

Bankruptcy and Intra-District Legal Culture

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“Legal culture” is often used to explain differences in the choice of chapter in bankruptcy filings among similarly situated debtors. Empirical evidence supports legal culture as an influential force; however, little research has been conducted that characterizes legal culture in a non-residual manner. This paper evaluates variations in the outcomes of bankruptcy filings in the Eastern District of Washington to determine the factors that create legal culture, with particular attention paid to the role of attorneys. We find that legal culture does exist, that attorneys play a role in shaping it, and that it plays a role in case outcomes.

INTRODUCTION

Bankruptcy filing rates vary drastically between states and between regions within states. The legal literature suggests that the debtor’s ability to file under Chapter 7 of the U.S. Bankruptcy Code (Liquidation), versus the ability to file under Chapter 13 of the U.S. Bankruptcy Code (Adjustment of Debts) is a determining factor in filing rates and chapter choice. The reasons to select a Chapter 13 filing over a Chapter 7 include the ability to cure a mortgage default, to pay tax claims over time, and to manage monetary and non-monetary sanction imposed by other courts, among a host of other factors. Chapter 7’s, while called Liquidations, rarely require any liquidation of assets, and provide the debtor a fast and clean discharge of the dischargeable debt. This allows the debtor to re-establish his/her ability to obtain credit in a shorter time frame. There are a number of jurisdictional requirements as well as advantages to the debtor that will partially determine the debtor’s chapter filing election, either Chapter 13 or 7.

However, the differences in filing rates under Chapter 13 versus Chapter 7, both within a typical district and across districts, are sufficiently disparate to suggest that other forces are driving both the chapter filing decision and the variation in total filings across states, districts and regions. Statistics, maintained by the U.S. Trustee’s Office (<http://www.uscourts.gov/Statistics.aspx>) show some states with Chapter 13 filing percentages above 60 percent, with other states below 10 percent. These differentials are

often attributed to “legal culture”, or the combined efforts of lawyers, judges, and the court system to promote one type of bankruptcy over another (and the unique outcomes associated with a specific type of filing), within that district. If debtor demographics, attorney characteristics and court operating procedures are relatively consistent across districts (or sub-regions within a district), an empirical analysis of bankruptcy filings should produce outcomes (whether measured as chapter filings, successfully completed bankruptcy plans, or the amount of debts repaid, both in total and by category) that do not vary significantly across districts. Rejection of this null hypothesis suggests the existence of differences in “general legal culture” as the root cause of these differential outcomes. Several previous studies, including Sullivan, Warren and Westbrook (1997) suggest that legal culture not only exists, but can exist within regions of the same bankruptcy court district.

A major limitation with these previous studies lies in the specificity of their findings. In most studies, legal culture is defined residually, in the sense that any statistically significant differences in filing rates or filing outcomes not explained by available data fall into the category of “legal culture”. This limitation is problematic for two reasons. First, treating legal culture as a residual construct tells legal researchers, practitioners and policy makers nothing about the components and consequences of legal culture. Clearly, the formation of legal culture is due to omitted variables, and a greater understanding of the formation of legal culture can only be gained by using data that provide more detail about the nature of each bankruptcy filing, including the outcomes filers achieve from a specific type of bankruptcy filing. Second, it may be the case that the formation of legal culture is fundamentally different across districts and/or other political jurisdictions. In these cases, aggregating data across these districts and/or jurisdictions will bias the results against a finding of legal culture, especially if these differences “average out” across districts/ jurisdictions. To avoid aggregation biases, it is necessary to focus on a single district or other jurisdiction, and conduct separate analyses for each district and/or area.

This paper adds to the legal culture literature by addressing both of these issues. First, we add to the current legal culture literature by focusing on a single bankruptcy court district. Previous studies, including Hackney, McPherson and Friesner (2011, 2013) and Hackney, McPherson, Correia and Friesner (2012), examined data over the entire Eastern District of Washington State and found indirect evidence suggesting that a unique legal culture exists in the District. The current analysis also focuses on the Eastern Washington District, which provides an established context in which to examine the root causes of legal culture. Moreover, and unlike the Hackney, McPherson and Friesner (2011, 2013) studies, this manuscript focuses on the outcomes of Chapter 13 filings in that District, rather than the determinants of the chapter filing choices (7 versus 13), since the outcomes of each filing decision are very different based on the chapter filing choice. Hence, the formation of legal culture is likely to be very different across chapters, which requires separate analyses by chapter.

Second, and unlike any of the previous citations, this paper further investigates the issue of legal culture by specifically analyzing the role of attorneys in the formation of legal culture in a single District.¹ We look for any systematic differences in attorneys’ fees and/or debt repayments based on the filer’s attorney of record. Holding constant other important factors that influence a bankruptcy filing’s outcome, no significant differences should exist across (Chapter 13) bankruptcy filing outcomes based on the attorney of record. Concomitantly, significant differences by attorneys, holding other important factors constant, indicates that a specific legal culture exists, and that attorney choice plays a key role (whether through cause or consequence) in the formation of that culture.

A LITERATURE REVIEW ON ATTORNEY CHOICE AND LEGAL CULTURE

As mentioned above, several studies have been conducted which evaluate variations in bankruptcy filings across different geographic divisions, and also examine the role of attorneys in the formation of legal culture. Sullivan, Warren & Westbrook (1988) looked at variations in bankruptcy filing choices across three states: Texas, Pennsylvania, and Illinois. They characterized the legal culture factor by comparing filing rate variations across districts within each district studied; for example, comparing Chapter 13 filing rates from Texas’s Eastern District – Tyler with the rates from Texas’s Western District

– San Antonio. While the study provided one of the first attempts to empirically define legal culture, it lacked the quantitative data necessary to arrive at any conclusion in the manner in which local legal culture forms.

Nearly a decade later, Sullivan, Warren & Westbrook (1997) explored differences among districts using data from every Bankruptcy Court district in the U.S. The authors found that variations in debtors' bankruptcy chapter filing choices persisted over a 10 year period despite changes in state law, such as the amount of homestead exemption available, that would seemingly affect the rational debtor's filing decision. The authors deemed the variations tantamount to different bankruptcy systems among the districts and attributed these trends to local legal culture.

Neustadter (1986) provided a qualitative analysis of "legal barriers" at six bankruptcy law practices in two metropolitan areas across two states. The author observed attorney-client interviews and counseling through the bankruptcy process. The report concluded that 1) an attorney's counsel is influenced by the social system in which he or she operates, 2) behavior is diverse among legal practitioners and 3) attorney-client interaction may often influence client choice among alternatives.

Some studies have gone a step further and focused on drivers within legal culture that may influence chapter selection. Braucher (1993) conducted an empirical study of legal practices in four cities (two in Texas, two in Ohio), each with its own bankruptcy court, and found that attorneys arrive at varying conclusions for bankruptcy clients. Additionally, many of these differences were a result of the attorney's attempt to find a compromise between their own financial interests, the interests of their clients and social concerns. Ultimately, Braucher concluded that local practices and legal culture have a greater influence on choices in consumer bankruptcy than features of the U.S. Bankruptcy Code.

Bermant, Flynn & Bakewell (2002), suggest the differences in filing rates are not limited between states but likewise exist within states. That article "expect[s] strong influences of local legal culture to operate at the district level." Further, the authors suspect that population increases within a district will lead to an increase in filing variation within that district which, in turn, increases the potential for changes in legal culture in those areas.

