

**Bargaining Around Bankruptcy:
Small Business Distress and State Law**

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I. Introduction

Federal bankruptcy filings are increasingly rare among failing small businesses. For every hundred failing small businesses, fewer than twenty will file for bankruptcy. The rest are liquidated or reorganized under state law. Every state offers a variety of procedures, from foreclosures to bulk sales to assignments for the benefit of creditors, which are often cheaper, quicker, and more private than federal bankruptcy law. These procedures constitute *state bankruptcy law* that competes with federal law, and appears to dominate it, at least among small businesses.

Small businesses, then, have a broader range of choices than is commonly recognized. Most scholars and legislators assume that distressed small businesses must choose between a free-for-all, piece-meal liquidation under state law (via foreclosure proceedings) and an orderly liquidation or reorganization under federal law (via Chapters 7 or 11 of the Bankruptcy Code). In reality, small businesses have many other options; an orderly liquidation or reorganization is as feasible under state law as it is under federal. The contours of state law procedures do indeed differ from those of the

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Bankruptcy Code. In many jurisdictions, for example, state bankruptcy law offers much less protection for unsecured creditors;¹ there is often no mechanism for unwinding insider self-dealing, attacking preferential payments to favored creditors, or providing creditors with information about the debtor's capital structure or operations. State bankruptcy law, then, may not only be cheaper, faster, and more private than federal law, it may also offer greater payoffs to owners at the expense of unsecured creditors. Indeed, some state procedures, such as assignments for the benefit of creditors (ABCs), have long been seen as devices to shield insider self-dealing, preferential payments to favored creditors, or other pre-petition conduct that would not withstand scrutiny in a federal bankruptcy court.²

As attractive as state-law options may seem to a distressed small business, the power to *exercise* them often rests primarily in the hands of the lending bank and, secondarily, in those of the IRS and certain other dominant creditors, such as a landlord. Without their consent, most state-law procedures are ineffectual; they will degenerate to the free-for-all, piece-meal liquidation discussed by previous scholars. Creditors control the primary decision in the bankruptcy process, the choice between state and federal law.

¹ An *unsecured* creditor has a general claim against the debtor; the terms of its contract with the debtor do not give it a right to seize particular assets ("collateral") in the event of default. If a creditor has such a right—a "security interest" in particular assets—it is called a *secured* creditor. In the event of default, the secured creditor is assured of payment; at the very least it will receive the value of the collateral. For the unsecured creditor, life is less certain. It can bring suit, obtain judgment, and levy upon assets that are not already encumbered by security interests or liens. But there may be no such assets. If there are, there is a race to levy upon them. Because the assets are distributed on a first-come-first-served basis, the first creditors to obtain a levy are the first to be paid.

² Several (anonymous) practitioners described ABCs in precisely these terms. *See also* Benjamin Weintraub, Harris Levin, and Eugene Sosnoff, *Assignments for the Benefit of Creditors and Competitive Systems for Liquidation of Insolvent Estates*, 39 Cornell L. Q. 3, 4 (1953) ("The general weakness of the out-of-court proceeding... is its susceptibility to abuse.").

Creditor control can generate interesting dynamics when a small business suffers distress. Because of state law's attractiveness to most debtors—cheaper, quicker, more private, and potentially greater payoffs to owners—federal law can serve as a *threat*. A senior lender can threaten to disallow a state-law proceeding, and force the business to undergo a costly federal bankruptcy case. This threat is especially credible when the business has sufficient value to pay its senior lenders as well as some of the juniors. A costly federal bankruptcy proceeding will harm the owners and junior creditors; their recoveries will fall as professional fees and other administrative expenses rise. But the case will impose few costs on the senior lender, who is over-secured and can expect full payment (including interest payments during the course of the bankruptcy case³). The *threat of federal law*, then, creates strong incentives for small businesses to maintain good relationships with senior lenders and, potentially, to divert value to these lenders in the event of distress. The dynamic here resembles the dynamic observed in equity receiverships around the turn of the 20th century: senior lenders and debtors may collude to divert value from unsecured creditors.

Creditor control may have more benign effects. In many cases, the distressed small business is deeply insolvent and lacks sufficient assets to pay even its senior lenders in full. In these cases, the senior lender is the only relevant claimant and, through its choice between state and federal law, can minimize the costs of winding down or reorganizing the business. If the business owners are trustworthy, and if the relevant state law offers mechanisms for ensuring the transparency of insolvency process, the senior lender may permit a state bankruptcy proceeding. The relatively costly Bankruptcy Code will be preferred only when the lender's relationship with the debtor has soured, or when state law offers inadequate protection against the risk that owners will divert value to themselves.

³ 11 U.S.C. § 506(b).

These dynamics—debtor self-dealing and creditor control—are missing from current analysis of and legislation on small business bankruptcy. Yet they find strong support in the evidence I present below. Current discussions of small business bankruptcy assume that federal law is the primary choice of distressed small businesses. The rarity of federal bankruptcy cases has gone largely unnoticed. When it has been noticed, it has been called a statistical artifact. It is not, as Section II documents.

Once the rarity of federal bankruptcy cases is acknowledged, *state* bankruptcy law takes center stage as the primary vehicle for distressed small businesses. Section III describes the basic contours of state law, and its interaction with federal law, which has received little scholarly attention since the Bankruptcy Code’s enactment in 1978.⁴ The significant differences between state and federal law, differences that vary by state, point to a variety of hypotheses that might explain why federal bankruptcy filings are

⁴ Two recent studies begin to address this interaction. Mann has examined the choice between in-bankruptcy liquidation and out-of-bankruptcy liquidation in a sample of high-tech firms from the software, biopharmaceutical, and communications industries. See Ronald J. Mann, *An Empirical Investigation of Liquidation Choices of Failed High-Tech Firms*, 82 Wash. U. L. Quart. 1375 (2004). Dawson and Ausubel study the choice between “formal” bankruptcy discharge and “informal” discharge under state law among consumer debtors. See Amanda E. Dawsey and Lawrence M. Ausubel, *Informal Bankruptcy*, working paper (2002), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=332161. Many other scholars have studied the choice between in-bankruptcy reorganization and out-of-court workouts. These papers, however, do not consider the interaction between state and federal law. They are concerned instead with the economic conditions that prevent or promote out-of-court workouts. See, e.g., Stuart C. Gilson, *Transaction Costs and Capital Structure Choice: Evidence from Financially Distressed Firms*, 52 J. Fin. 161 (1997); Paul Asquith, Robert Gertner, and David Scharfstein, *Anatomy of Financial Distress: An Examination of Junk-Bond Issuers*, 109 Quart. J. Econ. 625 (1994); Sris Chatterjee, Upinder S. Dhillon, and Gabriel G. Ramirez, *Resolution of Financial Distress: Debt Restructurings via Chapter 11, Prepackaged Bankruptcies and Workouts*, 25 Fin. Mgt. 5 (1996).

Prior to these studies, the most recent, significant analysis of state bankruptcy laws, and their interaction with federal law, predates our modern Bankruptcy Code. See Melvin Shimm, *The Impact of State Law on Bankruptcy*, 1971 Duke L. J. 879 (1971). Prior to Shimm’s work, the interaction between state and federal law was a popular topic. See, e.g., John E. Mulder and Charles M. Solomon, *Effect of the Chandler Act Upon General Assignments and Compositions*, 87 U. Penn. L. Rev. 763 (1939); Samuel Williston, *The Effect of a National Bankruptcy Law upon State Laws*, 22 Harv. L. Rev. 547 (1909).

rare, and rarer in some states than others. One of these is the hypothesis that the choice between state and federal law is driven primarily by creditor control—which may vary by case, as the malign and benign views suggest.

I test these hypotheses using two kinds of data—state-level data on time trends in federal bankruptcy filings and micro-data on distressed businesses that made the choice between state and federal law in a particular jurisdiction (Cook County, Illinois). Sections IV and V set out the data sources, the empirical methodologies, and the estimates. The dominant theme emerging from these estimates is the importance of creditor control. Federal bankruptcy law is more common when state law offers less protection to secured creditors (consistent with the benign view); it is also more common among businesses that have significant bank or tax debt and among businesses that are being sued by or have otherwise developed poor relationships with their senior creditors (consistent with the malign view).

Once the rarity of federal bankruptcy cases is in view, and the importance of creditor control recognized, small business bankruptcy policy takes on a very different cast, as I discuss in Section VI. To date, bankruptcy policy has been seen as a *federal* question. The Bankruptcy Code and the associated caselaw implicitly and mistakenly assume that most troubled businesses resolve distress inside a bankruptcy court. Thus, Congress recently amended the Code to speed up cases, improve the information available to judges and creditors, and increase the power of creditors to terminate a case. If all distressed businesses file federal bankruptcy petitions, these reforms might improve the payoffs to unsecured creditors. The reality, however, is that very few distressed businesses invoke federal law and, as a result, the recent amendments may only reduce payoffs to unsecured creditors. Because the amendments make federal bankruptcy cases more costly to debtors, the incentive to invoke state-law procedures increases. Indeed, the amendments may only increase the bargaining power of senior lenders; the

increased costliness of federal bankruptcy law means that they can demand greater concessions from debtors who hope to use state law procedures.

Coherent bankruptcy policy, then, must encompass both state and federal law. Current policy not only misses the mark, but may even generate results that are anti-thetical to the goals of policymakers. Section VI discusses ways to design sensible bankruptcy policy.

II. The Puzzle of Small Business Bankruptcy

Every year *hundreds* of thousands of businesses close their doors, but only *tens* of thousands file petitions under the Bankruptcy Code. In 1998, for example, the Small Business Administration (SBA)⁵ reported about 650,000 business failures. The same year, the Administrative Office of the U.S. Courts (AO)⁶ reported roughly 45,000 business bankruptcy filings. Federal bankruptcy has become ever rarer over time. Business failures have hovered around 650,000 since 1989, but the number of business bankruptcy filings has fallen dramatically from about 60,000 in 1989 to 35,000 in 2003, a 42% drop. These patterns, set out graphically in Figure 1, are based on the federal government's case filings database (PACER⁷).

Most discussions of small business distress assume that federal bankruptcy law is the primary mechanism for resolving distress. These statistics throw that assumption into doubt. A large number of failing businesses appear to use alternative, presumably state law, methods for resolving distress.

⁵ Small Business Administration, Office of Advocacy, *Dynamic Data—Births, Deaths, Growth, and Decline—State Major Industry Data, 1989-1998, 1998-2003*, <http://www.sba.gov/advo/research/data.html>.

⁶ PACER *Bankruptcy Statistics*, Statistical Reports, Table F-2, <http://pacer.uspci.uscourts.gov/>

⁷ *Id.*

The rarity of small business bankruptcy has been labeled a “myth” by some scholars,⁸ who claim the annual number of federal business filings is dramatically understated, thanks largely to poor record keeping by the AO, which assembles the PACER database. Instead of assessing whether a debtor’s liabilities are primarily business debts, the AO relies on self-reporting. But most debtors submit their federal bankruptcy filings using software in which the default setting is to treat all debt as consumer debt. Because the classification of liabilities—business or consumer—matters little to most debtors (and their lawyers), few alter the default setting. Put differently, even when an individual debtor has significant business debt, his or her lawyer will typically use software designed for debtors with primarily consumer debt. The result is that many cases involving business debts are classified, for AO purposes, as consumer cases.

The under-reporting problem is surely important, but it offers little help in explaining the rarity of federal business bankruptcy filings. Bankruptcy lawyers began using consumer-oriented software in the early 1990s, which could explain why business bankruptcy filings suddenly dropped from about 70,000 in 1992 to 62,000 in 1993 (an 11% drop). But the use of such software does not seem a persuasive explanation for the continuous decline in business filings to the present day.

This is made clear by Figures 1 and 2. Figure 1 shows that Chapter 11 filings—the overwhelming majority of which are business filings—have declined over the same period, falling from 23,000 in 1991 to 9,200 in 2003, a 60% drop. The AO may be undercounting business bankruptcy filings generally, but it is surely not undercounting Chapter 11 cases. Figure 2 tells a similar story. It focuses on corporate bankruptcy filings, on the assumption that the AO can identify a corporate bankruptcy filing more readily than a general business filing. These data, it should be noted, are drawn from a different database—the Federal Judicial Center (FJC) data on closed federal bankruptcy

⁸ Elizabeth Warren and Robert Lawless, *The Myth of the Disappearing Business Bankruptcy*, Calif. L. Rev. (2006).

cases.⁹ These data are not directly comparable to the PACER data presented in Figure 1.¹⁰ Nonetheless, we see the same pattern: corporate bankruptcy filings fell significantly between 1994 and 2001. Total filings fell from 16,000 to 9,500 (a 41% drop); corporate Chapter 11 filings fell from 7,700 to 3,800 (a 51% drop).

These statistics show that federal business bankruptcy filings have fallen consistently over time. Figure 3 shows that they have become increasingly rare over time as well. Here we see that the incidence of Chapter 11 filings, expressed as a percentage of total business failures, fell from 3.4% to 1.3% between 1989 and 2003, a 62% drop. Similarly precipitous declines characterize the incidence of corporate filings and corporate Chapter 11 filings. Recall that data for these two variables are drawn from a different source (FJC closed cases) than the data for total Chapter 11 filings (PACER case filings).

Table 1 offers further proof that these aggregate patterns, drawn from government records, coincide with actual experience. Every Monday and Wednesday, the Business Section of the *Chicago Tribune* publishes announcements of business auctions. The “Auction Mart” typically identifies the name of the business, its location, the nature of the assets, and the date of the auction. The announcement may also indicate whether the auction is pursuant to bankruptcy court order. Figure 4 reproduces a typical Auction Mart. I collected data from every Auction Mart published during calendar year 1998. Table 1 summarizes the results. About 300 auctions were announced, but a business name was identified in only 254 cases. Nearly every case involved a corporation. For each business, I determined whether it had filed a federal bankruptcy petition dur-

⁹ *Federal Court Cases: Integrated Data Base Bankruptcy Petitions, 1994-2003*, Study Nos. 4303-4306, 4086, 4088, 4249-4252, <http://www.icpsr.umich.edu/>.

¹⁰ Closed claim data are available for fiscal years 1994 to 2003. These data capture any case filed after October 2003 and closed before July 2003. These data, then, will undercount long-lived corporate bankruptcy cases. I focus on cases filed between 1994 and 2001 to help reduce this problem.

ing the preceding 5 years. This was true in only 35 cases, implying that federal bankruptcy law was used by only 13.5% of businesses being auctioned.

It might be thought that the remaining businesses weren't distressed, were merely selling themselves off, and so had no need for any bankruptcy law. Yet among the remaining businesses, 34 were being auctioned off pursuant to an "assignment for the benefit of creditors" (ABC). As the next section explains, this is a mechanism for closing down or reorganizing a distressed business. The business is typically auctioned off. Although the auction must be announced in a public newspaper, such as the *Chicago Tribune*, there is no requirement that the announcement indicate that the auction is pursuant to an ABC. And there is no other public record of an ABC in Illinois. Thus, the number 34 is undoubtedly a serious undercount of the number of cases involving an ABC in these data. Nonetheless, Table 1 shows that ABCs were about as common as federal bankruptcy cases, again suggesting that a significant fraction of distressed businesses resolve distress without resorting to federal law.

Together, Table 1 and Figures 1 through 3 present a puzzle. Whether we look at all business bankruptcy filings (Figure 1), corporate filings (Figure 2), Chapter 11 filings (Figure 1), the incidence of these filings (Figure 3), or corporate auctions (Table 1), federal business bankruptcy filings are rare. It is implausible that data collection errors can explain these results, especially when the same pattern emerges when we focus on cases where the collection errors should be least important.

III. Alternatives to Federal Bankruptcy Law

The United States Bankruptcy Code offers two choices for distressed small businesses—liquidation or reorganization. State law offers the same choices. Given the rarity of business bankruptcy, a natural hypothesis is that small businesses increasingly find the state-law alternatives more attractive than the Code. This section gives a brief

overview of these state-law alternatives and considers the conditions under which the alternatives are superior to federal law.

