Trust Fund Taxpayer in Bankruptcy (Apr. 1, 2005), at http://www.irs.gov/irm/part5/ch07s04.html#d0e59602 (on file with the Columbia Law Review).

\textsuperscript{186} There is a vast literature on costly state verification and its various applications. The literature was launched by Robert M. Townsend, Optimal Contracts and Competitive Markets with Costly State Verification, 21 J. Econ. Theory 265 (1979). For a brief overview, see Patrick Bolton & Mathias Dewatripont, Contract Theory 190–97 (2005).

\textsuperscript{187} See, e.g., Bolton & Dewatripont, supra note 186, at 190 ("Viewed from the [costly state verification] perspective, the main function of bankruptcy institutions is to establish a clear inventory of all assets and liabilities and to assess the net value of the firm."). For formal models illustrating this function, see Giammarino, supra note 28, at 35–36; Webb, supra note 28, at 285–87.
take outside of bankruptcy. And the costs of this process are borne primarily by others, including unsecured creditors, who typically receive little or nothing from the reorganization process.\(^{188}\) It is not possible to justify Chapter 11 as it currently exists because of the liquidity or the verification mechanism it provides without taking these lock-in costs into account.

For serial entrepreneurs, the opportunity to renegotiate personal guarantees often drives the Chapter 11 process. Old debts to banks and the IRS may hamstring efforts to start a new business. Although a personal Chapter 7 filing could discharge these debts, it is unattractive because the filing will have a negative effect on the entrepreneur’s credit rating\(^{189}\) and will preclude another filing within the next six years (eight years under the new legislation).\(^{190}\) Other reasons could, of course, be offered for the attractiveness of bankruptcy as a venue for renegotiating guarantees. The process of renegotiating a guarantee, for example, may give secured creditors and the IRS leverage over the Chapter 11 process. Most owner-operators have little wealth to satisfy personal guarantees; the typical entrepreneur has invested about half of her assets in her business.\(^{191}\) There is little, then, a creditor will gain from enforcing a personal guarantee in state courts. But enforcement will impose high costs on owner-operators, who may be forced to file individual bankruptcy petitions. These costs give creditors bargaining power, which may be useful during Chapter 11 proceedings, particularly because our data suggest that the remaining creditors play a small or nonexistent role in the vast majority of small business bankruptcies.

3. Labor Market Consequences: Evidence of Lock-in. — Together, increased liquidity and opportunities to renegotiate personal indebtedness make Chapter 11 attractive to small business entrepreneurs. It allows the entrepreneur to remain with a failing business for a while longer. In the interim, she can hope that the business will turn around. In the absence of Chapter 11, she would typically set out to open a new business that is a better match with her human capital. But, with Chapter 11, continuing

\(^{188}\) See Douglas G. Baird et al., The Dynamics of Large and Small Chapter 11 Cases: An Empirical Study 22–23 (May 2005) (unpublished manuscript, on file with the Columbia Law Review) [hereinafter Baird et al., Dynamics] (collecting data from Southern District of New York and District of Arizona and finding that nonpriority unsecured creditors receive only 3% of value of their claims in cases involving firms with assets worth less than $200,000; recovery rises to 33% in cases involving firms with assets worth more than $1 million).


\(^{191}\) See Gentry & Hubbard, supra note 67, at 22–25.
with the old business is costless while starting a new one is not. To the extent she can delay incurring those costs, she is better off. The Code in these cases provides the most straightforward kind of lock-in effect.