It is also important to distinguish between bankruptcy before and after the enactment of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 ("BAPCPA"). This significant change in legal parameters of bankruptcy was designed to influence the chapter filing decision process by limiting high-income filers' abilities to file under Chapter 7. To the extent that BAPCPA attempts to shift debtors into a Chapter 13 filing, and to the extent that local legal culture impacts Chapter 13 filers differently than Chapter 7 filers, this implies that BAPCPA may also alter local legal culture in a way that makes prior studies obsolete. For example, Lefgren & McIntyre (2010) used bankruptcy court and demographic information at the zip code level to evaluate the variation of filings across states. In addition to identifying legal culture as a source of filing variation, the study suggests bankruptcy rate differences are also a result of differences in state wage garnishment laws and demographic factors. Taken cumulatively, all three causes account for 70 percent of the variance in filing rates.

McIntyre, Sullivan & Summers (2010) looked at the number of bankruptcies filed at the zip code level. That study used demographic information at the level of the zip code, matched the zip code to the district where residents file, and combined this information with legal fees and repayment data from a (nationally representative) random sample. The authors found that filings were heavily affected by the amount of fees an attorney may charge for the typical (and more lucrative) Chapter 13 filing.

Lefgren, McIntyre & Miller (2010) examined household level data from three states (California, Texas and Utah) and found that some attorneys were influencing their clients' decisions not based on the best interests of the client (debt relief), but on the attorney's own financial interest. A strong correlation of chapter decision across a single attorney's client base indicated a profit maximization motive among some attorneys.

Despite these studies, little empirical research has been conducted to this point that comprehensively examines the formation of legal culture within a single district, and the role that attorneys in the district play in promoting a specific legal culture. A notable exception is Hackney, McPherson, & Friesner (2011), which analyzed the means test introduced by the BAPCPA legislation at the intra-district level,

and which calls for further studies of legal culture. Similarly, Hackney, McPherson, Correia and Friesner (2012) also find evidence of legal culture among Chapter 13 filers (who filed before BAPCPA was implemented) and also found evidence of intra-district legal culture. As noted earlier, this study did not identify whether attorneys (who primarily practice in specific geographic areas which roughly correspond to a small number of counties) also play a role in this process. We attempt to address these additional issues here. Besides extending the study found in Hackney, McPherson, & Friesner (2011), this paper compliments the work undertaken in McIntyre, Sullivan & Summers (2010), *supra*, by looking at many of the same questions, such as whether lawyers steer clients towards filing under the bankruptcy chapter that allows for higher attorney's fees, but on an intra-district level.

METHODOLOGY

Basic Framework and Assumptions

Given the paucity of empirical studies on the formation of legal culture, we apply a very simple methodology that is consistent with the few studies that do exist in the literature. We operate under the null hypothesis of no mean differences in any potential measure of legal culture across any exogenous filer characteristics. That is, a specific filer characteristic does not significantly contribute to the formation of legal culture under our null. Rejection of the null therefore indicates that the characteristic in question does contribute to local legal culture. For example, one application of this framework is to test whether significant differences exist in the amount of unsecured debt that is discharged in the bankruptcy process across groups of filers who employ the same attorney to submit their bankruptcy petitions. If this null is rejected, it implies that specific attorneys are more or less successful in discharging these types of debts for their clients, which in turn suggests the existence of one facet of legal culture.

To operationalize this general null hypothesis, our analysis rests on several assumptions. First, legal culture is undoubtedly a complex, multi-faceted phenomenon. Any attempt to identify specific, structural components of legal culture must therefore identify the specific context in which legal culture will be characterized. We choose to focus on those aspects of legal culture that take as given the decision to file under Chapter 13, but which impact the outcome of that case. Unlike Chapter 7 filings (which are typically discharged successfully in a matter of months), Chapter 13 filings require the debtor to establish a long-term repayment plan, and this take more time and effort to resolve. Additionally, more specific outcomes for Chapter 13 filings include such characteristics as dismissal rates, total plan disbursements, and amounts received by unsecured creditors. As noted above, additional factors include arrear mortgage payments, arrear child support, and arrear non-dischargeable tax debts. Thus, the legal culture surrounding the successful completion of a Chapter 13 filing is likely to be much more complex (and much more interesting to study) than other aspects of the bankruptcy process.

Second, bankruptcy is a redistributive process. Hence, it is necessary to adopt a perspective from which those outcomes will be measured. We adopt the perspective of the society. Therefore, legal culture can be examined using 2 sets of criteria. The first criterion is that a successfully discharged case is superior to one which is unsuccessful, usually dismissed. This implies that the filer has met society's conditions (as specified by the Bankruptcy Code) for the resolution of outstanding debt. The second criterion for a successful Chapter 13 filing is that the debtor repays a substantial amount of outstanding debt to creditors. The amount that is repaid is based on a debtor's ability to pay, with greater income (net of court-approved expenses) indicating greater ability to repay. Additionally, the Bankruptcy Court prioritizes the claims of creditors, with the Court's trustee and the filer's attorney receiving the highest priority (i.e., first claim on any repayments), Schedule E priority creditors (e.g., domestic support obligations and unpaid taxes) and secured creditors, mortgages and other secured loans receiving greater priority than creditors who are owed general, unsecured obligations (e.g., credit cards). Because attorneys generate claims once the decision to file for bankruptcy has been made, there is a greater social redistribution (and a greater redistributive burden placed on society) if attorneys receive a greater proportion of the total bankruptcy case payments. Therefore, based on these criteria, Chapter 13

bankruptcy case outcomes can generally be categorized by four possible case outcomes, which, from society's perspective can be ordered:

- 1) A case is successfully discharged and the filer's attorney receives less (and creditors receive more) than a threshold amount of all payments. This represents the best possible outcome of the Chapter 13 bankruptcy process.
- 2) A case is successfully discharged and the filer's attorney receives more (and creditors receive less) than a threshold amount of total payments. This represents a second best outcome because society's conditions for repayment are met, but creditors are paid less.
- 3) A case is not successfully discharged and the filer's attorney receives less (and creditors receive more) than a threshold amount of total payments. In this case, society's conditions for repayment are not met, although creditors, rather than attorneys, are repaid some outstanding debt. This ranks as third because a non-discharged case represents a failure of the legal system to enforce property rights in general, even if some creditors are repaid by this particular debtor.
- 4) A case is not successfully discharged and the filer's attorney receives more (and creditors receive less) than a threshold amount of total payments. In this case, society's conditions for repayment are not met, and attorneys, rather than creditors receive the majority of repayments. In this case, the established legal culture promotes even greater redistribution as payments are shifted from the creditors to attorneys.

While each of these outcomes can be ordered from society's perspective, it is important to note that specific individuals within society do not share these orderings. For example, a debtor whose incentive for filing bankruptcy is to adjust domestic support obligation payments might find outcome 4 to be the most preferred outcome. Attorneys who weigh revenue maximizing incentives above other incentives might find options 2 and 4 to be the most preferred outcomes, respectively. Moreover, since individuals within society make choices about case outcomes, any empirical analysis that intends to characterize the determinants of these outcomes must account for these disparate interests.

A second aspect of legal culture in which attorneys can impact is in the discharge of specific types of debts. More specifically, general unsecured debt receives the lowest priority in the Chapter 13 repayment process. Unsecured debts for which the filer does not have an ability to repay may be discharged. Attorneys may develop novel strategies (or simply attract clients with different distributions of debt) to allow filers to have different (perhaps greater levels) of this debt discharged.² These strategies may benefit the client, although they may lead to a greater amount of (debt-related) redistribution that is placed upon society. Thus, we can adapt the approach described previously to identify four alternative scenarios which, from society's perspective, can also be ranked.

