From Downhill to Slalom: An Empirical Analysis of the Effectiveness of BAPCPA (and Some Unintended Consequences)

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INTRODUCTION

On October 17, 2005, the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) went into effect. Enacted after twelve years of intense lobbying by unsecured lenders, BAPCPA represents the most sweeping set of amendments to the Bankruptcy Code in over a century. BAPCPA imposed a large number of new requirements on all consumer debtors. From a consumer perspective, the most dramatic change is that debtors who have incomes above their state's median and who fail a "means test" are

presumed to be abusing the system. If they wish to file a Chapter 7 liquidation, they instead are channeled into filing Chapter 13 plans.\footnote{2}

Prior to the enactment of BAPCPA, most consumer debtors could elect whether to file a petition for relief under Chapter 7 or Chapter 13.\footnote{3} The benefits of consumer bankruptcy vary depending on what type of credit has been extended to the debtor. At its most basic level, a Chapter 7 liquidation discharges the majority of unsecured debt that a debtor owes, but it may require the debtor to sell certain assets in which the debtor's estate has equity. In a Chapter 13 bankruptcy, a debtor forms a plan for the repayment of certain debts. Unsecured credit, such as credit card debt, is generally dischargeable in a Chapter 7 bankruptcy.\footnote{4} Conversely, secured debt, such as home mortgages, home equity loans, automobile loans, security interests in personal property, and layaway plans are not dischargeable in consumer bankruptcy.\footnote{5} Similarly, "informal credit arrangements, such as [personal] loans from family members, which [were] historically the dominant source of consumer credit," are not dischargeable.\footnote{6} Despite the obvious advantages of discharging a debtor's unsecured debt, a debtor might still strategically prefer to file a Chapter 13 case in these circumstances.

A consumer's choice whether to file a Chapter 7 case or a Chapter 13 case was, before BAPCPA, a strategic decision made based on the particular financial circumstances of the debtor and the debtor's goals following the discharge. With the enactment of BAPCPA, Congress and President Bush rhetorically established a strong dichotomy between irresponsible debtors, on the one hand, who, undeterred by the stigma of bankruptcy, increasingly

\footnote{2} Under means-testing, a debtor is not eligible for a Chapter 7 discharge and, therefore, must file in Chapter 13 and formulate a repayment plan if (1) the debtor's annual income exceeds his or her state's median income for families of comparable size, see \textit{id.} § 707(b)(7)(A); (2) after subtracting out certain allowed expenses, the debtor has sufficient income remaining to repay a substantial portion of the his or her obligations, see \textit{id.} § 707(b)(2)(A); and (3) the debtor does not have any "special circumstances, such as a serious medical condition or a call or order to active duty ... that justify additional expenses or adjustments of current monthly income," \textit{id.} § 707(b)(2)(B)(i).

\footnote{3} \textit{See} \textit{id.} § 109.

\footnote{4} \textit{See} \textit{id.} § 523 (listing certain types of debt that are not dischargeable in bankruptcy, even if such debt is owed to a general, unsecured creditor). In the context of credit card debt, for example, a debtor's obligation to repay might not be dischargeable if the debtor used the credit card to purchase a certain amount of unnecessary luxury items shortly before seeking bankruptcy protection. \textit{See} \textit{id.} § 523(a)(2)(c)(i)(I), (ii)(II).

\footnote{5} \textit{See} \textit{id.} § 506.

file Chapter 7 liquidations to discharge their unsecured debt and, on the other hand, Chapter 13 debtors who are responsible individuals who wish to repay those who extended them credit. By forcing more individuals to file Chapter 13 repayment plans, this logic suggests that more debtors will be forced to take personal responsibility and repay their unsecured creditors.

This reasoning raises a series of important empirical questions that researchers and social scientists should examine. First, were Congress and the President responding to an actual crisis? What do we know empirically about the triggers that cause debtors to seek bankruptcy protection? Have bankruptcy filings increased because individuals feel less constrained by the stigma of filing relative to the benefit of a Chapter 7 discharge of most of their unsecured debt? Or are increased filings instead due to social and economic issues, such as a rise in the number of people who lack health insurance, lose their jobs, act as the sole care-giver of their children, or fall victim to aggressive lending? Second, maintaining an agnostic perspective with regard to the reasons for enacting the changes, has BAPCPA accomplished its goals? Have the changes given rise to unintended consequences?

This Article contributes to the literature and research on the causes and effects of BAPCPA in five principal ways. Using a proportional, stratified, random sample of bankruptcy cases from 2004 and the twelve months after BAPCPA went into effect, we have created an original database of cases for every state in the Tenth Circuit. We collected a simple random sample from 2002 population data in order to confirm that 2004 was a reasonable benchmarking year. We also created an original population database for Colorado in regard to attorneys who represented Chapter 7 and Chapter 13 debtors in 2002, 2003, 2004, and for the year post-BAPCPA.

In this Article, we first synthesize the available empirical evidence on the triggers for filing for bankruptcy protection and the debates and findings from the Congressional Record. We analyze whether Congress and the President were responding to an increasing trend toward irresponsible behavior or, instead, to a trend toward more social and economic crises. We discuss filing rates as well as prior empirical research on Chapter 13 debtors. We contextualize the findings of our study within this literature.

Second, we test whether the financial profile of debtors filing Chapter 13 repayment plans has changed pre- and post-BAPCPA. Compared with 2004 data, post-BAPCPA debtors have more debts. We find dramatic increases in the mean value of real property, the mean value of personal property, the mean amount of debt secured by an interest in real property, and total debt.

Third, we test whether unsecured creditors are doing better as a result of BAPCPA. We find qualified success for unsecured creditors. The confirmed plans of post-BAPCPA Chapter 13 debtors provide for a dramatic 77% increase in payments to general unsecured creditors as compared to 2004 debtors. Debtors who filed Chapter 13 cases are repaying a greater percentage of their unsecured debt than they would have under either Chapter 7 or
under pre-BAPCPA Chapter 13. However, general unsecured debt now makes up a smaller percentage of the post-BAPCPA debtor’s total debt. That is, the total amount of debt that is to be paid through the Chapter 13 plan as a ratio to the total debt and the percent of unsecured debt to total debt show a statistically significant reduction post-BAPCPA.

Fourth, we develop two regression models to predict the dependent variable of total debt. When pre-BAPCPA data is considered against the independent variables of (1) value of real property, (2) estimated unsecured debt paid, and (3) unsecured debt owed minus unsecured debt paid, a reasonable model is developed to explain 96.5% of the variation in total debt. We find that a $1 increase in the estimated unsecured amount paid predicts a $5.46 change in predicted debt pre-BAPCPA. Post-BAPCPA, different variables predict total debt. We find that a $1 increase in general unsecured debt is associated with the largest change in predicted total debt, which is just under $1. The change between pre- and post-BAPCPA periods indicates that unsecured debt is now less predictive of total debt owed and that other variables are accounting for this change.

Finally, using population data from Colorado in 2004, we develop a logistic regression model to predict which debtors failed to complete their Chapter 13 repayment plans in 2004. The logistic regression model we develop is a function of the value of real property, the amount of unsecured priority debt, the total debt, and trustee compensation. Most notably, for 2004, every additional $1,000 of priority unsecured debt increases the predicted odds of dismissal by 38.7%. While not as dramatic, an increase in the amount of each of the other independent variables in the model still predicts an increase in the likelihood of failure. The only exception is the amount of total debt. An additional $1,000 of total debt decreases the predicted odds of dismissal by 5%.

We then applied this model to post-BAPCPA Colorado cases using discriminant analysis to predict changes in the anticipated failure rate of debtors to comply with their confirmed Chapter 13 plans. We predict an increase in failure rates from 32.7% to 37.2%.