Nearly 50% of the filings exhibit strong evidence of lock-in.\(^\text{192}\) When the owner-operator is not complying with even its most basic ground rules, let alone trying to put together a viable plan of reorganization, Chapter 11 is most likely doing little more than subsidizing a failed business. When the owner-operator violates an explicit order of the court, fails to attend the mandatory meeting with the creditors,\(^\text{193}\) or neglects to fill out the forms listing the business's assets and liabilities,\(^\text{194}\) we can safely infer that she is merely playing a waiting game. These cases constitute about 39% of all the bankruptcy petitions filed in the Northern District in 1998, as shown by the row labeled "Ignoring Procedural Requirements" in Table 15. They make up 60% of all cases that ended with shutdown or dismissal. Another important indicator of lock-in is whether the owner-operator used Chapter 11 to avoid paying not just outstanding debt but also ongoing expenses.\(^\text{195}\) We see this indicator in about 16% of the cases overall and 26% of cases ending in shutdown or dismissal.\(^\text{196}\) These are just the most obvious indicators of lock-in. Many others could be proposed, such as the use of Chapter 11 to divert payments to insider-creditors (found in one case in our sample).

Chapter 11, then, allows the entrepreneur to play for time. An owner-operator often files a Chapter 11 petition to prevent suppliers from terminating resale or licensing agreements.\(^\text{197}\) Then it ignores procedural requirements or stops paying ongoing expenses, all in a bid to resurrect the business. Evidence that Chapter 11 is used for purposes of delay is present in about 50% of all cases and 77% of all shutdowns and dismissals.\(^\text{198}\) In these cases, Chapter 11 induces the owner-operator to remain with the business too long. Our point here is not the familiar one that a Chapter 11 filing thwarts creditors. In most of these cases, there

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192. See supra Table 15.
193. 11 U.S.C. § 343 ("The debtor shall appear and submit to examination under oath at the meeting of creditors under section 341(a) of this title.").
194. Id. § 521(a)(1) (obligating debtor to prepare reports detailing, among other things, assets and liabilities and current income and expenditures).
195. We observed this indicator when creditors or the U.S. Trustee moved for dismissal (or relief from the automatic stay) because the debtor was not paying ongoing expenses or court-ordered adequate protection, or when the debtor admitted (typically in a motion to dismiss) that revenues did not cover operating expenses.
196. See supra Table 15 (listing these cases in row labeled "Failing to pay ongoing expenses").
198. See supra Table 15.
was little for the creditors in any event.\textsuperscript{199} Rather, Chapter 11 delays the owner-operator’s transition from an existing venture to a new one that better matches with his or her skills.\textsuperscript{200} But we should be careful not to overstate the costs that Chapter 11 imposes. Cases in which the owner-operator is simply using Chapter 11 to keep a failing business around longer are not hard for able judges to identify. Generally, within a few weeks a creditor or a landlord brings a motion to dismiss, and the case itself leaves the system quickly, typically within three months.\textsuperscript{201} Thus it is not surprising that so few failing businesses actually file bankruptcy petitions.

So far, we have looked at lock-in without reference to those cases in which the debtor is able to confirm a plan of reorganization. An initial look at the data might suggest that lock-in is not a large issue in these cases. As Panel C of Table 15 shows, eighteen of the twenty-three reorganization cases exhibited financial distress, a classic marker of a prototype Chapter 11 case.\textsuperscript{202} Most of these cases (eleven) suffered financial distress as a result of overexpansion.\textsuperscript{203} Three faced unexpected expenses in connection with the assets they had bought for their business.

\textsuperscript{199} The median firm, as Table 2 showed, had over three dollars of debt for every dollar of assets. And most of these assets were encumbered by security interests: The median firm had about $148,000 in assets but owed nearly $240,000 to secured creditors and tax authorities, implying that little or nothing was available for unsecured creditors in most cases. Baird, et al. reach the same conclusion using different data on small business bankruptcies. See Baird, et al., Dynamics, supra note 188, at 22–23.

To the extent that Chapter 11 affected third parties, it was most often the landlord. The automatic stay, 11 U.S.C. § 362(a), prevents (at least temporarily, see § 365(d)(4)) the eviction that would otherwise take place under state law.