- 1) A case is successfully discharged and general unsecured creditors receive more than a threshold amount of all payments. This represents the best possible outcome of the Chapter 13 bankruptcy process, because the integrity of the process is preserved and property rights are more strictly enforced.
- 2) A case is successfully discharged and general unsecured creditors receive less than a threshold amount of all payments. This represents the second best possible outcome of the Chapter 13 bankruptcy process, because the integrity of the process is preserved, although the claims of general unsecured creditors are less likely to be honored.
- 3) A case is not successfully discharged but general unsecured creditors receive more than a threshold amount of all payments. As before, this ranks as third because a non-discharged case represents a failure of the legal system to enforce property rights in general, even if some creditors are repaid by this particular debtor.
- 4) A case is not successfully discharged and general unsecured creditors receive less than a threshold amount of all payments. This is the worst of the four outcomes because there is a greater redistributive burden placed on society and the legal system fails to enforce property rights.

As noted above, the same caveat applies here as well; namely, that society's rankings of these possible outcomes may not be shared equally by everyone in society. Moreover, individuals in society make decisions, and each decision maker may rank these possible outcomes differently. Any empirical analysis intending to incorporate these outcomes into a study of legal culture must account for these conflicting incentives.

Empirical Framework

This analysis seeks to characterize the outcomes of Chapter 13 filings in a specific U.S. Bankruptcy Court District, using the general outcomes of the case as defined in the previous paragraphs. Given these considerations, we estimate a reduced form, linear in parameters, binary logit model with the following form (Greene 2000; pp.811-816):

$$Prob(Outcome_{it}^j = 1) = F(\alpha + \sum_{h=1}^H \beta_h X_{it}^h + \sum_{k=1}^K \gamma_k Z_i^k + \sum_{l=1}^L \theta_l W_t^l) \quad (1a)$$

$$Prob(Outcome_{it}^j = 0) = 1 - F(\alpha + \sum_{h=1}^H \beta_h X_{it}^h + \sum_{k=1}^K \gamma_k Z_i^k + \sum_{l=1}^L \theta_l W_t^l) \quad (1b)$$

$$F(\alpha + \sum_{h=1}^H \beta_h X_{it}^h + \sum_{k=1}^K \gamma_k Z_i^k + \sum_{l=1}^L \theta_l W_t^l) = \frac{e^{(\alpha + \sum_{h=1}^H \beta_h X_{it}^h + \sum_{k=1}^K \gamma_k Z_i^k + \sum_{l=1}^L \theta_l W_t^l)}}{1 + e^{(\alpha + \sum_{h=1}^H \beta_h X_{it}^h + \sum_{k=1}^K \gamma_k Z_i^k + \sum_{l=1}^L \theta_l W_t^l)}} \quad (2)$$

where F() represents a cumulative logistic distribution; e represents the natural exponent; i = 1, ..., n indexes each filer; t = 1, ..., T indexes time; X represents one of H covariates that vary by filer and time; Z represents one K time invariant regressors; W represents one of L filer-invariant regressors; and α , the β s, the γ s and the θ s are parameters to be estimates.

The dependent variable ($Outcome_{it}^j$) represents a single specific outcome (out of the j = 1, ..., 4 possible outcomes) for one aspect of legal culture. For example, in our first aspect of legal culture (attorney fees and case outcomes), $Outcome_{it}^1$ represents the situation where a value of 1 is assigned to a case where the filer successfully completed the repayment plan and the attorney received less than a threshold amount of all filer repayments. The complement, where the value for $Outcome_{it}^1$ takes a zero, is assigned to all other possible outcomes. This approach necessarily gives emphasis to one possible outcome of the filing process and characterizes the determinants of this outcome relative to all other outcomes taken cumulatively. We take this approach because it allows us to account for the fact that society's ranking of these outcomes may differ from those of the filer, the filer's attorney and the Court. A detriment to this approach is that it requires equations (1)-(2) to be estimated four times for each aspect or definition of legal culture, one for each possible outcome. We note in passing that several other models (i.e., ordered logit and multinomial logit) models were estimated which qualitatively support those reported in this manuscript.³ Those results are available from the lead author upon request. Lastly, because there are two primary sets of outcomes (successful plan completion and attorney payments; successful plan completion and general unsecured creditor repayments), the aforementioned analysis is completed again (with four additional logit models) for the second aspect of legal culture.

Equations (1)-(2), when estimated for a specific outcome of the Chapter 13 bankruptcy process, allow us to test our general null hypothesis. More specifically, the null states that no causal relationship exists between a specific determinant of legal culture and the outcome of the case, which is an ex-post measure of legal culture. For example, if a filer's attorney is included as a regressor (as a Z_i^k since it is time invariant) in (1), the null hypothesis indicates no relationship between this Z_i^k . This implies that the corresponding (population) parameter γ_k is zero. Hence, a simple chi-square test can be applied to the parameters estimate under this null to determine whether the filer's attorney influences the outcome of the Chapter 13 filing process. Similar tests can be repeated for all other parameters each of the binary logit models. Each of these regressions and corresponding hypothesis tests were implemented in SAS, Version 9.3 (SAS Corporation, Cary, NC) and use standard 5 percent significance levels, although estimates that are statistically significant at the 10 percent level are also reported for convenience of interpretation.

Finally, to reduce multicollinearity and heteroskedasticity in (1)-(2), two actions were taken. First, any quantitative variable (such as real filer income or real assets) that takes a wide range of possible values is transformed using the natural logarithm. Second, in the case where an explanatory variable is disaggregated into a series of g mutually exclusive and collectively exhaustive dummy variables, only $g-1$ of those variables are included as regressors. All coefficient estimates for these included variables should, naturally, be interpreted relative to the omitted category.

DATA

The data used in this study come from the Public Access to Court Electronic Records (PACER) database maintained by the Eastern Washington Bankruptcy Court District. Interval random sampling was used to identify a sample of 500 Chapter 13 filings (or which 497 contained a full set of information) during the years 2003, 2005 and 2007. The years 2003, 2005, and 2007 were chosen for the analysis to allow sufficient time for all filers to complete their plan. Chapter 13 cases can last up to 60 months, and by 2012 the entirety of these cases had been finalized by dismissal, conversion to a different chapter filing and/or successful discharge. Additionally, BAPCPA took effect in October 2005; hence, we are able to use the date of filing to determine whether the implementation of BAPCPA noticeably altered legal culture in the District. These 497 filings, when divided among the 3 years of the study, are reported as follows: 225 cases for 2003, 171 cases for 2005, and 101 cases for 2007. These totals constituted random samples for each tested year in percentages ranging from 9.59 percent to 9.68 percent. All monetary data are converted to real 2003 U.S. dollars using the consumer price index for all urban consumers.

As noted in prior studies (Hackney, McPherson and Friesner, 2011, 2013; Hackney, McPherson, Correia and Friesner, 2012), the Eastern Washington District is interesting to study for several reasons. First, it has a moderately sized population (between 1 and 1.5 million residents), which is relatively evenly dispersed across three metropolitan areas (Spokane, Yakima and the “Tri-Cities” of Kennewick, Richland and Pasco). The District is ethnically diverse, with a relatively large Hispanic population that is geographically concentrated and comprises between 15-20 percent of the District’s population. The economy is heavily dependent on agriculture, especially in its rural areas, and the urban areas support an array of industries including (but not limited to) major medical centers, higher education military bases and contract research organizations.