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7. Of note are the variables that were not relevant in predicting the likelihood of plan dismissal. We were unable to develop a model based on any interaction between the total amount of general unsecured debt, real property, or total debt. That is, when we attempted to develop a model based on reasonable predictions of which debtors would be most irresponsible (such as those with the highest amount of unsecured debt or the highest ratio of unsecured debt to real property), we were unsuccessful.

8. A more robust and statistically predictive model will be developed with a larger data set, more jurisdictions, and more time for evidence of failure rates post-BAPCPA to occur. However, this preliminary application can serve as a call for further empirical research into the possibility of modeling failure and
This study is the first comprehensive empirical analysis of BAPCPA’s effectiveness and its unintended effects. However, we acknowledge that the study is limited to the Tenth Circuit and to the first year following the enactment of BAPCPA. It is unknown if the findings can be generalized to other jurisdictions. In addition, since only one year of data could be collected, it is unknown whether the economic profile of debtors, attorney numbers, and fees will change, or whether the logistic regression model developed for 2004 will be robust, predicting failure rates post-BAPCPA. Therefore, the public policy recommendations that flow from the statistical analysis must be seen as preliminary.

In Part I, we review changes in filing rates over time and contextualize past empirical research and debates regarding what we know about debtors and their reasons for seeking bankruptcy protection. In Part II, we discuss congressional testimony and findings that purport to explain the increase in filings, as well as the ways in which Congress and the President intended BAPCPA to address those findings. In Part III, we discuss prior empirical research concerning Chapter 13 debtors and BAPCPA. In Part IV, we discuss Tenth Circuit filing rates. In Part V, we present the methodology and statistical techniques used in completing our study. In Part VI, we contextualize our findings and discuss the preliminary public policy implications they raise.

I. THE DEBTORS: WHO ARE THEY AND WHY ARE THEY FILING?

A. The Empirical Evidence

In the past three decades, America has witnessed a dramatic increase in the number of consumer bankruptcies filed annually. In 1980, approximately 287,000 consumers filed for bankruptcy in the United States. By

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1985, that number had climbed to approximately 340,000. Five years later, in 1990, the number had more than doubled, with approximately 700,000 consumers seeking bankruptcy protection. In 1996, the number of consumer bankruptcies filed in the United States surpassed one million in a single year for the first time. When the number of filings surpassed the one-million-filings-per-year milestone, the credit industry strengthened its long-time plea to Congress to address the "bankruptcy crisis" by restructuring the bankruptcy laws. According to the credit industry, American families could file for bankruptcy protection much too easily. The credit industry found support for this argument as the number of consumer bankruptcies continued to sky-rocket. By 2004, the number of consumer bankruptcies filed throughout the year surpassed one-and-a-half million.

These dramatically increasing filing rates led the credit industry to speculate that Americans were substantially abusing the bankruptcy system. Substantial abuse generally involves a debtor filing for bankruptcy...
when he or she actually has the ability to repay the debt that will be discharged once the bankruptcy filing is complete. A debtor who files for bankruptcy protection under Chapter 7 receives a discharge of most of the debtor’s obligations so long as the debtor has complied with the requirements of the Bankruptcy Code. On the other hand, a debtor who files for bankruptcy protection under Chapter 13 formulates a plan to repay the debtor’s obligations over no more than a five-year period. The overwhelming majority of consumer bankruptcy cases filed prior to BAPCPA were Chapter 7 cases.

In fact, Chapter 7 bankruptcies have constituted the bulk of consumer bankruptcies for some time. For example, in 2005, of the approximately two million consumer bankruptcies filed, more than 1.5 million were Chapter 7 cases. In the previous year, approximately 1.1 million of the more than 1.5 million consumer bankruptcy cases filed were Chapter 7 cases. Similarly, more than 70% of the consumer bankruptcy cases filed in 2003 were Chap-

18. See Edith H. Jones & Todd J. Zywicki, It’s Time for Means Testing, 1999 BYU L. Rev. 177, 199; Warren, supra note 13, at 1081. According to the credit industry, consumers substantially abuse the bankruptcy system when they “tak[e] advantage of their creditors and us[e] the bankruptcy system to shuck legal responsibilities they otherwise could have easily met.” Warren, supra note 13, at 1080. Similarly, the criterion for substantial abuse under the bankruptcy system depends on the ability of the debtor to repay the debtor’s obligations. See Jones & Zywicki, supra, at 199 (“[T]he primary factor in determining whether ‘substantial abuse’ exists is the debtor’s ability to pay.”).


20. See id. § 727.

21. See id. § 1322.


24. See id. (providing 2004 bankruptcy filings data at “2004 Calendar Year by Chapter” hyperlink).
ter 7 cases.\textsuperscript{25} In 1996, when the number of filings per year first surpassed one million, more than 700,000 of the filings were Chapter 7 cases.\textsuperscript{26} Even looking as far back as 1980, when less than 300,000 consumer bankruptcies were filed, almost 75\% of those cases were Chapter 7 cases.\textsuperscript{27}

Because of the prevalence of Chapter 7 cases, both the credit card industry and bankruptcy scholars speculated that too many debtors were filing for Chapter 7 bankruptcy protection, seeking a discharge of most of their debt even though they could have afforded to pay most, if not all, of their debt obligations under a Chapter 13 repayment plan.\textsuperscript{28} Congress could reduce or, ideally, eliminate this alleged abuse by amending the Bankruptcy Code to force those who could afford to repay their debt into Chapter 13 repayment plans.\textsuperscript{29} The credit industry in particular adamantly supported amending the Bankruptcy Code, because as unsecured, non-priority creditors, credit card companies almost never receive distributions from debtors' estates in Chapter 7 cases.\textsuperscript{30} If Congress could force more debtors into Chapter 13, unsecured, non-priority creditors like credit card companies could in theory recover more of the overall amount owed to them.\textsuperscript{31} Under the proposed amendments, debtors who met certain criteria related to their ability to repay some of their debts would be steered to Chapter 13 repayment plans.\textsuperscript{32}

\textsuperscript{25} See id. (providing 2003 bankruptcy filings data at “2003 Calendar Year by Chapter” hyperlink).


\textsuperscript{28} See generally Jones & Zywicki, supra note 18, at 187; Warren, supra note 13, at 1089.

\textsuperscript{29} Jones & Zywicki, supra note 18, at 181-86.

\textsuperscript{30} See id. at 185-86.

\textsuperscript{31} See id.

\textsuperscript{32} It is appropriate to question whether those who file under Chapter 13 are truly the “responsible” debtors (i.e., those who recognize their ability to repay most, if not all, of their debt over a period of five years or less). Many debtors actually use Chapter 13 as a mechanism to protect their homes from foreclosure and “to cure a mortgage arrearage over a several year period,” not to fulfill their obligation to repay their debts because they have the means to do so. Melissa B. Jacoby, Bankruptcy Reform and Homeownership Risk, 2007 U. ILL. L. REV. 323, 325.
B. The Debtors: Who Are They?

This growing consumer bankruptcy trend might have seemed “striking” because it occurred during a period of economic prosperity that was characterized by low unemployment rates and low interest rates. As the number of consumer bankruptcies continued to climb during this period of economic prosperity, questions about who was filing for consumer bankruptcy began to surface. Writing pre-BAPCPA, Professor Elizabeth Warren found that the central question was whether those seeking bankruptcy protection were among the poorest of American families or whether they were typical middle-class families:

Could it be us? Are the families in bankruptcy some others: people who live lives very different from our own, people who have fewer opportunities than we have, people who are subject to very different risks from those we face? Or are these debtors us: typical middle-class people who work hard, play by the rules, and somehow end up in financial collapse?