\textsuperscript{200} A representative example is Automobile Dealer Services, a consulting business that specialized in giving seminars for the employees of auto dealerships to train them to sell appearance protection products—rust proofing, paint protection, fabric protection, and sound treatment—that are designed to make a car look better and last longer. By the time of the Chapter 11 petition, the entrepreneur had already formed a number of other businesses. See Edmund O. Lawler, That Magic Moment: No Longer a Startup, Crain’s Chi. Bus., Sept. 5, 1994, at 17 (reporting that owner had already started five other businesses). Instead of refocusing his energies on the other businesses, the owner-operator turned to Chapter 11 to protect a business whose assets consisted entirely of cash, receivables, and office equipment. Within 7 days of filing, the U.S. Trustee moved to dismiss, citing the firm’s failure to hire legal counsel. The case was dismissed a month later; the entrepreneur, apparently, made no effort to hire counsel.

\textsuperscript{201} See Morrison, Continuation Bias, supra note 1 (manuscript at 31). Indeed, the evidence is consistent with the conjecture that the judges are as adept in making these shutdown decisions as market actors subject to the same constraints.

\textsuperscript{202} See supra notes 7–10 and accompanying text.

\textsuperscript{203} A business that overexpands, such as by opening additional stores that are soon shut down, experiences financial distress because it must pay the additional obligations that were incurred to fund the expansion, but has no new revenue to help meet them. The old business remains sound and continues to generate the same revenues as before. Because of the failed expansion, however, these are no longer sufficient to pay the creditors in full. Hence, there is financial distress (an inability to pay creditors) without economic distress (the old business remains sound and continues to use its assets effectively).
Another three businesses suffered distress because important clients cancelled contracts or because members of the business quit and took important clients with them. Finally, one entered Chapter 11 with the classic example of financial distress—asbestos liability arising from operations the business had discontinued nearly forty years before. In total, about 78% of the reorganizations (eighteen of the twenty-three) involved a business that exhibited a classic marker of financial—not economic—distress. Chapter 11 might bring benefits in such cases if the businesses were viable and suffered distress only because of a temporary mismatch between revenue and the cost of servicing debt.

A closer look at the data suggests this is not the case, however. As Panel C also shows, similar markers of financial distress (such as over-expansion) can be found in 30% of businesses that were shut down in bankruptcy or had their cases dismissed. As we saw, these businesses exhibited strong indicators of lock-in as well. To be sure, the observed incidence of “financial distress” among these businesses is inflated by the number of cases involving “prepetition fraud or other malfeasance,” something never observed in cases leading to reorganization. By “prepetition fraud or other malfeasance” we mean cases in which the business or its managers defrauded creditors (by, say, diverting funds pledged to a lender), breached fiduciary duties, or committed other bad acts. It is unsurprising that such fraud or malfeasance is never present in cases resulting in reorganization; the tainted management has lost the trust of creditors and a trustee is often appointed. Liability arising from fraud or malfeasance, however, is a form of financial distress because the underlying business may still be profitable. Thus three of the cases exhibiting fraud or malfeasance resulted in a going-concern sale.

204. Again, a one-time shock imposes payment obligations on the business without creating additional revenue. Once the shock is gone, the underlying business is again sound, but it cannot meet the additional financial burdens that the shock has imposed.

205. Here again the financial distress arising from the inability to pay decades-old asbestos liabilities is independent of how the business is currently run.

206. See, e.g., Motion of American Equities Group, Inc., for Appointment of a Chapter 11 Trustee 2–3, In re DeMert & Dougherty, Inc., No. 98-38160 (Bankr. N.D. Ill. Nov. 25, 1998) (stating that debtor admitted various breaches of a lending agreement, including "convert[ing] an $18,000 check, which was tendered to the Debtor for payment of an account receivable that had been purchased from the Debtor by [American Equities Group]").