Table 1 contains the variable names, definitions and descriptive statistics for each of the variables used in the analysis. We utilize several, detailed variables as outcome indicators of legal culture within a county. We first constructed a binary indicator (DISCHG) of whether the case was successfully discharged. Approximately 59 percent of Chapter 13 filings in our sample were successfully discharged. PACER records also report whether any payments were made to creditors, to what types of creditors those payments were made. As noted in Table 1, attorneys received, at the mean nearly 23 percent of all debtor payments, and at the median received nearly 10 percent of debtor repayments. Thus, we use 10 percent as our empirical “threshold” above which attorneys are receiving a disproportionate share of debtor payments.⁴ Combining this empirical threshold with the DISCHG variable, we can identify each of the four binary indicators of legal culture: BEST10 (a successful discharge, and less than 10 percent of payments go to attorneys); NBEST10 (a successful discharge, and more than 10 percent of payments go to attorneys); TBEST 10 (dismissed and less than 10 percent of payments go to attorneys); and WORST10 (an unsuccessful discharge, and more than 10 percent of payments go to attorneys). As noted in Table 1, this leads to 29.8, 29.6, 21.5 and 19.6 percent of filers falling into each of these categories, respectively.

A similar process was used to create the second set of legal culture outcome categories. General unsecured creditors, at the mean receive 24 percent of debtor repayments, but only about 12 percent at the median. Consequently, we use 12 percent as our empirical “threshold” to ensure a relatively even distribution of responses in each category. Combining this empirical threshold with the DISCHG variable, we can identify each of the four binary indicators of legal culture: GBEST10 (a successful discharge, and more than 12 percent of payments go to general unsecured creditors); GNBEST10 (a successful

discharge, and less than 12 percent of payments go to general unsecured creditors); TBEST 10 (dismissed and more than 12 percent of payments go to general unsecured creditors); and WORST10 (a successful discharge, and less than 12 percent of payments go to general unsecured creditors). As noted in Table 1, this leads to 41.0, 18.3, 8.7 and 32.0 percent of filers falling into each of these categories, respectively.

Table 1 also describes the names, definition and descriptive statistics of the covariates used in the analysis to identify the causes of legal culture. For example, dummy variables are included to control for the year of filing. As noted earlier, 2003 indicates a pre-BAPCPA filing, and 2007 represents a post-BAPCPA filing. Filings made during 2005 represent filings made right before and after the implementation of BAPCPA. Clearly, the percentage of Chapter 13 filings (45.3 in 2003, 34.4 in 2005 and 18.3 in 2007) indicate that BAPCPA may have actually reduced (rather than increased) reliance on Chapter 13 as a means to deal with creditors.

PACER records also allow us to capture the filer's (real 2003) income, income net of Court-approved expenses (which vary based on factors such as income and family size), assets and liabilities. The mean, real monthly income of the typical debtor is approximately \$2,536 per month. The typical Chapter 13 filer's real assets (in 2003 dollars) are, at the mean \$79,388, while mean liabilities are approximately \$101,595. Liabilities are reported in one of three schedules in PACER: Schedule D (secured liabilities, such as a home or auto loan), Schedule E (taxes, alimony, child support and other priority unsecured claims) and Schedule F (unsecured debt, such as credit card debt). At the mean, the percentage of unsecured debt reported on Schedules D, E and F, respectively, are 43.2, 4.3 and 54.7 percent. Median values for these percentages are similar: 48.2, 0.0 and 45.6 percent, respectively. Clearly, the typical debtor has liabilities in excess of assets. The high number of both assets and liabilities suggests some real property ownership, such as a home. In fact, the variable PRRP (the proportion of total assets that are real property) suggests that real property is, on average, 41.4 percent of all real assets. This makes sense, because one of the benefits of filing under Chapter 13 is that it allows a home owner to restructure mortgage arrearages and retain ownership of the asset. The remainder of the typical filer's debt is owed to general unsecured creditors. It is also interesting to note that 68.6 percent of all Chapter 13 filers have a real net monthly income, after court approved living expenses, of \$100 or less (RI100). For these debtors, the Court is very likely to discharge the majority of any outstanding unsecured debt (since the debtor is likely to be unable to repay it) and focus on the repayment of secured and priority unsecured debt.

Of the Chapter 13 bankruptcy petitions submitted to the Eastern Washington District Bankruptcy Court, we identified the five attorneys who submitted the highest number of petitions. To preserve these attorneys' identities, they are reported as A1, A2, A3, A4 and A5. These attorneys were responsible for 8.5, 11.7, 8.2, 9.9, and 9.5 percent of all filings in the data. Remaining attorneys (of which there are several dozen) accounted for the remaining 52.3 percent of filings. Each of these five attorneys were included as dummy variables in the regressions, with the "all other" category as the omitted case.

The remaining variables in Table 1 provide information on filer demographics, including marital status, number of dependents, whether the filing was joint or individual, county of residence,⁵ and employment status as reported by PACER documents. The majority of filers are married (46.9 percent) and are filing jointly (43.1 percent). Filers, on average, support 1.3 dependents. At the time of filing, 71.4 percent of primary filers are employed, while 21.9 percent of filers have a partner that is jointly filing and employed.

RESULTS

Table 2 contains the four binary logit models where the dependent variables combine plan success with attorney payments. In all four models, the chi-square tests of overall model fit are statistically significant at the five percent level, indicating that each of the four regressions explain a significant percentage of the variation in Chapter 13 filing outcomes, as characterized by the dependent variable in that regression.

Consider the first regression, whose dependent variable is BEST10 and which indicates those filers who completed a successful repayment plan and paid less than 10 percent of total plan repayments to their

attorney. At the five percent level, three variables were significant determinants of this socially most desirable outcome. Those filers whose net incomes (over and above court-approved expenses) were greater than \$100 per month were significantly more likely to have an outcome in this (socially most desired) category. Similarly, primary filers that are employed at the time of filing are also positively and significantly more likely to fall into this category. Third, those with a larger number of dependents are less likely to achieve a successfully discharged plan and pay their attorneys a smaller percentage of total repayments. Clearly, each of these significant regressors indicates an ability of the debtor to repay outstanding obligations (greater dependents signals greater household expenses which reduce ability to pay). The greater the ability to repay, the more likely the debtor is to pay more non-attorney-related debts, which reduces the proportion of total payments to attorneys. The attorney of record does not significantly impact whether or not a filer achieves this outcome.

The next equation in Table 2 predicts NBEST10, or Chapter 13 filing that are successfully discharged, but where the debtors' attorneys received over 10 percent of the plan payments. Once again the coefficient for the filer's net income is significant at the 5 percent level; however, the sign of the coefficient estimate is now negative. Thus, a greater ability to fund a payment plan makes it less likely that a debtor falls into this category of filing outcome. Higher amounts of secured debt (as denoted by a greater proportion of liabilities reported on Schedule D) are negatively associated with outcomes in the NBEST10 category. Thus, filers with greater secured liabilities are less likely to i) successfully discharge their repayment plans and ii) pay attorneys a larger proportion of total repayments. Third, the presence of an employed joint debtor, JDEMPDV, is significant at the 5 percent level with a negative correlation. The presence of an employed spouse is a negative indicator for the successfully completed Chapter 13 repayment plan, but high attorney fee cases. Lastly, attorney A5 is positively and significantly associated with filers who achieve the NBEST10 designation. That is, filers who chose attorney A5 are significantly more likely to successfully earn a discharge, but are more likely to pay attorney A5 a higher proportion of total repayments.