A. The Code and State-Law Alternatives

The Code. Whether a debtor seeks liquidation or reorganization, the basic features of the federal bankruptcy process are the same. The filing of a bankruptcy case initiates an “automatic stay,” that is, an injunction prohibiting any creditor collection efforts.¹¹ This injunction, which issues automatically the moment a federal bankruptcy case is filed, gives the debtor breathing space to liquidate its assets (often under Chapter 7) or commence a bargaining process (under Chapter 11) that may allow the debtor to readjust its capital structure. After filing, the debtor or its trustee is required to file various schedules, which lay bare the business’s financial position and operating history (a trustee is assigned in a Chapter 7 liquidation).¹² The debtor or trustee is also empowered to attack insider self-dealing as well as eve-of-bankruptcy payments to favored creditors;¹³ both actions protect the rights of creditors to receive payment before equityholders and to receive equal treatment among creditors of equal contractual priority. Additionally, creditors may petition the bankruptcy court to terminate the automatic stay or the entire bankruptcy process when the costs to creditors (such as asset depreciation or delay in exercising foreclosure rights) outweigh gains from continuing the process.¹⁴

The primary beneficiaries of the bankruptcy process are debtors and their unsecured creditors. For debtors seeking to liquidate, the Code permits sales free and clear of existing liens or other claims.¹⁵ Outside bankruptcy, these claims may follow the assets to their new owners. Additionally, for businesses seeking to reorganize, the Code

¹¹ 11 U.S.C. 362.

¹² § 521.

¹³ §§ 544, 547, 548.

¹⁴ §§ 305, 362(d), 1112.

¹⁵ Douglas G. Baird and Edward R. Morrison, *Serial Entrepreneurs and Small Business Bankruptcy*, 105 Colum. L. Rev. 2310 (2005).

offers bargaining leverage unavailable under state laws.¹⁶ The debtor can assume leases that, under state law, the landlord would be free to terminate without liability.¹⁷ If it instead chooses to terminate the lease, the Code caps the landlord's claim for damages.¹⁸ The debtor can also prevent a secured creditor from foreclosing and force it to accept a reorganization plan that offers the highly uncertain promise of future repayment.¹⁹

For unsecured creditors, the Code obligates debtors (and their trustees) to assemble available assets and protect the relative priorities of the creditors. Given their small claims against the business, these creditors have little incentive to participate in the bankruptcy proceedings. They rely instead on the Code's protections.

Although they are the primary beneficiaries, the debtor and unsecured creditors are also bear most of the costs of the bankruptcy process. These costs, which include court fees and the professional fees of attorneys, consume about ten percent of firm value.²⁰ In a study of cases filed in the District of Arizona between 1995 and 2001, most of which were small business cases, Bris, *et al.* found that the administrative costs of a Chapter 7 case averaged about \$12,000 and those of a Chapter 11 case about \$30,000.²¹

These costs may not be borne exclusively by unsecured creditors and equity-holders. Some may also be borne by secured creditors, whose state-law foreclosure rights are delayed by the bankruptcy process. A creditor can file a motion to lift the automatic stay, but a court will deny the motion if the assets may be worth more than the creditor's claim or if they are "necessary to an effective reorganization."²² Although the debtor must compensate a secured creditor for depreciation in the value of collat-

¹⁶ *Id.*

¹⁷ § 365(b), (f).

¹⁸ § 502(b)(6).

¹⁹ § 1129(b)(2)(A).

²⁰ Arturo Bris, Ivo Welch, and Ning Zhu, *The Costs of Bankruptcy: Chapter 7 Liquidation versus Chapter 11 Reorganization*, 61 J. Fin. 1253, 1287 (2006).

²¹ *Id.*, at 1281-1282.

²² § 362(d)(2)(B).

eral, the creditor may go uncompensated for the delay caused by the bankruptcy process. This will be true if the creditor is “undersecured,” meaning that its claim exceeds the value of the collateral in which it has a security interest.²³

State-law alternatives. Perhaps the most important alternative to federal law is an “assignment for the benefit of creditors” (ABC). Typically, the debtor will assign its assets to an assignee, who is charged with responsibility for conducting an auction and distributing the proceeds to creditors in order of priority.²⁴ Creditor consent is generally not required. Consent is presumed because the assignment creates a trust that will divide assets equitably among the creditors. Once the assets are auctioned off, they are sold free and clear of existing debt. If the proceeds are insufficient to pay the debtor’s creditors in full, they may file suit against the debtor personally. If the debtor is a flesh-and-blood person, the suit may yield some recovery. If the debtor is a corporation, the suit will be fruitless. The assignment effectively terminates the corporation’s existence.

Although creditor consent is presumed, a secured creditor can easily unwind the ABC. The assignment process conveys the debtor’s assets *subject to* existing liens. Thus, nothing stops a bank or other secured creditor from exercising its ordinary foreclosure rights. Most loan agreements, for example, declare that default occurs automatically when the debtor files a federal bankruptcy petition or conducts an ABC. The assignment process triggers this covenant, allowing the creditor to commence collection efforts. Secured creditors, then, exert significant control over the ABC process. In general, a debtor will be unable to pursue an ABC without the consent of its lending bank and other secured creditors (which may include the IRS).

²³ *United Savings Assn. of Texas v. Timbers of Inwood Forest Assocs., Ltd.*, 484 U.S. 365 (1988). See generally Edward R. Morrison, *Timbers of Inwood Forest, the Economics of Rent, and the Evolving Dynamics of Chapter 11*, in *BANKRUPTCY LAW STORIES* (Foundation Press: Robert K. Rasmussen, ed.) (forthcoming 2007).

²⁴ For a summary of state laws regulating the ABCs, see Garrard Glenn, *The Law Governing Liquidation* 172-213 (1935); John Hanna, *Contemporary Utility of General Assignments*, 35 Va. L. Rev. 539 (1949).

An ABC is possible in every state, although regulations governing the procedure vary significantly, as Table 2 illustrates. Many states have adopted comprehensive statutory frameworks that, like the Bankruptcy Code, protect the interests of unsecured creditors.²⁵ The statutes often require the debtor to give public notice of the assignment and obligate the assignee to post a performance bond, file financial schedules with the relevant state court, and sue creditors or insiders who received preferential payments. In some states, state courts oversee the process, the debtor's property must be appraised, and the price at the auction must exceed the appraised value. In these states, which include Iowa, New York, and Texas, state law obligates the debtor and its assignee to take steps to protect the rights of creditors, particularly unsecured creditors.²⁶

States with such detailed ABC statutes stand in marked contrast to a large number of states with little or no statutory regulation whatsoever. In states such as Illinois, Nevada, and Virginia, the ABC procedure is governed almost entirely by state common law. Although the trustee may be required to notify creditors, attack payments to insiders, and give public notice of the auction, little else regulates the process. Most notably, there is generally no court involvement. If a creditor believes that the assignee is not exercising its duties appropriately, it must file suit or commence an involuntary proceeding under the U.S. Bankruptcy Code. In these states, then, unsecured creditors largely bear the burden of protecting their own rights.

An ABC is generally considered an alternative to liquidation under the Bankruptcy Code. But it may also be an alternative to reorganization under Chapter 11.²⁷ In

²⁵ Weintraub, *et al.*, provide a detailed comparison of statutory and non-statutory regimes across the United States. They distinguish "comprehensive," "non-comprehensive," and non-statutory regimes. See Benjamin Weintraub, Harris Levin, and Eugene Sosnoff, *Assignments for the Benefit of Creditors and Competitive Systems for Liquidation of Insolvent Estates*, 39 Cornell L. Q. 3, 14-25 (1953).

²⁶ *Id.*, at 14 n. 56.

²⁷ Malanie Rovner Cohen and Joanna L. Challacombe, *Assignment for the Benefit of Creditors—Contemporary Alternatives for Corporations*, 2 DePaul Bus. L. J. 269, 271 (1990). See also Rally Capi-

Illinois, for example, an owner-manager seeking to reorganize her business may enter an operating agreement with the assignee in an ABC. The agreement will transfer ownership to the assignee but will permit the owner-manager to continue running the business. At the auction, the owner-manager will bid on the assets. If she offers the high bid, she will receive assets unencumbered by the claims of creditors.

A secured creditor, of course, will object, especially if proceeds from the auction are less than the value it would receive from a foreclosure. To preempt objections, the owner-manager will typically try to obtain the secured creditor's consent to an ABC. Consent is likely if the creditor's security interest will continue in the assets, even after they are sold, and if the creditor is able to select the identity of the assignee. Apparently, assignees vary in their trustworthiness.

If the secured creditor consents, and if the owner-manager is high-bidder at the auction, the owner-manager will have achieved a reorganization: she will own the same business, but its unsecured debt will have been wiped clean. And she may have achieved a reorganization at relatively low cost: the legal and professional fees of an ABC can be much lower than those generated by Chapter 11 and the process is significantly faster and less public. Most importantly, the winning bid at the auction may be much lower than the market value of the assets. ABC auctions receive only limited publicity (at most a tiny announcement in the pages of the *Chicago Tribune*, as Figure 4 illustrates). The owner-manager (or a new corporation in which she is controlling shareholder) may be the only bidder to appear.

tal Services, LLC, *Assignment for the Benefit of Creditors* (2006) (marketing materials distributed by assignee located in Cook County, Illinois) ("for debtors who are not insolvent, but merely troubled, ABCs may also be employed to effect reorganization"); David S. Kupetz, *Assignment for the Benefit of Creditors: Advantageous Vehicle for Selling and Acquiring Distressed Enterprises*, 6 J. Private Equity 16, 18 (2003) ("An assignment for the benefit of creditors can serve as a very useful and efficient means of ... facilitating a buyer's acquisition of a troubled business or assets from an entity burdened with unsecured debt (and, with the cooperation of secured creditors, secured debt).").

Whether used for liquidation or reorganization, ABCs can generate significant administrative costs. Whether these costs exceed those of federal bankruptcy cases is unclear. In print, many practitioners have stated that an ABC is typically faster and generates fewer administrative costs than a federal bankruptcy case.²⁸ Another practitioner, interviewed for this project, disagreed. The typical assignment, he argued, will generate about \$30,000 in professional fees. These fees are paid to debtor's counsel, the assignee, and assignee's counsel. Although Chapter 11 bankruptcy cases can generate much greater fees, the typical Chapter 7 case is much cheaper. Fees may not exceed \$3,000.

There are several other mechanisms for liquidating a distressed business.²⁹ The most obvious is foreclosure. A secured creditor may, for example, exercise its rights under Article 9 of the Uniform Commercial Code (UCC) and levy upon the personal property of the debtor. Or the creditor may assert its rights under a mortgage and force the sale of real property.

Alternatively, a debtor may sell all or most of its assets to a creditor or other purchaser via a "bulk sale."³⁰ Until recently, most bulk sales were governed by Article 6 of the UCC, which was meant to protect creditors against fraudulent sales. The typical ex-

²⁸ See, e.g., Cohen and Challacombe, *supra*, at 270 ("In contrast to a Chapter 7 liquidation under the Bankruptcy Code, an assignment is generally more efficient, less costly, of shorter duration, more successful in terms of the value received for the assets and amounts paid to creditors and more tailored to the needs of debtors and their creditors."); Bruce C. Scalabrino, *Representing a Creditor in an Assignment for the Benefit of Creditors*, 92 Ill. Bar J. 263 (2004) (describing Illinois law, the author explains that "ABCs take less time than bankruptcy and require less in the way of court intervention and approval, which can mean lower professional fees for debtors."); Kupetz, *supra*, at 18 ("Compared to bankruptcy liquidation, assignments may involve a faster and more flexible liquidation process.").

²⁹ For summaries of the state-law alternatives, see Glenn on Liquidation, *supra*; Sydney Krause, *Insolvent Debtor Adjustments Under Relevant State Court Statutes as Against Proceedings under the Bankruptcy Code*, 12 Bus. Lawyer 184 (1957).

³⁰ See generally Peter A. Alces, *The Confluence of Bulk Transfer and Fraudulent Disposition Law*, 41 Ala. L. Rev. 821 (1990).

ample is the small business that acquires goods on credit, sells them in bulk, and then disappears with the proceeds. Beginning in the early 1990s, many states repealed Article 6 or adopted a revised version. The statute was thought to impose undue burdens on legitimate bulk sales, especially when other statutory provisions—such as Article 9 and the Uniform Fraudulent Transfer Act—offer protection against fraudulent sales. Today, then, bulk sales offer a lightly-regulated method for liquidating a troubled business.

B. Selecting Bankruptcy Law: State versus Federal

The foregoing summary points to several important margins along which distressed businesses will compare state and federal bankruptcy laws. The first is clearly cost. It seems plausible that state law procedures are cheaper than Chapter 11 bankruptcy cases and, possibly, at least as costly as a Chapter 7 filing. If a business has no interest in reorganizing itself, liquidation under Chapter 7 will be attractive, holding all else constant. But all else isn't constant. At least six other factors will matter in the decisionmaking of a distressed business.

First, because state law procedures generally require the consent of senior lenders and other dominant creditors,³¹ federal law will be attractive when a debtor's relationships with these creditors have soured. Second, because creditor priorities differ under state and federal law, the owner of a business may prefer state bankruptcy law if it ensures greater payment to preferred creditors. Third, the attractiveness of state law will depend on the protections it affords secured and unsecured creditors. State procedures will be more attractive—and federal law less attractive—to creditors when they offer protection comparable to that available under the Bankruptcy Code, such as rules limiting insider self-dealing. The same state procedures, however, will make state bank-

³¹ The importance of creditor consent is emphasized by practitioners. *See, e.g.*, Leslie R. Horowitz and John A. Lapinski, *Assignment for the Benefit of Creditors*, Legal Issues (a newsletter distributed by the law firm Clark & Trevithick, Los Angeles, California) (“An Assignment is most successful when there is cooperation among the debtor, the secured creditors and the assignor.”).

ruptcy laws relatively unattractive to debtors, particularly those hoping to shield insider self-dealing or preferential transfers to creditors. Thus, the effect of state procedures will depend on whether debtors or their creditors “control” the insolvency process.

Fourth, the publicity of federal law will be more troublesome to businesses with “clean” credit histories than to those that have invoked the Bankruptcy Code in the past. Fifth, because the debtor can choose its liquidator (the assignee) under state law, but the liquidator (the trustee) is court-appointed under federal law, businesses with significant assets may prefer state-law procedures. It is commonly thought that assignees are better liquidators than court-appointed trustees. Finally, if women or members of minority groups face credit market discrimination, and are therefore less likely to obtain creditor consent to state procedures than other entrepreneurs, federal bankruptcy filings may be relatively more common among these disadvantaged groups. The following paragraphs spell out these hypotheses in greater detail.

Creditor relationships. In some important respects, the Bankruptcy Code offers debtors a unique opportunity to extract concessions from creditors. A business may be late making payments to a landlord, who threatens to exercise contractual provisions permitting it to terminate the lease. If the business would like to continue the lease, it can do so, provided it files a federal bankruptcy petition. The Code gives debtors power to “assume” nonperforming leases, over landlord protest, provided the debtor cures past defaults.

This bargaining power, however, comes at a price. The federal bankruptcy process is slow, costly, public, and imposes a strict distribution rule (the “absolute priority rule”) that ensures full payment of creditors before equityholders receive anything. These disadvantages give senior creditors significant bargaining power when a small business suffers distress. Consent from the lending bank is typically necessary before the business can invoke state law procedures. Consent may also be needed from other

creditors as well. The IRS, for example, will frequently impose a lien on business assets for overdue taxes.³² Given the ubiquity of tax debts among distressed businesses, IRS consent may be a critical issue.

But creditor consent takes time. If a debtor faces a rush of creditors bringing collection efforts and cannot obtain quick consent from key creditors, it may find it necessary to file a federal bankruptcy petition and protect its assets through the automatic stay.³³ A rush of creditors is most likely when a business has suffered a sudden shock (a fire, a burglary) or an unexpected financial shortfall following unsuccessful expansion or other change of business.

