FINANCIAL DIFFICULTIES OF SMALL BUSINESSES AND REASONS FOR THEIR FAILURE

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Executive Summary

The authors report here early data from a longitudinal study of 3,377 non-farm business bankruptcies filed in the United States during calendar year 1994. One-third of the sample cases comes from each of three non-farm business bankruptcy options: Chapter 7, Chapter 11, and Chapter 13. Chapter 7 is usually conceptualized as a liquidation bankruptcy in which assets are sold to pay debts; it is open to both natural persons and to corporate persons. Three-fourths of the Chapter 7 business filings were made by natural persons. Chapter 11 is usually conceptualized as a business reorganization, and requires an approved plan filed with the court. Chapter 11 is open to both natural persons and to corporate persons, and about three-tenths of the filings were made by natural persons. Chapter 13 is also a reorganization option for debtors who promise to repay some or all of their debt within a three-to-five year period, and it is open only to natural persons.

The database represents all of the divisions within twenty-three federal districts that were chosen to represent all judicial circuits and one proposed new circuit. The sample includes both districts with large numbers of business cases and those with small numbers of cases. It also includes districts experimenting with innovative methods of case management. The sample encompasses up to 50 cases in each chapter in each district, selected from each calendar quarter in 1994.

The court record data were supplemented with a telephone survey of 834 debtors (25% of sample) from all chapters. Most of the non-respondents could not be located after multiple efforts. For comparative purposes, we also present data for Chapter 13s (both non-business and business cases) collected in 1998 by the Honorable Barbara Sellers for one division in the Southern District of Ohio.

Although the bankruptcy policy discussions have focused on large companies, the great majority of companies in bankruptcy are small businesses. The median assets of the businesses in the sample were a little less than $95,000. The Chapter 13 businesses were close to the overall median, with median assets of $96,000 compared with median assets of $26,000 in Chapter 7 cases and median assets of $360,000 in Chapter 11 cases. Fewer than 4% of the sample had assets in excess of five million dollars.

The median liabilities for the entire sample were $167,000, with $107,700 in Chapter 13, $125,800 in Chapter 7, and $520,500 in Chapter 11. A comparison of the business Chapter 13s with the Southern District of Ohio's mix of business and personal Chapter 13s showed the business debtors to have significantly higher debts than the consumers ($107,500 versus $60,100). This difference is apparently attributable to higher levels of secured debt among the debtors in business 13's. Nevertheless, debts in Chapter 13 cases remain significantly lower than those for the business sample as a whole.

After one year, 70% of Chapter 11 cases and 60% of Chapter 13 cases had been dismissed, often indicating the failure of their efforts to reorganize. There was no significant difference in dismissal rates by amount of assets.

We could estimate potential recoveries for the corporate Chapter 7 cases based on a comparison of liabilities with assets. This comparison indicated that roughly half of the cases could reimburse secured creditors in full, with median recovery to unsecured creditors about 8% of the unsecured debt scheduled.

About one-third of the businesses had no employees. Chapter 13 cases were the least likely to indicate an employee. The remaining two-thirds of all businesses in bankruptcy had 55,082 employees, of which the Chapter 11 filers employed 52,110. A cautious extrapolation of these data to the United States labor force suggests that as many as two million workers might have worked for a business declaring bankruptcy in 1994.

Responses to the telephone survey indicated that the most likely reason for bankruptcy, given by 38.5% of respondents, was outside business conditions (such as new competition or increased cost of doing business). More than one quarter of the sample reported financing problems or inside business conditions (such as high accounts receivable or mismanagement). Tax issues were cited by 20% of the sample, and almost 19% reported a dispute with a particular creditor. Almost 17% of the debtors cited a personal issue, such as the illness or divorce of the business owner, and almost ten percent reported a business calamity such as an industrial accident or theft.

About 57% of these businesses remained open in 1994 the hope of surviving. By the time of our second survey approximately eighteen months after filing, 43% of the businesses were still going concerns. Almost 70% of the Chapter 7 filers had closed their businesses. Three-quarters of the Chapter 11 filers and two-thirds of the Chapter 13 filers were still open for business. The businesses that remained in operation tended to be somewhat older, with a modal age of ten years.

While other businesses had closed, 13% of their owners have begun a new business and 11% are in the planning stages to do so. The report supports the view that there is a cadre of devoted entrepreneurs committed to achieving success in their own businesses despite the bankruptcy of a prior attempt. It also reveals that most of these small business people are not novices, but experienced businessmen and women. Three-fourths of the sample reported previous experience with a similar business. On the other hand, the study found that the personal and business lives and problems of these entrepreneurs are closely linked, with business problems and personal problems in intimate interaction.

Analysis of the business bankruptcy system has often been confined to large and publicly-held companies. Some commentators seriously proposed that bankruptcy be made less available to small business debtors, with the suggestion sometimes being made that the debtors are callow amateurs. The data reveal experienced entrepreneurs who face both personal and business difficulties. The data indicate that the bankruptcy system serves many thousands of small businesses, and that many of the lenders to these businesses are often well-protected by security interests. The data also indicate that the implications of the bankruptcy of small businesses extend well beyond the families of the debtors to include employees, unsecured creditors, and customers.

I. Scope of the Project

The SBA Project, SBA 95-0403, examines some of the sequellae of bankruptcy for a large sample of businesses that filed for bankruptcy during calendar 1994. It is wrapped in a much larger study, the Business Bankruptcy Project (BBP), which is following 3400 business bankruptcy cases. The BBP receives primary funding from the National Conference of Bankruptcy Judges, making previously unavailable data accessible at a very small marginal cost. In some respects, this report follows and develops an earlier SBA study, The Function of Failure (SBA 6644-OA-91), a study of court records and a questionnaire survey in one Division of one federal court district, the Rockville Division of the District of Maryland. The BBP covers all divisions in twenty-three federal court districts across the United States, including the District of Maryland. Another distinction between the two studies is that the earlier SBA study was limited to Chapter 7 liquidations, while the current Project includes all three chapters in which a nonfarm business might be filed in bankruptcy: Chapters 7, 11, and 13.

A very simple summary of the legal alternatives begins with the fact that a small business may use one of three bankruptcy chapters: Chapters 7, 11, and 13. They represent two basic alternatives: liquidation or a payout plan. Chapter 7 is for liquidation. For an unincorporated proprietor, it grants a legal discharge from most debts in exchange for surrender to a court-appointed trustee of all non-exempt assets. The trustee sells the assets and distributes the proceeds to creditors according to a statutory scheme of priorities. There is no discharge for a corporation, so Chapter 7 serves merely as a vehicle for the liquidation of the business it represents. Chapter 7 establishes for business creditors a baseline of the amounts they will receive if a business cannot be rescued.

Chapters 11 and 13, by contrast, are used to attempt to rescue a business that is in financial difficulty. The filing of either type of case triggers an automatic stay that freezes collection activities and gives the debtor a chance to address business problems (for example, closing unprofitable locations) while preparing a plan for paying creditors. Typically, a payment (or "reorganization") plan provides for only partial payment over an extended period of time. These chapters may nonetheless be attractive to creditors, because they offer the hope of a greater return than the creditors would receive in a liquidation. They also give creditors the possibility of retaining a customer for the long term.

The three most crucial differences between Chapter 11 and Chapter 13 are:

a) Chapter 13 is limited to natural persons, while both individuals and companies may use Chapter 11;

b) Chapter 13 is also limited to persons with very small businesses, in 1994 to those who owed less than $350,000 secured and $100,000 unsecured,[*] while Chapter 11 has no debt limits;

c) On the one hand, Chapter 13 payout plans are governed by fixed statutory requirements, while Chapter 11 plans are much more flexible, but on the other, Chapter 13 plans require

[*] During the last two months of 1994, the limits increased for new cases to $750,000 and $200,000. Congress has also added an inflation adjustment. The present limits are $807,750 secured and $269,250 unsecured debts.

only court approval while Chapter 11 plans require approval by both creditors and the court.

The BBP is a long-term study of cases first filed in calendar year 1994. It will follow those cases for at least five years, until the year 2000. This report includes all the data gathered to date. The telephone-survey data reported here are taken from the first two of three projected surveys over all 23 federal districts. Because the court-files data are also gathered on an ongoing basis, the court files data reported here cover a varying number of districts as the data have been gathered over time. Most tables in this report cover fourteen districts. In general, however, the analysis to date suggests that major conclusions have held steady as the data bases have been updated.

II. Methods of Study

A. General Approach [1]

Analysts of business bankruptcy have generally been most interested in the reorganization or liquidation of relatively large businesses that may affect many employees, many other businesses, and a regional or even national economy. Case studies have been a common method for such studies,[2] although Professor Lynn LoPucki is compiling a database of publicly traded companies in Chapter 11. Such studies focus on the few multimillion dollar cases, overlooking the routine cases of relatively small businesses. In this research we seek to redress this imbalance by examining a cross-section of all business bankruptcy cases. Of necessity, this cross-section contains many relatively small businesses and their owners and only a few large businesses.

It would be prohibitively expensive to study the universe of every business bankruptcy filed within the United States during a year. The alternative we use is the selection of a representative sample of cases. For this purpose, we have taken a sample from business bankruptcy cases filed during 1994 in twenty-three federal judicial districts, choosing high and low filing districts in each federal appellate circuit. The Business Bankruptcy Project collected two types of data: information coded from the documents filed in the bankruptcy courts, under penalty of perjury, in twenty-three federal districts, and information collected by telephone surveys with the bankruptcy petitioners or their representative.

B. Sample Design

The ideal way to sample business bankruptcies would be to use a random sample, but the contingencies of time and space mitigate against a true random sample. In terms of time, a true random sample would require foreknowledge of every business bankruptcy to be filed within the study's time framework, so that each case would have an equal chance of being selected. Alternatively, we could have waited until 1994 ended and all of the cases had been filed. We did not choose to wait until the end of 1994 because of our desire to contact the debtors by telephone; the longer we waited to draw our sample, the harder it would be to make personal contact with the debtors.

In terms of geographic space, a literal random sample of bankruptcies would have researchers covering every possible venue within the United States and territories. This approach is nearly as economically and logistically impractical as studying the universe of business bankruptcies. In the absence -- so far -- of a national registry of bankruptcy filings, no simple

means of pulling this true random sample now exists.

An approximation to random sampling is systematic sampling with particular sites. The sites themselves can be chosen randomly, an approach that is often taken with large national surveys that sample Primary Sampling Units, which are large geographic areas with equal probability of falling into the sample. Sites may also be chosen for a particular purpose, such as representing some important aspect of geographic diversity or minimizing travel costs. The cases themselves are sampled, again with the intention of giving each member an equal probability of selection. A random sample can be approximated by a systematic sample -- for example, taking a random start within the first x cases and then selecting every xth case from a list that contains every case filed. The number x is a function is of the desired sample size. This procedure approximates randomness because there is no selection about which particular case will fall into the sample.