The TBEST10 panel in Table 2 measures the results for the non-discharge-low-lawyer fee cases. The amount of Schedule E priority claims, (PSCHED), non-dischargeable claims such as taxes and domestic support obligations, is positively correlated to plan failure (with low attorney payments) at 5 percent significance. Additionally, those filers who employ attorney A1 are significantly less likely to achieve this outcome. This implies either that attorney A1 screens the clients for likelihood of success, ensures that plans are followed through to completion or that she/he does not make a common practice of collecting the preponderance of debtor repayments. We also note in passing that at the 10 percent level of significance, attorney A5 also exhibits a negative and significant coefficient estimate. At the 10 percent level, divorced filers are more likely to fall into this category.

The Worst10 equation, Table 2 Panel 4, addresses the unsuccessful, but high attorney fee cases. LRASSETS, those debtors with houses and/or land, exhibit a coefficient estimate that is negative and statistically significant at the 5 percent level. This result suggests that the typical home-owning debtor is likely to have better performance on his/her Court-ordered repayment plans. At the 10 percent significance level, the coefficient estimate for attorney A3 is positive, indicating (again, at the 10 percent significance level) that filers with attorney A3 are more likely to achieve the worst possible Chapter 13 filing outcome.

Table 3 contains a similar set of binary logit regressions, this time examining the determinants of Chapter 13 filings based on successful/unsuccessful discharge of the repayment plans and whether or not unsecured creditors were repaid a larger share of total repayments. As in Table 2, the chi-square tests of overall model fit in Table 3 are all statistically significant at the five percent level, indicating that each of the four regressions explain a significant percentage of the variation in Chapter 13 filing outcomes.

Panel 1 of Table 3 examines the results for GBEST12 cases, debtors with discharges where the typical general unsecured creditor receive more than 12 percent of payments. The presence and amount of real assets is positively correlated to plan success at the 5 percent significance level. Conversely, the presence of higher levels of secured debt (PSCEDD) is negatively correlated to success ($p < 0.05$). Priority debt, PSCHED, also has a negative affect at the same significance level. When debtors have

higher secured claims and higher priority claims, available funds are drained for these claimants to the detriment of the low priority, general unsecured creditor.

Table 3, Panel 2 (GNBEST12) addresses discharged cases with poor creditor pay. Once again, the coefficient estimate for the RI100 variable (indicating filers with at least \$100 after expenses, with which to fund a repayment plan) category is positive and statistically significant at the five percent level. This indicates that those filers with an ability to fund a repayment plan are more likely to fall into the GNBEST12 category. The coefficient estimate for PSCHEDD (the proportion of secured liabilities) is also positively and significant at the 5 percent level. This is likely due to the fact that those filers with greater secured liabilities are more likely to complete a repayment plan in order to retain the asset serving as collateral (i.e., a home), but in doing so will generally have less money to repay general unsecured creditors. Third, the coefficient estimate for attorney A2 is positive and significant at the 5 percent level, while the coefficient estimate for attorney A5 is positive and significant at the 10 percent level. Thus, filers who are represented by attorney A2, and to a lesser extent attorney A5, are more likely to have cases where the filer receives a discharge but with poor payment results for the general unsecured creditors.

Panel 3, GTBEST12, examines the data for cases where there is no discharge and higher payments to unsecured creditors. The JDEMPDV variable, the presence of an employed co-debtor, is positively associated ($p < 0.05$) with this particular outcome. At the 10 percent level, several other variables are significantly associated with this set of filing outcomes. Debtors with a higher proportion of secured claims (PSCHEDD), are less likely to experience this outcome, ostensibly because more of their repayment dollars go to secured creditors (not unsecured creditors) in order to retain the assets held as collateral. Additionally, debtors who are represented by attorneys A2, A4 and A5, are all significantly less likely to experience this outcome.

Panel 4 provides estimates for the GWORST12 equation, where there is neither successful plan discharge nor substantial repayment to general unsecured creditors. Interestingly, in this equation we do see some effects from the BAPCPA legislation. Cases filed in 2007 (after BAPCPA and prior to the impact of the 2008 recession) were significantly less likely to result in the worst possible outcome (relative to cases filed in 2005). Cases where the debtor has a high proportion of assets classified as real property are significantly more likely to have an outcome in this category. Also, cases with a higher proportion of priority debts (i.e., taxes, child support and alimony due) were significantly more likely to result in outcomes where the case was neither discharged nor were general unsecured creditors repaid much of their outstanding debt. However, this does make sense, especially if the intent of the filing is specifically designed to restructure debt listed on Schedule E. Once Schedule E debt is restructured, it is verified and enforced through other means (i.e., Family Courts) and there would be no incentive to enforce the plan via the Bankruptcy Court or to repay more debt to unsecured creditors. A similar logic applies if the intent of the Chapter 13 filings is not to actually repay outstanding debts, but to force secured creditors to restructure existing secured debts which allows the debtor to retain her/his real property.

CONCLUSION

“Legal culture” has often been the default explanation used in academic and legal scholarship to account for differences in the choice of chapter filings, and the outcomes of those filings, among debtors who are similarly situated financially. Empirical studies have been undertaken to illustrate variation in choice of chapter across a wide variety of geographic divisions, despite the uniformity of the enacted law. By and large, the body of evidence has pointed to legal culture as a significant force driving the bankruptcy filer’s choice of chapter. However, little empirical research has been conducted that actually attempts to characterize legal culture in a specific (non-residual) manner. This paper is one of the first to evaluate variations in the outcomes of bankruptcy chapter filings at the intra-district level in attempt to determine what specific factors lead to the creation of legal culture. In other words, this manuscript attempts to identify what legal culture “is”, rather than characterizing legal culture as “what cannot be

explained” in the data. Particular attention is paid to the role of the filer’s attorney in creating the outcomes of bankruptcy cases.

Using a random sample of filings in the Eastern Washington Bankruptcy Court District between 2003 and 2007 we reach two primary conclusions and a secondary conclusion. First, we find that uniformity in the law is a consistent, statistically significant driver of case outcomes. More specifically, a filer’s ability to fund a repayment plan, and the composition of outstanding debt, are the most important determinants of the outcome of the typical bankruptcy case in this District. This implies that, while legal culture might exist, it plays a supporting, or marginal, role in framing case outcomes.

Second, we find that legal culture, and more specifically the role of the filer’s attorney in shaping case outcomes, does exist in this District. Certain attorneys are shown to be significantly and positively associated with specific types of socially undesirable outcomes; for example attorney A5 in our data was significantly associated with cases where a Chapter 13 filing was successfully discharged, but the attorney collected a high proportion of total debtor repayments. At the 10 percent level, we found that another attorney (A3) was associated with outcomes in which the filer did not receive a successful discharge and paid a significant proportion of repayments to the attorney. Another attorney (A2) was significantly more likely to ensure his/her client successfully discharged the case, but did so by ensuring that her/his client did not repay a substantial portion of outstanding unsecured debt.

As a secondary conclusion, we find evidence that filings in 2007 were significantly less likely (compared to filers in 2005) to result in an outcome where the filer does not receive a successful discharge and does not repay a substantial proportion of outstanding debts to general unsecured creditors. To the extent that this trend can be attributed solely to BAPCPA, it implies that the Act has, in some way, altered legal culture in the District. At the very least, filers are now less likely to achieve the worst socially undesirable outcome that can accrue from a Chapter 13 bankruptcy filing.