These observations suggest several hypotheses regarding the choice between state and federal bankruptcy laws. First, a distressed business with secured debt or tax liabilities is more likely to choose federal law than one without such debt. Once a firm has such debt, it must obtain creditor consent to state-law procedures, and consent may be difficult to obtain. Second, a business is more likely to file a federal bankruptcy petition if its relationship with senior lenders has soured, as evidenced by defaults on loans and by pending suits, liens, or judgments. When these relationships have been damaged, it is highly unlikely that creditors will consent to state-law procedures. Finally, because it takes time to secure creditor consent, a federal bankruptcy filing is more likely among businesses that have recently suffered a shock, such as a fire or burglary.

³² See Baird and Morrison, *supra*.

³³ When a debtor files a federal bankruptcy petition, an injunction issues, enjoining all creditor collection efforts. The injunction applies equally to creditors who have obtained liens but not levied upon property, those who have suits pending, and those preparing to bring suit or assert self-help remedies. The automatic stay gives the debtor time to conduct an orderly liquidation or negotiate a plan of reorganization.

State bankruptcy procedures offer significantly less protection to a debtor harassed by creditors. A bulk sale does nothing to stop a creditor from bringing suit against the debtor and perhaps even the buyer. When a business conducts an ABC, the assets are protected from most collection efforts, but creditors with liens may assert them. Additionally, creditors are free to bring suit against the debtor personally. Of course, if the debtor is a corporation, the assignment typically involves dissolution of the business, mooting any suits against the debtor itself.

It is also more likely among businesses that have recently moved, changed management, or otherwise changed operations. If these businesses fail soon after moving or changing operations, it is probably because they suffered unexpected setbacks. The surprise may reduce the time available to secure creditor consent. These hypotheses are summarized in Table 3.

Creditor priorities. When a business is liquidated under the Bankruptcy Code, creditors are paid according to the priority scheme set out in Sections 507 and 726. The priority scheme under state law differs in important respects, especially with respect to federal tax claims. Under the Code, unsecured tax claims receive *eighth* priority, meaning that tax collectors receive payment only if sufficient assets exist to pay higher priority claims first (such as administrative costs and certain employee wage and benefit claims). Outside the Code, federal tax claims enjoy higher priority. If a business liquidates under an ABC, these claims enjoy *first* priority.³⁴

This difference in priority can be a compelling reason to favor state over federal bankruptcy law.³⁵ Federal tax law makes the owner of a business personally liable for payroll withholding and other “trust fund” taxes. This is true whether the business is incorporated or not. When a business suffers distress, then, the owner can limit his or her personal liability by liquidating under state law, which offers greater priority to federal tax claims. Instead of increasing the likelihood of a federal bankruptcy filing, as the *creditor relationship* hypothesis suggests, the existence of federal tax debts may reduce it.

Creditor protection. The Bankruptcy Code offers several layers of protection for secured and unsecured creditors. For both creditors, the Code offers a process that lays bare the debtor’s financial structure and operating history. This process allows creditors

³⁴ 11 U.S.C. 3713; *People v. United States*, 328 U.S. 8 (1946).

³⁵ Cohen and Challacombe, *supra*, at 277.

to verify the debtor's financial condition and, based on this information, assess whether they should forgive or restructure some of the liabilities.³⁶

Many state law procedures seem to offer similar transparency. Regulations governing an ABC, for example, may require the assignee or the debtor to file schedules with state courts. But there is rarely anyone who will check the completeness of these schedules. That role is filled in Bankruptcy Courts by the United States Trustee, who will petition a court to dismiss any case in which the debtor's schedules are incomplete or patently inaccurate.³⁷

At least in theory, the relatively strong transparency generated by the Bankruptcy Code could increase or decrease the attractiveness of federal bankruptcy law to distressed small businesses. It could increase the attractiveness of federal bankruptcy when the transparency is valued by a particular creditor (e.g., the IRS) who may not consent to state bankruptcy proceedings, such as an ABC. Alternatively, the Code's transparency could instead decrease the attractiveness of federal bankruptcy to businesses that have engaged in unsavory business practices and hope to avoid the scrutiny of the U.S. Trustee and creditors.

Another layer of protection in the Bankruptcy Code, potentially beneficial to both secured and unsecured creditors, is the power given to the debtor or its trustee to attack eve-of-bankruptcy payments to preferred creditors. These creditors may include insiders or trade creditors with whom the owner-manager hopes to have a continuing relationship. This power is beneficial to unsecured creditors because it ensures pro rata treatment of creditors with similar priority. Even senior creditors may benefit from rules governing preferential payments. In many federal bankruptcy cases, the claims of secured creditors and tax authorities exceed the value of the business assets; unsecured

³⁶ See Baird and Morrison, *supra*.

³⁷ See Edward R. Morrison, *Bankruptcy Decisionmaking: An Empirical Study of Continuation Bias in Small Business Bankruptcies*, 50 J.L. & Econ. (forthcoming 2007).

creditors will receive nothing.³⁸ For senior creditors, then, rules governing preferential transfers provide a mechanism for recovering property from insiders and preferred junior creditors.

State bankruptcy laws often offer similar creditor protections, especially rules prohibiting preferential payments to insiders. In theory, it is unclear whether federal bankruptcy filings will be more or less common in states with these types of creditor protection than in states without them. In states without such protections, federal bankruptcy filings could be less common. Owner-managers may see state bankruptcy procedures, such as ABC, as an opportunity to liquidate or reorganize their businesses and avoid any inquiry into preferential payments to insiders or other creditors. State law, in other words, may provide cover for conduct that would be attacked in federal court.

On the other hand, an owner-manager will often need the consent of secured creditors and important unsecured creditors (such as the IRS) in order to execute an ABC. Consent may not be forthcoming if creditors worry that the state-law procedures offer inadequate protection for their interests. When state law offers weak creditor protection, then, federal bankruptcy filings may be more common.

These observations point to an additional hypothesis regarding the choice between the federal Bankruptcy Code and state procedures: If creditors control the insolvency process, federal bankruptcy filings should be less common in states that offer relatively strong creditor protection, such as rules that promote the transparency of the insolvency process to creditors and regulations that permit the assignee or trustee to recover preferential payments to favored creditors. If debtors control the process, we would expect the opposite correlation, with debtors opting for state bankruptcy law when it offers little protection to creditors.

³⁸ See, e.g., Douglas Baird, Arturo Bris, and Ning Zhu, *The Dynamics of Large and Small Chapter 11 Cases: An Empirical Study*, Yale ICF Working Paper No. 05-29 (December 2005).

Publicity. A federal bankruptcy filing is a public event and has long-term consequences for a debtor’s credit rating. In many states, an ABC or bulk sale requires no public notice. No documents are filed with a court; no announcements are posted in newspapers. Only the business’s creditors receive notice. To be sure, credit rating agencies are aware of state-law procedures and attempt to gather information about their use. The available information, however, is highly limited. An agency such as Dun & Bradstreet typically does not know why a particular business “faded away.”³⁹

The privacy of state law procedures, then, is attractive to businesses that hope to reorganize quietly and to serial entrepreneurs who hope to move on to another business without damaging their credit ratings. If a business’s financial distress is already public—as when it has filed a federal bankruptcy petition in the recent past—the privacy of state law procedures is less useful. Its reputation is already tarnished. This suggests another hypothesis: A distressed business is more likely to file a federal bankruptcy petition if it has gone through the federal bankruptcy process before.

Choice of liquidator. If a business chooses to liquidate under Chapter 7, a trustee is assigned and charged with responsibility for liquidating the assets. The trustee is court-appointed, after consultation with creditors and the debtor. Under state law procedures, such as ABC, the debtor may have more discretion in choosing a liquidator. Some attorneys suggest that court-appointed trustees may be less proficient than a liquidator chosen by the debtor (often in consultation with key creditors). If so, state procedures may be especially attractive to businesses with significant physical capital.

Other factors—race, gender, and geography. Blanchflower, *et al.*⁴⁰ find evidence that minority-owned small businesses face discrimination in credit markets. If lenders are unwilling to refinance distressed minority-owned firms, these firms may find Chap-

³⁹ [cite D&B internal report]

⁴⁰ David G. Blanchflower, Phillip B. Levine, and David J. Zimmerman, *Discrimination in the Small-Business Credit Market*, 85 Rev. Econ. & Stat. 930 (2003)

ter 11 attractive, because it offers a court-supervised opportunity to reorient business operations and bargain with pre-petition creditors. To be sure, credit-market discrimination may reduce opportunities for minority-owned firms to grow in size. And if minority-owned businesses are relatively small, they may be less able to afford the federal bankruptcy process. Conditional on size, however, the existence of credit-market discrimination will likely increase the probability that a minority-owned distressed business will file a federal bankruptcy petition. The same dynamics might be present in women-owned small businesses, although most empirical studies find no evidence of capital market discrimination.⁴¹

Geography too may play a role in explaining the popularity of the Bankruptcy Code relative to state-law procedures. In urban areas, the extent of the market permits specialization by attorneys. If bankruptcy attorneys are more common and their services less expensive in urban areas, we may see federal bankruptcy filings at higher rates in urban than rural areas. Then again, as John Hanna argued over a half century ago,⁴² the same phenomenon—greater specialization in urban environments—could make state law procedures more popular as well.

Another geographic pattern may be important. Personal bankruptcy filing rates (usually under Chapter 7) vary considerably by state, perhaps reflecting unobservable heterogeneity in the preferences or opportunities of citizens. These preferences or opportunities could influence the popularity of federal bankruptcy law among small businesses.

Together, these observations suggest several more hypotheses regarding the popularity of federal bankruptcy law relative to state-law procedures. First, holding size constant, minority-owned and women-owned small businesses may be more likely

⁴¹ Arne L. Kalleberg and Kevin T. Leicht, *Gender and Organization Performance: Determinants of Small Business Survival and Success*, 34 *Acad. Mgmt. J.* 136 (1991).

⁴² John Hanna, *Contemporary Utility of General Assignments*, 35 *Va. L. Rev.* 539 (1949).

to file federal bankruptcy petitions. Assuming the agglomeration effects of urban markets matters more for the provision of bankruptcy services than for the provision of state-law procedures, federal bankruptcy filings may be more popular in urban areas. Finally, business bankruptcy filings may be more popular in states with high personal bankruptcy filing rates.

Table 3 summarizes the various hypotheses and their predicted effects on the attractiveness of federal bankruptcy law relative to state-law procedures. The sections that follow—IV and V—draw on several data sets to test these hypotheses. Section IV tests particular hypotheses using data on overall trends across the various states (“state-level data”). Section V addresses other hypotheses using micro-data on individual businesses that closed their doors (“firm-level data”); I will compare businesses that closed their doors after filing federal bankruptcy petitions to those that shut down without filing petitions.

IV. State versus Federal Law: State-Level Variation

Federal bankruptcy cases are significantly more common in some states than others. Table 2 sorts the states by the frequency of federal filings per 1000 business deaths (the frequencies here equal the annual average over the period 1990 to 2004). Delaware is an extreme outlier, with over 270 filings per 1000 deaths. The state with the next highest incidence is Nevada, with 47 filings. At the low end is North Dakota, with almost 6 filings per 1000 deaths. Focusing on the top five and bottom five states, the incidences are strikingly different, ranging from 37 to 47 among the top five and from about 6 to 8 at the bottom end. The mid-point of the bottom range (7) is 83% lower than the mid-point of the top range (42).⁴³ Some of this inter-state variation may be explained by the hypotheses in Table 3.

⁴³ Similar variation emerges if we sort the states by the number of corporate bankruptcy filings per 1000 deaths (see the first column of Table 2). Among the top five states, the incidence ranges

B. Methodology

To test these hypotheses, I estimated a simple regression model using state-level data:

$$\text{Bankruptcy_Rate}_{st} = \beta' \text{Hypotheses}_{st} + \delta' \text{Controls}_{st} + \varepsilon_{st} \quad (1)$$

“Bankruptcy_Rate_{st}” is a measure of federal bankruptcy filings by businesses per 1,000 business deaths in state s during year t . Similarly, for state s during year t , “Hypotheses_{st}” is a vector of proxies for the hypotheses in Table 3 and “Controls_{st}” is a vector of variables that account for other possible determinants of the variation in the Bankruptcy Rate (e.g., region dummies). Because the proxies for “Hypotheses” are generally time-invariant, this model will be identified solely from variation across the states. Obviously, the observations for a particular state will be highly correlated over time. I account for this, imperfectly, by estimating standard errors that are clustered by state. This methodology is, admittedly, not a very strong test of the hypotheses in Table 3. The results presented here should be read together with the results presented in the next Section, which applies a more powerful methodology.

C. Variables and data sources.

Table 4 summarizes the key variables and their sources.

Dependent variables. I consider multiple measures of the Bankruptcy Rate. Each measure has a similar structure, dividing a measure of federal business bankruptcy filings by the total number of business deaths. In other words, all measures use the same denominator.

Data on business deaths are available from the Small Business Administration. Data on federal bankruptcy filings are available from two sources: (i) the filings database available through PACER (“Public Access to Court Electronic Records”), a website

from about 21 to 30; among the bottom five, it ranges from about 4 to 7. The midpoint of the bottom range (5.5) is 78% lower than the midpoint of the top range (25.5).

maintained by the Federal Judiciary,⁴⁴ and (ii) the closed case database assembled by the Federal Judicial Center (FJC) and distributed by ICPSR.⁴⁵ The advantage of the first source is its coverage (from 1990 through 2003) and completeness. Every federal bankruptcy filing is included. The downside is that the database uses highly incomplete proxies to distinguish business from non-business cases. A case is deemed a “business” bankruptcy if the debtor admitted that most of its debts are business-related. Most debtors, however, are individuals, who tend to treat all of their debts as personal, consumer debts. Most debtors, moreover, use software with default settings that treat all debt as consumer debt.

The second source—the FJC closed cases—offers better proxies for business cases. For example, I can determine whether the debtor is a corporation, something impossible in the PACER database. The downside of the FJC database is its incompleteness. It contains data on every case filed after October 1993 and *closed* before 2003. Thus, I can compute total cases per state, by year, between 1994 and 2003, but my totals will not reflect long-lived cases that hadn’t concluded prior to the 2003 cutoff. This is particularly problematic for corporate bankruptcies, which can extend for many years.

From each data source, I constructed multiple measures of the Bankruptcy Rate. From the FJC closed claim database, I computed the number of corporate bankruptcies (“Corp. Filing Rate”), the number of corporate and Chapter 11 bankruptcies (“Corp. and CH. 11 Filing Rate”), and the number of business, corporate, and Chapter 11 bankruptcies (“Bus., Corp., and Ch. 11 Filing Rates) per 1,000 business deaths. The first measure is the most conservative: it focuses on corporate bankruptcies, which are easy to identify and should be fairly consistently coded across states and over time. The second measure mixes corporate cases and other Chapter 11 cases. Most Chapter 11 cases are

⁴⁴ *PACER Bankruptcy Statistics*, Statistical Reports, Table F-2, <http://pacer.uspci.uscourts.gov/>.

⁴⁵ *Federal Court Cases: Integrated Data Base Bankruptcy Petitions, 1994-2003*, Study Nos. 4303-4306, 4086, 4088, 4249-4252, <http://www.icpsr.umich.edu/>.

business-related, but individual consumers are free to file cases under this Chapter. Thus, this measure is subject to some coding error, as individuals may be inconsistent in reporting whether their debts are business or consumer related. The third measure mixes corporate and Chapter 11 cases with any other case in which the debtor admitted that its debts were business-related. This is a very noisy measure of federal bankruptcy filings, for the usual reason that individuals are unsure whether to treat their debts as primarily business debts or primarily consumer debts.