For the Business Bankruptcy Project, we have tried to retain the advantages of sampling, while limiting the locations at which we will collect data to a manageable number of sites. We have clustered our sample in 23 of the 94 federal judicial districts as the sites for our study; in each site we have sampled 150 cases. In principle, this procedure should have yielded a sample size of 3,450 cases. As we explain below, the actual number is somewhat different. The district sites selected take account of some of the major sources of heterogeneity that could be foreseen at the beginning of the study. Our strata take account of the following: judicial circuit; the relative number of filings within the district (high-filing versus low-filing); the distribution of filings among the different kinds of business bankruptcies (Chapter 7, Chapter 11, Chapter 13), and case management practices. The two most important methodological decisions we have had to make are: (1) how to select the districts, and (2) how to select the cases within each district.

Our first decision was to represent each circuit. Circuit-level rulings are a conceivable influence on the operation of the courts. In addition, this criterion gave us a suitable geographic distribution of districts, and also tended to represent equally the parts of the country that are experiencing good economic times and those that are in regional recessions. There are currently eleven judicial circuits, but a proposal has been pending for some years to divide the Ninth Circuit to create a new Twelfth Circuit. Twenty-two of our districts come from the existing eleven districts. We added a twenty-third district, the Western District of Washington, because it would be the high-filing district if the proposed Twelfth Circuit were to be created.

A second determination was to use the federal judicial district as the primary sampling site. We have previously demonstrated that districts vary greatly from one another in the proportions of filings in various chapters, and these patterns show strong historical continuities but are not otherwise explainable by state or federal laws.[3] Within each judicial circuit, we established as a criterion the selection of the district with the largest number of business filings, and the district with the smallest number of business filings that would still yield at least fifty cases in Chapter 11 during the first year of the study.

We determined the districts to be chosen from information on the numbers of cases filed and the filings by chapter published by the Administrative Office of the United States Courts (AO) for 1993. Our previous finding of a high correlation between the number and chapter of filings in one year and the same data in subsequent years suggested that 1993 filings would be an adequate guide to 1994 filings. We should also note that the Administrative Office data are usually published by fiscal year, but for sample selection we used the calendar year 1994.

The districts selected are: California Central, Colorado, Connecticut, Delaware, Florida Middle, Georgia Middle, Hawaii, Illinois Northern, Louisiana Eastern, Maryland, Massachusetts, Michigan Eastern, Minnesota, Nebraska, New Hampshire, New Jersey, New York Southern , North Carolina Eastern , Oklahoma Western, Tennessee Western, Texas Northern, Washington Western, Wisconsin Eastern.

We ended up with four "low-filing" districts that were in fact not the lowest in their Circuits, but were the lowest in which we could reasonably expect sufficient Chapter 11s to study. In several of the districts it was apparent that we would not have sufficient Chapter 13s, even if we took every business Chapter 13 that was filed. Thus, from the outset we expected our sample of Chapter 13 cases to fall below the expected figure of 1,150 (50 x 23). We also picked the Eastern District of North Carolina, a district that deviated somewhat from our low-filing criterion for the Fourth Circuit, because of its well-known "fast-track" case management system. Including this district gives an opportunity to examine differences between cases filed in this district and in other districts in terms of time to completion and other variables of interest.

The choice of the high-filing districts had the advantage that a large proportion of all the business bankruptcies filed in the country during 1994 was eligible for the sample. During 1993, about 40 percent of all business bankruptcies were filed in our twelve high-filing districts. High-filing districts faced different contingencies that can be hypothesized to affect the functioning of the business bankruptcy system. In the high-filing districts, Clerks must receive, organize, and retrieve large amounts of data. The logistics of high-filing districts alone may mean that business bankruptcies are handled differently there than in districts with relatively few such cases. By deliberately sampling cases in low-filing districts as well, we could explore other possible sources of differences among cases. The low-filing districts may treat business bankruptcies differently -- perhaps there are differences in the speed, formality, and outcomes of these cases. Each of these differences could be predicted from organizational theory.

We also sampled within a time framework, calendar year 1994. Cases not filed in 1994 are not in our universe, even if they converted to Chapter 7 in 1994 and thus appear as a new filing. We cannot rule seasonality out for business cases, but by extending our study to an entire calendar year we have controlled for one type of seasonality.[4]

We still faced the practical problem that the cases had not yet been filed, so there was no way to sample systematically from a court's docket where case filings are recorded. Because of the need to contact debtors before their telephone numbers had changed, we did not have the option to wait for the end of the year to draw the sample. We needed to select our sample prospectively, rather than retrospectively as we have previously done to study nonbusiness cases. But we also needed a prospective technique that did not would not bias the results.

Our objective was a total of 150 cases in each district: 50 Chapter 7s, 50 Chapter 13s, and 50 Chapter 11s, divided into four business quarters. As we explain below, chapter is a critical variable and it was important to have enough cases from each chapter to study. A typical method of handling this problem is some form of quota sampling. A common problem with quota sampling, however, is that the researcher unintentionally distorts the process. Say, for example, that a researcher is asked to interview two people every hour during an eight-hour day. The interviewer might select subjects who look friendly and relaxed, and to skew the selection in terms of age, gender, race, and perhaps apparent socioeconomic status.[5] To select cases without inappropriately skewing the process, we established a neutral selection criterion of the first twelve or thirteen

independent cases filed during a business quarter within a specific chapter within a district. If within the first twelve cases there is a case that is linked to a preceding case (for example, several partners who have filed serially), we judged the second and all subsequent linked cases to be dependent on the first and the subsequent cases were therefore excluded from the twelve-case subsample. We did, however, scan the linked cases for later analysis.

Although the criterion of selecting the first 12 cases filed within a quarter is neutral, in the sense that we had no control over which cases are filed nor in what order, this criterion may also be biased in an unforeseen direction. Although we have so far been unable to detect evidence of a bias, it is possible that cases might be filed at the beginning of a business quarter because of time-bound economic circumstances. An example might be taxes that are due on a quarterly basis.[6]

A different problem is the pace of filings. In some high-filing districts our entire subsample for the quarter was filed within the first hour of the quarter. Moreover, with several divisions accepting filings simultaneously, it was practically impossible to determine which Chapter 7 filings were among 'the first thirteen' of the quarter. In these districts, we list all the cases filed early on the first day and sample randomly from this list to generate our sample of cases. One advantage of the division of the study into high-filing and low-filing districts is that in an eventual analysis we can compare cases filed early in the quarter (in the high-filing districts) with those filed later in the quarter (in the low-filing districts) to look for any more subtle biases.

One of the most important variables in business bankruptcy is chapter of filing. A corporation may file either a Chapter 7 liquidation or a Chapter 11 reorganization. A natural person who is a small business owner may file in Chapter 7 or Chapter 11 also, but has the additional choice in many instances of filing a Chapter 13 reorganization. The conventional wisdom is that Chapter 7 is filed when the business is closed or on the verge of closing and that the two reorganization chapters are used when the business attempts to survive by restructuring its debts (typically, by reducing its debts and extending the time for payment) and streamlining its operations. Because of the significance of chapter, we determined that our overall sample would require sufficient representation from each chapter for analysis. Our sampling framework was designed to ensure a sufficient number of cases in each chapter for comparative analysis. Even if a case were subsequently converted to another chapter or dismissed, we retained it in the data base under its chapter of original filing.

Because a substantial majority of the cases filed under Chapters 7 and 13 are consumer bankruptcies with no business-related debt, and even some Chapter 11 cases are in the consumer category, it was necessary for us to identify the business cases. There is a business designation in the records, but recent research, including an LL.M. thesis project subsequently published by a graduate student assistant in this Project, shows that the designation in the records is often inaccurate.[7] As a result of these ambiguities, we had to develop and apply our own protocol for determining business cases.

To meet the criteria for inclusion in our sample, a case had to meet at least one of the following tests: 1) it was listed by the Clerk of the Bankruptcy Court (the public official designated to receive such filings) as a business case; or 2) the lawyer indicated that the case was a business case on the face sheet of the filing; or 3) there was a business style in the name of the petitioner (e.g., "Corp.," "Co.") or the petitioner listed a "doing business as" or similar designation.

The processes of "listing" and selecting our cases for study were facilitated by access to the

computer databases available in most bankruptcy courts -- either the PACER or NIBS systems. This "virtual docket" allowed us to apply simultaneously our criteria for a business case. In a high-filing district, we were able to list simultaneously-filed cases for random selection, and in a low-filing district we could scan filings throughout the quarter until we reached the number of cases needed to complete the sample. This process yielded a case base of 3,284 cases. The virtual docket allowed us to date important events within the case electronically.

C. Court Records

Once the sample was drawn, we sent research assistants to the relevant courthouses to scan the records of the case and any related cases into an imaged file. As 1994 progressed, the assistants might visit a courthouse multiple times to retrieve additional cases. Inevitably, especially in courthouses with limited storage areas, some cases were closed before we reached the courthouse. In these instances, we retrieved the files from federal warehouses. The District of Hawaii fell into our sample, and the bankruptcy judges in that district generously sent the cases that fell into our sample to the mainland so that we could scan them and return them at a lower cost.

A handful of cases in our sample were subsequently transferred to districts not in our sample. Where possible we have tried to follow the cases, often asking the assistance of the judge and Clerk in locating the single file. There are a few cases whose files neither we nor the Clerks have been able to locate.

The imaged files are then coded, following a standard codebook we have developed, and the coded data are entered into a machine-readable database. The data presented in this report have been analyzed using the Statistical Package for the Social Sciences (SPSS).

At later stages in the study, we hope to revisit the courthouses to update our records on cases that are still open. A large number of the cases are already closed, but those that are still open are of particular interest because they are likely to be large, complex, or legally interesting. We also intend to have a more advanced coding done, by trained law students, that will examine more closely the reorganization plans and several other variables of legal interest.

D. Debtor Surveys

In addition to examining court documents, we are interviewing the debtors during the course of their bankruptcy. Debtor surveys give us the opportunity to view the bankruptcy from a different perspective and to gain access to information not normally available in the files, such as the changes in the number of workers employed. In our initial telephone surveys, we were able to locate and to interview 834 debtors of the sample of 3,377 (25%). The others have proven impossible to locate, despite up to seven attempted telephone contacts, letters to the Debtor and to the Trustee and use of commercial locator services. Many of the businesses in the sample had already closed their doors. Some business owners, but not many, refused to talk with us; in some cases, we were able to conduct an interview with their attorneys. In the great majority of cases, failure to conduct an interview was a function of inability to find a current telephone number.[8]

The first telephone interview was conducted within approximately six months of the bankruptcy filing, or between June, 1994 and June, 1995, depending on when the case was filed.

Our preferred reaction was to have the respondent agree immediately to the interview, but we provided respondents with several alternative response modalities: answering by mail, calling us back at a toll-free number, or making an appointment to speak with us by telephone. When we could not locate the bankruptcy petitioners by telephone, we wrote to them at the addresses listed in their petitions to secure their cooperation. In writing, we were careful to use techniques that have previously been used to increase response, including the use of university letterhead, the use of commemorative postage stamps (instead of metering), and the inclusion of a dollar bill as compensation for the respondent's time.