While our results provide some interesting findings, they are intended only as a first step and should be interpreted with caution. While we find that specific attorneys in the District do influence legal culture within the District, we are not specifically arguing that these attorneys are intentionally distorting legal culture towards illegal ends and/or their own personal benefit. Such conclusions cannot, and should not, be drawn from our manuscript. A filer’s choice of an attorney is based on both “push” and “pull” incentives. An attorney’s role is to act as an advocate for the client, within boundaries provided by the law and Court procedures and precedents. An attorney necessarily acts to reach a filing outcome that benefits her/his client as much as possible. In that way, the attorney is proactively contributing towards legal culture which may be socially undesirable, even if it benefits the client. However, it is then incumbent on the Court and policy makers to enact stricter guidelines which effectively prohibit the attorney from enacting those strategies in the future. Additionally, the attorney cannot force a filer to be represented by that attorney. Instead, positive word of mouth from others in the community likely incentivize potential filers with a specific set of circumstances, and who desire a specific outcome from a filing, to proactively seek out an attorney who has a track record of securing those outcomes. Simply put, once an attorney demonstrates success in achieving specific outcomes, other potential filers who want the same outcome (whether or not it is socially optimal) will proactively seek out that attorney’s services. Future research is necessary to determine whether these attorney-specific trends are due to “push” factors (i.e., attorneys stretching the intent of the law) or “pull” factors (i.e., filers seeking out attorneys based on past successes).

The issue of legal culture requires further research in several other key areas, in order to identify its components and causes. This study takes an important first step by analyzing chapter choice within a single bankruptcy district, all contained within one state, Washington, and subject to the same bankruptcy laws. Using a single state eliminates the variations that might exist between states, and fails to attribute legal culture to state differences in exemption laws or variations in garnishment statutes. Thus, replications of our study in other states and/or U.S. Bankruptcy Court Districts are necessary to determine what aspects of attorney-based legal culture are generalizable to other jurisdictions, and which aspects are unique to Eastern Washington.

Further inquiry also needs to be made into the fundamental differences in Chapter 13 cases between high filing and low filing areas. Chapter 13s need to be measured against Chapter 7s in the same districts, the same filing years, and using the same high filing lawyers as variables. This paper has identified a significant part of the legal culture story, but further work remains to be done.

ENDNOTES

1. Hackney, McPherson, Correia and Friesner (2012) examine mean and median differences in specific filing outcomes in Chapter 13 filings across groups of counties in the District. We argue that this measure of legal culture is also residual in nature, because the formation of legal culture is not tied to specific behaviors or decision makers in the bankruptcy process. Moreover, this study uses data from 2003 and 2005, which generally predates the implementation of the Bankruptcy Abuse Consumer Protection Act (BAPCPA). As will be discussed shortly, one of BAPCPA's primary intentions was to directly and indirectly alter legal cultures within and across Bankruptcy Court Districts.
2. It is important to make a disclaimer here. We are not stating that attorneys who are more successful at discharging unsecured debt are guilty of malpractice, nor are we stating that attorneys explicitly attempt to recruit clients with specific types of debt. Attorneys simply use existing laws and court procedures to advocate for their client's best interests, and it is the responsibility of the Court to ensure that those laws and processes are followed. Thus, the existence of legal culture does not imply illegal or unethical behavior. Second, attorneys may or may not attract clients with specific types of debt. It is highly possible that clients proactively seek out specific attorneys based on informal "word of mouth" or communication from others in the community. However, changes in laws and/or Court procedures in the future may curb or promote this activity if it is deemed to be in society's best interests.
3. We do not include these results in the manuscript because they are potentially mis-specified. For example, the ordered logit model requires the researchers to rank order the four possible outcomes for each aspect of legal culture. As noted earlier, this is possible to do from society's perspective, but cannot accurately and precisely be accomplished from the perspective of individual filers/cases. Additionally, both the multinomial and ordered logit models impose potentially inappropriate restrictions on the empirical structure that are not necessarily imposed on a single binary logit model. For example, the ordered logit assumes that there is a single equation governing the four classes of outcomes, which necessitates the determinants of legal culture be the same across each of the four outcome categories. Multinomial logit model parameter estimates are not only difficult to interpret, but impose specific relationships across each of the four equations in the model that may or may not be appropriate. For example, an individual filer may have one preferred outcome, but may view two other possible outcomes as indistinguishable. Thus, specifying those two equations as distinct in a single estimation would be potentially erroneous.
4. We acknowledge that there is no completely objective and generalizable means to establish these thresholds. Hence, the researchers made the decision to use median values as a threshold as it leads to a sufficient number of filers in each category and is intuitively defensible. However, future research is necessary to determine whether other thresholds are not only more objective and defensible, but also lead to better empirical results.
5. Because county of residence was very highly correlated with the filing attorney (i.e., attorneys provide service primarily to individuals in a county or set of geographically adjacent counties), county of residence was omitted from the empirical estimates. We note in passing that an analogous set of results was obtained by including county of residence and omitting the attorney of record. Those results are available from the lead author upon request.