Applying similar logic, I used the PACER database to compute the ratio of business Chapter 11 cases (“Bus. Ch. 11 Filing Rate”), all Chapter 11 cases (“All Ch. 11 Filing Rate”), or all business cases (“All Bus. Filing Rate”) to total business deaths. Here I assume that business Chapter 11 cases are consistently coded over time and therefore a good measure of trends in federal business bankruptcy cases. Chapter 11 cases are consistently coded, but not an ideal measure of business bankruptcies because individuals can file Chapter 11 cases. Finally, for the reasons already given, the total number of business filings is a very noisy measure of business bankruptcy filings.

Summary statistics for these and all other variables appear in Table 5.

Independent variables. Several hypotheses can be tested using these data. The creditor protection hypothesis predicts that state laws promoting transparency and those regulating preferential payments will be *negatively* correlated with the Bankruptcy Rate. See Table 3. I consider three types of laws that promote transparency: laws requiring court oversight of state bankruptcy proceedings (“Court Oversight”), those giving creditors power to appoint trustees or assert other formal powers during the proceedings (“Creditor Oversight), and laws requiring an ABC assignee to post bond, file financial schedules with a court, obtain an appraisal of the assets, or perform other duties (“Other Regulations”). Similarly, I consider three types of laws regulating preferential payments: those that prohibit payments to any creditor within a few months (usually three) of the insolvency proceeding (“General Preferences”), those that allow an as-

signee or trustee to attack preferential payments to owner-manager or other insiders (“Insider Preferences” – these laws were often enacted when a state adopted the Uniform Fraudulent Transfer Act), and those that actually *permit* preferential payments to creditors (“Preferential Assignments OK”). Panel B of Table 5 presents summary statistics for these measures of state law.

Other hypotheses, summarized in Table 3, predict that certain characteristics of the business (tax debts) or its environment (urban area or high personal bankruptcy rate) will be positively correlated with the Bankruptcy Rate. As Table 4 explains, I proxy for tax debt using the annual number of publicly-recorded tax liens, divided by state population. Because the data are very noisy (some states have more complete tax lien databases than others), I created a dummy variable equal to 1 when a state’s total (per capita) tax liens is greater than or equal to the median number of tax liens (per capita) across the various states (“High Tax Liens”). This variable proxies for state-level variation in the aggressiveness with which the IRS pursues tax liens. I proxy urbanization using an estimate of the proportion of state population living in urban areas (“Urban Population”). And I measure the personal bankruptcy filing rate using the PACER database (“Consumer Filing Rate”).

Panels B through D of Table 5 provide summary statistics for these variables. All continuous variables are logged. Panels C and D include several additional variables that may be correlated with the Bankruptcy Rate. One of these is the average duration of Chapter 11 bankruptcy cases, which may proxy for the efficiency of the bankruptcy courts in a state (“Average Case Length”). A state with relatively long-lived cases may be a state with courts that function very slowly. Two more variables are listed in Panel D—“Firm Growth Rate” and “Employment Growth Rate”—which proxy for economic conditions in a state.

Table 6 presents pairwise (Pearson) correlation coefficients for all of the variables. One striking pattern is the strong correlation between the various measures of

state laws. This suggests that the regression analysis will exhibit significant multicollinearity, which may make it difficult to separately identify the effects of the different state laws.

D. Results

Tables 7 through 10 present estimates for different specifications of regression model (1). Tables 7 and 8 use the FJC closed case data; Tables 9 and 10 use the PACER case filing data. In all these models, continuous variables are logged, standard errors are clustered at the state level, and p -values are reported in brackets beneath each coefficient. Additionally, Delaware is excluded from the analysis. As Table 2 makes clear, this state is an extreme outlier, due principally to its popularity as a forum for federal bankruptcy filings by large, publicly-traded corporations.⁴⁶

Table 7 presents a baseline set of regressions, with Bankruptcy Rate measured as the number of corporate bankruptcies per 1,000 business deaths by state during the period 1994 to 2001. All continuous variables, including Bankruptcy Rate, are logged. The estimates offer mixed support for the hypothesis that federal bankruptcy filings are less common in states with insolvency laws that promote greater transparency of the debtor's finances and operations (the *creditor protection* hypothesis). "Court Oversight" is consistently negative and statistically significant across a variety of specifications. Some specifications (2 and 4) add greater detail regarding state law; others use more refined dummy variables for geographic regions (3 and 4). Other measures of transparency ("Creditor Oversight" and "Other Regulations") seem not to matter. Nor do laws regulating preferential treatment of creditors and insiders ("General Preferences" and "Insider Preferences").

⁴⁶ See, e.g., Kenneth Ayotte and David A. Skeel, Jr., *An Efficiency-Based Explanation for Current Corporate Reorganization Practice*, 78 U. Chi. L. Rev. 425 (2006).

On the other hand, federal bankruptcy filings are more common in states with relatively high tax liens per capita (“High Tax Liens”), consistent with the *creditor relationships* hypothesis. In states in which the IRS budget or other factors permit it to be more aggressive in imposing liens, businesses face greater obstacles to a state bankruptcy procedure. They must obtain consent from the IRS as well as banks and other senior lenders.

Table 8 considers alternative definitions of Bankruptcy Rate. Recall that Table 7 defines the Bankruptcy Rate as the number of corporate bankruptcies per 1,000 business deaths. Columns (1) and (2) divide corporate bankruptcies between liquidations (under Chapter 7) and attempted reorganizations (under Chapter 11). Interestingly, the “Court Oversight” matters for liquidations, but not for reorganizations. For the latter group, laws regulating preferential payments to insiders (“Insider Preferences”) are highly significant and negatively correlated with Bankruptcy Rate, as predicted by hypothesis the *creditor protection* hypothesis. Somewhat surprisingly, the average duration of corporate Chapter 11 cases (“Average Case Length”) is positively correlated with Bankruptcy Rate. If duration is a measure of judicial inefficiency, we might have expected a negative correlation. Perhaps duration should instead be viewed as a proxy for the complexity of a firm’s capital structure: federal bankruptcy filings are more common in states with a relatively large number of businesses with complicated capital structures.

Columns (3) and (4) of Table 8 consider broader, noisier definitions of Bankruptcy Rate. Unsurprisingly the results are weaker and, in some respects, very different. Column (4), for example, finds a very strong correlation between “Consumer Filing Rate” and Bankruptcy Rate, measured as the ratio of all business, corporate, and Chapter 11 cases per 1,000 business deaths. This correlation confirms the suspicion, noted above, that many business cases are indistinguishable from consumer bankruptcies.

Together, Tables 7 and 8 offer suggestive evidence that state bankruptcy laws matter. Federal bankruptcy filings are less common in states that offer greater protec-

tion to creditors—in the form of laws promoting the transparency of a debtor’s operations or laws limiting preferential payments. Transparency matters in cases of liquidation; laws limiting preferential payments (to insiders) matter in reorganizations.

I test the robustness of these findings in Tables 9 and 10, which use the PACER case *filings* database to compute Bankruptcy Rates. Table 9 presents the baseline regressions, with Bankruptcy Rate defined as the number of business Chapter 11 cases per 1,000 business deaths. Nearly all of these cases are corporate Chapter 11s. Consistent with column (2) of Table 8, laws regulating Insider Preferences are highly significant and negatively correlated with Bankruptcy Rate. Their significance persists across a variety of specifications. Other laws do not matter. This may reflect multicollinearity. As a check, columns (2) and (5) use a dummy variable (“Index”) equal to 1 if a state has any law involving “General Preferences,” “Insider Preferences,” or “Court Oversight.” This dummy, unsurprisingly, is highly significant and negative. The only surprising result here is the coefficient for “Consumer Filing Rate,” which is positive and highly significant. This variable was generally insignificant in Tables 7 and 8. Inclusion or exclusion of this variable does not affect the other results in the table.

Table 10 considers alternative measures of Bankruptcy Rate. State laws matter only when the Bankruptcy Rate is defined as the number of Chapter 11 cases per 1,000 business deaths. This confirms the general pattern observed in all of these tables: variation in state law matters only for distressed *corporations*, which is unsurprising. State law procedures can end litigation against a corporation; once the corporation dissolves legally, the litigation ends. State law cannot end litigation against a proprietorship or partnership. Devices such as bulk sales and ABCs do nothing to limit the personal liability of the owners. They must turn to federal bankruptcy law for a discharge.

The results in Tables 7 through 10 shed some light on the puzzle of small business bankruptcies. Why are these bankruptcies so rare? Part of the answer lies in the contours of state law. The more state law protects creditors, the less likely is a troubled

business to file for federal bankruptcy. State law procedures are generally faster, cheaper, and more private than a federal case. As long as they also limit a debtor's ability to hide assets or self-serving payments, creditors are more willing to allow debtors to use these state procedures. These patterns are inconsistent with the notion that debtors routinely use state-law procedures to shield insider self-dealing or other bad behavior that would be scrutinized in federal bankruptcy court.

At the same time, tax debts seem to matter. The data offer tentative evidence that federal bankruptcy filings are more common in states in which tax liens are more frequently imposed. This is consistent with the notion that debtors may need the consent of tax authorities before commencing state-law bankruptcy procedures. The pattern is inconsistent with the hypothesis that businesses prefer state law procedures and their associated priority rules when the businesses have incurred tax debts.

V. State versus Federal Law: Firm-Level Variation

Most hypotheses in Table 3 cannot be tested without micro-data on the characteristics of distressed businesses. An ideal experiment would compare two observationally identical groups of distressed businesses: (i) distressed businesses that filed federal bankruptcy petitions prior to shutting down or restructuring ("bankruptcy exits") and (ii) distressed businesses that used state-law procedures, such as ABC, to accomplish the same purposes ("state exits"). With such data in hand, the following discrete-choice model could be used to identify factors that make a federal bankruptcy filing more or less likely:

$$E[\text{Bankruptcy_Exit}_i] = F(\text{Hypotheses}_i, \text{Controls}_i) \quad (2)$$

Here, $F(\cdot)$ is the cumulative density function for a particular distribution, usually normal (for a probit) or logistic (logit). "Bankruptcy_Exit" is a dummy variable equal to one if firm i is a member of the bankruptcy exit group and zero otherwise. "Hypotheses" is a vector of proxies for the hypotheses in Table 3 and "Controls" is a vector of

variables that account for other possible determinants of a firm's decision to file for federal bankruptcy.

Model (2) requires micro-data on two groups, bankruptcy exits and state exits. These ideal data do not exist, but we can approximate the ideal using records assembled by Dun & Bradstreet (D&B), a credit reporting bureau.

A. Data

D&B record financial and operational information about the majority of businesses located in the United States. The Small Business Administration estimates that about 24.7 million firms were active in the U.S. economy during 2004. D&B's records for roughly the same period included about 18 million firms, 73% of the U.S. total. Missing from D&B's database are businesses with no debt. D&B's mission is to offer reliable information about the credit-worthiness of potential borrowers. A business may not enter D&B's database until a bank or trade creditor seeks (or reports) information about the business. This selection bias works in favor of my analysis here. I am interested in studying distressed businesses that considered federal bankruptcy but instead opted to use state law procedures. A business will not consider bankruptcy unless it has debt.

D&B's records provide rich detail about the credit history, annual sales, employment, location, and other characteristics of businesses. D&B also tracks the financial condition of every business using a proprietary index, the Financial Stress Score (FSS), which ranges from 1 to 5. Scores above 3 are indicative of distress; an FSS of 5 represents severe distress. The index is strongly correlated with the likelihood of suspending operations. Among firms with an FSS equal to 1, the probability of closing within one year is 0.5%. Among firms with an FSS equal to 4 or 5, the probability is 8% and 36% respectively.

D&B records depart from the ideal in several respects. They indicate whether a business shut down and whether it filed for federal bankruptcy. But if a business shut

down without filing a federal petition, the records do not indicate whether the business used a particular state law procedure to liquidate or reorganize (bulk sale, ABC, foreclosure, etc.), sold itself off or merged with another firm, or shut down because the owner decided to move on to new projects. Thus, the population of “business shut downs” will include distressed businesses that shut down or reorganized using state bankruptcy law (state exits) as well as healthy businesses that shut down because there were better uses for the physical assets or the owner’s human capital (call these “healthy exits”). For this study, only state exits are relevant. I attempt to isolate this group, as explained below, by focusing on businesses with high Financial Stress Scores. If a business shuts down when its FSS exceeds 3, I assume the shut down is a state exit.⁴⁷

Another limitation of the D&B data is the limited information about a business’s capital structure. The records indicate whether, when, how often, and on what terms a business has borrowed from a bank or purchased goods on credit. They also indicate whether the business is late in making payments. The records do not, however, tell us the total value of the business’s assets or liabilities. Thus, we do not know how leverage varies across businesses in the database. We can only infer this from various proxies, such as the FSS, the size of the firm (measured in terms of sales or employment), and whether the business took on secured debt.

B. Sample Selection

Because D&B data are expensive, I limited my analysis to a sample of small, privately-held businesses located in Cook County, Illinois. I define a “small business” as one with 500 or fewer employees. In 1998, D&B maintained records on nearly 160,000 privately-held businesses in Cook County, about 99% of which had 500 or fewer employees.

⁴⁷ In the next draft, I will develop additional proxies for “state exits” and determine whether the estimates below vary with the proxy.

As a preliminary step, I drew a sample of 2,000 businesses that were operating as of January 1, 1998. As Table 11 illustrates, the sample was stratified. A third of the sample consisted of businesses in high distress (an FSS equal to 5), another third of businesses in moderate distress (FSS equal to 4), and a final third of businesses in low or no distress (FSS below 4). Within each third, the sample was split evenly between corporations and non-corporations (partnerships and proprietorships). For each business, D&B provided annual financial and operational information for every year from 1998 through 2004, or until the business terminated operations, whichever occurred earlier.

This exploratory analysis confirmed the rarity of federal bankruptcy filings. Table 11 shows that, among corporations in high distress (FSS=5) on January 1, 1998, nearly 50% ceased operations within seven years. Among those that shut down, only 15.6% filed a federal petition. The bankruptcy rate is a bit higher (16.9%) among non-corporations. It is slightly lower among businesses in moderate distress in 1998 (14.3% and 15.4%) and much lower among businesses that were in low distress that year (3.2% and 1.9%). At most 17% of distressed small businesses invoke the Bankruptcy Code.

Given the rarity of bankruptcy exits, a simple random sample may not yield enough bankruptcy exits and state exits to implement model (2). Table 11 illustrates the point: a simple random sample of 333 highly distressed corporations (FSS=5) yielded only 25 bankruptcy exits. There are two solutions to this problem. One is to increase the overall sample size to, say, 20,000 businesses. This would yield a large number of bankruptcy and state exits, but would be prohibitively costly.

An alternative solution is choice-based sampling. Instead of drawing a random sample from the population of all small businesses, I could draw random samples from the following sub-populations: (i) distressed businesses that filed a federal bankruptcy petition between January 1998 and January 2005 and (ii) distressed businesses that shut down during the same period without filing a bankruptcy petition. This sampling methodology has the advantage of cost-effectiveness. The downside is that it distorts

the representativeness of the overall sample. For any given business in the choice-based sample, the probability of selection differs from the probability of selecting the same businesses from the general population. By artificially restricting the population to groups (i) and (ii), I have inflated the probability of selection for businesses in both groups. I have also altered the relative probability of selection between the two groups. This complication, however, has a simple fix: the data can be weighted by the probability of selection.

Applying a choice-based sampling methodology, I drew three samples from the D&B records for Cook County, Illinois. See Table 12. Sample 1 includes approximately 1,000 distressed businesses that shut down between 1998 and 2000. As panel A illustrates, these data are split almost evenly between (i) distressed businesses that shut down after filing a federal bankruptcy petition with the preceding three years (“bankruptcy exits”) and (ii) distressed businesses that shut down without filing a federal bankruptcy petition during the preceding five years (“state exits”). Within each group, the sample is subdivided again between corporations and non-corporations. For these businesses, I have financial and operational data from 1994 through 1998. Sample 1, then, permits a comparison of firms that terminated operations at a particular point in time.

