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Feature

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The Practical Advantage from Empirical Research



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Each participant in the bankruptcy system can only see it from his/her own perspective. Empirical research can broaden participants' perspectives by adding an overview, but for bankruptcy professionals, applying empirical research findings to particular cases is difficult, time-consuming and inexact. Computer programs can assist in the application by providing professionals with direct access to the data, allowing bankruptcy practitioners to organize and display the data in different ways, and performing the calculations that are necessary to apply the research findings to the professional's actual or hypothetical case.

This article describes three such programs: the Bankruptcy Survival Calculator, the Pacer Docket Searcher, and Design-a-Study. The programs were developed through empirical research and designed to make the bankruptcy system's operation more transparent. They are also publicly available for free on the UCLA-LoPucki Bankruptcy Research Database (BRD) website.¹

The Bankruptcy Survival Calculator

The Bankruptcy Survival Calculator is a computer program that predicts, from facts that are available at the beginning of a large, public company bankruptcy, the likelihood that the company will survive through the end of the case. The predictions are based on 11 variables identified through regression analysis by Prof. Joseph W. Doherty and myself.² The report of that research is now available through SSRN³ and will be published in the *UCLA Law Review* in May 2015.

1 The programs are available on the BRD's website at <http://lopucki.law.ucla.edu>.

2 The research was funded by grants from endowments of ABI, the National Conference of Bankruptcy Judges and the Turnaround Management Association. By funding this research, these endowments have not endorsed or expressed any opinion about the approach used by the project, or any conclusions, opinions or report of any research results expressed in or disseminated by the project.

3 The report is available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2492209.

The calculator monthly was updated by adding the new cases and regenerating the regression formulae. Predictions can be based on any or all of the 11 case or company characteristics. The larger the number of those characteristics used in making a prediction, the more accurate the prediction is likely to be.

About 70 percent of the large public companies that file for chapter 11 survive through the end of the bankruptcy case. The remaining 30 percent are absorbed into other companies or liquidated piecemeal.

To begin the research, we identified 70 BRD variables that we thought might plausibly predict what companies would survive. They were tested in thousands of combinations on data for more than 600 cases to identify the combination that best predicted survival. Every variable in the model was required to be statistically significant, controlling for all of the other variables in the model. Only 11 variables met that requirement. Fortuitously, each variable was also statistically significant without controlling for any of the other variables. Here are the 11 variables:

1. A company that even hinted in a press release announcing its bankruptcy that it intended to sell its business was much more likely to fail.
2. Companies whose cases were assigned to judges with more experience in large public company cases were more likely to survive.
3. Companies headquartered in isolated geographical areas were more likely to fail.
4. Companies that filed with higher leverage were more likely to survive.
5. If a creditors' committee was routinely appointed, the company was more likely to fail.
6. Companies with debtor-in-possession loans were more likely to survive.
7. Companies that prepackaged or prenegotiated their plans were more likely to survive.

- 8. Companies were more likely to survive if pre-filing interest rates were low.
- 9. Larger companies were more likely to survive.
- 10. Manufacturers were more likely to survive.
- 11. Companies with positive pre-filing operating income were more likely to survive.

In essence, a regression formula tells how to weight the variables that were used in making a prediction. As new cases are entered into the BRD monthly, the Bankruptcy Survival Calculator recomputes the regression formulae, thus assuring that the weights and predictions are always based on current data. To obtain a prediction, the user needs to only enter as many of the 11 variables as are available for a real or a hypothetical case. The calculator immediately returns the best prediction possible based on those variables (see Figure 1).

The likelihood that a company will survive matters to the company's executives, employees, suppliers and investors because they are usually betting on the company's survival. Survival matters to the lawyers, financial advisors and judges because it might be an issue in the case. Among the more than 600 cases in the study, the predicted likelihoods of survival ranged from less than 10 percent to more than 95 percent.

Bankruptcy professionals can also use the calculator to get a better sense of the relative importance of the variables. For example, an attorney planning to file a large, public company bankruptcy can see how much difference the judge's experience will make in the company's chances of survival by clicking on the names of various judges. For each judge, the

program will return a prediction based on the number of large, public company cases that the judge has completed to date.