When we reached telephone respondents, our research assistants directly entered discrete responses into a data base. Open-ended responses were typed verbatim for later coding. We also informed petitioners that we would like to have additional interviews and asked for the best means to contact them in the future.

The respondents were the petitioner in about two-thirds of the cases (67.4%), the attorney of the petitioner in about one-sixth of the cases (16.8%), an employee of the petitioner in 6.1% of the cases, and some other person (such as a family member) in the remaining 7.4% cases. In the remaining 2.4% cases, the identity of the respondent is unclear. This anomalous result could happen if the source of a survey was a mailed questionnaire, and it was not clear who had completed the questionnaire.

About one year after our first interview we contacted the debtors for a second interview. We had another substantial attrition, with about 45% of our earlier respondents represented in the second phone survey. Again, the attrition did not result primarily from refusals but from our difficulties in locating the debtors. Of the petitioners who completed the second survey, roughly one-third had petitioned in Chapter 7 (33.7%). Nearly 40% were in Chapter 11 (38.7%). The remaining quarter of the cases (27.6%), were in Chapter 13, the chapter for which we expected a lower number of cases in the sample. An examination of the geographic origin of the respondents did not reveal a clear pattern of regional bias in the attrition.

The data in this report are taken from both the imaged court records and the two rounds of telephone surveys. A third round of telephone surveys is scheduled to begin this fall.

III. Analysis of the File Data: Small Businesses in Bankruptcy

The only large-scale empirical look at business bankruptcies in recent years examined public companies only. The availability of information about large companies while the rest of the system remains opaque exacerbates the tendency of policy makers to envision huge Chapter 11 cases when they make any careful consideration bankruptcy reform. In fact, our data show that the business bankruptcy process is dominated by small businesses.

There are many different measures of a company's size. Typical ones are assets, debt, and number of employees. This section focuses on assets and debts as measures of size. The court files do not reliably reveal the number of employees, so that information was gathered and is reported in the section on our survey results.

A. Assets

Tables 1 and 2 give a graphic representation of what the debtors have when they come to the bankruptcy courthouse. Overall, more than half (51.5%) of the companies served by the bankruptcy system schedule less than $100,000 in assets at the time of filing.[9] Only 15% have more than $500,000 in total assets and about 10% have as much as $1 million of assets. Just as the great majority of businesses in the United States are small businesses, so are the great majority of businesses in bankruptcy. When the assets are added together for all the debtors, the mean (average) asset level is $840,868. But that number is inflated by the few cases with very large assets. The median (middle) asset level is a more modest $94,757.

Table 1. TOTAL ASSETS OF BANKRUPT BUSINESSES IN 14 DISTRICTS, 1994

Total Assets	
Mean	$ 840,868
Standard Deviation	$4,309,798
25th Percentile	$ 17,235
Median	$ 94,757
75th Percentile	$ 254,196
Valid N	1,624
Missing	227

Source: Business Bankruptcy Study
Note: Missing cases did not report assets

Table 2. TOTAL ASSETS OF BANKRUPT BUSINESSES IN 14 DISTRICTS, 1994

Total Assets	Frequency	Percent (cumulative)
Under $100K	836	51.5%
Under $500K	1,369	84.3%
Under $1M	1,462	90.0%
Under $5M	1,571	96.7%
$5M or more	53	3.3%
Total	1,624	100.0%

Missing = 227
Source: Business Bankruptcy Study

Because our figures are based directly on the schedules that debtors are required to file under oath, they may well differ from those used in other studies that derive their data solely from the "face sheets" that a debtor's lawyer completes when a case is filed. We are also interested in the face sheet data and we report them in various ways, but unfortunately face-sheet data are subject to

more types of error than the schedules themselves. Recent work with partial data from the Business Bankruptcy Project has shown that face-sheet data on assets and debts may be materially different from the data on the schedules in perhaps 30 percent of the Chapter 11 and Chapter 13 business cases.[10]

The diversity of sizes of businesses and the high proportion of small businesses is particularly evident among the Chapter 7 cases. The businesses that choose to file in Chapter 7 in the first instance are nearly all concentrated among the smallest businesses in bankruptcy. Only 5% of the businesses that file initially in Chapter 7 have assets over $500,000. The median asset value is only $26,100, with about 51% of the Chapter 7 filers listing less than $100,000 in assets.

Chapter 13 figures are very different from Chapter 11. Almost half of the Chapter 13 business cases schedule less than $100,000 in assets and almost all are below $500,000. The median asset value is $96,300. The lack of highest-end debtors is not surprising, given the debt limits in section 109(e), but the debt limits do not explain the concentration of cases with total debts under $100,000. By comparison, in Chapter 11, almost three-quarters of the cases exceed $100,000 in assets and more than 40% exceed $500,000. The median is $520,500. The differences are statistically significant.[11]

These figures reveal that business Chapter 13 serve very small businesses. The use of Chapter 13 for business reorganization has been largely ignored in the literature and in policy debates, but our data shows that it is of enormous significance to that large segment of the U.S. economy that is small business. Just in the last quarter of our survey year, the total debt limits on Chapter 13 were raised to $1 million, making it available to a much larger number of businesses than before. It is highly likely that it will become even more important as a method of small-business recovery. On the other hand, Congress still forecloses use of Chapter 13 to many small businesses by limiting it to natural persons. A small business that is incorporated may not use it, with the exception of "family farmers," who are permitted to use Chapter 12, which is simply an expanded version of Chapter 13.

B. Debts

We have also sized the debtors by the size of their debts, taking all debts, secured and unsecured, together. As with assets, we have taken the data on debts from the schedules filed by the debtors rather than from the face sheets, which are subject to substantial errors.[12]

Table 3 shows that nearly four out of every five businesses reported less than half a million dollars in liabilities, and one-third had less than one hundred thousand dollars in liabilities. At the other extreme, only 57 cases (3.5% of the sample) had liabilities in excess of five million dollars. These data are presented in slightly different format in Appendix Table A1.

Table 4 indicates that the mean debt is $1,103,487, while the median debt is a much more modest $166,577. Three-quarters of the businesses reported liabilities of $412,400 or less (the value of the 75th percentile). Thus, the value of the mean is heavily inflated by the one-quarter of the cases with liabilities greater than $412,400. Once again, the data show the overwhelming presence of small businesses in both liquidation and reorganization.

Table 3. TOTAL LIABILITIES OF BANKRUPT BUSINESS IN 14 DISTRICTS, 1994.

Total Liabilities	Frequency	Percent (cumulative)
Under $100K	534	33.1%
Under $500K	742	79.2
Under $1M	128	87.1
Under $2M	78	91.9
Under $4M	52	95.1
Under $5M	20	96.3
Over $5M	57	100.0
TOTAL	1,611	99.8%

Missing=240

Source: Business Bankruptcy Study
Note: Missing cases did not report a value for total liabilities.

Table 4. TOTAL LIABILITIES OF BANKRUPT BUSINESSES IN 14 DISTRICTS, 1994

Total Liabilities	
Mean	$1,103,487
Standard Deviation	$6,475,462
25th Percentile	$ 75,069
Median	$ 166,577
75th Percentile	$ 412,438
Valid N	1,611
Missing	240

Source: Business Bankruptcy Study
Note: Missing cases did not report a value for total liabilities.

C. Personal Debt and Business Debt--The Chapter 13 Experience

Bankruptcy Clerks currently classify Chapter 13 cases as business or nonbusiness cases. As we noted in the methods section, we believe that this distinction is not always clear, and yet it seems likely that the Chapter 13 of a business owner will look considerably different from that of a Chapter 13 consumer petitioner. We have an opportunity to investigate this difference by use of a supplementary data set from the Southern District of Ohio. This data set, which was collected and coded by the Honorable Barbara Sellers, is used with her permission. Her data were collected in

1998 and represent a universe of the Chapter 13 cases she saw rather than a sample.[13] This means that her sample includes both business cases and consumer cases--all cases that were filed in Chapter 13. The Business Bankruptcy Sample, by contrast, includes only Chapter 13 cases that were designated as business cases.

We would generally expect business debtors to report much higher levels of debt than consumers. After all, businesses have overhead, debts for inventory and payroll, and many other expenses. If the cash flow is constricted for some reason, the business will be in trouble. By contrast, consumers might be able to operate with lower fixed costs and more ability to cut consumption when income gets tight. The data support the inference that the businesses are reporting much higher total debt, secured debt, and priority unsecured debt. Perhaps surprisingly, however, the gap in terms of non-priority unsecured debt is much lower.

Table 5 compares debt in Judge Sellers' Chapter 13 cases with the sample of business 13s from the Business Bankruptcy Project. The mean total debt in the business cases was $145,500, compared with nearly $82,000 in the general Chapter 13 sample. The median debt was $107,500 for the business debtors versus $60,089 for the Ohio debtors. Although statistical inferences from this comparison should be cautiously interpreted, the t-test showed the difference to be real and not due to chance.[14] The debts are reported in nominal dollars; if the Business Bankruptcy Project data were adjusted to reflect the effects of inflation since 1994, the differences would be even larger, so the lack of correction for inflation is actually a conservative measure of the differences between business 13s and the typical mix of consumer and business Chapter 13 cases.

Table 5 also shows similar results for three other types of debt: secured debt, unsecured priority debt (often taxes, although unpaid wages may also be a priority debt of business owners), and unsecured non-priority debt. For secured debt, the businesses report a mean of nearly $104,000 versus only $55,000 for the general Chapter 13s; the differences at the median are equally stark. For priority debt, in addition to a large difference in the mean, there is a median debt of over $2,000 for the businesses and zero for the general Chapter 13 group. For secured debt and priority debt, the differences in the means are statistically significant.[15]

Table 5. TYPES DEBT REPORTED, BUSINESS CH. 13 CASES IN 23 DISTRICTS AND CHAPTER 13 CASES IN SOUTHERN DISTRICT OF OHIO

	Business-Only Chapter 13's 23 districts	Cross Section of All Chapter 13's Southern District of Ohio
Total Debt		
Mean	$145,497	$ 81,898
Secured Debt		
Mean	$103,794	$ 54,527
Unsecured Priority Debt		
Mean	$ 11,387	$ 2,969

Unsecured Non-Priority Debt		
Mean	$ 30,897	$24,674
Valid N	700	200
Missing	1850	0

SOURCE: Business Bankruptcy Study; Sellers Study of Southern District of Ohio
NOTES: Missing cases include all cases filed in Chapters 7 and 11

There is an interesting difference in the unsecured debt, however. There the mean for businesses is $31,000 and for the general group it is $25,000. The statistical difference is still significant[16] under the assumption of unequal variances (which is statistically supported). But under the assumption of equal variances -- an alternative procedure for t-tests -- the difference is no longer significant.[17] A closer inspection of the data (presented in greater detail in Appendix Table A3) show the reason for the statistical result. At the median for unsecured debt, the values of the two groups have drawn much closer together: $18,000 and $17,000 respectively. And in a reversal of the usual finding that the business debtors report more debt, at the first quartile the business owners actually report less unsecured debt than the general sample of Chapter 13 filers Of course consumers are currently incurring high levels of unsecured debt through credit cards, but it is surprising that up to the median of both groups there is so much similarity in terms of the amounts of unsecured debt incurred.