The traditional markers of financial distress, then, tell us little about the absence of lock-in. There are at least three reasons for this. First, our “markers” of financial distress are based on the self-serving reports of the owner-operators.209 They have every incentive to convince judges and other creditors that they were merely suffering temporary cash shortages. Second, financial distress is often a product of economic distress.210 An unprofitable business will often be one that loses significant clients or takes on business it cannot serve.

Table 16: Measures of Asset Specificity for the Median Business, by Chapter 11 Outcome

<table>
<thead>
<tr>
<th>Measure of Specificity</th>
<th>All Cases (n=104) (%)</th>
<th>Shutdowns &amp; Dismissals (n=85) (%)</th>
<th>Reorganizations (n=23) (%)</th>
<th>Restructurings Without Plan (n=8) (%)</th>
<th>Going Concern Sales (n=8) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land &amp; Equipment</td>
<td>29.9</td>
<td>37.0</td>
<td>19.2</td>
<td>21.1</td>
<td>45.3</td>
</tr>
<tr>
<td>Equipment</td>
<td>16.5</td>
<td>16.5</td>
<td>12.9</td>
<td>13.7</td>
<td>38.9</td>
</tr>
<tr>
<td>Nonoffice Equipment</td>
<td>5.5</td>
<td>5.3</td>
<td>8.5</td>
<td>9.1</td>
<td>22.3</td>
</tr>
<tr>
<td></td>
<td>(0.72)</td>
<td>(0.92)</td>
<td>(0.92)</td>
<td>(0.30)</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Parentheses provide p-values for a Wilcoxon rank-sum test of the difference between the median in that column and the median in “Shutdowns & Dismissals.”*

Finally, and most importantly, even a business suffering pure financial (not economic) distress is not necessarily one worth saving in Chapter 11. To be sure, a distressed business may become profitable again by reducing its scale of operations, but it may make more sense for the owner-operator to shut down the existing business and start over again. Starting from scratch would not make sense if the business used specialized assets, but Table 16 suggests that asset specificity is as insignificant in reorganized businesses as it is in businesses that suffered shutdown or dismissal. Measuring asset specificity as the ratio of nonoffice equipment to total assets, the degree of specificity in reorganizations (8.5%) is only slightly greater than it is in businesses that suffered shutdown or dismissal (5.5%). The difference is not statistically significant. And, as we explained in Part II, these measures of specificity are upper bounds. There

209. Others have made the same point. See, e.g., Robert M. Lawless et al., A Glimpse at Professional Fees and Other Direct Costs in Small Firm Bankruptcies, 1994 U. Ill. L. Rev. 847, 859 (“The bankruptcy petition is a tool for the debtor’s advocate who may paint an overoptimistic picture of the debtor’s financial condition and inflate asset values. Under these circumstances, reporting direct costs as a percentage of total assets would tend to understate these costs as a fraction of firm value.”).

210. See, e.g., Steven N. Kaplan, Federated’s Acquisition and Bankruptcy: Lessons and Implications, 72 Wash. U. L.Q. 1103, 1121–22 (1994) (explaining that economists have been unable “to distinguish whether poor performance by a firm in financial distress is caused by the financial distress alone or by the same factors that pushed the firm into financial distress in the first place”); see also Baird & Rasmussen, End of Bankruptcy, supra note 59, at 763 (noting that failure of many nineteenth century textile firms “resulted not from an inability to service debt but rather from an inability to produce revenue that exceeded ongoing operating costs. In these circumstances, financial distress was synonymous with economic distress”).
is little reason, then, to think that the reorganizations in our sample represented efforts to preserve going-concern surplus.