Surprisingly, the answer is that the overwhelming majority of debtors are “not the chronically poor relegated to some remote ghetto”; rather, they are “our nearby neighbors,” typical middle-class American families.

One way to differentiate among the classes is by income. However, in the bankruptcy context, this measure of class status may be deceptive. Debtors filing for bankruptcy typically have incomes well below median. Thus, based solely on the low income of consumer debtors, it may seem as though most of those filing for bankruptcy are poor, lower-class, and, perhaps, irresponsible individuals who are spending money they do not have and acquiring debt they cannot afford to repay. However, this measure of

34. See Warren, supra note 33, at 118.
35. Id.
37. Warren, supra note 33, at 123.
38. See Sullivan et al., supra note 36, at 6; Warren, supra note 33, at 123.
39. Sullivan et al., supra note 36, at 7-8; Warren, supra note 33, at 124-25. For example, in 2001, the median income of debtors who filed for bankruptcy was approximately $24,000, whereas the median household income in the United States was approximately $42,000. Warren, supra note 33, at 125.
40. See Sullivan et al., supra note 36, at 6.
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class status fails to consider that many debtors who file for bankruptcy do so only after experiencing some type of interruption in income. In general, debtors who file for consumer bankruptcy protection have substantially higher incomes when they acquire their debt than when they file for bankruptcy. Oftentimes, as a result of some type of income interruption, such as a job loss or a failed small business, debtors' income decreases substantially. They can no longer afford to pay the obligations they incurred when their income was higher and, as a result, go bankrupt. In addition to job-related income interruptions, many debtors go bankrupt as a result of unexpected injury and medical bills or family tragedy, such as divorce or death in the family.

Therefore, for a more accurate portrayal of who is most in need of consumer bankruptcy protection, it is necessary to consider factors other than income that are also indicative of class status. Professors Teresa Sullivan, Elizabeth Warren, and Jay Westbrook conducted three independent studies of consumer debt and bankrupt debtors over a period of twenty years that provide viable alternatives for evaluating who files for bankruptcy. Taking education, occupation, and home ownership as indicators of class status, Sullivan, Warren, and Westbrook concluded that "bankruptcy is a middle class phenomenon" and that bankrupt debtors are “solidly middle-class citizens.”

As Americans in general continue to become better educated, the education levels of those filing for bankruptcy have “[kept] pace.” In fact, bankrupt debtors are more likely to have gone to college than the average American. Sullivan, Warren, and Westbrook conclude that bankrupt debt-

41. See id. at 8; accord Warren, supra note 33, at 125-27.
42. See Sullivan et al., supra note 36, at 6, 8; Warren, supra note 33, at 125-27.
44. Warren, supra note 33, at 127.
46. See Warren, supra note 33, at 127-44 (explaining how the data regarding the education, occupation, and home ownership status of debtors indicate that the overwhelming majority of debtors filing for consumer bankruptcy are middle class).
47. Id. at 128.
48. Id. at 130. However, bankrupt debtors are also less likely than the general population to complete their college education and earn their college degrees. Id.
ors "are not concentrated among the uneducated or poorly educated." Rather, if education is an appropriate measure of class status, "bankrupt debtors appear to be an educational cross-section of all adults in the United States." Thus, according to Sullivan, Warren, and Westbrook, the education levels of those filing for consumer bankruptcy indicate that most bankrupt debtors are middle class.

Similarly, bankrupt debtors generally have occupations that indicate that they are well situated among the middle class. While Sullivan, Warren, and Westbrook admit that the data are inconclusive in determining whether "the individuals filing for bankruptcy kept pace with occupational changes in the general population," patterns in the data indicate that bankrupt debtors tended to model the American population in terms of job prestige. Thus, they conclude that if occupational prestige is indicative of class status, "the bankrupt population has remained largely middle class."

Furthermore, in 2001, slightly more than 50% of bankrupt debtors owned homes. According to Sullivan, Warren, and Westbrook, home ownership is a solid predictor of class status: "Home ownership signals social standing, and most Americans aspire to own their own homes." A homeowner has "committed to sound financial planning" and demonstrated "some habit of thrift" by saving income in excess of living expenses to make a down payment. A homeowner has undergone "searching financial scrutiny" and has "likely survived the most aggressive credit screen [he or she] will ever encounter." A homeowner has secured a good job and a substantial work history and proven that he or she can manage credit. Thus, that more than 50% of debtors owned homes at the time they filed for

49. Id. at 131.
50. Id.
51. See id. at 131-36.
52. Id. at 135.
53. See id. at 136.
54. Id.
55. Id. at 138. To be more exact, in 2001, 52.5% of debtors were homeowners when they filed for bankruptcy. Id. Notably, however, the percentage of bankrupt homeowners might actually be higher. Id. Some debtors, as a result of their financial troubles, lose their homes prior to filing for bankruptcy. Id. at 138-40. Sullivan, Warren, and Westbrook suggest that "[w]hen the current homeowners and the past homeowners are combined, the home ownership rate among the debtors in bankruptcy climbs to 58.3[\%]." Id. at 140-41.
56. See id. at 136-37.
57. Id. at 136.
58. Id. at 136-37.
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bankruptcy indicates that “a substantial portion of the bankrupt population has accomplished one of the main goals of many middle-class families: home ownership.”\textsuperscript{59} Based on this critical statistic, more than half of the debtors filing for consumer bankruptcy protection appear to be middle class.

While each of these factors individually indicates that the many bankrupt debtors are middle class, considering all three factors concurrently provides even stronger evidence that “the overwhelming majority of individuals filing for bankruptcy could stake a legitimate claim to middle-class status.”\textsuperscript{60} Even though the median household income of those filing for bankruptcy suggests that the individuals seeking bankruptcy protection are among the chronically poor, the education, occupation, and home ownership of such individuals shows otherwise.\textsuperscript{61} When considering these factors in conjunction with one another, more than 90\% of bankrupt debtors meet at least one of the middle-class criteria, approximately 67\% meet two of these criteria, and nearly 30\% meet all three.\textsuperscript{62} Sullivan, Warren, and Westbrook conclude:

[B]ankruptcy is a system that serves families on the way down. These individuals evidence substantial participation in activities that usually signal economic success—college, good jobs, and home ownership—but something has gone badly wrong that results in their financial collapse. The data on job difficulties suggest that layoffs, cutbacks, and business collapses constitute an important element of their collective failure; more than two-thirds of the debtors give one or more indications of a significant job problem before they file. Other reasons relating to medical debts, divorce, or their own inability to handle credit may also figure importantly in their financial demise. . . . [T]he sharp rise in bankruptcy filings cannot be attributed to a large number of chronically poor debtors—people with no skills and no prospects—who end up in financial collapse. . . . [W]hatever their current economic circumstances, the families in bankruptcy share many of the same educational, occupa-

\begin{itemize}
  \item \textsuperscript{59} Id. at 142.
  \item \textsuperscript{60} Id. at 144.
  \item \textsuperscript{61} An interesting issue raised by our editor is whether we need to develop a more robust measure of what it means to be middle class. It is possible that the statistics cited include individuals who were middle class by the criteria used by researchers but moving towards a lower socio-economic status based on a pivotal event in their lives. Prior research presents a vivid snapshot of the debtor but may not fully capture class mobility. While beyond the scope of this Article, it is a theoretical and methodological challenge worth addressing.
  \item \textsuperscript{62} Warren, \textit{supra} note 33, at 144.
\end{itemize}
tional, and home buying experiences as other middle-class Americans. Their deep financial distress suggests a growing reason for concern about these families, who make up the heart of America.63