Sample 2 consists of approximately 1,300 businesses that suffered distress between 1998 and 2000 and shut down prior to 2005. This sample differs only slightly from the first. Instead of businesses that *terminated* during a particular period, this sample focuses on businesses that *suffered distress* during a particular period. From this population of businesses, I drew a sample of 927 state exits and 364 bankruptcy exits. The state exits sample represents about 66% of all state exits in the population; the bankruptcy exits account for 100% of bankruptcy exits in the population. Within each group, the samples are divided between businesses in high distress (FSS=5) and moder-

ate distress (FSS=4) and between corporations and non-corporations. For each business, the data include annual financial and operational data from 1994 through 2004.

Sample 3 includes all businesses (158 in total) that reorganized between 1998 and 2002. A “reorganization” occurs when a business files a federal bankruptcy petition but continues in operation for at least three years after the filing. In the analysis below, I limit Sample 3 to businesses that suffered distress between 1998 and 2000 and then merge these businesses with the bankruptcy exits from Sample 2. Because D&B data do not tell us whether a state exit was a liquidation or a reorganization, it is unclear whether to compare state exits to (a) businesses that liquidated in federal bankruptcy court or (b) businesses that *either* liquidated or reorganized in federal court.

C. Variables and Hypotheses

Table 13 sets out the variables in the D&B database. These variables offer a unique opportunity to test the hypotheses set out in Table 3. The *creditor relationships* hypothesis, for example, predicts a positive correlation between the presence of secured debt and the probability of a bankruptcy exit. “Any UCC filings” is a good proxy for the presence of secured debt. A secured creditor will generally file a UCC-1 financing statement with the Illinois Secretary of State. Summary statistics in Tables 14 and 15 show that the majority of businesses have some form of secured debt. In Sample 2, for example, over 60% of the businesses had at least one UCC-1 financing statement listed in state public records. The percentage rises to 74% among bankruptcy exits.

The *creditor relationships* hypothesis also predicts a positive correlation between the presence of tax debt and bankruptcy exits. I treat the variable “Any liens imposed” as a proxy for such debt. In most business bankruptcies, the majority of liens are federal tax liens.⁴⁸ In Sample 2, nearly 46% of all businesses were subject to liens; among bankruptcy exits, liens were present in 54% of the cases.

⁴⁸ [citation to prior empirical work on small business bankruptcy]

Empirical proxies for the remaining hypotheses can be found in the rows of Table 13. Only one merits special attention. The *choice of liquidator* hypothesis predicts that state law procedures will be more attractive to businesses with significant assets; an expert ABC assignee may be able to sell the assets for a higher price than a court-appointed bankruptcy trustee. The Dun & Bradstreet data, however, do not include information on asset holdings. The closest proxy is annual sales, which I normalize by dividing a business's annual sales by the average annual sales of businesses in the same industry.⁴⁹

D. Results

Although the D&B data are panel data, with annual observations on every business, I was unable to exploit this time variation. The data are very noisy; in many cases, a variable (such as sales or employment) is the same for many years. This is implausible and suggests that D&B did not receive new data every year or that the owner-manager offered the same estimate every year. Because of problems like these, I treated the various samples as cross-sectional data. For each business, I computed the averages for each of the variables in the database. In most cases, the average is based on data for the three years preceding the date of business shut down. Thus, the regressions below compare bankruptcy exits to state exits *during the three years preceding business shutdown*.

I estimated model (2) assuming $F(\cdot)$ follows a logistic distribution. Table 16 reports estimates from a baseline set of regressions. Coefficients are reported as odds ratios⁵⁰ and p -values are shown in brackets beneath each coefficient. Standard errors are robust, all continuous variables are logged, and the data are weighted by (the inverse of) their sampling probabilities.

⁴⁹ The same normalization is applied by Jaap H. Abbring and Jeffrey R. Campbell, *A Firm's First Year*, working paper (May 2005).

⁵⁰ Thus, a ratio above (below) 1 implies that the covariate is positively (negatively) correlated with the probability of a bankruptcy filing.

Column (1) of Table 16 reports estimates using Sample 1 data. These estimates show that, among distressed businesses, the probability of a federal bankruptcy filing rises significantly when the business has taken on secured debt, incurred tax liabilities, developed poor relationships with its lending bank, or become subject to suits, judgments, or liens. In terms of magnitudes, Table 17 shows that the probability of a federal bankruptcy filing rises 6 percentage points when a business has secured debt, about 7 points when it has tax debt, and 12 points when it has a poor relationship with its bank. These correlations are consistent with the *creditor relationships* thesis that creditors control the choice between state and federal bankruptcy.⁵¹

Although not reflected in Column (1), the variable “Fire, burglary, indictment” is perfectly correlated with the likelihood of a federal bankruptcy filing. Because of this, the estimation method drops the variable from the analysis. The perfect correlation, however, offers further support for the creditor control thesis. Businesses with pending suits, and those that have suffered fires, typically lack the time necessary to obtain creditor consent to state law alternatives.

Publicity matters too. Businesses with prior federal bankruptcy experience are much more likely to invoke the Bankruptcy Code again. But several other hypotheses are rejected by the data. Larger, woman-owned, and minority-owned distressed businesses, for example, are no more or less likely to file for federal bankruptcy.

Three additional patterns in Column (1) are worth noting: first, the longer a business has suffered distress, the *less* likely it is to file a federal bankruptcy petition. The effect, however, is somewhat small, with an average marginal effect equal to .02 percentage points. Second, if a business is run from the owner’s home, the probability of a federal petition rises significantly (about 11 percentage points, according to Table 17).

⁵¹ Column (1) also shows a weak negative correlation between “Poor trade credit history” and the probability of a bankruptcy filing. This is roughly consistent with the creditor relationships hypothesis. We would expect little or no correlation between the likelihood of a bankruptcy filing and a business’s relationship with non-key lenders.

Finally, relative to businesses in the construction industry (the omitted industry dummy), businesses in other industries are generally less likely to invoke the Bankruptcy Code.

These patterns generally persist when we vary the dependent variables, in Column (2), and when we vary the dataset, in Columns (3) and (4).⁵² Column (2) adds covariates for management tenure and annual sales; these were excluded from Column (1) because these variables are missing for a large number of businesses. Neither variable, however, has a significant effect on the odds of a federal filing. Columns (3) and (4) rerun the regression using Samples 2 and 3. The results are roughly the same, with two exceptions. First, businesses with pending suits or judgments appear no more likely to file a federal petition. This result is surprising in light of the significant correlation in Columns (1) and (2). It appears to reflect multicollinearity; the correlation between “Any UCC filings” and “Any suits/judgments” is around .18 and significant at the 1% level.

The second distinctive pattern in Columns (3) and (4) is the strength of the industry dummies. Relative to construction businesses, businesses in every other industry are significantly less likely to invoke the Bankruptcy Code. The average marginal effects are quite large, as Table 17 shows. The probability of a bankruptcy filing is nearly 13% lower among finance businesses; it is over 13% lower for transportation concerns. These correlations might suggest that dynamics in the construction industry are driving the results reported here. To check this, I re-estimated the models after excluding construction businesses. The basic patterns remain the same.

Tables 18 and 19 re-estimate the logit models for corporate and non-corporate businesses. Recall that state-law insolvency procedures may be most attractive to corpo-

⁵² In future drafts, I will vary the definition of “state exit” to account for the possibility that some of the state exits are actually “healthy exits” in which a successful business was sold off, underwent a merger, or was closed down because the owner identified other, more attractive opportunities.

rations, which can use the procedures to terminate the business and, in doing so, discharge its debts. A proprietor or partner remains personally liable for her business's debts even after the business itself is wound down using state law procedures. The estimates for corporations, in Table 18, are roughly the same as those for the overall sample. For the subsample of non-corporations, however, the results are markedly different. Table 19 shows that the presence of secured debt is no longer an important determinant in federal bankruptcy filings. Similarly, the presence of tax liens or of pending suits and judgments matters in some specifications but not others. Instead, the strongest consistent covariates are the business's relationship with its bank, its size (as measured by employment), and whether the business is run from the owner's home. All are positively correlated with the probability of a federal petition. These results suggest, as expected, that the hypotheses set out in Table 3 are inadequate to explain the decision-making of proprietorships and partnerships.

VI. Discussion and Conclusion

Taken together, Sections IV and V yield two important observations. First, a distressed small business (corporation) will find federal law attractive when it cannot convince or lacks time to convince dominant creditors to permit insolvency proceedings under state law. Creditor consent is more forthcoming when the debtor has kept current on debts to senior lenders (as shown in Section V) and when state law procedures offer creditors protection against covert self-dealing by the owner-manager (Section IV). Second, there is little evidence that state-law procedures are a haven for small businesses seeking to improve payoffs to insiders. There is no evidence, for example, that debtors strategically choose state bankruptcy law in order to take advantage of the differing priority rules.

Data never speak for themselves, and these patterns are consistent with two very different characterizations of the bankruptcy process. One is a story of creditor control.

Instead of being a refuge for troubled businesses, federal bankruptcy law appears to be a device that creditors use to impose discipline on distressed debtors. The federal process is often more costly than state procedures—it is more public, may have higher administrative costs, may take longer, may force insiders to disgorge gains from self-dealing, and increases payoffs to unsecured creditors. Most debtors would like to avoid these costs and use state law substitutes instead. They will, therefore, try to strike deals with dominant creditors, whose consent is necessary before state law proceedings can be invoked effectively. Such deals may be impossible, particularly if the debtor has abused its relationship with its bank, the IRS, or other key players.

This is one view of the data. Another view is just as plausible. The data do indeed show that secured creditors play an important role in the choice between state and federal bankruptcy laws. They also show that unsecured creditors receive little or no protection under state law.⁵³ State laws, then, may offer an avenue for secured creditors and debtors, acting in concert, to strip down the claims of unsecured creditors. In federal bankruptcy, unsecured creditors are protected by various rules, ranging from preference rules to the absolute priority rule. Under state law, secured creditors and debtors can avoid these protections.

Recall the method for reorganizing a business under state law. The debtor corporation will obtain secured creditor consent to an ABC in which the business is assigned to a trustee, who then enters an operating agreement with the original owner-managers. The operating agreement permits the owner-managers to continue running the firm while the assignee prepares to sell the business at auction. The assignee advertises the auction, but few people will notice the tiny ad (see, e.g., Figure 4). When the auction commences, the only bidders will often be the original owner-manager and the secured creditor. The owner may bid a low cash price; the secured creditor may bid its claim. In

⁵³ Indeed, Column (1) of Table 16 suggests that ABCs and other devices are more popular among businesses that have *poor* relationships with trade creditors.

either case, the owner-manager regains control of the business. The capital structure, however, has changed radically: the unsecured debt has been wiped clean; all that remains is the secured creditor's claim. Together, the secured creditor and owner-manager have accomplished a "poor man's reorganization," without respecting any of the Bankruptcy Code's priority rules. The process hurts unsecured creditors and benefits the debtor, secured creditor, and professionals.

This story is consistent with the estimates in Sections IV and V. It is supported by anecdotal evidence from attorneys. It may also be consistent with the first interpretation of the data, which suggests that secured creditors use the federal process to discipline debtors. The first story is one of creditor control; the second story is one of debtor-creditor collusion (and harkens back to the collusion once seen in equity receiverships around the turn of the 20th century).⁵⁴ It seems likely that the first story describes most cases. The second story is compelling only when a debtor's assets are sufficient to yield a recovery to unsecured creditors. But unsecured creditors receive nothing in the vast majority of federal bankruptcy cases, suggesting that most businesses cannot pay even the claims of secured creditors.

Whatever story the data support, they present a picture of small business bankruptcy that is radically different from the conventional wisdom. Scholars, legislators, and courts routinely assume that the Bankruptcy Code is the primary outlet for troubled businesses. The interplay between state and federal law is rarely acknowledged. This interplay, however, is a critical component of any coherent bankruptcy policy.

Current federal bankruptcy policy ignores this interplay. State law is virtually ignored, even though the interaction between state and federal law can undermine or even neutralize the goals of policymakers. In 2005, for example, Congress amended the Bankruptcy Code to speed up small business bankruptcies and offer greater protection

⁵⁴ See, e.g., David A. Skeel, Jr., *Debt's Dominion* (Princeton 2001).

for creditors.⁵⁵ Small businesses must now submit detailed accounting reports within seven days of filing a federal petition; they must also comply with various deadlines (a plan of reorganization, for example, must be filed within 300 days of filing). The goal here is to protect unsecured creditors and impose greater discipline on businesses. The effect appears to run in a different direction. The law may only strengthen the bargaining position of senior lenders when small businesses suffer distress. The *threat* of federal law has become more menacing, as the federal process is more cumbersome and costly to the debtor. The amendments, then, may give senior lenders greater power to extract concessions from debtors, at the expense of unsecured creditors. Or they may give debtors and senior lenders greater incentive to cooperate and use state law procedures that reduce returns to unsecured creditors. Either way, emerging evidence does indeed suggest that the recent amendments have encouraged small businesses to turn toward state bankruptcy law.⁵⁶

These are the unintended effects of federal legislation that ignores the interaction between state and federal law. The same unintended effects result from federal preemption doctrine applied by the courts. In 2005, for example, the Ninth Circuit held that the Bankruptcy Code preempts certain features of California state bankruptcy law.⁵⁷ The preempted features were rules protecting the interests of unsecured creditors (rules regulating preferential transfers). This may have been a proper application of federal preemption doctrine, but it can generate perverse results. Instead of ensuring the supremacy of federal law, the decision may only encourage small businesses to use state

⁵⁵ James B. Haines, Jr., and Philip J. Hendel, *No Easy Answers: Small Business Bankruptcies After BAPCPA*, 47 B.C. L. Rev. 71 (2005)

⁵⁶ Matt Evans, *Bankruptcy Reform Alters Business-Failure Strategies*, Business Journal of the Greater Triad Area (July 7, 2006).

⁵⁷ *Sherwood Partners v. Lycos, Inc.*, F.3d (9th Cir. 2005) (Kozinski, J.). Recently, however, a California appellate court reached the opposite conclusion, creating an unusual conflict between state and federal appellate courts. *Haberbrush v. Charles and Dorothy Cummins Family Ltd. Partnership*, 434 Cal. Rptr. 3d 814 (Cal. App. 2006).

bankruptcy law. Collusion between senior lenders and debtors, at the expense of unsecured creditors, is fostered when the Code preempts state laws that might protect unsecured creditors.⁵⁸

These examples illustrate a basic point: a coherent bankruptcy policy should encompass both state and federal law. Optimal policy probably requires a balancing of the two legal regimes. State laws typically permit quick, private liquidations and reorganizations at low administrative cost, but debtors typically must obtain the cooperation of dominant creditors, especially landlords, tax authorities, and secured creditors. Federal law is more costly and cumbersome, but offers the debtor greater leverage in negotiations with dominant creditors. It may be sensible for federal bankruptcy policy to preserve this trade-off, allowing businesses to choose between a quick settlement (under State law) when cooperation is feasible and structured bargaining (under federal law) when it is not. Toward this end, it may be sensible to cut back the Bankruptcy Code and treat it as a “law of last resort.”⁵⁹ For eighty percent of small businesses, state law is the relevant concern; federal bankruptcy is a distinctly second-order phenomenon. Perhaps the Code should acknowledge and facilitate this by allowing states to adopt any rule short of a prohibition on filing a federal bankruptcy petition. Once states are empowered to do this, we will surely observe efforts to reform state laws, many of which have gone untouched since the late 1800s. To date, most lawmakers and commentators have

⁵⁸ On the other hand, the data presented here suggest that senior creditors are reluctant to permit state bankruptcy proceedings if the law offers them little protection against insider self-dealing. *Sherwood Partners* could, then, increase the threat of federal bankruptcy law for marginal businesses, whose relationship with dominant creditors is rocky. This will strengthen the bargaining position of senior lenders, who can credibly demand additional concessions before permitting a state law procedure. Either the business will grant these concessions or file a federal bankruptcy petition.