Table 6 presents monthly income figures for the two groups of Chapter 13 petitioners. As might be expected, reported income is relatively modest for both groups, but what is more surprising is that the income level of the two groups does not differ statistically.[18] At the mean both groups earn about $2,200 a month, and at the median both groups report $1,800 in income. Even at the 75th percentile -- the best off of these petitioners in terms of income -- the difference favors the business owners by only about $500 a month.

Table 6. MONTHLY INCOME, BUSINESS CH. 13 CASES IN 23 DISTRICTS AND CHAPTER 13 CASES IN SOUTHERN DISTRICT OF OHIO

	Business-Only Chapter 13's, 23 districts	Cross Section of All Chapter 13's, Southern District of Ohio
Secured Debt		
Mean	$2,244	$2,106
Std Deviation	$2,637	$ 910
Percentile 25	$ 769	$1,490
Median	$ 1,878	$1,862
Percentile 75	$ 3,000	$2,516

Valid N		709	100
Missing	176		

Source: Business Bankruptcy Study

Thus, the difference between personal and business Chapter 13s appears to be principally a matter of the much higher secured debt of the business owners. Although the business owners also carry more priority debt, the sum is relatively small in comparison with the secured debt. The two groups are much closer to each other in terms of unsecured non-priority debt, and indistinguishable in terms of monthly income. These data indicate that the individuals who file business Chapter 13s are worse off than the individuals who file nonbusiness 13s, although neither group could be called well off. An issue for further consideration is how reasonable the expectation of reorganization is for those business owners who owe 5.4 times their annual income in debt; the mean income versus the mean debt.[19]

D. Corporations Versus Natural Persons

Only one quarter of the debtors who file initially in Chapter 7 are corporations, while just over one quarter of the Chapter 11 debtors are not.[20] We were surprised to find that 30% of the Chapter 11 business debtors are natural persons, because most commentary on Chapter 11 seems to assume that it is used principally by corporate persons. Some of the natural persons whom we identified as Chapter 11 filers did use some corporate style, such as a doing-business-as designation, but a natural person was still integrally involved in the filing of the case.

Excluding consumer cases, in sixteen districts[21] the sample selection yielded 478 processed Chapter 11 business cases, of which 142 (or 30%) were filed by natural persons. Chapter 11 has been developed, analyzed, and criticized almost entirely from the perspective of corporate use. Our data show clearly that the use of Chapter 11 by small business individuals is large and important. The distorted focus on larger businesses and the assumption of incorporation has seriously obscured these important facts about small business.

As our earlier work suggested,[22] business and consumer cases tend to overlap substantially in the case of small business owners, whether or not the business itself is incorporated. If our figures are representative of national trends, then in 1997 2,848 of the 9,694 business reorganization cases filed in Chapters 11 were business-consumer cases filed by natural persons. When one adds the 11,095 business Chapter 13 cases reported by the Administrative Office of the Courts,[23] it would mean that about 65% of all business reorganizations last year would have been of the combined consumer-business variety filed by individuals.

We cannot be sure our figures on Chapter 11 business cases filed by individuals are representative. The differences among districts were statistically significant, creating a question about the generalizability of the data across all districts.[24] Furthermore, as noted above, the raising of the debt limits for Chapter 13 cases may mean that more of these individual business reorganizations are now going into Chapter 13. When we look at the entire sample, almost two-thirds of the consumer Chapter 11s would have fallen within the new Chapter 13 limits. Of course,

we do not know if they failed to file in Chapter 13 solely because of the debt limits. However, movement of these debtors into Chapter 13, if it has happened at all, would not change our overall findings that business reorganizations are predominately filed by natural persons, not corporations.

E. Success Rates

There are various ways to measure success in bankruptcy cases. Where the goal is reorganization, avoiding dismissal is one indicator of success. To the extent cases are not dismissed, they are more likely to have been successful. One cannot make absolute statements because success can be achieved in so many different ways. For example, a debtor might file a Chapter 11 or 13 case, make payments for a time in bankruptcy, and then leave bankruptcy pursuant to an informal workout agreement. The case may have been a success in financial and human terms, but it will be difficult to capture the success statistically. Nonetheless, one can say that across a large number of cases dismissal is a rough gauge of lack of success and non-dismissal is a record of success through a given period.

With regard to dismissals, Table 6 shows the overall dismissal rate for reorganization cases on file for one year or more.[25] The data show that a high fraction of the cases are dismissed, regardless of chapter or size of business. An examination of the chi-square value for the two parts of Table 6 showed that there is no statistical difference in the dismissal rate by size of firm, even though the rate appears to be higher for the larger firms.

Table 6. DISMISSALS BY CHAPTER AND SIZE OF BUSINESS, 14 DISTRICTS

Chapter 11

	Under $100K	Over $100K	Total
Dismissed	66.07%	71.20%	69.93%
Not dismissed	33.93%	28.80%	30.07%

Chapter 13

	Under $100K	Over $100K	Total
Dismissed	62.47%	56.41%	59.53%
Not dismissed	37.53%	43.59%	40.47%

Source: Business Bankruptcy Study

A second analysis, comparing cases over and under $500,000 in Chapter 11,[26] shows similar differences, but again a lack of statistical significance. In a sample of this size, statistically significant differences are commonplace, so their absence here may be substantively significant. It may suggest that smaller reorganizations are experiencing levels of success not greatly different from larger ones.

In liquidation cases, the primary measure of success must be recoveries by creditors. The data to analyze recoveries in our sample will not be fully available for some time, both because cases remain open and because the reports of creditor recoveries take some time to be filed and recorded. A useful proxy, however, is potential recovery, which gives us an idea of the recoveries creditors may hope to make in each liquidation case based on the value of the debtor's assets as a percentage of the outstanding debt.

In liquidation cases, the data concerning potential recoveries by creditors are less detailed, but no less interesting. We limit ourselves at this stage to Chapter 7 cases and, for technical reasons, to corporate cases. On that basis, we find that over half of the cases report sufficient value in assets subject to a security interest to pay the secured creditors in full, ignoring costs of sale.[27] With respect to unsecured creditors for the same subsample, the median potential recovery for unsecured creditors, based on reported asset values and ignoring administration costs, would be about 8%, much more than previous work has indicated. Omitting cases where nothing would be paid, unsecured creditors in the remaining cases would get about 36%. It will be interesting to compare these potential recoveries to the actual recoveries at the end of the study.

IV. How Many People Are Affected by Small Business Bankruptcies?

It is impossible to read the legislative history of the 1978 Code without noting keen Congressional awareness of how bankruptcy law may affect jobs and local communities. The looming failure of a huge business such as Chrysler in the late 1970s drove home the possibility that closing a business could put thousands of people out of work and destroy small communities throughout the country. As airlines, steel mills, and retailers have filed for bankruptcy, the newspapers periodically run stories about what it means to work, to draw health insurance, and to plan for a pension from a business that could literally disappear.

While the bankruptcy of a large company can affect thousands of employees, and thus attract widespread public attention, the failure of smaller companies can also affect many families. For each failed small business, usually one or more families that own the business are also in extraordinary financial distress. In addition, smaller companies in trouble, just like smaller companies that thrive, employ a significant part of the work force.

The interview data, documented in Table 7, offer an interesting mix of information. For about a third of the businesses in bankruptcy, for all chapters combined, there are no employees by the time of filing. The owner/operator is the business. To be sure, that may not have always been the case. Many businesses have had more employees, but they cut back the number by the time of filing. By contrast, in the country as a whole, according to the U.S. Census Bureau, three-quarters of all businesses have no payroll. Because these nonemployers account for only 3 percent of business receipts, most business statistics (including the 1992 Economic Census) exclude them. Thus, the bankruptcy sample contains more employers than a national sample of firms would contain.[28]

For the remaining two-thirds of the businesses, employment is a very significant part of the picture. In 783 cases in which we received a response to a question about employees other than the owner/operator, there were a total of 55,082 employees. If our sample is representative of all the business bankruptcies (which is the subject of another paper), a very rough and preliminary approximation would suggest that about two million people were currently working for businesses

as they filed for bankruptcy during 1997.[29]

If, for the purposes of more detailed analysis, we eliminate the third of the businesses that have no employees at the time of filing, there would be an average of about 112 employees for each business case in bankruptcy. More information on the businesses with one or more employees is provided in Table 7.

These aggregated data can hide a wealth of important detail. At one end of the spectrum are the one-third of the businesses that have no employees other than the owner/operator. At the other end are a few very large businesses, one with 10,000 employees and another with 23,000 employees at the time of filing. There were eleven businesses in the sample with 300 or more employees.

Having said that, the smaller businesses are also important employers. More than a quarter of the businesses (28.4%) had one to four employees. To put it another way, there were 223 companies in the sample that collectively employed 521 people. A statistical summary of Table 7 appears as Table A3.

The variations in numbers of employees by chapter are presented in Table 8, with further detail in Table A4. Most of the bankrupt businesses with employees filed for Chapter 11, attempting to reorganize. Altogether, the Chapter 11 cases in the sample represented 52,110 employees. This is about 95% of all the employees working for companies that filed for bankruptcy. Every one of the businesses with 300 or more employees was in Chapter 11.

At the same time, Chapter 7 and Chapter 13 cannot be dismissed as irrelevant to employment issues. The 261 companies in the sample that initially filed in Chapter 7 collectively employed 2,070 people. Again, we can eliminate those Chapter 7 businesses that employed no one (about 45% of the Chapter 7 sample). In that case, the remaining Chapter 7 businesses employ an average of 14.5 workers for each business that filed for bankruptcy.

The Chapter 13 cases involved the fewest employees. The 224 cases in Chapter 13 collectively employed 902 people. Again, if we eliminate the cases in which the Chapter 13 debtor employed no one, the average per case was about 7 workers for each business that filed.

The failure of small businesses has a powerful impact on their owner/operators, but as these data also show, failed small businesses also employ significant numbers of people. The rehabilitation or liquidation of small businesses affects not only those who run the businesses, but also those who rely on the businesses for their jobs. Two million employees listed in the 1997 business bankruptcies makes a strong argument for cautious reflection on any change in the laws that would make liquidation of a business more likely.