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APPENDIX

Table 1: Variable Names, Definitions and Descriptive Statistics

Variable	Description	Mean	Std.Dev.	Median
Filing and Claim Information				
DISCHG	Dummy variable identifying whether the filing was successfully discharged	0.594		
PAYDV	Dummy variable identifying whether the debtor made any payments	0.915		
PAYTOT	Real (2003) dollar value of payments made by the debtor	15,845,640	23,291,190	6678,560
PAYATTOR	Real dollar value of payments made by the debtor to their attorney	1,155,080	912,975	1331,120
PCATTOR	Proportion of debtor payments accruing to their attorney	0.229		0.095
BEST10	Dummy variable identifying cases that were successfully discharged and attorneys received less than 10% of total payments	0.298		
NBEST10	Dummy variable identifying cases that were not successfully discharged and attorneys received more than 10% of total payments	0.296		
TBEST10	Dummy variable identifying cases that were not successfully discharged and attorneys received less than 10% of total payments	0.215		
WORST10	Dummy variable identifying cases that were not successfully discharged and attorneys received more than 10% of total payments	1.700	1.091	2.000
PV10	Proxy variable aggregating the previous four outcomes	4548,540	9583,530	846,250
PAYGENUN	Real dollar value of payments made by the debtor to general unsecured creditors	0.243		0.119
PCTGENUN	Proportion of debtor payments accruing to general unsecured creditors	0.410		
GBEST12	Dummy variable identifying cases that were successfully discharged and general unsecured creditors received more than 12% of total	0.183		
GNBEST12	Dummy variable identifying cases that were not successfully discharged and general unsecured creditors received less than 12% of total	0.087		
GTBEST12	Dummy variable identifying cases that were not successfully discharged and general unsecured creditors received more than 12% of total	0.320		
GWORST12	Dummy variable identifying cases that were not successfully discharged and general unsecured creditors received less than 12% of total	1.700		
PV10	Proxy variable aggregating the previous four outcomes			
Debtor Information				
DV2003	Dummy variable identifying filings made in 2003	0.453		
DV2005	Dummy variable identifying filings made in 2005	0.344		
DV2007	Dummy variable identifying filings made in 2007	0.203		
RINCOME	Debtor real income (in 2003 dollars) at the time of filing	2,536,820	1,504,360	2255,900
RLINCOME	The natural logarithm of RINCOME, or zero if no income	7.676	0.654	7.721
RI100	Dummy variable identifying debtors whose income net of court approved expenses is in excess of \$100 per month	0.686		
RASSETS	Real (2003) dollar value of debtor assets	79,388,520	100,547,170	44523,720
LRASSETS	The natural logarithm of RASSETS	10.219	1.815	10.704
RLIAB	Real (2003) dollar value of debtor liabilities	101,595,560	98,198,620	75988,000
PSCHEDD	Proportion of liabilities identified in Schedule D of the bankruptcy filing form	10.962	1.285	11.238
PSCHED E	Proportion of liabilities identified in Schedule E of the bankruptcy filing form	0.432		0.482
PSCHED F	Proportion of liabilities identified in Schedule F of the bankruptcy filing form	0.043		0.000
RRP	Real (2003) dollar value of debtor assets that are real property	0.547		0.456
RPP	Real (2003) dollar value of debtor assets that are personal property	60,894,820	93,514,250	13663,360
RRP	RRP as a proportion of RASSETS	21,033,320	59,479,990	10471,480
RRP	RRP as a proportion of RASSETS	0.414		0.220
IRSDV	Dummy variable identifying filers with (self-reported) IRS claims	0.175		
CHALIMDV	Dummy variable identifying filers with (self-reported) child support and/or alimony claims	0.099		
A1	Dummy variable identifying attorney 1	0.085		
A2	Dummy variable identifying attorney 2	0.117		
A3	Dummy variable identifying attorney 3	0.082		
A4	Dummy variable identifying attorney 4	0.099		
A5	Dummy variable identifying attorney 5	0.095		
Aother	Dummy variable identifying all other attorneys	0.523		
SPOK-ANE	Dummy variable identifying filers living in Spokane County	0.324		
BF	Dummy variable identifying filers living in Benton or Franklin Counties	0.123		
YAKIMA	Dummy variable identifying filers living in Yakima County	0.374		
OTHCOUNT	Dummy variable identifying filers living in any other county in the district	0.179		
DEPDDV	Dummy variable identifying filers with dependents	0.608		
NODEPEND	Number of dependents claimed	1.324		
JOINT	Dummy variable identifying a joint filing	1.380		1.000
JOINTNM	Dummy variable identifying a joint filing between non-married filers	0.431		
NOJOINTM	Dummy variable identifying a filer who is married but filing as a single filer	0.008		
DIVORCED	Dummy variable identifying a divorced filer	0.046		
SEPARATE	Dummy variable identifying a separated filer	0.070		
SINGLE	Dummy variable identifying a single (never married) filer	0.046		
WIDOWED	Dummy variable identifying a widowed filer	0.380		
MARRIED	Dummy variable identifying a married filer	0.022		
FEMALEDV	Dummy variable identifying a sole or primary filer that is female	0.469		
EMPLOYDV	Dummy variable identifying that the primary filer is employed at the time of filing	0.237		
JDEMPDV	Dummy variable identifying the presence of a joint filer who is employed at the time of filing	0.714		
JDEMPDV	Dummy variable identifying the presence of a joint filer who is employed at the time of filing	0.219		

Number of Observations

497

Table 2. Binary Logit Analyses of Chapter 13 Bankruptcy Filing Outcomes with Attorney Fees

Dependent Variable:	BEST10				NBEST10				TBEST10				WORST10			
	Odds Ratio	Coeff.	Chi-Square Statistic	P-value	Odds Ratio	Coeff.	Chi-Square Statistic	P-value	Odds Ratio	Coeff.	Chi-Square Statistic	P-value	Odds Ratio	Coeff.	Chi-Square Statistic	P-value
Intercept	0.876	-0.133	7.572	0.006 **	0.669	-0.402	2.300	0.129	1.168	0.155	1.460	0.227	1.394	0.332	8.532	0.004 **
DV2003	1.442	0.366	1.498	0.221	1.261	0.232	0.620	0.431	0.574	-0.555	2.537	0.111	0.626	-0.469	1.188	0.276
LRINCOME	1.023	0.022	0.005	0.941	1.181	0.167	0.503	0.478	0.934	-0.068	0.082	0.775	0.791	-0.235	1.018	0.313
RI100	6.017	1.795	19.687	<0.001 **	0.355	-1.037	13.505	<0.001 **	1.571	0.452	1.978	0.160	0.649	-0.433	1.756	0.185
LRASSETS	1.178	0.164	0.637	0.425	1.242	0.216	2.225	0.136	0.938	-0.064	0.148	0.701	0.629	-0.464	7.861	0.005 **
LRHAB	1.180	0.166	0.521	0.470	1.059	0.057	0.195	0.659	1.146	0.136	0.542	0.462	0.787	-0.239	2.528	0.112
PSCHEDD	2.727	1.003	2.702	0.100	0.230	-1.472	5.809	0.016 **	1.337	0.291	0.240	0.624	1.163	0.151	0.044	0.834
PSCHEDD	0.135	-2.000	1.781	0.182	0.209	-1.564	1.729	0.189	19.987	2.995	8.589	0.003 **	0.778	-0.251	0.061	0.806
PRRP	0.415	-0.879	2.739	0.098 *	0.638	-0.450	0.788	0.375	2.097	0.741	1.828	0.176	2.544	0.934	2.026	0.155
IRSDV	1.600	0.470	2.272	0.132	0.705	-0.350	1.033	0.309	0.652	-0.428	1.573	0.210	1.386	0.327	0.742	0.389
CHALIMDV	1.631	0.489	1.039	0.308	0.862	-0.148	0.112	0.739	0.736	-0.306	0.435	0.510	0.882	-0.126	0.074	0.785
A1	0.914	-0.090	0.053	0.818	1.932	0.658	2.724	0.099 *	0.346	-1.060	4.083	0.043 **	1.741	0.554	1.213	0.271
A2	0.728	-0.318	0.549	0.459	1.229	0.206	0.327	0.568	0.687	-0.375	0.950	0.330	1.862	0.622	2.523	0.112
A3	1.203	0.185	0.228	0.633	0.921	-0.083	0.038	0.845	0.477	-0.740	2.391	0.122	2.397	0.874	3.703	0.054 *
A4	0.794	-0.230	0.224	0.636	0.976	-0.025	0.004	0.949	0.694	-0.366	0.675	0.411	1.840	0.610	2.071	0.150
A5	0.646	-0.437	0.858	0.354	2.227	0.801	4.938	0.026 **	0.443	-0.814	2.871	0.090 *	1.221	0.200	0.198	0.656
DEPENDDV	1.512	0.413	1.253	0.263	0.856	-0.156	0.199	0.655	0.934	-0.068	0.035	0.852	1.047	0.046	0.013	0.909
NODEPEND	0.740	-0.302	4.330	0.037 **	0.978	-0.022	0.030	0.864	1.123	0.116	0.782	0.377	1.228	0.205	2.223	0.136
NOJOINTM	1.041	0.040	0.004	0.949	0.544	-0.609	1.149	0.284	1.904	0.644	1.310	0.252	0.782	-0.246	0.142	0.706
DIVORCED	0.776	-0.254	0.235	0.628	0.787	-0.240	0.266	0.606	2.548	0.935	3.531	0.060 *	0.683	-0.381	0.421	0.517
SEPARATE	1.008	0.008	0.000	0.990	0.736	-0.306	0.291	0.590	1.274	0.242	0.156	0.693	1.088	0.084	0.019	0.892
SINGLE	0.805	-0.217	0.425	0.515	0.780	-0.248	0.653	0.419	1.610	0.476	1.848	0.174	1.021	0.021	0.003	0.957
FEMALEDV	0.749	-0.289	0.801	0.371	1.308	0.269	0.990	0.320	0.919	-0.085	0.074	0.785	1.213	0.193	0.343	0.558
EMPLOYDV	1.908	0.646	5.352	0.021 **	0.787	-0.239	0.908	0.341	0.875	-0.133	0.253	0.615	0.895	-0.111	0.144	0.704
JDEMPDV	1.202	0.184	0.363	0.547	0.480	-0.734	4.666	0.031 **	1.130	0.122	0.126	0.723	1.808	0.593	2.143	0.143
Log-Likelihood Function			480.849				536.976				479.163				404.613	
Restricted Log-Likelihood Function			605.323				603.598				517.759				484.954	
Chi-Square Test Statistic Value			124.475	<0.001 **			66.622	<0.001 **			38.896	0.040 **			80.342	<0.001 **
Degrees of Freedom			25				25				25				25	