Design-a-Study

The Design-a-Study program has been available through the BRD website since 1997. The most recent revisions enable users to run any of the 20 studies with only a single click of the mouse. For each of these "one-click" studies, the program compiles an up-to-date report with tables, graphs and statistics.

Each of the studies is on a topic of importance to practitioners, judges and scholars: (1) trends in the numbers of cases filed; (2) trends in the numbers of cases disposed of; (3) trends in the numbers of cases by year of the debtor's emergence; (4) plan-confirmation rates; (5) whole-company § 363 sale rates; (6) plan prepackaging and prenegotiation rates; (7) industry differences; (8) business survival rates; (9) the identities of the debtors' lead bankruptcy law firms; (10) the identities of the bankruptcy judges; (11) the distribution of cases among venues; (12) forum-shopping rates; (13) refiling rates; (14) debtors' headquarters locations; (15) debtors' incorporation states; (16) the causes of bankruptcy; (17) the debtors' sizes by assets; (18) debtors' sizes by employees; (19) the chapter 7/chapter 11 mix; and (20) involuntary filing rates (see Figure 2).

With just a few more clicks, the user can limit the study to any subset of the more than 1,000 cases in the BRD. The limit can be by any category of case recognized in the online BRD. For example, a user could conduct a study of § 363 sale cases disposed of in the past five years by the courts in

Figure 1: Bankruptcy Survival Calculator

Figure 1: Bankruptcy Survival Calculator

The LoPucki-Doherty Bankruptcy Survival Calculator: Prediction

Select a Bankruptcy Research Database case from the list ([Who's on the list?](#)), or enter any combination of these eleven variables and click on "Calculate." Then the program will predict the likelihood that the debtor company will continue in business as a stand-alone company beyond the end of the bankruptcy case.


Select a case or enter data below


Optionally, select a judge to fill in that judge's current experience below


Example	Input	Click here to obtain input data for BRD cases
no <input type="checkbox"/>	<input type="checkbox"/> yes	Select yes if the debtor publicly indicated an intent to sell the businesses, no if not.
4.1 <input type="text"/>	<input type="text" value="7.75"/>	Enter the prime rate of interest one year prior to filing.
neither <input type="checkbox"/>	<input type="checkbox"/> renegotiated	Select whether the case is prepackaged, prenegotiated , or neither.
-.08 <input type="text"/>	<input type="text" value="0.6113"/>	Enter the ratio of the debtors equity to assets before bankruptcy.
no <input type="checkbox"/>	<input type="checkbox"/> no	Select yes if the debtor's primary business is manufacturing , no if not.
21 <input type="text"/>	<input type="text" value="14"/>	Enter the miles from the debtor's headquarters city to the local bankruptcy court city.
yes <input type="checkbox"/>	<input type="checkbox"/> yes	Select yes if a creditors' committee was appointed within 24 days of file, no if not.
no <input type="checkbox"/>	<input type="checkbox"/> no	Select yes if the debtor's EBIT* was greater than zero, no if not.
7 <input type="text"/>	<input type="text" value="0"/>	Enter the number of prior BRD cases in which the judge was the judge at confirmation.
845,653,000 <input type="text"/>	<input type="text" value="342,129,000"/>	Enter the debtor's assets before bankruptcy, in current (inflation adjusted) dollars.
yes <input type="checkbox"/>	<input type="checkbox"/> yes	Select yes if the court approves a DIP loan , no if it does not.

Output
<input type="text" value="2 %"/> Lower bound of 95% confidence interval.
<input type="text" value="9 %"/> Probability the debtor company will survive bankruptcy.
<input type="text" value="17 %"/> Upper bound of 95% confidence interval.
<input type="text" value="Didn't survive"/> Actual outcome of case.

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The Anthony H.N. Schnellling ABI Endowment Fund

In funding the Success Modeling Project, these organizations do not endorse or express any opinion about the approach used by the project, or any conclusions, opinions, or report of any research results expressed in or disseminated by the project.