TABLE 7: NUMBER OF EMPLOYEES OF BUSINESSES IN BANKRUPTCY

# of employees/company	# of companies	percent # of employees	affected (subtotal)
0	289	36.9	
1	70	8.9	
2	60	7.7	
3	41	5.2	
4	52	6.6	
5	28	3.6	

6	28	3.6	
7	12	1.5	
8	24	3.1	
9	16	2.0	
10	13	1.7	1379
11-20	65	8.2	2334
21-50	45	5.7	3880
51-100	16	2.1	5015
101-400	14	1.5	7533
450	1	.1	
499	1	.1	
500	1	.1	
900	1	.1	
1500	1	.1	
2500	1	.1	
3000	1	.1	
5200	1	.1	
10000	1	.1	
23000	1	.1	55082

Source: Business Bankruptcy Study

TABLE 8. NUMBER OF BUSINESSES IN BANKRUPTCY WITH 1 OR MORE EMPLOYEES (BY CHAPTER)

	Chapter 7	Chapter 11	Chapter 13	Total
Total Employees				
Mean	14.5	227.6	7.4	111.5
Median	4.0	9.0	4.0	5.0
Total Employees	2070	52110	902	55082
Valid n	143	229	122	494

Source: Business Bankruptcy Study

V. Why Bankruptcy?

For businesses that choose to file, bankruptcy is a solution to a problem. The debtor, or very occasionally the creditor, chooses bankruptcy as a way to fix something that the filer perceives as broken. But there is no consensus about what the problem is that bankruptcy is supposed to fix. Without a clearer vision of the problem (or problems), it is difficult to evaluate the effectiveness of bankruptcy as a tool to accomplish these ends or the legitimacy of the ends themselves.

In the phone surveys we asked the debtors why they filed for bankruptcy. What went wrong

that they ended up in the bankruptcy courthouse? The result is the first report that for many years systematically gathered the debtors' explanations for why their businesses went into bankruptcy.

We asked the debtors for their view of what went wrong, recognizing that they might not give an objectively correct answer of what was actually wrong. It is possible that an outside analyst would disagree with the reason given by the debtor. For example, a debtor might describe a cash flow problem, while an independent analyst might see the trouble as a crooked employee or an ill-considered investment decision. We do not pretend to establish an omniscient view of the problems that lead to bankruptcy. All we have are the debtors' own explanations, which we offer as the view of the party who generally initiates the bankruptcy filing.

The 781 debtors[30] gave a total of 1,461 responses. All the debtors listed here gave at least one reason. More than half the debtors (58%) identified at least two reasons, and about a quarter (22%) gave three reasons. A few even gave four or five. Because of the multiple responses, the percentages in Figure 1 add to more than 100%.

The question was open-ended, with no clues or multiple choice responses. The debtors were free to say whatever they wanted, and we tried to write down as faithfully as possible the responses the debtors gave. Altogether, we coded 65 discrete types of answers, ranging from union problems to drug problems. The list of reasons is replicated in the Appendix.

With 65 categories of responses, we had lots of information, but not much of an overall picture of what was going on. We decided to re-group the answers, collecting them into related reasons. We developed eight groupings:

- Outside business conditions: This grouping included factors such as new competition, increases in rent, insurance or other costs of doing business, declining real estate values, declining farm prices, and the like.

- Financing: This grouping included identification of the financial structure of the business, such as high debt service, loss of financing, or the inability to get financing.

- Inside business conditions: This grouping included factors such as the debtors' admitted mismanagement of the business, a decline in production, a bad location, the loss of major clients, and the inability to collect accounts receivable.

- Tax: This grouping included problems with the IRS, or state or local taxing officials.

- Disputes with a particular creditor: This grouping included a number of different problems with a specified creditor, sometimes in different states of resolution at the time of filing, including foreclosures, lawsuits, contract disputes, failed negotiations, trouble with the FDIC, and simply, as some debtors put it, a problem with one creditor. Some of the disputes are collection disputes, but many are about underlying disagreements over who owes what obligations to whom.

- Personal: This grouping includes troubles of the owner, including illness or divorce.

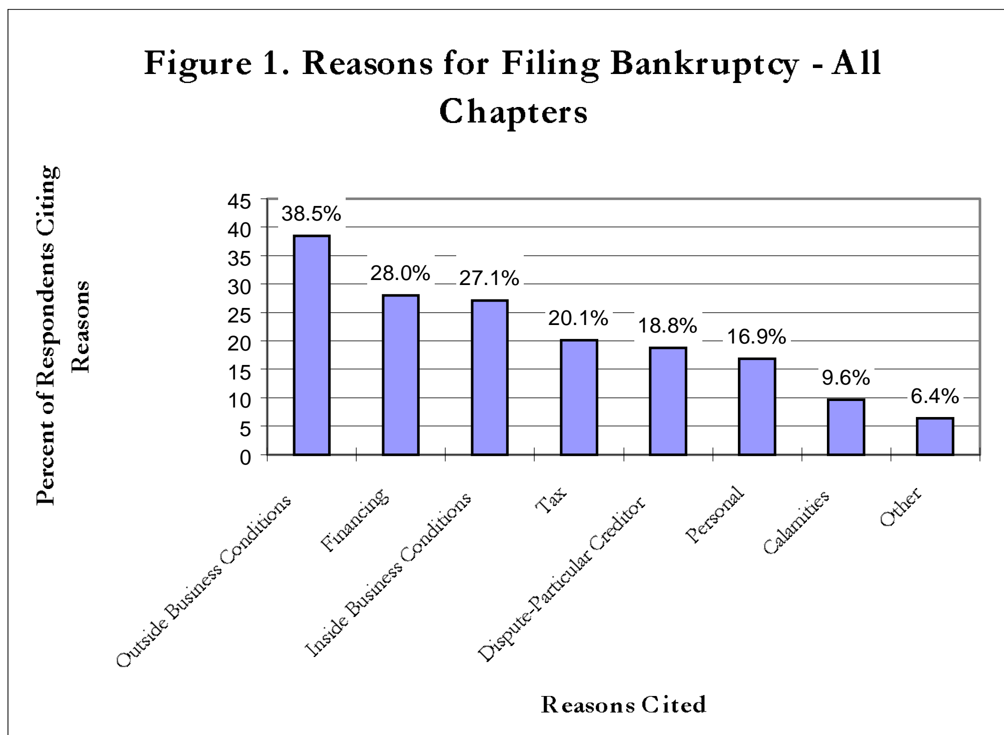
- Calamities: This grouping included fraud or theft by an outsider, natural disasters, industrial accidents, and restricted access to the business, such as road work.

- Other: Here we have everything that was left, including buying time, trying to sell the business, and involuntary petitions.

The groupings are not perfect. Some of the debtors' responses are ambiguous, and some could overlap one or more categories. A theft by an employee could reasonably be called a part of ongoing business operations (or operations that failed to supervise employees) or a calamity (a bad event that strikes without warning); we chose the latter, but we could see that others might make a different classification. But the ambiguous responses were relatively uncommon, so that shifts in classification would make only slight differences in the groupings. As such, the groupings give a fairly reliable measure of what the debtor characterizes as the problem that brought the business to the bankruptcy court.

A. Business Reasons

The debtors' responses are illustrated in Figure 1. The most obvious point of this graph is that a collection of business reasons dominate the business filings. The three most frequently listed reasons are those having to do with the external business climate generally (38.5%), those having to do with the financial structure of the business (28.0%), and those related to the operations of the business (27.1%). In fact, about seven out of ten (72.6%) of all businesses in bankruptcy cite at least one of these three business-oriented reasons.

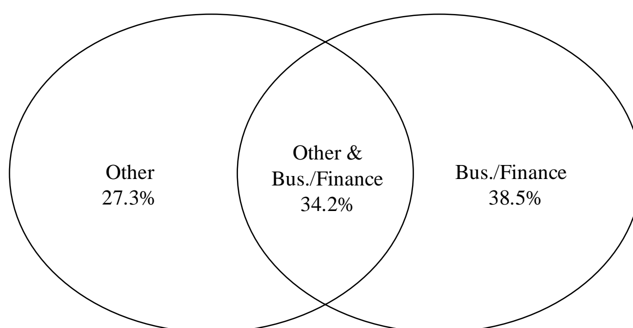


In one sense, this is an expected finding. When businesses fail at business, they file for bankruptcy. The finding has some significance however; it demonstrates that, at least in some sense, the system seems to work the way it is supposed to work. Businesses choose bankruptcy to solve business problems.

But not all the debtors blamed their trip to the bankruptcy courts solely on a business problem as such. About half of the debtors who identified a business/economy reason also

Figure 2

Reasons for Business Bankruptcy Filing



Source: Business Bankruptcy Study

identified another reason that was not tied to the economy generally or to the operations of the business. For these debtors, various personal problems and calamities prompted their business failures. For some, it was trouble with a particular creditor or pressure from the IRS that pushed them into bankruptcy. In fact, as Figure 2 demonstrates, the debtors divide into three roughly equal groups--those that identify only business/economic problems, those that identify only non-business problems (other), and those that identify both kinds of problems. The division is a reminder that business debtors come to bankruptcy to do more than deal with general business problems.

B. Tax Troubles

As Figure 1 shows, the fourth most frequent single response was a problem with the taxing authorities. One in every five businesses in bankruptcy identifies a problem with the IRS or a state or local taxing agency as the reason for its filing. A few debtors mentioned state and local taxing authorities: 5% mentioned the state, while .4% mentioned local taxing problems. The overwhelming problem, however, was trouble with the IRS. Just over one in five failed businesses

(20.1% of the total sample) specifically identify the IRS by name as the source of their troubles and the reason they ended up in the bankruptcy court.

Comments recorded from the debtors give some idea of the relationship between bankruptcy and the IRS:

- IRS stepped in and took over their bank account.
- The IRS threatened to repossess [our] tools of trade if [we] did not pay the $20,000 back taxes immediately.
- Pressure from IRS. The IRS is "merciless".
- When the IRS agent told us that they will put padlock on our doors if we can't come up with the money in one month.
- IRS was attempting to reach the non-debtor wife's income (i.e., levy) for the tax liabilities, which all preceded her marriage to the debtor.
- The IRS changed the locks on the business, and the business had to declare bankruptcy in order for the owners to be able to even get into their building.

Not everyone described the IRS in an entirely hostile manner. A number of debtors indicated that IRS agents told them either directly or indirectly that if the debtors would file for bankruptcy, the IRS agents would have greater leeway in negotiating a repayment arrangement.

C. Legal Disputes

The data also confirm the contentious nature of debtor-creditor relationships. Nearly one in five debtors (18.8%) identify a problem with a specific creditor as the reason for filing bankruptcy. (See Figure 1) Like most of the responses about the IRS, the responses here were also often heated. The debtor would not be in bankruptcy if only the customer/ bank /mortgage company/landlord/ supplier/franchiser were not such a jerk. The debtors often described what they believed were viable businesses, sometimes even highly profitable businesses, brought low by a dispute over a contract or other obligation.