C. The Debtors: Why Are They Filing?

While the question of which Americans are most in need of consumer bankruptcy protection is an important one, it has not sparked as much debate as the question of why so many individuals file for bankruptcy. As the number of consumer bankruptcy filings has dramatically increased over the past three decades,64 scholars, government officials, credit industry executives, and reporters have speculated about the cause of the growing consumer bankruptcy trend.65

Among scholars, two opposing views have emerged. Some believe that too many of the individuals who file for consumer bankruptcy protection are irresponsible debtors who consciously choose to file for consumer bankruptcy rather than reduce their own spending or tap into their savings in order to satisfy their debt obligations.66 These scholars attribute the high number of consumers seeking bankruptcy protection to several factors: the increased economic benefit and decreased economic costs of bankruptcy; the decreased social stigma associated with filing bankruptcy; and the increased use of general, unsecured credit.67

However, other scholars take a more sympathetic view of debtors who file for consumer bankruptcy protection. These scholars attribute the need for consumer bankruptcy in the majority of cases to forces beyond debtors’ control: a dramatic change in the debtor’s income or expenses, such as a job loss or the failure of a small business;68 unexpected illness and the resulting medical bills;69 the financial stresses associated with having and raising chil-

63. Id. at 144-46.
64. See supra Section I.A.
66. See, e.g., id. (discussing the decreasing social stigma of consumer bankruptcy and the shift away from the “traditional” view of bankrupt debtors as overindulging and financially irresponsible); Zywicki, supra note 6, at 1072; see also David Frum, Bankruptcy Reform Is a Moral Issue, Wall St. J., Feb. 11, 2000, at A14 (suggesting that Americans have “figured out” how to use the consumer bankruptcy system to avoid repaying their debts).
67. See Zywicki, supra note 6, at 1078-121.
68. See, e.g., Sullivan et al., supra note 36, at 6, 8; Warren, supra note 33, at 125-27.
69. See, e.g., Warren, supra note 43. See generally Melissa B. Jacoby, Teresa A. Sullivan & Elizabeth Warren, Rethinking the Debates Over Health Care Financ-
children that are unique to the middle class in our current economic structure;\textsuperscript{70} or some type of family tragedy, such as divorce or the death of an income-earning family member.\textsuperscript{71}

This Section of the Article examines these opposing views in more detail, focusing on the writings of Professor Todd Zywicki, who has been called the "most prominent professorial proponent of [the Bankruptcy Amendments]\textsuperscript{72}" and of means-testing\textsuperscript{73} in general.\textsuperscript{74} This Section will also focus on the conclusions of Professors Sullivan, Warren, and Westbrook, who, after conducting three independent studies of the debtors who file for consumer bankruptcy protection, seem to agree that the Bankruptcy Amendments will not address the real causes of the growing consumer bankruptcy trend: job instability, inadequate health care, death, divorce, and other tragic events beyond debtors' control.\textsuperscript{75}

\textsuperscript{70} \textit{Evidence from the Bankruptcy Courts}, 76 N.Y.U. L. Rev. 375 (2001) (finding that "hundreds of thousands of middle-class families in the United States are devastated economically each year under the current health care finance system" and, therefore, that a significant number of middle class families must "turn[ ] to the bankruptcy courts for help after illness or injury").

\textsuperscript{71} See \textit{generally} Elizabeth Warren, \textit{Bankrupt Children}, 86 Minn. L. Rev. 1003 (2002) (discussing the unique expenses and financial considerations associated with raising children and concluding that "our economic structures are putting middle-class families rearing children at a disproportionate economic risk").

\textsuperscript{72} See, e.g., Warren, supra note 43.

\textsuperscript{73} David G. Epstein, \textit{A Few Lines}, 55 Am. U. L. Rev. 1291, 1292 n.7 (2006).

\textsuperscript{74} Under means-testing, a debtor is not eligible for a Chapter 7 discharge and, therefore, must file in Chapter 13 and formulate a repayment plan if three conditions are met: (1) the debtor's annual income exceeds the state median income for families of the same size, 11 U.S.C.A. § 707(b)(7)(A) (West 2004 & Supp. 2007); (2) after subtracting out certain allowed expenses, the debtor has sufficient income remaining to repay a substantial portion of the debtor's obligations, \textit{id.} § 707(b)(2)(A); and (3) the debtor does not have any "special circumstances, such as a serious medical condition or a call or order to active duty \ldots that justify additional expenses or adjustments of current monthly income," \textit{id.} § 707(b)(2)(B)(i).

\textsuperscript{75} See Zywicki, supra note 6, at 1123-24. See \textit{generally} Jones & Zywicki, supra note 18 (advocating for means-testing).

\textsuperscript{75} See Warren, supra note 43.
1. **Increased Economic Benefit, Decreased Economic Cost, Decreased Social Stigma, and Increased Use of General Unsecured Debt**

Proponents of bankruptcy reform like Professor Zywicki argue that the growing bankruptcy trend cannot be explained by "unexpected income or expense shocks, such as unemployment, divorce, or health problems."\(^6\) Rather, those in favor of bankruptcy reform argue that the increase in consumer bankruptcy is caused by the ease with which debtors can seek bankruptcy protection.\(^7\) The ease of filing for consumer bankruptcy can be explained by the shifting costs of bankruptcy protection, the decrease in the personal shame and the social stigma associated with bankruptcy, and the change in the nature of consumer credit in the American economy today.\(^8\)

a. Increased Economic Benefits and Decreased Economic Costs

Most agree that the economic benefits of filing for consumer bankruptcy have increased over the past twenty-five years, while the economic costs of bankruptcy have decreased.\(^9\) When Congress enacted the 1978 Bankruptcy Code, it did not seem very concerned about placing restrictions on a debtor's ability to file for consumer bankruptcy, "regardless of the debtor's need for bankruptcy relief or ability to repay ... debts."\(^10\) However,
when Congress amended the Bankruptcy Code in 1984, it added section 707(b) to allow bankruptcy judges to dismiss a consumer bankruptcy petition for substantial abuse. “Substantial abuse” typically exists when debtors file for bankruptcy even though they have the ability to repay the debt they are seeking to discharge. In practice, bankruptcy judges have used this power “rarely, sporadically, and inconsistently to police debtor opportunism.” Therefore, while the pre-BAPCPA Bankruptcy Code had provisions to prevent debtors from seeking discharges when they had the ability to repay their obligations, the Code was ineffective and “[did] little in practice to reduce the economic benefits associated with filing bankruptcy, even for those with high repayment capacity.”

The clearest economic benefit associated with bankruptcy is, of course, the ability to discharge financial obligations. As a result of this economic advantage, it is not surprising that “with a modest degree of prebankruptcy planning, more than half of American households could gain financially from filing bankruptcy, with the financial benefit being greatest for well-off debtors.” However, bankruptcy offers other, more intangible benefits as well.

In addition to debt discharges, bankruptcy petitioners immediately receive the benefits of an automatic stay. An automatic stay immediately prevents creditors from attempting to collect pre-petition debts, even if such

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Id. (emphasis added).