**Table 17: Personal Liability of Owner-Manager**

<table>
<thead>
<tr>
<th></th>
<th>All Cases (n=100) (%)</th>
<th>Shutdowns &amp; Dismissals (n=62) (%)</th>
<th>Reorganizations (n=23) (%)</th>
<th>Restructurings Without a Plan (n=7) (%)</th>
<th>Going Concern Sales (n=8) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Guarantees</td>
<td>55.8</td>
<td>58.5</td>
<td>65.2</td>
<td>12.5</td>
<td>50.0</td>
</tr>
<tr>
<td>Personal Tax Liability</td>
<td>61.2</td>
<td>63.3</td>
<td>78.3</td>
<td>42.9</td>
<td>12.5</td>
</tr>
<tr>
<td>Any Personal Liability</td>
<td>85.0</td>
<td>90.3</td>
<td>91.3</td>
<td>57.1</td>
<td>50.0</td>
</tr>
</tbody>
</table>

*Note: Parentheses give p-values of a t-test for the difference between the percentage in that column and the percentage in "Reorganizations."*

4. **Why Do Rational Entrepreneurs Submit to the Lock-In Effect?** — Why is Chapter 11 attractive to owner-operators who can downsize their businesses simply by starting over again? We get a sense of the answer by looking closely at the successful reorganization cases. A typical example is *Luczak Bros.*, 211 in which an entrepreneur entered Chapter 11, confirmed a plan of reorganization, and continued to run the same business after it emerged from Chapter 11. 212 Luczak Brothers is a family business founded in 1897 that does ornamental plasterwork. 213 It encountered financial distress because it took on an enormous project—the plasterwork for the renovation of the home of the Chicago Symphony Orchestra—and underestimated its costs by $600,000. 214 It made mistakes on other jobs as well. 215 *Luczak* is a classic case of overexpansion and might seem a poster child for Chapter 11.

Did Chapter 11 preserve any going-concern surplus in this case? No. This business, like virtually all of those that successfully reorganized, had little in the way of business-specific assets. By far its biggest asset was about $470,000 in receivables. 216 The other assets included real estate, several cars, and $10,000 of inventory. 217 It had only $20,000 in equipment and a quarter of it was office equipment. 218 James Luczak would run an ornamental plaster business if Luczak Brothers, Inc., disappeared. He would continue to employ the same people and exploit the same rela-

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213. Second Amended Disclosure Statement at 7–8, In re Luczak Bros., No. 98-04896.
214. Id. at 8.
215. Id. at 3.
217. Schedule A at 1, In re Luczak Bros., No. 98-04896; Schedule B, supra note 216, at 1–2.
tionships he always had. There are only modest costs in starting a new business and no reason at all to encourage him to use the existing corporate entity—Luczak Brothers, Inc.—to conduct his affairs. The existing legal regime, however, encourages someone in the position of Luczak to do exactly this.

The overriding issue in Luczak was not keeping specialized assets together or saving jobs, but escaping personal tax liability. Like 80% of those who confirmed a plan of reorganization in Chapter 11, Luczak invaded trust funds containing employee withholding taxes to keep the business running. By doing this, he converted what was a corporate obligation into a personal obligation. Even though he nominally did business in limited liability form, James Luczak did not have the option of walking away from this business and starting another on a clean slate.

Individual liability alone does not bias Luczak towards remaining with the existing business. Luczak and the corporation are jointly and severally liable to the IRS. Luczak is obliged to pay the tax whether the business continues to exist or not. Hence, if personal liability for the debt was the only issue, he would still choose the path that provided the best fit with his human capital. In practice, however, James Luczak can keep the IRS at bay by keeping Luczak Brothers, Inc., alive in Chapter 11. In other words, the way in which the IRS handles these sorts of tax liabilities pushed James Luczak towards running his plaster business under the aegis of Luczak Brothers, Inc., even though there is little or no social benefit from organizing his business this way.

Chapter 11, then, is attractive because it gives owner-operators access to subsidies unavailable in the marketplace. By filing a corporate Chapter 11 petition, small entrepreneurs can haggle over (and defer payment of) tax claims and operate, at least temporarily, with a smaller fraction of their revenues going to service other debt. In this fashion, Chapter 11 encourages owner-operators to remain with an existing business. While the owner-operator can return to running the old business and be successful, we do not know whether, absent the distortions brought about by

219. See supra Table 17.

220. Second Amended Disclosure Statement, supra note 213, at 3; see also Schedule E, In re Luczak Bros., No. 98-04896 (listing over $350,000 in withheld taxes owed to IRS and Illinois Department of Revenue).