Within the dispute category are a number of disputes that had already escalated to a formal legal action. For more than one in ten of the debtors in the sample (11.4%), the reason given for the bankruptcy filing was to deal with a pending legal action--a lawsuit, a foreclosure, an eviction or some other action in court. By the time they file for bankruptcy, a significant portion of the business debtors are no strangers either to courts or lawyers.

D. Personal Profiles

The business/personal distinction in bankruptcy is one that seems to drive a great deal of the

organizational structure of policy debates about bankruptcy. Professional conferences, law school courses, and practitioner identification clearly distinguish business bankruptcy from consumer bankruptcy. But in the case of small businesses--the bulk of the business bankruptcy cases--the business/personal distinction breaks down. In a sample of nothing but clearly identified business bankruptcies, the number of personal problems that drive these filings is significant. About one out of six (16.9%) so-called business bankruptcies are initiated because of a personal problem of the business owner (See Figure 1).

Again, the comments of the debtors give some flavor of the kinds of problems that they see as causing the bankruptcy filings for their business:

- Bank was not going to refinance her business because of divorce settlement.
- Inability to control blood glucose level, cholesterol, etc. due to stress of dealing of creditors.
- His wife had a nervous breakdown. He just knew they couldn't handle their bills.
- The injury to his arm
- She could not pay her medical bills. She filed bankruptcy as soon as she couldn't pay her bills, rather than get behind in payment.
- Creditors were hounding him to pay his wife's credit card. (He had not canceled the cards after the divorce. He returned his but never closed his account.) Started summons from sheriff.
- I had lost court case in trying to settle child support but lost. Was given 48 hours to settle $36,000 of debt which was impossible.

The explanations of these debtors are a reminder that despite the legal device of the independent business, many companies remain dependent on the financial stability of their owners and operators. Divorce and medical problems of key people may affect the financial survival of the business.

One measure of the link between business and personal bankruptcies is how often owner/operators of a business must file bankruptcy for the corporate entity and for themselves personally. Some debtors told us that their business bankruptcy was really a personal bankruptcy, despite its official business designation. More concretely, more than one in ten respondents (11.8%) filed for personal bankruptcy in addition to their business bankruptcy.[31] Although these filings will be recorded as "nonbusiness," in one sense they should be added to the business filings by natural persons to reveal the actual number of human beings who end up in bankruptcy because of a business reversal. In our previous study, we reported that up to 20% of all personal bankruptcies had been filed by current or former business owners, but these cases scheduled 50% of the total unsecured debt in the sample.[32] For business owners, these data suggest that the line

between a business bankruptcy and a personal bankruptcy may be indistinct.

E. Calamities

For just under one in ten of the debtors (9.6%), the problem may not be personal, but it is the kind of calamity for which businesses have a hard time planning. (See Figure 1) Again, the debtors give the best explanations:

- One of the trucks he owned the engine blew in it and they couldn't afford to buy another one.
- His van was stolen and he could no longer transport the equipment necessary to carry on his business.
- The organization they were linked with sold out and was taken over by another organization that was hard to work with.
- The gas explosion.
- Death of foreman.
- The State came in and tore up the road.

Some of these problems, such as the inability to repair the truck, reflect the incredibly thin margins on which some businesses operate. Others, such as the death of the foreman, show how some operations may rely on a key person--and not necessarily the owner. But others, such as the gas explosion, show that even a prosperous business can be just one dose of bad luck away from a bankruptcy filing.

F. The Policy Implications

The range of responses is broad, and there are others to be explored in greater detail. But even these preliminary responses illuminate some key points:

- Most businesses in bankruptcy are struggling with operational and financial problems
- The IRS is a big player in pushing debtors to file for bankruptcy
- A significant proportion of business bankruptcies stem from personal problems

It is too early to draw policy conclusions from these early views of the data, but these three observations raise a number of important questions. For example, the fact that more than seven in

ten of all bankruptcies are described as business problems raises these questions: Do businesses in bankruptcy receive adequate help in dealing with their business problems? Is it reasonable to expect that these businesses will reorganize or even liquidate efficiently if their managers are already describing business and finance problems they have been unable to solve? Should debtor screening and plan confirmation involve more formalized reference to parties with established business expertise?

Conversely, the fact that more than three in twenty business filings deals with a personal problem should prompt questions in the opposite direction: Is the business bankruptcy system too cumbersome for the resolution of what is essentially a consumer debtor problem but which must be handled as a business filing because of the debtor's intertwined business and consumer legal affairs? To what extent is Chapter 7 a reorganization chapter when the debtor plans to protect the business by discharging consumer debt? Is a different legal structure for personal/business bankruptcies needed?

The large number of comments about the IRS raises other questions. Does the IRS follow collection policies that drive debtors into bankruptcy? Would different approaches cut the costs of debt collection for the IRS and for all other creditors as well? Should the treatment of the IRS in bankruptcy be different to discourage debtors from using bankruptcy as a way to deal with the IRS?

As these questions indicate, the data provided here begin the inquiry into understanding the bankruptcies of small businesses, but they do not end it.

VI. Surviving Troubled Times

Bankruptcy does not occur at just one point in time, but it is rather a process for the debtors, the creditors, and the court. The businesses must deal with changing conditions--some a reflection of the initial problems that prompted the bankruptcy filing and some that are new problems brought on by the filing itself.

Bankruptcy is, in part, a time for reassessment of the business. Owners and managers often are forced to reconsider what is and what is not possible. We noted how many of the managers of the businesses changed their views in the roughly six months between interviews. At the time of the second survey, 48% of the debtors reported that they had different goals for their bankruptcy than they had at the time of filing. We talked with the debtors at two different points in time, generally within about six months of their initial filing and again about six months later. We used the two interviews both to pin down information about the business as it filed, such as whether the business was opened or closed, and also to see how the business was doing over time.

A. Businesses That Are Still Open

At the time of our survey, about six months after the filing, about six out of ten (57.3%) of the businesses that had filed for bankruptcy were still open. We should note, however, that a telephone survey necessarily biases this answer. We could not find more than half of the businesses in the sample, and at least one reason might be that the business--and its telephone--were already gone. By the time of the second survey, on average about a year after filing, more than four out of ten (43.4%) of the businesses in bankruptcy are still operating as going concerns. Once again, the

bias of the second survey repeats that of the first. But we do not want to overstate possible closures. It is also possible that we could not find some businesses because they had changed names or locations; not every "not find" can be attributed to a closing.

These data give us only an incomplete picture, but they provide at least a documented glimpse of the closings of businesses as part of the bankruptcy process. These data strongly suggest that business bankruptcy, at least as measured by the filing numbers and documented closings, is more about dead businesses than it is about those struggling to stay alive.

Not surprisingly, for the businesses in Chapter 7, the closure rate is much higher. At six months after filing, nearly 70% of the Chapter 7 businesses were closed. By one year after filing, more than eight out of ten (81.1%) of the Chapter 7 businesses were already closed. Given that Chapter 7 is a liquidation chapter, that information should come as no surprise. Indeed, perhaps the surprise comes from the observation that nearly a third (31.3%) of the Chapter 7 businesses were open for at least six months after filing, and that two out of ten (18.9%) of the Chapter 7 businesses are still operational a year after filing. Chapter 7 may be largely about liquidation, but it also involves substantial numbers of operational businesses.

We were able to learn more about the many Chapter 7 businesses that liquidated during the bankruptcy process. About 16% of these debtors had sold their whole business. A similar proportion, 19.4% sold their inventory. Nearly one third -- 33.7% -- sold some of the assets of the business. Of those businesses, about a third had a public sale and two-thirds had a private sale.

While we know in general that business failure is highest during the early years of a business, those businesses in bankruptcy and still operational tend to be older, more established businesses. Of all the businesses that were still open at the time of the second survey from every chapter, few could be classified as new businesses. At the time of the second survey, only two businesses reported being open for less than eighteen months (2 months in one case and 15 months in another), an indication that the current business of the respondent is probably not the same business that filed for bankruptcy. The remaining 155 businesses reported having been operating from 2 to 34 years. The modal response was ten years, and twenty-five businesses reported having been open between five and ten years. Thirty-seven businesses reported having been open for 15 years or more. Only fourteen businesses that were still open had been open for fewer than five years.

Table 9. PROPORTION OF BUSINESSES OPEN, BY CHAPTER, APPROXIMATELY SIX MONTHS AND ONE YEAR AFTER FILING,

	Chapter 7	Chapter 11	Chapter 13	Total	N
Open at six months	31.30%	74.33%	64.78%	57.30%	792
Open at one year	18.85%	55.63%	56.12%	43.37%	362

Source: Business Bankruptcy Study.

The picture for businesses in Chapter 11 and Chapter 13 was very different. At the time of the first survey, about three-quarters (74.3%) of the Chapter 11 businesses were still operational and

about two-thirds (64.8%) of the Chapter 13 business were also open. By one year, in Chapter 11 the proportion of operational businesses had dropped to 55.6%, while the proportion of Chapter 13s was down to 56.12%. The difference between Chapter 7 and the two reorganization chapters was significantly different, while the difference between Chapter 11 and Chapter 13 was not.

For the open businesses, there was a substantial association between firm size and chapter of filing. Not surprisingly, the largest businesses were most likely to be reorganizing in Chapter 11 and the smallest businesses were most likely to be in either Chapter 7 or Chapter 13. In particular, the sole entrepreneurs were likely to be in Chapter 13. About 46% of the Chapter 13 business cases that were open after one year had no employees at all compared with about 22.7% of the Chapter 11 cases. Of open businesses that had 13 workers or more, all but three were in Chapter 11.[33]

One way that bankruptcy can change the business is by a reorganization of the ownership or management, but relatively few respondents reported this event. After about a year in bankruptcy, only 4.5% of the businesses reported a change in management or ownership, and 8.7% reported a change in their board or shareholders since the bankruptcy. Another 4.2% reported that there had been such a change before the bankruptcy. The relative scarcity of such changes is no doubt influenced by the very large number of self-employed individuals whose enterprises are in the bankruptcy sample.

B. Bankruptcy Petitioners Are Experienced and Want to Continue in Business

While a substantial proportion of business bankruptcies are companies that are already closed, it would be a mistake to think of their owners as simply "out of business." For some, the failure of the small business means either unemployment or a return to the workplace as a salaried employee. But the bankrupt debtors are experienced and committed to running their own businesses. They may have closed one business, they have plans to return.

The bankruptcy petitioners were experienced in their industries. About one-quarter of them (23.4%) had owned a similar business in the past. In response to another question, nearly a third of them (32.4%) reported having worked in a similar business, many of them in a management position. Of the remainder, 30% had prior business experience although some had experience only in other types of business. Only one-quarter of the sample, had no previous business experience and were now in the position of filing bankruptcy for their first business. Although some bankruptcies may be due to the inexperience of the owner, in this sample three-fourths of the bankruptcy petitioners had some previous experience, many in a similar establishment.