⁵⁹ To borrow a phrase, used in a different context. See Barry E. Adler, *The Law of Last Resort*, 55 Vand. L. Rev. 1661 (2002).

assumed that these laws are unimportant. This paper shows just the opposite. And Congress should explicitly recognize this by giving a freer hand to state legislatures.

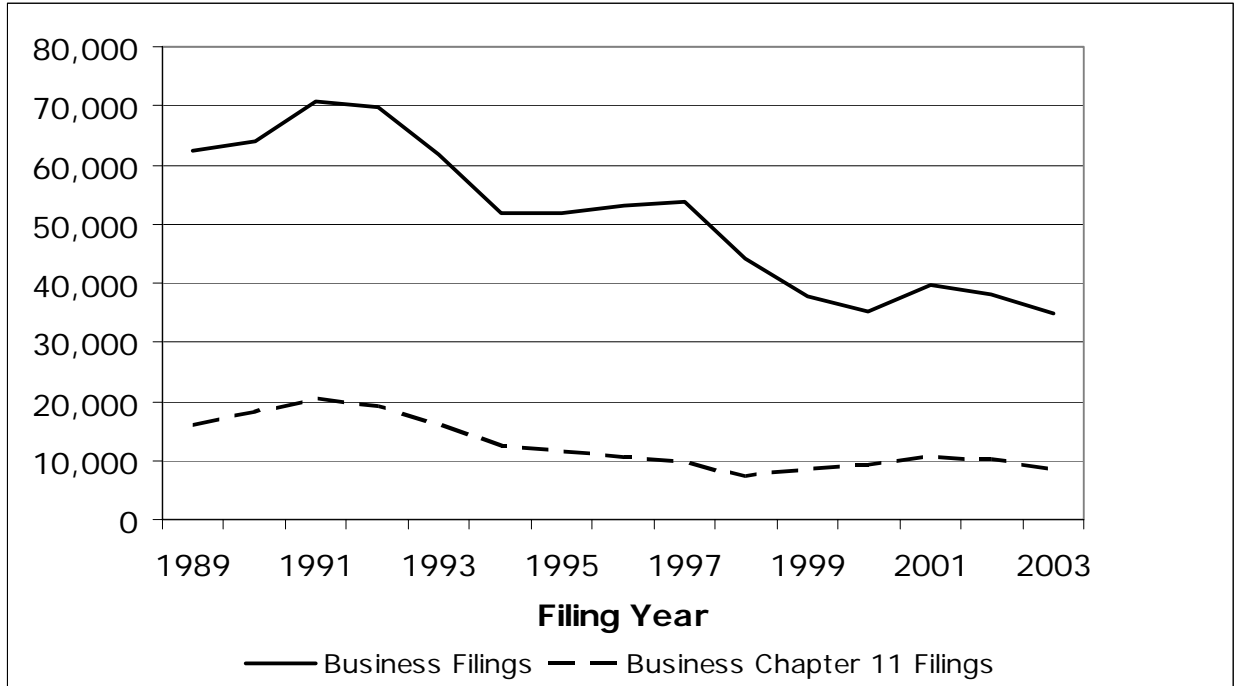
There is obvious precedent for this in the securities laws. The federal government gives a free hand to states, permitting them to draft any rule governing corporate governance. Federal law selectively intervenes and preempts state rules when they seem inconsistent with broader social policy⁶⁰ (or some interest group's conception of that policy⁶¹). Perhaps the same paradigm should be applied to federal bankruptcy law.

⁶⁰ Mark J. Roe, *Delaware's Competition*, 117 Harv. L. Rev. (2003).

⁶¹ Mark J. Roe, *Delaware's Politics*, 118 Harv. L. Rev. 2491 (2005).

Figures

**Figure 1: Business Bankruptcy Filings—
Total Filings and Chapter 11 Filings, 1989-2003**



**Figure 2: Corporate Bankruptcy Filings—
Total Filings and Chapter 11 Filings, 1994-2001**

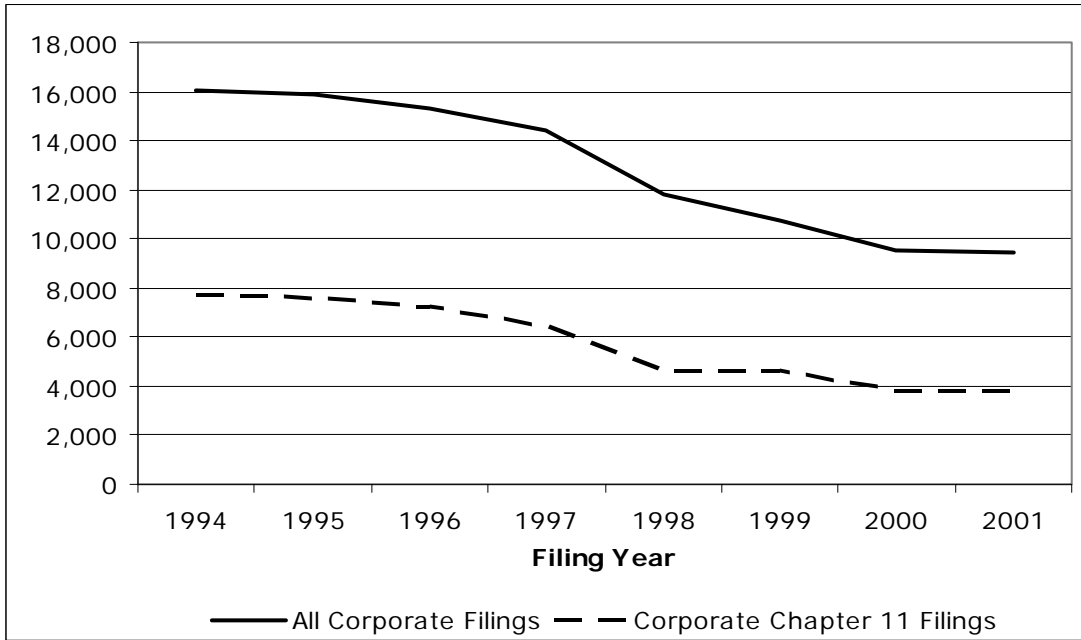
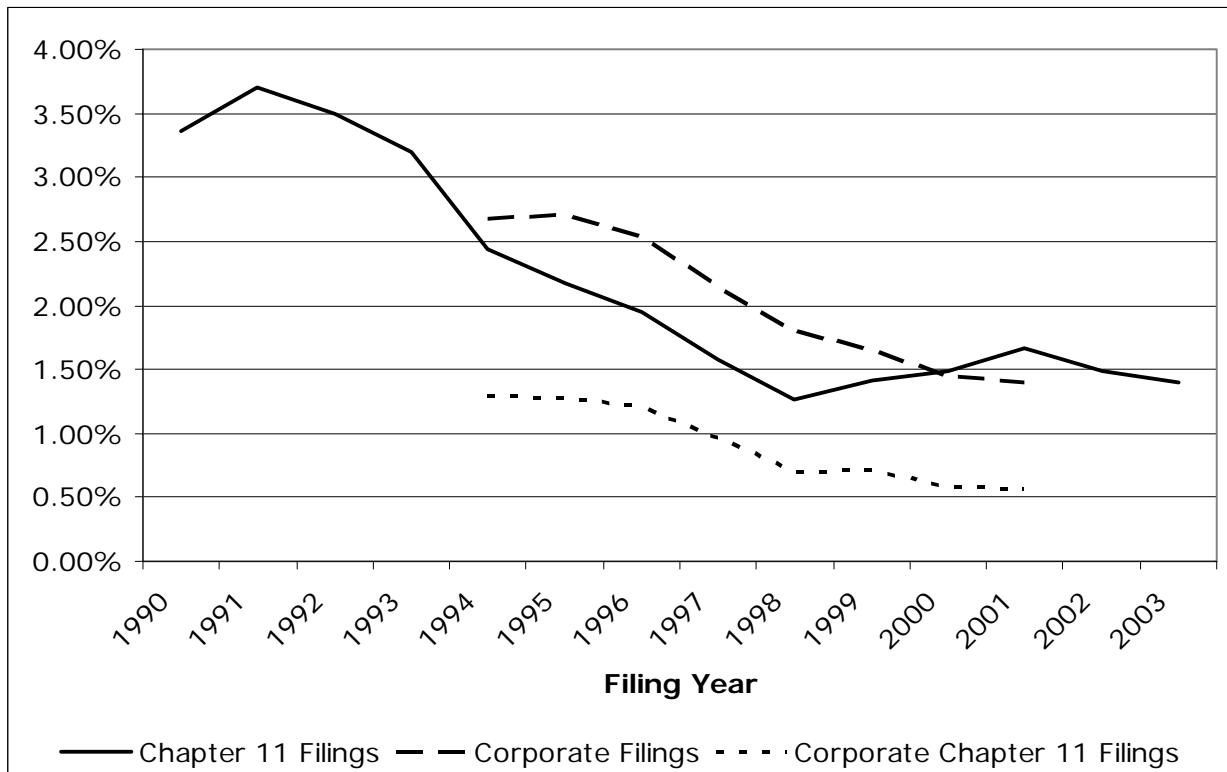


Figure 3: Bankruptcy Filings as Percentage of Total Business Terminations



Tables

Table 1
**Auctions listed in the *Chicago Tribune*,
“Auction Mart,” during 1998**

Total Auctions	302
Auctions mentioning company name	254
Bankruptcy filings	35 (13.8%)
Listings mentioning ABC	34 (13.4%)

Table 2
State ABC Laws and Bankruptcy Filing Rates

State	Filings per 1000 Deaths		Characteristics of State Laws Governing Assignments for the Benefit of Creditors						
	Corporate 1994-2001	Chapter 11 1990-2003	General preferences	Insider preferences	UFTA date	Court Oversight	Creditor oversight	Other regu- lations	Preferential assignments ok
Delaware	124.06	274.67	0	1	1996	0	0	1	0
Nevada	27.90	47.14	0	1	1987	0	0	0	0
Arizona	15.84	44.46	0	0	1990	1	0	1	0
DC	21.24	37.05	0	1	1996	0	0	1	0
New York	20.20	33.17	1	0		1	0	1	0
Massachusetts	22.89	32.19	0	1	1996	0	0	0	0
New Jersey	29.69	30.34	1	1	1989	0	0	1	0
Maryland	20.37	30.11	1	0		1	0	1	0
Tennessee	12.46	26.53	1	1	2003	0	0	1	0
California	20.30	25.37	1	0	1986	0	0	0	0
Virginia	16.62	24.08	0	0		0	0	0	0
Pennsylvania	20.66	24.01	1	0	1993	0	0	1	0
Texas	18.10	22.47	1	1	1988	0	0	1	0
Connecticut	13.23	20.51	0	1	1991	0	0	0	0
Washington	14.50	20.23	1	1	1988	1	0	1	0
Utah	13.76	20.20	0	1	1988	1	0	1	1
Louisiana	17.95	19.44	0	1	2003	0	0	0	0
Alaska	8.52	19.42	0	0		0	0	0	0
Rhode Island	21.05	19.39	0	1	1986	0	0	1	0
Georgia	15.23	19.09	0	1	2002	0	0	1	0
Florida	17.33	18.82	0	1	1988	1	0	1	0
Alabama	13.43	18.74	0	1	1990	0	0	0	0
Idaho	12.75	18.34	0	1	1987	0	0	0	0
West Virginia	18.61	18.05	0	1	1986	0	1	1	0
Mississippi	12.88	17.86	0	0	2006	0	0	1	0
Indiana	14.59	17.01	0	0	2002	0	0	0	0
New Hampshire	15.69	17.00	1	1	1988	1	0	1	0

Table 2, continued
State ABC Laws and Bankruptcy Filing Rates

State	Filings per 1000 Deaths		Limits on Pre-ABC Preferential Transfers						
	Corporate 1994-2001	Chapter 11 1990-2003	General preferences	Insider preferences	UFTA Date	Court Oversight	Creditor oversight	Other regu- lations	Preferential assignments ok
Michigan	15.80	16.15	0	1	1999	0	0	1	0
South Carolina	10.73	15.85	1	0		0	1	0	0
Illinois	18.55	15.53	0	1	1990	0	0	0	0
New Mexico	13.21	15.28	0	1	1989	1	0	1	0
Kentucky	15.50	14.81	1	0		1	0	1	0
Wyoming	9.19	14.73	0	0	2006	0	0	0	0
Oklahoma	13.21	14.48	0	1	1987	0	0	1	0
Hawaii	15.74	14.24	0	1	1985	0	0	0	0
Ohio	9.34	12.20	0	1	1991	1	0	1	0
Kansas	8.33	12.08	0	1	1999	0	0	0	0
Vermont	10.88	11.77	0	1	1996	0	0	1	0
Missouri	8.32	11.39	0	1	1993	1	0	1	0
Arkansas	8.11	11.23	0	1	1987	1	0	1	0
Colorado	8.78	11.19	0	1	1991	1	0	1	0
Montana	7.22	11.19	0	1	1991	0	0	1	0
North Carolina	9.76	10.38	1	1	1998	0	0	1	0
Minnesota	9.31	10.07	0	1	1987	0	0	1	0
Nebraska	7.04	10.03	0	1	1990	0	0	0	0
Wisconsin	8.38	9.67	1	1	1988	1	0	1	0
Maine	11.55	8.49	0	1	1986	0	0	0	0
South Dakota	7.38	7.97	1	1	1987	1	0	1	0
Oregon	8.00	7.56	0	1	1986	0	0	0	0
Iowa	5.52	6.23	0	1	1995	1	0	1	0
North Dakota	3.74	5.59	0	1	1985	1	0	0	1

Table 3
Summary of Hypotheses Regarding the Attractiveness of
Federal Bankruptcy Law Relative to State Law Alternatives

Hypothesis	Predicted effect	Type of Data Used to Test Hypothesis
<i>Creditor Relationships/Priorities</i>		
<i>H1: business has secured debt</i>	+	Firm-level
<i>H2: business has tax debt</i>	+/-	Firm-level/State-Level
<i>H3: business has poor relationship with secured creditor</i>	+	Firm-level
<i>H4: business faces pending suits, judgments, liens</i>	+	Firm-level
<i>H5: business has poor relationship with trade creditors</i>	+	Firm-level
<i>H6: business recently changed (fire, change of control)</i>	+	Firm-level
<i>Creditor Protection</i>		
<i>H7: state laws protect creditors</i>	-	State-level
<i>H8: state laws regulate preferential payments</i>	-	State-level
<i>Publicity</i>		
<i>H9: business has prior bankruptcy experience</i>	+	Firm-level
<i>Choice of Liquidator</i>		
<i>H10: business has significant assets</i>	-	Firm-level
<i>Other factors</i>		
<i>H11: business minority-owned</i>	+	Firm-level
<i>H12: business is woman-owned</i>	+	Firm-level
<i>H13: state has relatively high % of businesses in urban areas</i>	+	State-level
<i>H14: state has relatively high personal bankruptcy rate</i>	+	State-level

Table 4
State-Level Data Sources

Variable	Source
Bankruptcy Cases, Annual Filings	PACER Bankruptcy Statistics, Statistical Reports, Table F-2, http://pacer.uspci.uscourts.gov/
Bankruptcy Cases, Closed Cases	Federal Court Cases: Integrated Data Base Bankruptcy Petitions, 1994-2003, Study Nos. 4303-4306, 4086, 4088, 4249-4252, http://www.icpsr.umich.edu/
Business Deaths	Small Business Administration, Office of Advocacy, Dynamic Data—Births, Deaths, Growth, and Decline—State Major Industry Data, 1989-1998, 1998-2003, http://www.sba.gov/advo/research/data.html
Number of firms	same
Employment	same
Insolvency laws	Lexis-Nexis; Westlaw
Population	U.S. Census Bureau, Population Estimates, http://www.census.gov/popest/archives/1980s/st8090ts.txt ; http://www.census.gov/popest/archives/1990s/ST-99-03.txt ; http://www.census.gov/popest/datasets.html
Population Density	U.S. Census Bureau, Census 2000. GCT-PH1. Population, Housing Units, Area, and Density: 2000.
Urban Population	U.S. Census Bureau, State and Metropolitan Area Data Book, Table A-2, http://www.census.gov/compendia/smadb/SMADBstate.html
Tax Liens	Lexis-Nexis, Tax Liens Library (Public Records, Judgments & Liens, Tax Liens) (search term: "federal tax lien" and 1998 and (corporation or corp or inc or incorp or incorporated or llc or pc or limited or ltd or lc) AND NOT release)
Region-4	Census regions (1=Northeast, 2=Midwest, 3=South, 4=West); http://www.census.gov/geo/www/cob/rg_metadata.html
Region-9	Census divisions (1=New England, 2=Middle Atlantic, 3=East North Central, 4=West North Central, 5=South Atlantic, 6=East South Central, 7=West South Central, 8=Mountain, 9=Pacific)