81. Zywicki, supra note 6, at 1081.
82. See supra note 18 and accompanying text.
83. Zywicki, supra note 6, at 1081 & n.22.
84. Id. at 1081.
85. See 11 U.S.C.A. § 727 (West 2004 & Supp. 2007) (explaining the debtor’s right to discharge); cf. id. § 523 (listing certain types of obligations that are not dischargeable in a Chapter 7 bankruptcy).
86. See Zywicki, supra note 6, at 1081. Of course, while facially true as a snapshot, the filing of a bankruptcy petition does entail significant ongoing deterrents such as affecting credit scores, liquidity, the ability to obtain favorable borrowing rates, the ability to obtain security clearances, etc.
87. See id. at 1082-89.
collection efforts were initiated prior to the debtor filing for bankruptcy. 89
"[T]he primary goal of bankruptcy filers is ‘stopping creditors’ collection
efforts (foreclosure, repossession, suit, garnishment, phone calls, letters,
home visits)." 90 The automatic stay, therefore, is a powerful incentive for
filing bankruptcy. It may persuade some debtors to file for bankruptcy pro-
tection simply to avoid collection efforts by creditors. 91 Moreover, by pre-
venting a creditor from collecting on a debt, the automatic stay allows the
debtor to retain, at least temporarily, property that may rightfully belong to
a secured creditor. 92

Another economic incentive associated with filing for bankruptcy pro-
tection is the ability of the debtor to “protect substantial property through
property exemptions.” 93 The property exemptions in the Bankruptcy Code
dictate both the type and the amount of property that a debtor can keep
when filing for bankruptcy. 94 Essentially, the property exemptions remove
specific amounts of certain categories of property from the reach of credi-
tors. 95 Property exemptions exist for the benefit and the protection of the
debtor:

Bankruptcy makes property exemptions available to debtors in
order to prevent a debtor from emerging from bankruptcy free of
debt but utterly without assets. Exemptions were designed to pro-
tect the debtor’s “fresh start,” the means by which the debtor can
begin a new, economically productive life. 96

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90. Zywicki, supra note 6, at 1082 (quoting Jean Braucher, Lawyers and Consumer
Bankruptcy: One Code, Many Cultures, 67 AM. BANKR. L.J. 501, 522 (1993)).
91. See id.; see also Warren & Westbrook, supra note 88, at 196, 515.
92. See Warren & Westbrook, supra note 88, at 515.
94. See 11 U.S.C.A. § 522(d) (West 2004 & Supp. 2007) (listing both the amounts
and the categories of property that a debtor may exempt under federal law).
The Bankruptcy Code allows a debtor to choose between the federal property
exemptions and the property exemptions of the state in which the debtor is
filing for bankruptcy protection, unless such state has opted out of the federal
scheme. See id. § 522. If the state has opted out, “a debtor filing for federal
bankruptcy . . . can exempt only property protected under that state’s laws.”
Warren & Westbrook, supra note 88, at 207. As of 2001, thirty-nine states
had opted out of the federal scheme. Id.
96. Warren & Westbrook, supra note 88, at 207.
In fact, the second most prominent reason debtors give for filing for bankruptcy is to "keep[ ] property, often serving as collateral, such as homes, cars, and household belongings." 97

However, "because of the property-based nature of bankruptcy exemptions, [the benefit of such exemptions] rises as household wealth rises." 98 This may refute the argument that more Americans are filing for bankruptcy because of unanticipated financial crises. It suggests instead that the increase in bankruptcy filings is a result of the desire of debtors to "shield more wealth in bankruptcy." 99 This is especially true since property exemptions have become more debtor-friendly, as "several states have recently created homestead exemptions or increased their cap on their homestead exemptions" and have created and recognized new categories of exemptions, such as exemptions for retirement accounts. 100

While the economic benefits of filing for bankruptcy protection have increased, the economic costs associated with learning about and filing for consumer bankruptcy have decreased. 101 As these economic costs fall, the demand for consumer bankruptcy increases. 102 In particular, the costs associated with learning about consumer bankruptcy protection (called "search costs"), the costs associated with filing for consumer bankruptcy protection (called "transaction costs"), and the greater availability of post-bankruptcy credit to debtors have all contributed to the dramatic rise in consumer bankruptcy filings. 103

In the past, it was more difficult and expensive for debtors to learn about the potential benefits of consumer bankruptcy. 104 However, today, the American population is inundated with information about the benefits of bankruptcy. 105 Debtors can receive information about consumer bankruptcy through inexpensive, easily accessible sources, 106 such as advertisements by

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97. Zywicki, supra note 6, at 1082 (quoting Braucher, supra note 90, at 522).
98. Id. at 1084.
99. Id. at 1087.
100. Id. at 1086-87.
101. See id. at 1089-96.
102. Id. at 1090.
103. See id. at 1090-96.
104. Id. at 1092-93 ("That information costs about bankruptcy are a significant barrier to filing bankruptcy is evidenced in . . . [the] observation that one of the biggest difficulties for a lawyer meeting with a new client is persuading the client that the bankruptcy system truly is as generous as it seems to be—i.e., there is no catch.")
105. See id. at 1090-94.
106. See id.
attorneys, media attention given to high-profile celebrities who have filed for bankruptcy, and family and friends who have personally experienced the benefits of filing for consumer bankruptcy. As more Americans gain access to such information, the public is becoming more aware of the substantial benefits of consumer bankruptcy at a lower price than in previous years.

Furthermore, the transaction costs associated with the process of filing for consumer bankruptcy protection have also decreased. As the number of consumer bankruptcy filings has reached record numbers, some attorneys have been able to form so-called “bankruptcy mills.” These high-volume preparers function on the assumption that filing consumer bankruptcy petitions is a standard process that can, in many cases, be accomplished with the use of bankruptcy-specific computer software. They aim to spit out a high volume of cookie-cutter bankruptcy pleadings. Ultimately, debtors have benefited considerably from the high-volume, repetitive process employed by these firms, as the firms have substantially reduced the filing costs involved in filing for consumer bankruptcy.

In addition to bankruptcy mills, do-it-yourself bankruptcy guides in books and on the Internet have helped lower the transaction costs of filing for bankruptcy. These guides are available to almost all debtors, even those who are unable to pay a lawyer; they provide debtors with all of the information and forms necessary to file for consumer bankruptcy protection.

Finally, another declining bankruptcy cost is the effect of bankruptcy on debtors’ access to post-bankruptcy credit. Though bankruptcy once “cripple[d] the ability [of the debtor] to acquire new credit following bankruptcy,” today a majority of bankruptcy filers are able to obtain credit

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107. See id.
108. See id.
109. See id. at 1094-95.
110. See id.
111. See id. at 1094.
112. See id.
113. See id.
114. See id. at 1095.
115. See id.
116. Id. at 1095-96.
117. Id. (noting that more than ten years ago only about sixteen percent of bankruptcy petitioners were able to gain unsecured credit within one year after filing for bankruptcy but also noting that a recent survey indicates that “three-
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within only one year of filing. The traditional notion—that filing for bankruptcy will destroy a debtor's credit for years to come—is no longer true.

b. Decreased Social Stigma

Another explanation of the dramatic increase in consumer bankruptcy filings is the claim that the last three decades have seen a decline in the social stigma associated with filing for bankruptcy. Traditionally, American society looked down on consumers who filed for bankruptcy protection. This stigma arose, at least in part, because bankruptcy was considered to be the fault of the debtor. Society viewed bankrupt debtors as financially irresponsible and overindulging. Moreover, filing for bankruptcy was viewed as "contrary to the traditional American norms of trust, honor, and thrift." While there is undoubtedly still some stigma associated with filing for consumer bankruptcy protection, many claim that the impact of such stigma has declined, "reduc[ing] the negative impact that an individual will suffer to his personal reputation by filing bankruptcy [and] making individuals more willing to file." Even though it is difficult to determine the exact cause of the decrease in the social stigma associated with bankruptcy—or even to determine whether a decline in social stigma has in fact occurred—numerous factors

quarters of bankruptcy filers have at least one credit card within a year after filing").

118. See id. at 1096.

119. Of course, while the change in this perception arguably no longer serves as a significant deterrent to the decision to file bankruptcy, there are a number of short and long term negative consequences that may flow from the decision to do so. See supra note 88.