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Delaware and New York. The user could also conduct a study of debtors' attorneys in free-fall retailer bankruptcies. Any of the 20 one-click studies can be run in thousands of variations.

Each study report includes both tables and graphs showing the number of cases in each category; the means and medians of the debtors' assets, sales, employees, case durations; the frequency of each debtors' attorney and judge's involvement in the cases studied; and the names of the cases in the study. Design-a-Study can provide system participants with a variety of data advantages. A professional working on a case can first use it to identify other similar cases and then use the PACER Docket Searcher to identify issues that are likely to arise in the case type, documents prepared by other professionals to address those issues, and unreported decisions on those issues. Anyone can use Design-a-Study to identify the law firms and judges with experience in any category of cases. Professionals can also use it to keep abreast of the trends in case filings, 363 sales, prepackaging, forum selection, industry health or other changing factors.

PACER Docket Searcher

Since the BRD staff does a lot of docket searching, a program was created that is specifically designed for that purpose.⁴ The PACER Docket Searcher (PDS) is capable of storing and searching any set of bankruptcy dockets, but it can be used to search only the dockets of BRD cases. We downloaded

4 The PACER Docket Searcher is available at www.pacerdocketsearcher.com/docket_search.php.

those dockets from PACER and also purchased BanCap dockets for BRD cases from the National Archives (see Figure 3).

The PDS searches only the dockets, but it provides ready access to the underlying documents through the Public Access to Court Electronic Records (PACER) system. If the document is on PACER, the docket number will contain a link to the document on PACER. Clicking on the link will take you directly to the document.⁵

Ready access to the BRD dockets and documents can provide important advantages to practitioners. First, the PDS can function like a gigantic form book. For example, if you are applying for professional fees in the Southern District of New York, a PDS search can quickly find recent and successful fee applications in that jurisdiction for almost any situation. Identify cases — anywhere in the U.S. — in which the parties litigated almost any issue that is of interest to you, and you can see how that issue was resolved. You can also investigate the experience of any judge or law firm with any particular issue, as well as see what the attorneys argued and how the judges ruled — in orders that never reached the official reports.

The PDS currently provides two search methods (word and document type) that can be used separately or in combination. A word search can be for a single word or phrase, or it can be a Boolean specification that uses any combination of “and,” “or,” “not” and quotation marks. Those specifications work essentially as they do on Lexis or Westlaw.⁶

5 Users must be logged into the PACER system in order to access the documents.

6 There's no “within,” but the brevity of PACER docket entries makes it unnecessary.

Figure 2: Design-a-Study

Figure 2: Design-a-Study


Design-a-Study

Flexible studies (include only the cases in the categories you choose) View One Click Studies


1. Choose study to run	2. Choose cases to include	3. Choose tables/graphs to show
<input checked="" type="radio"/> Trend in filings	All filing years choose years	<input checked="" type="checkbox"/> Number of cases
<input type="radio"/> Trend in dispositions	All disposition years choose years	<input checked="" type="checkbox"/> Debtors' names
<input type="radio"/> Trend in emergencies	All emergence years choose years	<input checked="" type="checkbox"/> Debtors' attorneys
<input type="radio"/> Venue (by city)	All venue cities choose cities	<input checked="" type="checkbox"/> Days in chapter 11
<input type="radio"/> Venue (by district)	All venue districts choose districts	<input checked="" type="checkbox"/> Assets
<input type="radio"/> Headquarters	All headquarters cities choose cities	<input checked="" type="checkbox"/> Judge at disposition
<input type="radio"/> Confirmation Rates	All dispositions choose dispositions	<input checked="" type="checkbox"/> Number of Employees
<input type="radio"/> \$363 sales	All cases choose cases	<input checked="" type="checkbox"/> Annual sales
<input type="radio"/> Involuntaries	All parties choose parties	
<input type="radio"/> Prenegotiation	All plan types choose plan types	
<input type="radio"/> Forum shopping	All cases choose cases	
<input type="radio"/> Debtor's Industries	All industries choose industries	
<input type="radio"/> Incorporation state	All jurisdictions choose jurisdictions	
<input type="radio"/> Bankruptcy causes	All causes choose causes	
<input type="radio"/> Business survival	All outcomes choose outcomes	
<input type="radio"/> Refiling rates	All outcomes choose outcomes	
<input type="radio"/> Asset sizes	All asset sizes choose asset sizes	
<input type="radio"/> Employee sizes	All employee sizes choose employee sizes	
<input type="radio"/> Chapters (7 or 11)	All chapters choose chapter	
<input type="radio"/> Debtor's attorney	All attorneys choose attorneys	
<input type="radio"/> Presiding Judges	All judges choose judges	