Table 5
Means of Key Variables by Legal Characteristic

Variable (all continuous variables are logged)	All	General Preferences	Insider Preferences	Court Oversight	Creditor Oversight	Other Regulations	Pref. Assignments Ok
Panel A: Outcome Variables							
Corp. Filing Rate	2.35	2.51	2.25	2.19	2.43	2.36	1.84
Corp. and Ch. 11 Filing Rate	2.57	2.74	2.44	2.40	2.63	2.57	1.92
Bus., Corp., and Ch. 11 Filing Rate	3.71	3.69	3.69	3.75	3.45	3.74	3.98
Bus. Ch. 11 Filing Rate	2.57	2.71	2.40	2.47	2.56	2.60	2.11
All Ch. 11 Filing Rate	2.67	2.82	2.48	2.55	2.73	2.68	2.17
All Bus. Filing Rate	4.24	4.22	4.22	4.29	3.92	4.27	4.49
Panel B: State Law Variables							
General Preferences	.28	1	.21	.41	.5	.39	0
Insider Preferences	.38	.31	1	.48	.38	.43	.73
Court Oversight	.34	.50	.39	1	0	.52	1
Creditor Oversight	.04	.07	.04	0	1	.03	0
Other Regulations	.62	.86	.64	.94	.5	1	.5
Pref. Assignments OK	.04	0	.07	.12	0	.03	1
Panel C: Bankruptcy Variables							
Average Case Length	.17	.19	.12	.18	.17	.17	.22
Consumer Filing Rate	.86	.79	1.21	.86	.55	.86	.84
Panel D: Economic, Demographic Variables							
Firm Growth Rate	-4.44	-4.57	-4.45	-4.43	-4.41	-4.45	-4.29
Employment Growth Rate	12.02	12.62	12.04	12.31	11.32	12.22	10.92
High Tax Liens (=1 if > median)	.73	.69	.58	.63	.46	.68	.58
Urban population	4.25	4.27	4.25	4.26	3.97	4.24	4.25

Table 6
Pairwise Correlations
(significance at the 5% level is indicated by a *)

Variable (all continuous variables are logged)	All	Corp. Filing Rate	Corp. and Ch. 11 Filing Rate	Bus., Corp., & Ch. 11 Filing Rate	Bus. Ch. 11 Filing Rate	All Ch. 11 Filing Rate	All Bus. Filing Rate
Panel A: Outcome Variables							
Corp. Filing Rate	2.35	1.0000					
Corp. and Ch. 11 Filing Rate	2.57	0.9877*	1.0000				
Bus., Corp., and Ch. 11 Filing Rate	3.71	0.6921*	0.6882*	1.0000			
Bus. Ch. 11 Filing Rate	2.57	0.4946*	0.5316*	0.1130*	1.0000		
All Ch. 11 Filing Rate	2.67	0.4881*	0.5313*	0.0872*	0.9931*	1.0000	
All Bus. Filing Rate	4.24	0.2667*	0.2784*	0.6405*	0.4837*	0.4438*	1.0000
Panel B: State Law Variables							
General Preferences	.28	0.0807	0.0929*	-0.0238	0.0667	0.0796*	-0.0474
Insider Preferences	.38	-0.1345*	-0.1767*	-0.0275	-0.2795*	-0.2892*	-0.0383
Court Oversight	.34	-0.1506*	-0.1495*	0.0270	-0.1346*	-0.1504*	0.0360
Creditor Oversight	.04	0.0106	0.0067	-0.0634	-0.0157	0.0033	-0.1220*
Other Regulations	.62	0.0380	0.0303	0.0449	0.0831*	0.0615	0.0861*
Pref. Assignments OK	.04	-0.1148*	-0.1467*	0.0618	-0.1332*	-0.1401*	0.0831*
Panel C: Bankruptcy Variables							
Average Case Length	.17	0.6191*	0.6657*	0.6198*	0.2841*	0.2763*	0.3530*
Consumer Filing Rate	.86	-0.0409	-0.0667	-0.1107*	-0.1090*	-0.1013*	-0.1325*
Panel D: Economic, Demographic Variables							
Firm Growth Rate	-4.44	0.1751*	0.2104*	0.2352	0.2561*	0.2347*	0.3127*
Employment Growth Rate	12.02	-0.1146*	-0.1553*	-0.0378	-0.2698*	-0.2789*	-0.1283*
High Tax Liens (=1 if > median)	.73	0.0071	-0.0002	-0.2068*	0.1811*	0.1834*	-0.0656
Urban population	4.25	0.2376*	0.2480*	-0.0494	0.3495*	0.3648*	-0.0392

Table 6
Correlation Matrix, continued
(significance at the 5% level is indicated by a *)

Variable (all continuous variables are logged)	Mean	General Preferences	Insider pref- erences	Court Over- sight	Creditor oversight	Other regu- lations	Pref. assign- ments ok
Panel A: Outcome Variables							
Corp. Filing Rate	2.35						
Corp. and Ch. 11 Filing Rate	2.57						
Bus., Corp., and Ch. 11 Filing Rate	3.71						
Bus. Ch. 11 Filing Rate	2.57						
All Ch. 11 Filing Rate	2.67						
All Bus. Filing Rate	4.24						
Panel B: State Law Variables							
General Preferences	.28	1.0000					
Insider Preferences	.38	-0.1315*	1.0000				
Court Oversight	.34	0.2175*	0.0916*	1.0000			
Creditor Oversight	.04	0.1021*	-0.0151	-0.1429*	1.0000		
Other Regulations	.62	0.2922*	0.0370	0.4588*	-0.0533	1.0000	
Pref. Assignments OK	.04	-0.1243*	0.1303*	0.2857*	-0.0408	-0.0533	1.0000
Panel C: Bankruptcy Variables							
Average Case Length	.17	0.0131	-0.1006*	0.0038	-0.0002	0.0175	0.0137
Consumer Filing Rate	.86	-0.0519	0.3984*	0.0017	-0.0832*	-0.0046	-0.0037
Panel D: Economic, Demographic Variables							
Firm Growth Rate	-4.44	-0.1089*	-0.0236	-0.0040	0.0023	-0.0116	0.0309
Employment Growth Rate	12.02	0.2282*	0.0165	0.1348*	-0.0670	0.1130*	-0.1128*
High Tax Liens (=1 if > median)	.73	-0.0280	-0.2642*	-0.1355*	-0.1143*	-0.0688*	-0.0584*
Urban population	4.25	0.0453	-0.0232	0.0276	-0.2594*	-0.0511	-0.0040

Table 7
FJC Closed Case Data: Corporate Bankruptcy Filings per 1000 Business Deaths

	(1)	(2)	(3)	(4)
	All Corporate	All Corporate	All Corporate	All Corporate
General Preference	0.074 [0.297]	0.024 [0.746]	0.091 [0.340]	0.047 [0.627]
Insider Preferences	-0.059 [0.440]	-0.079 [0.279]	-0.015 [0.840]	-0.036 [0.586]
Court Oversight	-0.158* [0.058]	-0.163* [0.051]	-0.168** [0.027]	-0.146* [0.060]
Average Case Length	0.092 [0.594]	0.072 [0.647]	0.090 [0.518]	0.069 [0.588]
Consumer Filing Rate	0.009 [0.866]	0.025 [0.653]	0.048 [0.360]	0.070 [0.201]
Small Firm Growth Rate	-0.706 [0.863]	0.079 [0.984]	-2.798 [0.448]	-1.372 [0.689]
Creditor Oversight		0.295 [0.353]		0.360 [0.256]
Other Regulations		0.111 [0.266]		0.057 [0.478]
Pref. Assignments OK		-0.253 [0.270]		-0.223 [0.220]
High Tax Liens	0.083 [0.132]	0.116** [0.032]	0.106* [0.055]	0.133** [0.021]
Urban Population	0.971*** [0.000]	1.032*** [0.000]	0.916*** [0.000]	1.049*** [0.000]
Year dummies	Yes	Yes	Yes	Yes
Region dummies	4 regions	4 regions	9 regions	9 regions
Observations	399	399	399	399
R-squared	0.629	0.652	0.687	0.703

*Note: Robust p values in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%.*

Table 8
Closed Case Data: Bankruptcy Filings per 1000 Business Deaths

	(1) Corporate Chapter 7	(2) Corporate Chapter 11	(3) All Corporate and Chapter 11	(4) All Business, Corpo- rate, and Chapter 11
General Preference	0.125 [0.147]	0.012 [0.909]	0.074 [0.287]	0.076* [0.093]
Insider Preferences	0.017 [0.862]	-0.190** [0.024]	-0.110 [0.134]	0.026 [0.522]
Court Oversight	-0.195* [0.057]	-0.105 [0.296]	-0.143* [0.079]	-0.084* [0.066]
Average Case Length	-0.129 [0.534]	0.455** [0.018]	0.108 [0.490]	0.073 [0.388]
Consumer Filing Rate	0.030 [0.600]	-0.043 [0.519]	0.015 [0.772]	0.654*** [0.000]
Small Firm Growth Rate	-0.900 [0.822]	-0.714 [0.894]	-2.493 [0.531]	0.409 [0.801]
High Tax Liens	0.112* [0.084]	0.056 [0.378]	0.061 [0.190]	-0.004 [0.914]
Urban Population	0.865*** [0.000]	1.149*** [0.000]	0.990*** [0.000]	0.350*** [0.000]
Year dummies	Yes	Yes	Yes	Yes
Region dummies	4 regions	4 regions	4 regions	4 regions
Observations	399	399	399	399
R-squared	0.477	0.623	0.681	0.917

Note: Robust p values in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 9
Case Filings Data: Bankruptcy Filings per 1000 Business Deaths

	(1)	(2)	(3)	(4)	(5)	(6)
	Business	Business	Business	Business	Business	Business
	Chapter 11	Chapter 11	Chapter 11	Chapter 11	Chapter 11	Chapter 11
General Preference	0.054 [0.535]		0.013 [0.894]	0.064 [0.533]		0.030 [0.783]
Insider Preferences	-0.245*** [0.006]		-0.258*** [0.003]	-0.212** [0.019]		-0.223*** [0.008]
Court Oversight	-0.052 [0.577]		-0.062 [0.507]	-0.077 [0.373]		-0.057 [0.540]
Index		-0.211** [0.016]			-0.202** [0.028]	
Creditor Oversight			0.294 [0.362]			0.268 [0.463]
Other Regulations			0.100 [0.330]			0.042 [0.689]
Pref. Assignments OK			-0.161 [0.192]			-0.192 [0.150]
Consumer Filing Rate	0.358*** [0.002]	0.353*** [0.003]	0.379*** [0.003]	0.262* [0.055]	0.235* [0.097]	0.266* [0.052]
Small Firm Growth Rate	-0.007 [0.998]	-0.502 [0.876]	0.276 [0.933]	-1.857 [0.552]	-1.757 [0.582]	-1.143 [0.699]
High Tax Liens	0.016 [0.773]	-0.014 [0.815]	0.041 [0.430]	0.046 [0.432]	0.027 [0.661]	0.060 [0.315]
Urban Population	0.967*** [0.000]	1.038*** [0.000]	1.009*** [0.000]	0.951*** [0.000]	0.993*** [0.000]	1.033*** [0.000]
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Region dummies	4 regions	4 regions	4 regions	9 regions	9 regions	9 regions
Observations	700	700	700	700	700	700
R-squared	0.690	0.672	0.700	0.709	0.699	0.716

*Note: Robust p values in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%.*

Table 10
Case Filings Data: Bankruptcy Filings per 1000 Deaths

	(1) Business Chapter 7	(2) Business Chapter 7	(3) All Chapter 11	(4) All Chapter 11	(5) All Business	(6) All Business
General Preference	0.060 [0.644]		0.071 [0.396]		0.066 [0.543]	
Insider Preferences	0.042 [0.700]		-0.246*** [0.006]		0.024 [0.785]	
Court Oversight	0.094 [0.445]		-0.081 [0.391]		0.021 [0.842]	
index2		0.081 [0.537]		-0.219*** [0.009]		0.052 [0.628]
Consumer Filing Rate	0.266* [0.082]	0.259 [0.116]	0.382*** [0.001]	0.374*** [0.002]	0.301** [0.026]	0.292** [0.041]
Small Firm Growth Rate	-0.256 [0.947]	-0.065 [0.986]	-1.936 [0.547]	-2.453 [0.445]	1.077 [0.737]	1.145 [0.717]
High Tax Liens	0.032 [0.718]	0.020 [0.818]	-0.007 [0.890]	-0.036 [0.545]	-0.013 [0.861]	-0.018 [0.797]
Urban Population	-0.671*** [0.005]	-0.661*** [0.005]	1.039*** [0.000]	1.114*** [0.000]	-0.378** [0.039]	-0.367** [0.037]
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Region dummies	4 regions	4 regions	4 regions	4 regions	4 regions	4 regions
Observations	700	700	700	700	700	700
R-squared	0.315	0.309	0.712	0.693	0.416	0.414

*Note: Robust p values in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%.*

Table 11
Structure of Dun & Bradstreet Data
Initial Sample: Panel Data, 1998-2004

Initial Distress Level	Initial Random Sample	Exits (% Initial Sample)	Bankruptcy Exits (% Exits)
Panel A: High Distress (FSS=5)			
Corporations	333	160 (48.1%)	25 (15.6%)
Non-corporations	333	83 (24.9%)	14 (16.9%)
Panel B: Distress (FSS=4)			
Corporations	333	98 (29.4%)	14 (14.3%)
Non-corporations	333	78 (23.4%)	12 (15.4%)
Panel C: Low Distress (FSS<4)			
Corporations	334	63 (18.9%)	2 (3.2%)
Non-corporations	334	54 (16.2%)	1 (1.9%)

Table 12
Structure of Dun & Bradstreet Data
Choice-Based Samples:

Panel A: Sample 1—Exits During 1998-2000

	State Exits		Bankruptcy Exits	
	Sample	Population	Sample	Population
Corporations	250	569	295	295
Non-corporations	250	459	256	256

Panel B: Sample 2—Distressed Businesses, 1998-2005

	State Exits		Bankruptcy Exits	
	Sample	Population	Sample	Population
High Distress (FSS=5)				
Corporations	250	272	77	77
Non-corporations	177	177	40	40
Distress (FSS=4)				
Corporations	250	533	157	157
Non-corporations	250	417	90	90

Panel C: Sample 3—Corporate Reorganizations, 1998-2005

	Sample	Population
Corporations	107	107
Non-corporations	51	51

Table 13
Variable Definitions

Label	Definition
Any UCC filings	=1 if any UCC filings during preceding 4 years
Any liens imposed	=1 if any liens imposed during preceding 2 years
Any suits/judgments	=1 if any suits or judgments during preceding 2 years
Poor banking history	=1 if bank reported slow or delinquent payments during preceding 2 years
Poor trade credit history	=1 if trade creditors reported slow or delinquent payments during preceding 2 years
Manager with prior business failures	=1 if manager owned previous businesses that filed for bankruptcy or failed without fully paying creditors
Business with prior failures	=1 if business underwent prior bankruptcy or receivership
Years in distress	Number of years business was in distress
Changed owner, location, name	=1 if business moved, changed owners or name during preceding 2 years
Fire, burglary, indictment	=1 if business suffered fire, burglary, indictment during preceding 2 years
Age	Firm age in years
Management tenure	Management tenure in years
Annual sales (normalized)	Average annual sales divided by average industry sales
Employment	Average employment during preceding 2 years
Run from owner's home	=1 if business is run out of owner's home
Owns real estate	=1 if business owns real estate
Woman-owned	=1 if owner is female
Minority-owned	=1 if owner is member of a minority group
Multiple business lines	=1 if firm runs multiple lines of business
Construction	=1 if primary business line is construction
Finance	=1 if primary business line is finance
Manufacturing	=1 if primary business line is manufacturing
Retail	=1 if primary business line is retail
Services	=1 if primary business line is services
Transportation	=1 if primary business line is transportation
Wholesale	=1 if primary business line is wholesale