Number of Observations

** Indicates statistical significance at the 5 percent level or better

* Indicates statistical significance at the 10 percent level or better

Table 3. Binary Logit Analyses of Chapter 13 Bankruptcy Filing Outcomes with Unsecured Debt

Dependent Variable:	GBEST12				GNBEST12				GNBEST12				GTBEST12				GWORST12				
	Odds Ratio	Coeff.	Chi-Square Statistic	P-value	Odds Ratio	Coeff.	Chi-Square Statistic	P-value	Odds Ratio	Coeff.	Chi-Square Statistic	P-value	Odds Ratio	Coeff.	Chi-Square Statistic	P-value	Odds Ratio	Coeff.	Chi-Square Statistic	P-value	
Intercept	0.907	-5.696	8.723	0.003 **	0.577	-2.730	1.303	0.254	1.638	-3.521	1.029	0.311	1.326	4.166	4.977	0.026 **	2.540	0.932	2.891	0.089 *	
DV2003	1.313	0.272	0.979	0.323	1.375	0.319	1.002	0.317	0.976	-0.024	0.002	0.965	0.527	-0.640	3.832	0.050 *	24.362	3.193	7.999	0.005 **	
DV2007	1.461	0.379	2.084	0.149	0.735	-0.308	1.607	0.205	1.575	0.454	0.797	0.372	0.730	-0.315	1.879	0.171	2.762	1.016	3.929	0.048 **	
LRINCOME	0.641	-0.444	2.636	0.105 **	2.502	0.917	5.516	0.019 **	0.680	-0.385	0.739	0.390	1.185	0.170	0.349	0.555	0.946	-0.055	0.031	0.860	
RI100	1.617	0.480	10.415	0.001 **	0.741	-0.299	2.114	0.146	0.853	-0.159	0.481	0.488	0.755	-0.281	3.755	0.053 *	1.155	0.144	0.126	0.723	
LRASSETS	0.950	-0.052	0.155	0.694	1.549	0.438	3.459	0.063 *	0.959	-0.042	0.035	0.851	0.908	-0.097	0.545	0.460	0.510	-0.674	2.147	0.143	
LRLIAB	0.163	-1.817	10.100	0.002 **	10.520	2.353	9.732	0.002 **	0.153	-1.876	3.082	0.079 *	2.540	0.932	2.891	0.089 *	1.711	0.537	2.554	0.110	
PSCHEDD	0.008	-4.834	8.610	0.003 **	2.623	0.964	0.729	0.393	0.059	-2.826	0.789	0.375	24.362	3.193	7.999	0.005 **	1.268	0.237	0.386	0.534	
PSCHEDE	0.429	-0.845	3.206	0.073 *	0.602	-0.508	0.739	0.390	1.924	0.655	0.579	0.447	0.946	-0.055	0.031	0.860	1.816	0.597	2.640	0.104	
PRRP	0.954	-0.047	0.024	0.876	1.567	0.449	1.763	0.184	0.657	-0.421	0.515	0.473	0.946	-0.055	0.031	0.860	0.987	-0.013	0.001	0.973	
IRSDV	1.230	0.207	0.234	0.629	1.360	0.308	0.395	0.530	0.153	-1.876	2.700	0.100	1.155	0.144	0.126	0.723	0.510	-0.674	2.147	0.143	
CHALIMDV	0.986	-0.014	0.001	0.971	1.917	0.651	2.481	0.115	1.299	0.262	0.178	0.673	0.510	-0.674	2.147	0.143	1.711	0.537	2.554	0.110	
A1	0.553	-0.592	2.699	0.100	2.239	0.806	3.834	0.050 **	0.232	-1.462	3.450	0.063 *	0.232	-1.462	3.450	0.063 *	0.232	-1.462	3.450	0.063 *	
A2	0.865	-0.145	0.159	0.690	1.495	0.402	0.806	0.369	0.387	-0.950	1.465	0.226	0.387	-0.950	1.465	0.226	1.268	0.237	0.386	0.534	
A3	0.571	-0.560	2.283	0.131	1.973	0.680	2.128	0.145	0.223	-1.502	3.450	0.063 *	0.223	-1.502	3.450	0.063 *	1.816	0.597	2.640	0.104	
A4	1.037	0.036	0.011	0.917	2.273	0.821	3.264	0.071 *	0.220	-1.512	3.669	0.055 *	0.220	-1.512	3.669	0.055 *	0.987	-0.013	0.001	0.973	
A5	0.806	-0.215	0.447	0.504	1.582	0.459	1.249	0.264	1.036	0.035	0.004	0.950	1.036	0.035	0.004	0.950	0.837	-0.178	0.284	0.594	
DEPENDDV	0.876	-0.133	1.216	0.270	0.887	-0.120	0.589	0.443	1.303	0.264	1.853	0.173	1.303	0.264	1.853	0.173	1.167	0.154	1.629	0.202	
NODEPEND	1.080	0.077	0.022	0.883	0.177	-1.732	2.427	0.119	1.852	0.616	0.576	0.448	1.852	0.616	0.576	0.448	1.272	0.241	0.204	0.651	
NOJOINTM	0.866	-0.144	0.106	0.745	0.595	-0.519	0.768	0.381	2.272	0.821	1.043	0.307	2.272	0.821	1.043	0.307	1.318	0.276	0.363	0.547	
DIVORCED	1.037	0.036	0.005	0.945	0.597	-0.515	0.509	0.476	0.641	-0.445	0.145	0.704	0.641	-0.445	0.145	0.704	1.476	0.390	0.546	0.460	
SEPARATE	0.770	-0.262	0.813	0.367	0.836	-0.179	0.246	0.620	1.685	0.522	0.819	0.365	1.685	0.522	0.819	0.365	1.271	0.240	0.597	0.440	
SINGLE	1.005	0.005	0.000	0.984	1.091	0.087	0.061	0.805	0.845	-0.169	0.121	0.728	0.845	-0.169	0.121	0.728	1.088	0.084	0.096	0.757	
FEMALEFDV	1.296	0.259	1.213	0.271	0.938	-0.064	0.046	0.830	0.693	-0.366	0.840	0.359	0.693	-0.366	0.840	0.359	0.918	-0.085	0.126	0.723	
EMPLOYDV	0.852	-0.160	0.308	0.579	0.698	-0.360	1.026	0.311	4.461	1.495	8.267	0.004 **	4.461	1.495	8.267	0.004 **	0.863	-0.148	0.205	0.651	
JDEMPDV																					
Log-Likelihood Function			606.552				413.896					246.187								553.936	
Restricted Log-Likelihood Function			672.964				473.203					292.643								623.048	
Chi-Square Test Statistic Value			66.413	<0.001 **			59.307	<0.001 **				46.456	0.006 **							69.112	<0.001 **
Degrees of Freedom			25				25					25								25	

Number of Observations

** Indicates statistical significance at the 5 percent level or better

* Indicates statistical significance at the 10 percent level or better