120. Zywicki, supra note 6, at 1096-110. See generally Efrat, supra note 65 (discussing the possible causes of the decrease in the stigma associated with filing for consumer bankruptcy protection).

121. Efrat, supra note 65, at 482.

122. Id. at 484.

123. Id.

124. Id. at 484-85.

125. See id. at 485.

126. Zywicki, supra note 6, at 1097; see also Efrat, supra note 65, at 488-519; Zywicki, supra note 6, at 1096-110.

127. See Sullivan et al., supra note 36, at 14-22. Professors Teresa Sullivan, Elizabeth Warren, and Jay Westbrook assert that the social stigma associated with filing for consumer bankruptcy protection may have increased over the past three
could have contributed to the phenomenon. One explanation is the changing culture of many American neighborhoods. Empirical evidence suggests that an individual is more likely to file for bankruptcy if there are other people in the individual’s community who have recently filed for bankruptcy. In large communities, where residents “possess less knowledge of their neighbors’ reputations” and are thus “less likely to fear their disapproval,” bankruptcy filings are higher than they are in smaller, more closely knit neighborhoods.

Similarly, “[s]ocieties with higher patterns of migration . . . tend to have higher bankruptcy filing rates, presumably because more transient populations will tend to have more attenuated social ties, less concern about social reputation, and weaker norms.” These statistics further show that the potential for reputational damage plays an important role in an individual’s decision to file for bankruptcy, lending support to the assertion that the increase in consumer bankruptcy filings is due, at least in part, to a decline in bankruptcy’s social stigma.

128. See Zywicki, supra note 6, at 1100-02.
129. See id. at 1100-01.
130. Id. at 1101.
131. Id.
132. See id. at 1100-02.
133. The argument that migration increases filing rates may need to be more fully reconciled with the notion that bankruptcy is primarily a middle class phenomenon. The degree to which the middle class, particularly middle class
AN EMPIRICAL ANALYSIS OF THE EFFECTIVENESS OF BAPCPA

Another factor that may have contributed to a decline in the stigma associated with bankruptcy is the trend of the media to portray bankrupt debtors in a more sympathetic, and thus more favorable, light.\(^{134}\) Professor Rafael Efrat analyzed almost two hundred newspaper articles spanning a period of almost one hundred and fifty years to ascertain the public perception of bankruptcy petitioners.\(^{135}\) Efrat theorized that “embedded within newspaper articles on consumer bankruptcy are important messages about the appropriateness of filing for bankruptcy” and that “[w]hile messages embedded in newspaper articles influence public opinion, [they] also reflect existing public opinion.”\(^{136}\) According to Efrat’s study, the decrease in the social stigma associated with bankruptcy can be seen as the media gradually shifted away from portraying bankrupt debtors as “evil doers, cheaters, crooks, fools, or perjurers” and instead described them as “hard working, poor, struggling, and needy.”\(^{137}\) Efrat found that the more recent newspaper articles contained “pictures of the poor, the disabled, the petitioner holding a baby, the unsophisticated blue-collar worker, along with the white-collar worker.”\(^{138}\)

Newspaper articles also began portraying the bankruptcy system in a more favorable light.\(^{139}\) For example, articles referred to the bankruptcy system as “a system of ‘legal protection,’ as the ‘federal fresh start program,’ as a wise financial strategy, or as an informal and easy process for dealing with temporary setbacks.”\(^{140}\)

Bankruptcy attorneys provide another possible source for the decrease in the social stigma associated with bankruptcy.\(^{141}\) Debtors’ attorneys are households encountering a significant negative economic event, are migratory; what it means to migrate; and the extent to which the migration must take place before stigma lessens are all issues that may need to be more fully developed.

134. See Zywicki, supra note 6, at 1102-03 (discussing Professor Rafael Efrat’s conclusion that the media’s more compassionate portrayal of bankrupt debtors over time contributed to a decrease in the social stigma associated with bankruptcy). See generally Rafael Efrat, Personal Bankruptcy in the 21st Century: Emerging Trends and New Challenges, 7 THEORETICAL INQUIRIES IN L. 365 (2006).


136. Id. at 385-86.

137. Id. at 389.

138. Id. at 390.

139. Id. at 391-92.

140. Id.

141. Zywicki, supra note 6, at 1107-08.
generally more hostile toward creditors than the debtors themselves. These attorneys often dismiss the claim that debtors have a moral obligation to repay creditors, and they use various tactics to instill this view in their clients. Some debtors' attorneys place the blame on third parties, such as credit card companies that charge exorbitant interest rates. Others try to convince debtors that their moral obligations to their families, especially their children, outweigh their moral obligations to repay creditors. By repeatedly making these claims, it seems plausible that debtors' attorneys have contributed to the decline in the social stigma associated with bankruptcy.

The enactment of the 1978 Bankruptcy Code may have also "played a role in altering social norms regarding personal bankruptcy in the United States," as certain provisions of the 1978 Code implicitly endorsed the notion that bankrupt debtors were undeserving of scorn. For example, the 1978 Code protected debtors from discrimination based on prior bankruptcy filings: "The Code expanded the nondiscrimination provision of [section] 525 to prohibit many forms of private discrimination and virtually all forms of public discrimination against bankruptcy debtors." Furthermore, the Code incorporated semantic changes that "strip[ped] bankruptcy of moral and emotional baggage that had previously interfered with a straight financial calculation." For example, the Code replaced the negatively-perceived term "bankrupt" with the more neutral term "debtor." Similarly, the 1978 Code referred to a bankruptcy filing in bland, generic terms, calling it an "order for relief." That language seems to imply that the process of filing for bankruptcy is protective of debtors in serious need of financial assistance from the federal government.

The 1978 Code also helped decrease the social stigma associated with bankruptcy by "minimizing the pain associated with the bankruptcy process

142. Id. at 1107.
143. See id.
144. See id.
145. See id. at 1107-08.
146. See Efrat, supra note 65, at 496; see also Zywicki, supra note 6, at 1108.
147. See Efrat, supra note 65, at 496-97; Zywicki, supra note 6, at 1108.
148. Zywicki, supra note 6, at 1108; see also S. Rep. No. 95-989, at 81 (1978) (indicating that section 525 is intended to offer "additional debtor protection" against discrimination); Efrat, supra note 65, at 497.
149. Zywicki, supra note 6, at 1108; see also Efrat, supra note 65, at 497-98.
150. Efrat, supra note 65, at 498; Zywicki, supra note 6, at 1108.
151. Zywicki, supra note 6, at 1108.
and limiting public confrontation of petitioners."\textsuperscript{152} With the enactment of the 1978 Code, bankruptcy petitioners faced limited public exposure, and the process of filing for bankruptcy took only a short amount of time.\textsuperscript{153}