Bankruptcy does not appear to have quenched the entrepreneurial spirit of the petitioners. Of all the petitioners, 13.4% said that they had opened a new business, and another 11.1% planned to open a new business. Adding the 41.3% of businesses still open, nearly two-thirds of the sample were either still running their businesses, had opened a new business, or were planning to open a new business. Despite the bankruptcy experience, these entrepreneurs appear to be committed to enterprise.

The corollary to the high rate of closed businesses in Chapter 7 is the intention of the owners to open new businesses. Among the debtors in Chapter 7, nearly half (44.1%) either had already opened a new business or planned to do so. By comparison, only 20% of those in Chapter 13 had opened or planned to open a business--perhaps in part because more of their businesses

remained open. These data suggest that one function of bankruptcy is to wrap up the old business preparatory to starting a new one. The “fresh start” concept of bankruptcy evidently reaches far beyond the personal bankruptcy cases.

C. Problems Encountered by the Bankruptcy Petitioners

The businesses in bankruptcy did not have smooth sailing. They not only had their old business problems to deal with, but they also had problems brought on by the filing.

We constructed a "troubles index" to summarize the problems that the debtors might have encountered since entering bankruptcy. We asked if the debtors had encountered any of the listed problems. The maximum index value was 11, for someone who experienced each kind of trouble, and the minimum was 0, for someone who reported none of the problems. The mean value for the entire index was 3.4; for those with an open business, the number is only slightly lower at 3.3. The troubles that bankruptcy brings included the following (the numbers indicate how many debtors reported that they have encountered this type of trouble):

Problem	#	%
• people unwilling do business	132	35
• takes time away from business	114	30
• trouble re good employees	51	13
• trouble starting a new business	35	9
• trouble finding a new job	36	10
• additional money problems	166	44
• personal problems	211	56
• concerned about losing home	150	40
• new or worse medical problems	130	34
• concerned about reputation	141	37
• marital or family problems	123	32

Trouble finding a new job or starting a new business appears to affect the fewest of the debtors. Finding good workers does not appear to be a big problem. The problem for many debtors is that "people" (customers, suppliers, or creditors, presumably) no longer wish to associate with the debtor.

We asked about personal problems because of our sense that small business owners often have much of their life-space involved in the business. If the business is in trouble, then various family problems, medical problems, and other personal problems are more likely consequences. As these data show, from 40% to 67% of the debtors reported having one or more of these personal problems after their bankruptcies.

The index summarized how many of these problems a debtor reported. If a debtor reported that he was having medical problems and that he was having marital problems, he would receive a score of two. A debtor who said that she had additional financial problems, was worried about her reputation, and believed that people were unwilling to work with her would receive a score of three.

For all respondents, and for the respondents whose businesses are still open, the median index value is 3. But among the owners of open businesses, there is some contraction at the two ends of the index. Only 17.2% of the owners of open businesses, compared with 20.8% of all debtors, report no troubles at all. None of the owners of open businesses report index scores as high as 10 or 11, but 1.3% of the total sample report index values that high. It seems fair to conclude that for the bankruptcy petitioners, their difficulties did not end with the filing of the bankruptcy petition. Appendix Table A5 reports the index of troubles for the entire sample and for the portion of the sample whose businesses are still open.

VII. Conclusion

The data from the Business Bankruptcy Project demonstrate the importance of small businesses in the business bankruptcy system and the importance of that system to thousands of small businesses each year. The data also reveal the close relationship between business and personal financial affairs in small businesses. They further indicate that lenders to smaller businesses are often well-protected by security interests.

The data also suggest that entrepreneurs are often not the callow amateurs they are portrayed as being, but business veterans who have the gumption to take the risks inherent in starting a new enterprise. They are also people who are often prepared to shrug off the effects of a business failure and try again, a process made possible by the "fresh start" philosophy of U.S. bankruptcy laws. Overall, the findings tend to support the conclusions of the earlier SBA study, "The Function of Failure," in these regards, although over a much larger case-base and geographical area.

APPENDIX TABLES

Table A1. TOTAL LIABILITIES OF BANKRUPT BUSINESS IN 14 DISTRICTS, 1994.

Total Liabilities	Frequency	Percent
Under $100K	534	33.1%
$100K-$500K	742	46.1%
$500K-$1M	128	7.9%
$1M-$2M	78	4.8%
$2M-$4M	52	3.2%
$4M-$5M	20	1.2%
$5M or more	57	3.5%
TOTAL	1,611	99.8%

Missing=240

Source: Business Bankruptcy Study

Table A2.TOTAL DEBT REPORTED, BUSINESS CH. 13 CASES IN 23 DISTRICTS AND CHAPTER 13 CASES IN SOUTHERN DISTRICT OF OHIO

	Business-Only Chapter 13's 23 districts	Cross Section of All Chapter 13's Southern District of Ohio
Total Debt		
Mean	$145,497	$ 81,898
Std Deviation	$138,074	$ 81,027
Percentile 25	$ 58,332	$ 30,925
Median	$107,533	$ 60,089
Percentile 75	$200,000	$106,225
Valid N	700	200
Missing	185	0

Source: Business Bankruptcy Study; Sellers Study of Southern District of Ohio
Notes: Missing cases include all cases filed in Chapters 7 and 11 and some Chapter 13 cases missing data on debt

Table A3. TYPES OF DEBT, BUSINESS CH. 13 CASES IN 23 DISTRICTS AND CHAPTER 13 CASES IN SOUTHERN DISTRICT OF OHIO

	Business-Only Chapter 13's, 23 districts	Cross Section of All Chapter 13's, Southern District of Ohio
A. Secured Debt		
Mean	$103,794	$54,527
Std Deviation	$125,111	$60,523
Percentile 25	$ 22,746	$12,022
Median	$ 71,902	$38,385
Percentile 75	$146,348	$80,008
Valid N	702	199
Missing	183	1
B. Unsecured Priority Debt		
Mean	$ 11,387	$ 2,969
Std Deviation	$ 21,884	$ 9,042
Percentile 25	$ 0	$ 0
Median	$ 2,264	$ 0
Percentile 75	$ 12,926	$ 929
Valid N	687	200
Missing	198	0
C. Unsecured Non-Priority Debt		
Mean	$ 30,897	$24,674
Std Deviation	$ 43,772	$30,112
Percentile 25	$ 5,958	$ 8,867
Median	$ 17,791	$16,679
Percentile 75	$ 41,506	$26,399
Valid N	704	200
Missing	181	0

Source: Business Bankruptcy Study

TABLE A4. STATISTICS ON NUMBERS OF EMPLOYEES OF BUSINESSES IN BANKRUPTCY

Mean	70.3
Std dev	926.9
25th Percentile	0
Median	2
75th Percentile	8
Sum	55082 (total number of employees in sample)
Valid cases (n)	783
Missing cases	14

Source: Business Bankruptcy Study. See Table 7 for more details.

TABLE A5: NUMBER OF BUSINESSES IN BANKRUPTCY WITH 1 OR MORE EMPLOYEES (BY CHAPTER)

	Chapter 7	Chapter 11	Chapter 13	Total
Total Employees				
Mean	14.48	227.55	7.39	111.5
Std. Deviation	38.96	1706.03	18.13	1165.43
25th Percentile	2.0	4.0	2.0	2.0
Median	4.0	9.0	4.0	5.0
75th Percentile	8.0	24.0	7.0	13.0
Total Employees	2070	52110	902	55082
Valid n	143	229	122	494

Source: Business Bankruptcy Study

TABLE A6. TROUBLE INDEX FOR ENTIRE SAMPLE AND FOR OWNERS WHOSE BUSINESSES ARE STILL OPEN

	Entire Sample	Open Businesses
Trouble Index		
Mean	3.39	3.27
St. Dev.	2.73	2.57
25th Percentile	1	1
Median	3	3

N=537
Missing=0

Source: Business Bankruptcy Study

ENDNOTES

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[1] A fuller description of the study design is available at T.A. Sullivan, *Methodological Realities: Social Science Methods and business Reorganizations,* 72 WASHINGTON UNIVERSITY LAW QUARTERLY 1291 (1994).

[2] See, for example, Kevin Delaney, STRATEGIC BANKRUPTCY (1992); Richard Sobol, BENDING THE LAW: THE DALKON SHIELD BANKRUPTCY (1991).

[3] See generally Sullivan, Warren, Westbrook, *The Persistence of Local Legal Culture: Twenty Years of Evidence from the Federal Bankruptcy Courts,* HARVARD JOURNAL OF LAW AND PUBLIC POLICY 17, 3 (Summer, 1994): 801-865; Sullivan, Warren, Westbrook, *Consumer Bankruptcy in the United States: A Study of Alleged Abuse and of Local legal Culture,* 29 JOURNAL OF CONSUMER POLICY 223 (Summer 1997).

[4] Our previous studies have not shown seasonality in non-business cases; see Sullivan, Warren, and Westbrook, AS WE FORGIVE OUR DEBTORS: BANKRUPTCY AND CONSUMER CREDIT IN AMERICA 349-353 (1989) (reporting minimal seasonality effects in a study of 1981 filings in Texas, Illinois, and Pennsylvania); Sullivan, Warren, and Westbrook, "Bankruptcy and the Demographic Curse of Job," unpublished paper presented at the Population Association of America annual meetings (1992) [henceforth "Curse"] (showing cumulative linearity in 1991 filings in Texas and California).

[5] We have criticized a previous study of consumer bankruptcy that used quota sampling of chapter 7 debtors. See Teresa A. Sullivan, Elizabeth Warren, Jay Lawrence Westbrook, *Limiting Access to Bankruptcy Discharge: An Analysis of the Creditors' Data.* 1983 WISCONSIN LAW REVIEW, 1087, 1091 (1983)

[6] To draw an analogy to nonbusiness cases, there would be bias in Texas from drawing a sample of bankruptcy cases on the first Monday of each month. Mortgage foreclosures occur in Texas on the first Tuesday of the month, and there is a discernible peak in filings during the first week of the month. See "Curse". It is predictable, then, that a sample of first Monday filings would contain relatively more homeowners than a sample drawn evenly from the entire month. We offer this example by analogy only, however, because we have so far found no comparable biasing factor in our current design.

[7] Jennifer Frasier, *Caught in a Cycle of Neglect: The Accuracy of Bankruptcy Statistics of the Administrative Office of the Courts*, 101 COMMERCIAL LAW JOURNAL (1996). Also see Hon. Lisa Hill Fenning and Craig A. Hart, *Measuring Chapter 11: The Real World of 500 Cases*, 4 AMERICAN BANKRUPTCY INSTITUTE REVIEW (1996).

[8] Low response rates have been characteristic of previous bankruptcy studies, either because of high refusal rates or location difficulties. See Norman Bradburn and Seymour Sudman, IMPROVING INTERVIEW METHOD AND QUESTIONNAIRE DESIGN (1979) at 7, 81 (27% of bankruptcy sample could not be located; up to one-third denied having been in bankruptcy in later interviews); David Stanley and Marjorie Girth, BANKRUPTCY: PROBLEM, PROCESS, REFORM (1971) at 41, n. 1 and 224-5 (the Gallup organization found it so difficult to locate original sample for interviews that another interview sample was drawn); Purdue University, Credit Research Center, Consumer Bankruptcy

Study (1982) vol. 1, at 25-26 (high refusal rate among debtors approached for interviews). The SBA's is excellent earlier study, "The Function of Failure," also encountered difficulty in achieving an adequate response rate.