221. See supra note 23.


223. See IRS, supra note 185.

224. A simpler but similar case is In re Kosick, Inc., No. 98-06215 (Bankr. N.D. Ill. Aug. 17, 1998). The company performs fiberglass and gel-coat repair to boats and trucks. Amended Proposed Disclosure Statement at 6, In re Kosick, No. 98-06215. Most of the work is contracted through marinas and consists largely of warranty repairs on new boats. Id. at 6–7. Kosick got into trouble by deciding to construct two sixteen-foot New Jersey speed skiffs, spending in excess of $30,000 on them. Id. No buyers appeared. The vast majority (over 97%) of the prepetition debt was owed to the IRS and Illinois state agencies. Id. at 4. Chapter 11 was merely a way to deal with government.
Chapter 11, he would have been better off starting a different kind of business. There is still a lock-in effect. The owner-operator has a powerful incentive to return to his past, regardless of whether he could do better by trying something new.

To be sure, the costs of lock-in are not substantial in many reorganization cases. James Luczak would run an ornamental plaster business whether Luczak Brothers, Inc. continued or not. To the extent he needed to change his operations—such as by scaling back the number of jobs and increasing his supervision of each one—he could do this as well using the existing legal shell as with another. The lock-in effect of Chapter 11 may be small when financial distress has been brought on by overexpansion. When the best match of the owner-operator’s human capital is a return to a smaller, but more sound business using the same assets and exploiting the same relationships, Chapter 11 creates relatively few distortions. Indeed, as Table 18 shows, among the 11 businesses that suffered overexpansion and reorganized, only one subsequently failed (and it did so four years after exiting bankruptcy).

Overexpansion, however, characterizes only eleven of the twenty-three cases that resulted in reorganization. The remaining twelve cases are a mixed bag, some featuring other classic indicators of financial distress and others suffering some unspecified type of distress. For these businesses, the costs of Chapter 11 are larger. As Table 18 illustrates, four failed within one year, five within two, and eight within five. Three of the four that failed within a year had confirmed reorganization plans that promised repayment of 100% of the claims of unsecured creditors. When financial distress is brought on by factors other than overexpansion, businesses commonly put forward excessively optimistic reorganization plans and then fail. Chapter 11 encourages these owner-operators to gamble (using money supplied by creditors and the government) on the resurrection of failing business ventures.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Overexpansion cases</th>
<th>Asbestos case</th>
<th>Other cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failed within 1 year</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Failed within 2 years</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Failed within 5 years</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
</tbody>
</table>

**Table 18: Characteristics of Reorganizations**

**Thix Enterprises** provides an illustration. Thomas Hix ran a gasoline and auto service station as Thix Enterprises. He had purchased the station in 1995, having been service manager there for several years.

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225. Among businesses that entered bankruptcy for reasons other than overexpansion, half confirmed 100% plans. By comparison, only one of the overexpansion cases involved a 100% plan.


before the acquisition.\textsuperscript{228} The business was at best marginally profitable when Hix purchased it.\textsuperscript{229} Thix steadily lost money and fell behind in tax payments.\textsuperscript{230} Costs were reduced by slashing payroll from twenty-four to nine employees, and Hix expected to shrink costs further by reducing employee health benefits and outsourcing management of the gas pumps.\textsuperscript{231} When the IRS threatened to place a lien on its assets, however, Hix put the corporation in Chapter 11.\textsuperscript{232} A plan of reorganization was confirmed,\textsuperscript{233} but the problems with the business remained. Amoco refused to renew its lease.\textsuperscript{234} It appears that Hix lacked the skills to run this business and ultimately went to work for an auto service company.\textsuperscript{235} He filed his own personal Chapter 7 bankruptcy petition in 2002, still encumbered by the IRS obligations of Thix Enterprises.\textsuperscript{236} Without Chapter 11, he might have been able to start a different business or confront the fact that he was not cut out to be an entrepreneur earlier.