Finally, that the rate of consumer bankruptcy filings was on the rise was itself likely a factor in reducing the stigma associated with bankruptcy: "The recognition that others have filed bankruptcy and have survived—in many cases prospered—makes bankruptcy more routine in society, reducing the stigma associated with it."\textsuperscript{154} Not only has the high number of "ordinary" individuals filing for consumer bankruptcy likely contributed to the perception that "bankruptcy is a common and routine process," but the "problem of enforcing traditional social norms may also [have been] made more difficult" since recently there have been quite a few high-profile celebrities who have filed for bankruptcy.\textsuperscript{155} Celebrities especially have the ability to influence social norms,\textsuperscript{156} therefore, "[b]y highly publicizing leading figures and well-known celebrities’ bankruptcy filings, the media may have shaped public perception on the subject making the traditional bankruptcy stigma less pronounced."\textsuperscript{157}

c. Increased Use of General Unsecured Credit

A third possible explanation for the dramatic increase in consumer bankruptcy filings is "a change in the nature of consumer credit and in consumer credit relations."\textsuperscript{158} In recent years, Americans have generally become dependent on unsecured credit, particularly on credit cards, to finance the necessities, the luxuries, and sometimes the unexpected surprises of life.\textsuperscript{159} As general unsecured credit has become many debtors’ primary source of credit, the benefits of Chapter 7 bankruptcy have increased, because Chapter 7 bankruptcy allows these debtors to discharge a majority, if not all, of their obligations in bankruptcy: "[A]s debtors make greater use of unsecured credit relative to secured and informal credit, the value of the bankruptcy discharge will also increase. As the value of the bankruptcy discharge increases, debtors will have a greater incentive to file bankruptcy."\textsuperscript{160}

\begin{thebibliography}{99}
\bibitem{152} Efrat, \textit{supra} note 65, at 499.
\bibitem{153} \textit{See id.} at 499 & n.107; \textit{see also} Zywicki, \textit{supra} note 6, at 1109-10.
\bibitem{154} Zywicki, \textit{supra} note 6, at 1109; \textit{see also} Efrat, \textit{supra} note 65, at 501-02.
\bibitem{155} Efrat, \textit{supra} note 65, at 501-02.
\bibitem{156} \textit{See} Zywicki, \textit{supra} note 6, at 1109; Efrat, \textit{supra} note 65, at 502.
\bibitem{157} Efrat, \textit{supra} note 65, at 502.
\bibitem{158} Zywicki, \textit{supra} note 6, at 1110; \textit{see id.} at 1110-21.
\bibitem{159} \textit{See} Zywicki, \textit{supra} note 33, at 1111.
\bibitem{160} \textit{Id.}; \textit{see also} \textit{id.} at 1114 ("[T]he recent shift by consumers toward unsecured debt, primarily as the result of greater use of credit cards, would tend to in-
In particular, the trend of debtors seeking unsecured credit in the form of credit cards as a replacement for informal credit (from, for example, family members) may have also contributed to the increase in bankruptcy filings by “mak[ing] consumer credit relations less ‘personal’ in nature.” That is, as credit relations have become more impersonal, more debtors are more willing to file for bankruptcy for three primary reasons: First, the impersonal nature of a transaction with a credit card company may lessen the degree to which a debtor feels a moral obligation to repay the debt. Second, impersonal credit relationships undermine the extralegal constraints that arise when debtors have repeated dealings with their creditors. Historically, there were few opportunities for an individual to obtain credit. Thus, when a debtor entered into a relationship with a creditor, the debtor had an incentive to repay the obligation so that the debtor would have the opportunity to borrow from the trusting creditor again in the future. Furthermore, in small, close-knit communities, the risk of earning a reputation as an untrustworthy individual who did not repay debts provided a strong disincentive for debtors to default. Today, however, general, unsecured credit is readily available and “post-bankruptcy debtors will find a relatively vibrant and competitive market for borrowing.” As a result, debtors may feel less constrained by the need to establish a positive reputation through repeat dealings with their creditors. Debtors are, therefore, more free to file bankruptcy.

Third, the use of general unsecured credit has reduced the need of debtors to maintain solid reputations as trustworthy individuals who repay their obligations. As previously noted, many bankruptcy petitioners are able to increase bankruptcy filing rates by increasing the percentage of debt that is dischargeable in bankruptcy.”

161. See id. at 1115-21.
162. See id.
163. See id. at 1116-19.
164. See id. at 1116, 1119-20.
165. Id. at 1119.
166. See id. at 1119-20.
167. See id.
168. See id. at 1120; see also id. at 1095-96 (noting that, according to a recent survey, “three-quarters of bankruptcy filers have at least one credit card within a year after filing”).
169. Id. at 1120.
170. See id. at 1116, 1120-21.
obtain credit only shortly after filing for bankruptcy.\textsuperscript{171} In fact, “a debtor who files bankruptcy and receives a discharge may be a relatively better credit risk than prior to filing bankruptcy, because she cannot receive another discharge for [eight] years.”\textsuperscript{172} Thus, even knowing that a debtor has not been willing or able to satisfy previous loan obligations, creditors are still willing to lend to them, arguably making debtors’ decisions to file for bankruptcy much easier.

2. \textit{Forces Beyond a Debtor’s Control}

On the other side of the debate, opponents of bankruptcy reform tend to have a more sympathetic view of debtors who file for consumer bankruptcy protection. While opponents of bankruptcy reform acknowledge that there will always be some debtors who abuse the system by filing for bankruptcy when they have the ability to repay their obligations,\textsuperscript{173} opponents of bankruptcy reform believe that most debtors seek bankruptcy protection as a last-resort solution to a financial crisis beyond their control.\textsuperscript{174} On this view, typical debtors are “exhausted emotionally and financially” and turn to bankruptcy “hoping that the opportunity to discharge some debts and restructure others will help to stop the collection calls, save their homes or their cars from foreclosure and repossession, and give them the chance to stabilize their economic circumstances.”\textsuperscript{175} Thus, opponents of bankruptcy reform attribute the increase in the number of consumer bankruptcy filings to a rise in both the number and the frequency of unexpected—and sometimes tragic—events that impact debtors’ income and expenses.

Indeed, studies show that a substantial number of debtors file for bankruptcy after experiencing an employment-related problem.\textsuperscript{176} In an alarming 2001 study conducted by Professors Sullivan, Warren, and Westbrook, more than two-thirds of those filing for consumer bankruptcy had experienced a job-related problem prior to filing.\textsuperscript{177} These job-related problems ranged from the loss of a job to partial unemployment, such as a decrease in the number of hours worked or a job transfer in which the transferred em-

\textsuperscript{171} See supra note 168 and accompanying text; see also Zywicki, \textit{supra} note 6, at 1121.
\textsuperscript{172} Zywicki, \textit{supra} note 6, at 1121; see 11 U.S.C. § 727(a)(8) (West 2004 & Supp. 2007).
\textsuperscript{173} See Jacoby et al., \textit{supra} note 69, at 376.
\textsuperscript{174} \textit{Id.}; see also supra notes 68-71, 74 and accompanying text.
\textsuperscript{175} Jacoby et al., \textit{supra} note 69, at 376.
\textsuperscript{176} See Warren, \textit{supra} note 33, at 126-27.
\textsuperscript{177} \textit{Id.} at 127.
ployee’s spouse failed to find work in the new location.178 Whatever the reason for experiencing an interruption in income, more than one-third of the debtors in the 2001 study specifically identified a job-related problem—sometimes as a factor that contributed to the debtor’s need for bankruptcy protection and sometimes as the exact problem that “pushed them into bankruptcy.”179 Sullivan, Warren, and Westbrook found, therefore, that “[n]o single problem is more likely to be associated with a bankruptcy filing than an income interruption.”180

Apart from job-related issues, many debtors cannot afford to pay health-related costs and need consumer bankruptcy as a “[health] insurer of last resort.”181 According to a 1999 study conducted by Professor Melissa B. Jacoby and Professors Sullivan and Warren, more than half a million families in one year were forced to seek consumer bankruptcy protection after experiencing some type of illness or injury.182 That is, more than half of all of the consumer bankruptcy filings in 1999 involved some type of medical-related problem.183 This number is not shocking; rather, it is well known that for at least the past four decades, medical expenses have caused or contributed to numerous consumer bankruptcies.184

It should be noted, moreover, that the study found that the burden of medical expenses was not allocated solely to those who lacked medical insurance. Of the debtors who identified a medical problem as causing or contributing to their need for bankruptcy protection, about half were insured and about half were uninsured.185 This indicates that an unexpected medical-related expense could force any member of our society into bankruptcy, even those who have health insurance.186 Thus, when a debtor turns to the bankruptcy courts after experiencing an expensive illness or injury,187 it seems difficult to place the blame on the debtor.