Run study
Restore default choices


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Searches for document types are for types such as motions, applications, orders, decisions, memorandums, transcripts, opinions, affidavits, plans, statements and hearings. PACER does not formally assign document types, but by convention, the document type is indicated by the first noun in a PACER entry. The PDS allows the searcher to limit the search to one or more of these document types. For example, if you are searching to determine the amounts of the fees awarded in a case, you can limit your search to applications and orders, which will exclude the many notices, affidavits and other documents that do not contain the information you want, but whose titles will also contain the words “fees” or “compensation.”

Searches can be of all BRD dockets, a single BRD docket or the dockets of any category of BRD cases. To specify the category, the searcher has access to the Design-a-Study interface while in the PDS. For example, one search can be for particular words in motions, applications and orders in prepackaged cases filed in Chicago. The searcher who wants to see a motion to approve a 363 sale filed by a particular firm can run the search only on that firm’s cases.

The PACER docket searcher contains about 2.5 million docket entries. In searching so many documents, it is easy to be overwhelmed by false positives. For example, assume that you want to search for documents related to committees other than creditors’ committees. The PDS’s unique not-part-of function allows for a search for “committee not part of creditors’ committee.”

Conclusion

Bankruptcy lawyers, judges and other professionals have long been interested in empirical research. Each of the three major associations of bankruptcy professionals — ABI, the National Conference of Bankruptcy Judges and the Turnaround Management Association — have established endowments that fund the bulk of empirical bankruptcy research. Traditionally, that research is disseminated in the form of journal articles and books. Those forms communicate the *findings* and so provide a valuable service to the professions, but they fail almost completely in communicating the *data*. Yet most of the value to practitioners from empirical research is in the data.

The PDS and Design-a-Study programs address the problem by providing access to the data. The Design-a-Study and the Bankruptcy Survival Calculator go even further. Design-a-Study empowers professionals to use the data to generate findings that are more directly relevant to their cases. The Bankruptcy Survival Calculator enables them to use both the data and the findings from research to draw conclusions directly applicable to a particular case. **abi**

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The American Bankruptcy Institute is a multi-disciplinary, non-partisan organization devoted to bankruptcy issues. ABI has more than 12,000 members, representing all facets of the insolvency field. For more information, visit abi.org.

Figure 3: PACER Docket Searcher

The screenshot shows the PACER Docket Searcher interface. At the top, there is a header with the title "Docket Searcher" and a "Saved searches" button. Below the header, there is a search terms input field containing "kerp or 'key employee retention'". To the right of the search terms field, there are two date input fields labeled "Limit to documents filed between dates" with "from" and "to" labels. Below the search terms field, there is a search example: "Search example: 'final fee' and (attorney or adviser)". To the right of the search example, there is a section titled "Limit documents by types" with four dropdown menus: "Application(s)", "Motion(s)", "Order(s)", and "- No additional types -". Below the search example, there is a section titled "Case types to search (numbers in parentheses are cases in each category)" with a list of case types (A through K) and their corresponding filters. The filters are: A. Dates (filed), B. Filing cities / districts (All cities), C. Headquarters cities (All cities), D. Dispositions (All dispositions), E. §363 sales (All cases), F. Filing parties (All parties), G. Plan types (All plan types), H. Forum shopping (All cases), I. Industries (All industries), J. Incorporation state (All jurisdictions), and K. Cause (All causes). Each filter has a checkbox and a "select" link.