Table 14
Summary Statistics—Sample 1

	Full Sample		State Exits		Bankruptcy Exits	
	Mean	Std. Error	Mean	Std. Error	Mean	Std. Error
Bankruptcy Exit	0.138	0.010	0.000	0.000	1.000	0.000
Any UCC filings	0.538	0.019	0.514	0.021	0.691	0.035
Any liens imposed	0.384	0.019	0.360	0.021	0.528	0.039
Any suits/judgments	0.598	0.019	0.571	0.021	0.764	0.032
Poor banking history	0.537	0.019	0.521	0.021	0.638	0.039
Poor trade credit history	0.795	0.015	0.790	0.017	0.826	0.031
Manager with prior business failures	0.011	0.004	0.012	0.005	0.005	0.005
Business with prior failures	0.037	0.007	0.024	0.007	0.115	0.025
Years in distress	1.674	0.038	1.677	0.043	1.658	0.069
Changed owner, location, name	0.097	0.011	0.098	0.013	0.095	0.024
Fire, burglary, indictment	0.001	0.001	0.002	0.002	0.000	0.000
Age	13.084	0.679	12.775	0.778	14.676	1.172
Management tenure	9.286	0.373	8.844	0.414	11.555	0.834
Annual sales (normalized)	0.640	0.084	0.659	0.099	0.539	0.075
Employment	13.390	1.540	13.154	1.756	14.869	2.065
Run from owner's home	0.055	0.008	0.050	0.009	0.088	0.021
Owns real estate	0.040	0.007	0.036	0.008	0.067	0.021
Woman-owned	0.121	0.012	0.116	0.014	0.157	0.027
Minority-owned	0.075	0.010	0.074	0.011	0.080	0.020
Multiple business lines	0.175	0.015	0.164	0.016	0.240	0.034
Construction	0.135	0.013	0.126	0.014	0.186	0.030
Finance	0.044	0.008	0.050	0.009	0.005	0.005
Manufacturing	0.101	0.012	0.100	0.013	0.113	0.023
Retail	0.278	0.017	0.272	0.019	0.320	0.037
Services	0.251	0.016	0.253	0.018	0.242	0.034
Transportation	0.081	0.011	0.087	0.012	0.048	0.016
Wholesale	0.110	0.012	0.113	0.014	0.086	0.021

Table 15
Summary Statistics—Sample 2

	Full Sample		State Exits		Bankruptcy Exits	
	Mean	Std. Error	Mean	Std. Error	Mean	Std. Error
Bankruptcy Exit	0.203	0.012	0.000	0.000	1.000	0.000
Any UCC filings	0.610	0.015	0.577	0.017	0.742	0.025
Any liens imposed	0.457	0.016	0.436	0.018	0.541	0.031
Any suits/judgments	0.680	0.014	0.664	0.016	0.745	0.026
Poor banking history	0.441	0.015	0.425	0.017	0.505	0.032
Poor trade credit history	0.786	0.013	0.785	0.014	0.789	0.028
Manager with prior business failures	0.013	0.003	0.014	0.004	0.013	0.007
Business with prior failures	0.041	0.006	0.030	0.006	0.083	0.014
Years in distress	2.289	0.051	2.294	0.060	2.269	0.097
Changed owner, location, name	0.122	0.010	0.117	0.012	0.142	0.024
Fire, burglary, indictment	0.002	0.001	0.002	0.001	0.004	0.003
Age	14.891	0.542	14.636	0.637	15.688	1.022
Management tenure	10.521	0.330	10.116	0.397	11.788	0.567
Annual sales (normalized)	0.560	0.058	0.585	0.075	0.482	0.049
Employment	14.361	1.597	14.777	1.982	12.722	1.128
Run from owner's home	0.068	0.009	0.060	0.009	0.099	0.020
Owns real estate	0.037	0.006	0.031	0.006	0.062	0.013
Woman-owned	0.124	0.011	0.117	0.012	0.154	0.023
Minority-owned	0.083	0.009	0.080	0.010	0.094	0.019
Multiple business lines	0.217	0.013	0.210	0.015	0.243	0.027
Construction	0.142	0.011	0.120	0.012	0.229	0.029
Finance	0.036	0.006	0.039	0.007	0.022	0.009
Manufacturing	0.102	0.010	0.104	0.011	0.097	0.019
Retail	0.292	0.014	0.295	0.016	0.281	0.029
Services	0.234	0.013	0.242	0.015	0.202	0.024
Transportation	0.074	0.007	0.079	0.009	0.054	0.011
Wholesale	0.120	0.011	0.121	0.012	0.114	0.020

Table 16
Odds of Bankruptcy Filings

	(1) Bankruptcy Exits v. State Exits (Sample 1)	(2) Bankruptcy Exits v. State Exits (Sample 1)	(3) Bankruptcy Exits v. State Exits (Sample 2)	(4) All Bankruptcies v. State Exits (Samples 2 & 3)
Any UCC filings	1.797*** [0.008]	2.163*** [0.003]	2.106*** [0.000]	2.140*** [0.000]
Any liens imposed	1.771** [0.014]	1.706** [0.039]	1.426** [0.038]	1.474** [0.023]
Any suits/judgments	2.125*** [0.001]	1.665* [0.068]	1.148 [0.437]	1.048 [0.794]
Poor banking history	3.156*** [0.000]	3.242*** [0.000]	1.968*** [0.001]	1.899*** [0.002]
Poor trade credit history	0.566* [0.099]	0.681 [0.317]	0.641* [0.095]	0.652 [0.103]
Manager with prior business failures	1.041 [0.976]	0.869 [0.919]	0.232 [0.209]	0.229 [0.205]
Business with prior failures	4.590*** [0.001]	2.817** [0.032]	2.592*** [0.002]	2.498*** [0.002]
Years in distress	0.822* [0.072]	0.825 [0.153]		
Changed owner, location, name	0.855 [0.633]	0.989 [0.975]	1.226 [0.406]	1.207 [0.440]
Management tenure		1.151 [0.418]		
Annual sales (normalized)		0.933 [0.533]		
Employment	1.061 [0.269]	0.986 [0.909]	1.031 [0.429]	1.051 [0.218]

Table 16, continued
Odds of Bankruptcy Filings

	(1) Bankruptcy Exits v. State Exits (Sample 1)	(2) Bankruptcy Exits v. State Exits (Sample 1)	(3) Bankruptcy Exits v. State Exits (Sample 2)	(4) All Bankruptcies v. State Exits (Samples 2 & 3)
Multiple business lines	1.078 [0.775]	1.051 [0.852]	0.926 [0.687]	0.959 [0.825]
Run from owner's home	2.284* [0.052]	2.226* [0.069]	1.774** [0.042]	1.796** [0.035]
Owns real estate	1.155 [0.761]	1.164 [0.751]	1.597 [0.161]	1.545 [0.192]
Woman-owned	1.308 [0.361]	1.093 [0.770]	1.513** [0.050]	1.595** [0.028]
Minority-owned	1.131 [0.713]	1.143 [0.697]	1.094 [0.738]	1.059 [0.831]
Finance	0.096** [0.028]	0.106** [0.037]	0.343** [0.037]	0.335** [0.032]
Manufacturing	0.577 [0.139]	0.571 [0.157]	0.403*** [0.003]	0.399*** [0.003]
Retail	1.008 [0.979]	1.037 [0.914]	0.590** [0.029]	0.592** [0.029]
Services	0.711 [0.273]	0.514* [0.062]	0.456*** [0.001]	0.451*** [0.001]
Transportation	0.366** [0.025]	0.340** [0.025]	0.334*** [0.000]	0.325*** [0.000]
Wholesale	0.498* [0.065]	0.467* [0.058]	0.478*** [0.009]	0.471*** [0.008]
Observations	749	559	1417	1423

Note: Robust p values in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 17
Average Marginal Effects on the Odds of Bankruptcy Filings

	(1) Bankruptcy Exits v. State Exits (Sample 1)	(2) Bankruptcy Exits v. State Exits (Sample 1)	(3) Bankruptcy Exits v. State Exits (Sample 2)	(4) All Bankruptcies v. State Exits (Samples 2 & 3)
Any UCC filings	0.063	0.093	0.110	0.113
Any liens imposed	0.065	0.069	0.055	0.061
Any suits/judgments	0.078	0.061	0.021	0.007
Poor banking history	0.123	0.146	0.101	0.097
Poor trade credit history	-0.069	-0.052	-0.072	-0.069
Manager with prior business failures	0.004	-0.017	-0.148	-0.150
Business with prior failures	0.239	0.166	0.176	0.169
Years in distress	-0.022	-0.024		
Changed owner, location, name	-0.017	-0.001	0.032	0.030
Management tenure		0.018		
Annual sales (normalized)		-0.009		
Employment	0.006	-0.002	0.005	0.008
Multiple business lines	0.008	0.006	-0.012	-0.006
Run from owner's home	0.111	0.121	0.098	0.101
Owens real estate	0.016	0.020	0.079	0.073
Woman-owned	0.031	0.012	0.068	0.078
Minority-owned	0.014	0.018	0.014	0.009
Finance	-0.131	-0.152	-0.123	-0.127
Manufacturing	-0.053	-0.063	-0.114	-0.116
Retail	0.001	0.005	-0.076	-0.076
Services	-0.036	-0.077	-0.108	-0.110
Transportation	-0.085	-0.105	-0.130	-0.134
Wholesale	-0.065	-0.082	-0.096	-0.099

Note: average marginal effects were computed using the `margeff` command in STATA.

Table 18
Odds of Bankruptcy Filings, Corporations

	(1) Bankruptcy Exits v. State Exits (Sample 1)	(2) Bankruptcy Exits v. State Exits (Sample 1)	(3) Bankruptcy Exits v. State Exits (Sample 2)	(4) All Bankruptcies v. State Exits (Samples 2 & 3)
Any UCC filings	2.522*** [0.005]	2.714*** [0.006]	2.974*** [0.000]	3.004*** [0.000]
Any liens imposed	2.085** [0.016]	1.875* [0.054]	1.253 [0.281]	1.297 [0.209]
Any suits/judgments	2.007** [0.037]	1.889* [0.088]	1.041 [0.873]	0.897 [0.661]
Poor banking history	3.722*** [0.000]	3.675*** [0.001]	1.805** [0.017]	1.719** [0.025]
Poor trade credit history	0.621 [0.336]	0.723 [0.547]	0.844 [0.636]	0.848 [0.637]
Manager with prior business failures	1.646 [0.738]	1.542 [0.779]	0.261 [0.244]	0.256 [0.239]
Business with prior failures	4.548*** [0.002]	4.155*** [0.005]	2.707*** [0.002]	2.580*** [0.003]
Years in distress	0.636*** [0.004]	0.643** [0.011]		
Changed owner, location, name	0.614 [0.262]	0.654 [0.344]	1.227 [0.485]	1.203 [0.522]
Management tenure		1.122 [0.598]		
Annual sales (normalized)		0.961 [0.796]		
Employment	1.047 [0.575]	1.048 [0.803]	0.973 [0.610]	1.001 [0.986]

Table 18
Odds of Bankruptcy Filings, Corporations--continued

	(1) Bankruptcy Exits v. State Exits (Sample 1)	(2) Bankruptcy Exits v. State Exits (Sample 1)	(3) Bankruptcy Exits v. State Exits (Sample 2)	(4) All Bankruptcies v. State Exits (Samples 2 & 3)
Multiple business lines	1.064 [0.841]	1.044 [0.890]	0.964 [0.866]	0.998 [0.992]
Run from owner's home	1.357 [0.607]	1.408 [0.566]	1.237 [0.580]	1.287 [0.499]
Owns real estate	1.412 [0.529]	1.423 [0.529]	1.456 [0.263]	1.395 [0.322]
Woman-owned	0.853 [0.680]	0.796 [0.561]	1.532 [0.108]	1.641* [0.063]
Minority-owned	1.317 [0.520]	1.279 [0.581]	1.148 [0.659]	1.101 [0.759]
Finance	0.414** [0.033]	0.381** [0.042]	0.349*** [0.002]	0.345*** [0.001]
Manufacturing	0.624 [0.262]	0.604 [0.247]	0.490** [0.019]	0.493** [0.019]
Retail	0.525 [0.106]	0.411** [0.048]	0.469** [0.012]	0.461*** [0.009]
Services	0.223*** [0.009]	0.185*** [0.007]	0.330*** [0.001]	0.315*** [0.001]
Transportation	0.443* [0.067]	0.406** [0.049]	0.440** [0.011]	0.433*** [0.009]
Wholesale			0.287* [0.054]	0.273** [0.044]
Observations	407	368	872	878

Note: Robust p values in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 19
Odds of Bankruptcy Filings, Non-Corporations

	(1) Bankruptcy Exits v. State Exits (Sample 1)	(2) Bankruptcy Exits v. State Exits (Sample 1)	(3) Bankruptcy Exits v. State Exits, (Sample 2)
Any UCC filings	1.615 [0.145]	2.201 [0.119]	1.272 [0.345]
Any liens imposed	1.985 [0.107]	1.822 [0.325]	2.451*** [0.005]
Any suits/judgments	2.613** [0.011]	1.794 [0.266]	1.226 [0.430]
Poor banking history	2.613* [0.055]	4.036*** [0.009]	3.306*** [0.005]
Poor trade credit history	0.618 [0.340]	0.467 [0.218]	0.327** [0.015]
Manager with prior business failures			
Business with prior failures	11.885* [0.060]	0.371 [0.579]	1.881 [0.540]
Years in distress	1.033 [0.886]	1.130 [0.733]	
Changed owner, location, name	0.983 [0.971]	1.218 [0.731]	1.234 [0.556]
Management tenure		1.408 [0.339]	
Annual sales (normalized)		0.904 [0.641]	
Employment	1.223** [0.019]	1.146 [0.444]	1.173** [0.010]

Table 19, continued
Odds of Bankruptcy Filings, Non-Corporations--continued

	(1) Bankruptcy Exits v. State Exits (Sample 1)	(2) Bankruptcy Exits v. State Exits (Sample 1)	(3) Bankruptcy Exits v. State Exits, (Sample 2)
Multiple business lines	1.371 [0.545]	0.979 [0.974]	0.650 [0.313]
Run from owner's home	4.482** [0.013]	4.885** [0.014]	2.928** [0.010]
Owns real estate	0.351 [0.460]	0.410 [0.546]	4.021* [0.096]
Woman-owned	2.189** [0.049]	1.239 [0.693]	1.474 [0.237]
Minority-owned	0.891 [0.859]	0.644 [0.548]	0.720 [0.548]
Finance	0.661 [0.719]	0.703 [0.774]	0.543 [0.398]
Manufacturing	1.548 [0.657]	1.815 [0.612]	0.617 [0.586]
Retail	2.471 [0.138]	3.038 [0.143]	0.961 [0.922]
Services	1.617 [0.439]	1.054 [0.947]	0.517* [0.096]
Transportation	0.921 [0.925]	1.298 [0.793]	0.433 [0.194]
Wholesale	0.299 [0.293]	0.450 [0.488]	0.421 [0.132]
Observations	326	180	545

Note: Robust p values in brackets; * significant at 10%; ** significant at 5%; *** significant at 1%. The variable “Manager with prior business failures” is dropped due to multicollinearity.