Apart from cases of overexpansion, only an odd conjunction of events leads the owner-operator to want to place a business in Chapter 11 and for that business to remain a good match for her human capital.\textsuperscript{237} The type of debt that makes Chapter 11 attractive—a tax obligation on which the owner-operator is personally liable—usually arises only when the business experiences extreme economic distress.\textsuperscript{238} Owner-operators typically invade trust funds (thereby incurring not only personal, but potentially criminal liability\textsuperscript{239}) as a last resort. Invasion of trust funds follows from an inability to meet ongoing operating expenses. Unless things change, the business will fail, and, apart from cases of overexpansion, it is unlikely that things will change. Few businesses experience economic distress sufficiently severe to lead the owner-operators to invade the trust funds, yet remain sufficiently sound that running them on a going-forward basis is possible.

\textsuperscript{228} Id. at 20.
\textsuperscript{229} Id.
\textsuperscript{230} Id.
\textsuperscript{231} Id. at 20–21.
\textsuperscript{232} Id. at 22.
\textsuperscript{233} Order Confirming Plan, \textit{In re Thix Enters.}, No. 98-10184.
\textsuperscript{234} Motion to Convert Case to Chapter 7 at 1, \textit{In re Thix Enters.}, No. 98-10184.
\textsuperscript{236} See Schedule E, \textit{In re Thomas Vincent Hix}, No. 02-17761 (listing over $200,000 owed to IRS and Illinois Department of Revenue).
\textsuperscript{237} Again, only four cases in our entire sample involved businesses suffering from a problem other than overexpansion, reorganizing in Chapter 11, and surviving for more than five years. See supra Table 18. One faced liability because of the asbestos it once used in its furnace linings. See Motion to Approve Insurance and Lien Settlement Agreements, for Injunctive Relief Relating Thereto, to Set Hearing Thereon, and to Limit Notice Thereof at 1–2, \textit{In re M.H. Detrick Co.}, No. 98-1004 (Bankr. N.D. Ill. Feb. 20, 1998).
\textsuperscript{238} The Eating/Drinking Places in our sample provide the best illustration. See supra Table 14.
\textsuperscript{239} See I.R.C. § 6672 (Thomson 2005).
CONCLUSIONS

Academic and political debates about corporate reorganizations of small businesses must change. To date, the focal point has been on the particular business housed inside the corporate entity in bankruptcy and whether it should be preserved. This makes no sense. In the vast majority of cases, there is no business worth saving. There is instead an entrepreneur who is looking for the best match between her human capital and a business venture. Assessments of Chapter 11 should focus on how it affects this search and at what cost. Chapter 11 may fare well when seen from such a vantage point. It may provide "breathing space" that facilitates the move to a new venture, as the entrepreneur renegotiates personal guarantees with tax collectors and banks. At the same time, however, the labor economics approach to Chapter 11 reveals an unappreciated cost. Because Chapter 11 conditions its benefits upon the entrepreneur remaining with the old business, it may unnecessarily delay her move to a new business that better matches her human capital.

The need to focus upon the entrepreneur rather than the business was entirely lost in recent efforts to amend the provisions of Chapter 11 that affect small businesses. The newly-enacted legislation, for example, adds new layers of complexity to the Code. It increases reporting requirements, limits the exclusivity period to eighteen months, and imposes tighter deadlines for submitting a plan and achieving confirmation—in an effort to improve monitoring by the court and U.S. Trustee and induce them to "weed out" debtors that are unlikely to reor-

240. It is certainly easier to justify Chapter 11 in the typical case using this approach than, for example, by pointing to the benefits Chapter 11 offers small general creditors. See, e.g., Warren & Westbrook, Contracting, supra note 16, at 1200-01 ("The details of the current bankruptcy system . . . can be described generally as constraining the collection rights of each creditor individually . . . for the benefit of all concerned."). Given that general creditors receive nothing or close to nothing in the typical case, Chapter 11 can hardly be defended on the ground that it benefits them. See Baird et al., Dynamics, supra note 188, at 22-23 (demonstrating that unsecured creditors receive, on average, 18% of what they are owed and that nonpriority creditors receive nothing in 31% of all cases).