[9] Our figures are based upon the schedules filed by the debtors. Debtors may overstate the value of the assets--or, perhaps, understate them. Although the schedules ask for fair market value, debtors may use book value, especially since balance sheets prepared by accountants often use cost less depreciation.

[10] See Frasier, *supra* note 7.

[11] For all purposes, we use the .05 level to test statistical significance. For these and other cross-tabs, we use a Chi-Square test of association. Here $p < .001$ To compare individual figures (e.g., means), we use a t-test of differences. We do not always report the results of these tests, unless the value is close to the cutoff.

[12] See Frasier, *supra* note 7.

[13] Chapter 13's is were over represented in her caseload relative to their prevalence in her district. For this and other reasons, we view this exploration as preliminary but interesting.

[14] $p < 0.000$.

[15] $p < 0.000$.

[16] $p = 0.02$.

[17] $p > 0.05$.

[18] $p = 0.3$.

[19] By contrast, the group of general Chapter 13 filers owe 3.2 years' income in debt, which is difficult enough.

[20] By law only natural persons can file in Chapter 13. 11 U.S.C. ß

[21] We use a 16-district sample here because we have sufficient processed cases for this purpose.

[22] AS WE FORGIVE OUR DEBTORS, *supra* note 4 at Chapter 6.

[23]The AO figure may substantially understate the number of business Chapter 13s. See Frasier, *supra* note 7.

[24] $P=.001$

[25] These dismissal rates obviously remain tentative until the full five years of the study have been completed. They reflect the status of cases at the time they were scanned by the Business Bankruptcy Project in each district, which in the great majority of cases was more than one year after filing. All of the data in this section are based on our fourteen-district sample.

[26]We do not report a comparison in Chapter 13 because of the small number of cases in the larger category and questions about the eligibility of those cases, questions that might themselves have lead to dismissal.

[27] N = 890.

[28] Data from the U.S. Census Bureau Web Site. http://blue.census.gov/search97cgi/s97_wraptite/action+View&VdkVgwKey=

[29] It is possible to make this estimate using two different statistical models. Beginning with these data from the AO:

1997 total business filings	54,027
1997 Ch 7 business filings	32,255
1997 Ch 11 business filings	9,694
1997 Ch 12 business filings	949
1997 Ch 13 business filings	11,095

METHOD 1: GENERALIZING FROM THE MEAN

Here are the mean number of employees for the chapters for which we collected data (which treats all Chapter 12 cases as having no employees):

Chapter 7:	7.931	(N=261)
Chapter 11:	174.866	(N=298)
Chapter 13:	4.027	(N=224)
Total:	70.347	(N=783)

So, if, on average, each business in chapter 7 had 7.931 employees, and there were 32,255 businesses in chapter 7, 255,814 (i.e., 7.931 X 32,255) people were employed by businesses that filed chapter 7.

Chapter 7:	7.931	X	32,255	=	255,814 employees
Chapter 11:	174.866	X	9,694	=	1,695,151 employees
Chapter 13:	4.027	X	11,095	=	44,680 employees
	Total:				1,995,645 employees

METHOD 2: WEIGHTING

Here are the total number of employees for the chapters in the sample (again setting the number of employees in Chapter 12 at zero):

Chapter 7:	2,070 (N=261)
Chapter 11:	52,110 (N=298)
Chapter 13:	902 (N=224)
Total:	55,082 (N=783)

Chapter 7: 32,255/261 = 123.58238 (weight)
123.58238 X 2,070 (total employees) = 255,816
Chapter 11: 9,694/298 = 32.530201
32.530201 X 52,110 = 1,695,149

Chapter 13: 11,095/224 = 49.53125
49.53125 X 902 = 44,677

Ch 7:	255,816	employees
Ch 11:	1,695,149	employees
Ch 13:	44,677	employees
Total:	1,995,642	employees

[30] Sixteen debtors either did not talk long enough for us to ask the question or could not give any response to the question. The 16 debtors who gave no response of any kind to this question here are excluded from the analysis.

[31] For another discussion of the relationship between business and personal bankruptcies, see AS WE FORGIVE OUR DEBTORS *supra* note 4, at 111-121.

[32] AS WE FORGIVE, *supra* note 4, at 108-27.

[33] No test of significance is recorded because the number of employees was coded exactly. Of all open businesses with no employees, 46% were in Chapter 13 and 32% in Chapter 11.

APPENDIX

In our telephone survey, we copied down verbatim the answers of the respondents to a question about the reason for their bankruptcy. The content codes below were developed from the verbatim responses. In turn, these content codes have been grouped into larger categories, such as those presented in Figure 1.

These are the content codes for the respondents' answers to a question about the causes of their bankruptcies.

Cause	
1	Did Not Answer
2	Did Not Ask
3	Competition- new
4	Economy- Bad Local Economy
5	Foreclosure
6	Fraud or Theft by Employee or Owner
7	Fraud or Theft by Outsider
8	Location Was Bad
9	Medical Expenses of Owner
10	Medical Expenses of Owner's Family
11	Nonpayment by Clients/Customers- Accounts Receivable
12	Real Estate- Lease Dispute
13	Real Estate- Mortgage Dispute
14	Regs and Laws- New ones or strict enforcement
15	Sales- Declining
16	Overexpansion
17	Reorganization, Restructuring, Takeover- Recent
18	Tax Debt- Federal
19	Tax Debt- State
20	Foreclosure-- Threat
21	Medical Problems Aside from Expenses
22	Clients-- Lost Major Client(s)
23	Divorce
24	Cash Flow Bad/Undercapitalized/Liquidity Problems
25	Mis/bad Management
52	Un/Under Employment
53	Natural Disaster/Weather Related Problems
54	Inability to find quality personnel
55	High Debt Service
56	Union Problems
57	Old Debts taken on at business purchase
58	Family Problems took attention away from business
59	Lawsuit - Judgement
60	Lawsuit - Pending
61	Lawsuit - Threat

62	Failed Partnership
63	Debt Maturity/Called Loan/Deficiency etc.
64	Prevent Liability/Avoid Exposure
65	Problem with one creditor
66	Breach of Contract/Contract Dispute
67	Crime Victim
68	Industrial Accident
69	Loss of critical business asset
70	Loss of critical personnel
71	Casualty Loss
72	Harassment/Pressure by Creditors
73	Increasing Cost of Doing Business (Rent/Insurance etc.)
74	Decline in Production
75	Restricted access to business (road work etc)
76	Failed Investment
77	To scare creditor
78	Declining Real Estate Value
79	Attorney Malpractice
80	Loss of Financing
81	Decline in Prices (e.g. Farm Products)
82	Bankruptcy of another company/individual
83	Trying to sell business or attract investors
84	To buy time
85	Advice Attny/Accountant etc.
86	Negotiations with creditors failed
87	Involuntary
88	FDIC any mention
89	Unable to get financing
90	Other
91	Did not know
92	Taxes - Local

These are the content codes for respondents' answers to a question about events that precipitated the filing of the bankruptcy.

Event	
1	Did Not Answer
2	Did Not Ask
3	Collection Agencies
4	Creditor- Could't Pay Particular Creditor
5	Eviction- Threat
6	Cut-off of Sales/Services/Utilities
7	Foreclosure on Business Premises
8	Foreclosure on Home
9	Foreclosure- Threat
10	Garnish, Freeze, or Lien of Bank Accts

11	Indictment of Owner/Employee
12	Involuntary Case
13	Lawsuit(s)- Judgment
14	Lawsuit(s)- Pending
15	Lawsuit(s)- Threat
16	Liquidity Crisis
17	Repossession of Business Property
18	Repossession of Consumer Property
19	Repossession- Threat
20	Seizure of Assets
21	IRS or Other Tax Problem
22	No Specific Event
23	Mis/Bad Management
24	Advice Attny/Accountant/etc.
25	Feared loss of personal assets
26	Fraud/Theft by Employee or Owner
27	Fraud/Theft by Outsider
28	Harassment/Pressure by Creditors
29	Unable to renegotiate loan
30	Bankruptcy of another company/individual
31	Union Problems
32	Debt Maturity/Called Loan/Deficiency etc.
33	Trying to sell business or attract investors
34	Medical Problems aside from expenses
35	Medical Expenses of Owner
36	Medical Expenses of Owner's Family
37	Family problems took attention from business
38	Prevent Liability/Avoid Exposure
39	Reorganization/Restructuring/Takeover - Recent
40	Loss of critical business asset
41	Loss of critical personnel
42	Lost franchise
43	Failed prior bankruptcy attempt
44	Crime Victim
45	Divorce
46	Avoid Chapter 7
47	Industrial Accident
48	Non-payment by Clients/Customers - A/R
49	Loss of Financing
50	Declining Property Values
51	Un/Under-Employment
52	Timing
53	Real Estate - Mortgage Dispute
54	Real Estate - Lease Dispute
55	Increasing Cost of Doing Business (Rent/Ins. etc)
56	Failed Partnership
57	Feared Creditors

58	To Buy Time
59	Negotiations with creditors failed
60	Was offered FT Employment
61	Casualty Loss
62	Breach of Contract/Contract Dispute
63	Declining Sales
64	Restricted access to business (road work etc.)
65	Eviction - Actual
66	Regs and Laws - new or stricter enforcement
67	Failed sale of business
68	Cash Flow
69	Natural Disaster/Weather Related
70	FDIC any mention
71	Sales - Declining
72	Unable to get financing
73	Found buyer
74	Work Stop Order Issued by State
75	Did not know
76	Other

These are the content codes for the responses to a question about respondents' goals for their bankruptcy.

Goal	
1	Did Not Answer
2	Did Not Ask
3	Lawsuit- Defend Against or Prevent
4	Liquidate Business
5	Negotiate with Creditors
6	Negotiate with Creditors-- real estate
7	Restructure Debts
8	Stay in Business
9	Discharge Debts
10	Reorganize Business
11	IRS-- Any Mention
12	Involuntary
13	Trying to sell business/attract new investors
14	Protect Home
15	Reopen - new business
16	Did not know
17	Other
18	Get a fresh start
19	Prevent foreclosure
20	Protect Assets Other Than Home
21	Disolve Partnership
22	Buy Time
23	Preserve equity

24	Stop/Relieve the Pressure
25	Obtain working capital
26	Reverse Foreclosure
27	Recover Repossessed Assets
28	Get back on our feet
29	Work out a union problem
30	Take care of debts from another buisness
31	Reopen this business
32	Repay creditors
33	Prevent liability/Avoid exposure
34	Prevent eviction
35	"This is a personal bankruptcy"