242. See, e.g., Bankruptcy Abuse Prevention and Consumer Protection Act § 434 (requiring small business debtors to submit period reports on profits, cash flow, and other financial information); id. § 436 (requiring small business debtor to attach to its bankruptcy petition "most recent balance sheet, statement of operations, cash-flow statement, and Federal income tax return").

243. Id. § 437.

244. Id. (obligating small business debtors to submit plans of reorganization no later than 300 days after order for relief); id. § 438 (directing courts to confirm plans within forty-five days of submission, provided plans comply with other provisions of Code).

245. See Blum, supra note 146, at 235–46.
organize more quickly. Better monitoring and quicker case resolution seem, in the abstract, like sensible goals for any legal system. The focus, however, remained upon the business (more specifically, the question of whether a plan of reorganization will be confirmed) and not on the entrepreneur. Giving an individual a year and a half to reorganize a business is much too long if her skills are better used elsewhere.

The latest reform efforts underscore a more serious problem. The labor economics approach shows that reforms that focus on the Bankruptcy Code itself are often too narrow. Chapter 11 petitions are often filed because the small entrepreneur invades trust funds earmarked for taxes in a last ditch effort to save a business that is destined to fail anyway. A sensible labor market intervention should focus on the problem for which Chapter 11 is at best an imperfect solution, such as making it harder for small entrepreneurs to reach these funds in the first instance. For example, the law could require entrepreneurs to pay withholding taxes at the same time they issue paychecks. Such a rule may be feasible in a world in which electronic fund transfers have become commonplace. The rule would remove the single largest obstacle—personal indebtedness for trust fund taxes—that entrepreneurs in Chapter 11 face in transitioning to a business that better matches their human capital. Such a reform—one that might have dramatic consequences for small business bankruptcies—has nothing to do with Chapter 11.

Other reforms could target the Code itself. Chapter 11 is, as we have seen, a labor market intervention that offers particular benefits to entrepreneurs who cling to existing business structures. This is yet another example of a bankruptcy entitlement that deviates from entitlements available under nonbankruptcy law. Just as the Code allows corporations to breach collective bargaining duties that are inviolable under federal labor law, it also offers small-business entrepreneurs temporary liquidity that is unavailable under laws administered by state and federal agencies, such as the Small Business Administration. Having substantive rules in bankruptcy differ from those in the nonbankruptcy forums has long been known to be a bad idea. If it is a good idea to offer temporary liquidity to entrepreneurs with failing businesses, the policy should apply across the board to all businesses, regardless of whether they are in bankruptcy. It might make sense, then, to expand the services offered by the Small Business Administration and contract the availability of Chapter 11, perhaps by making it available to businesses of a certain size or with certain problems (such as overexpansion).

246. To eliminate the problem altogether, the law could require small businesses to use a third-party provider to issue paychecks and oblige that party to make withholding payments at the same time. Under such a regime, the entrepreneur would have no ability to pay workers without also turning over withholding taxes.


These ideas, however, are only tentative and should not obscure a more important point. The Chapter 11 debate must change. The focus on rehabilitating the business that has dominated the discussion for decades is fundamentally misguided. Intelligent reform needs to be grounded instead on the effects of Chapter 11 on entrepreneurs’ career trajectories. Instead of trying to rehabilitate a particular business venture, we should focus on the small entrepreneurs themselves and help them find the businesses that best match their skills.