178. See id. at 126.
179. See id. at 126-27.
180. Id. at 127.
181. See Jacoby et al., supra note 69, at 410.
182. See id. at 375.
183. Id. at 377.
184. See id. at 378-82.
185. See id. at 400.
186. While beyond the scope of this paper, this reasoning supports the notion that bankruptcy is serving as a risk spreading function much like conventional insurance does. To the extent bankruptcy is serving as a stop-gap in our health-care system in the absence of universal coverage, important health care public policy issues are implicated.
187. See Jacoby et al., supra note 69, at 410.
Families with children face an even greater financial burden when an unexpected setback occurs.\(^{188}\) Children bring with them numerous expenses without providing any income to offset these expenses.\(^{189}\) Compared to childless families, families with children must divide the wage-earners' income among more people.\(^{190}\) In addition to the typical expenses associated with caring for children—food, clothing, day care, etc.—children also bring a higher likelihood of unexpected expenses like medical bills.\(^{191}\) Furthermore, families that have children may not be able to recover from a financial crisis should one arise: \(^{192}\)

Job losses, medical problems, and divorces happen to people with children and to people with no children, but adults' responses to these problems may be different in families with children than in those without. Families with children may be much slower to cut expenses, thereby making themselves more vulnerable than families with no children. If so, this would be another plausible explanation for the high proportion of families with children in bankruptcy.

... [T]he configuration of expenses for families may make it more difficult for them to adjust to economic reversals, and that difficulty may be reflected in higher bankruptcy filing rates.

It may also be harder for families with children to cut back on expenses for deeply held psychological reasons. To face economic reversals for oneself may be much easier than imposing those reversals on someone, especially on a much-loved child.\(^ {193}\)

Finally, children often impair the ability of even “responsible” income-earners to earn money.\(^ {194}\) With the time restrictions imposed by day care centers, parents have less flexibility with their work schedules.\(^ {195}\) They do not always have the ability to work late, to work overtime, or to travel, and

\(^{188}\) See generally Warren, supra note 70 (discussing the unique expenses and financial considerations associated with having, raising, and providing for children and concluding that “our economic structures are putting middle-class families rearing children at a disproportionate economic risk”).

\(^{189}\) See id. at 1006.

\(^{190}\) See id.

\(^{191}\) See id. at 1013, 1022.

\(^{192}\) Id. at 1022-24; see also id. at 1021 (“Once an individual commits to a home mortgage, car loan, or school tuition, the bills keep rolling in—even if mom loses her job or dad has a heart attack.”).

\(^{193}\) Id. at 1023 (internal footnotes omitted).

\(^{194}\) See id. at 1006, 1021-23.

\(^{195}\) Id. at 1021-22.
in the end, this may decrease their chances of earning a promotion and increasing their salary.\textsuperscript{196} Thus, children put families at great financial risk,\textsuperscript{197} and it should not be surprising that families with children are much more likely to file for bankruptcy than those without children.\textsuperscript{198} And, as the number of children in a family increases, so do the chances of a family needing help from the consumer bankruptcy system.\textsuperscript{199}

In sum, unexpected job-related or medical problems are two examples of the forces beyond one's control that impact the income or expenses of many debtors. There are other examples as well,\textsuperscript{200} including caring for elderly family members,\textsuperscript{201} divorce,\textsuperscript{202} the death of an income-earning family member, and the collapse of a small business.\textsuperscript{203} As noted above, abuse by debtors\textsuperscript{204} and debtor irresponsibility\textsuperscript{205} also cause consumer bankruptcy rates to rise. But the question is whether these explanations account sufficiently for the dramatic rise in consumer bankruptcy rates over the past three decades. When the data show that many debtors have been led to bankruptcy by economic crises and personal tragedies beyond their control, it is plausible that more and more debtors are filing for consumer bankruptcy because they are truly in need.

\section*{II. Congressional Statements Regarding the Bankruptcy Amendments}

There is no conclusive evidence indicating the precise cause of the dramatic increase in consumer bankruptcy filings over the past three decades.\textsuperscript{206} Are a significant number of debtors substantially abusing the consumer bankruptcy system by reaping its benefits (namely, a complete dis-

\begin{itemize}
\item \textsuperscript{196} See id.
\item \textsuperscript{197} See id. at 1018-24.
\item \textsuperscript{198} See id. at 1012-20. In fact, “[t]he presence of children in a household—with nothing more—increases the likelihood that the household will be in bankruptcy by three-fold (302%).” \textit{Id.} at 1013.
\item \textsuperscript{199} See id. at 1019-20.
\item \textsuperscript{200} See generally \textsc{Teresa A. Sullivan, Elizabeth Warren \& Jay Lawrence Westbrook}, \textit{The Fragile Middle Class: Americans in Debt} (2000).
\item \textsuperscript{201} See Warren, \textit{supra} note 70, at 1006; Warren, \textit{supra} note 43.
\item \textsuperscript{202} See Warren, \textit{supra} note 33, at 145; Warren, \textit{supra} note 43.
\item \textsuperscript{203} See Sullivan et al., \textit{supra} note 36, at 6, 8; Warren, \textit{supra} note 33, at 125-27.
\item \textsuperscript{204} See Jacoby et al., \textit{supra} note 69, at 376.
\item \textsuperscript{205} See Warren, \textit{supra} note 33, at 145 (noting that a cause of the increased number of consumer bankruptcy filings may be debtors' inability to handle credit).
\item \textsuperscript{206} See \textit{supra} Part I.
\end{itemize}

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charge of most unsecured debt) even though they have the ability to repay some, if not all, of their obligations? Or are a majority of debtors turning to the bankruptcy courts as a last resort after experiencing some type of devastating financial crisis beyond their control? In other words, the question is which best explains the growing consumer bankruptcy trend, the Substantial Abuse Theory, promoted by Professor Zywicki, or the Forces Beyond Debtors' Control Theory, advocated by Professors Sullivan, Warren, and Westbrook.

On this question Congress has sided with the Substantial Abuse Theory: According to Congress, the dramatic increase in consumer bankruptcy filings is more likely caused by debtors substantially abusing the consumer bankruptcy system. Congress enacted BAPCPA in 2005 in a deliberate effort to amend the Bankruptcy Code to prevent consumer debtors from continuing to abuse the bankruptcy system. Under BAPCPA, a consumer debtor is ineligible for a Chapter 7 discharge and thus must formulate a Chapter 13 repayment plan if (1) the debtor's annual income exceeds the state median income for families of the same size; (2) after subtracting out certain allowed expenses, the debtor has sufficient income remaining to repay a substantial portion of the debtor's obligations; and (3) the debtor does not have any "special circumstances, such as a serious medical condi-

207. See, e.g., 151 Cong. Rec. S1825 (daily ed. Mar. 1, 2005) (statement of Sen. Sessions) ("[BAPCPA] is designed to analyze what is occurring in Federal bankruptcy courts every day . . . . [O]ver the years, people have learned to manipulate this system."); id. at S1843 (statement of Sen. Hatch) ("[O]ur lax policing of those who attempt a [Chapter 7 filing actually encourages additional bankruptcies. . . . From now on, those who are capable of financial reorganization, rather than outright liquidation, will have to keep their promises or at least some of their promises."); id. at S1842 (statement of Sen. Hatch) ("The essence of [BAPCPA] is simple. This legislation is designed to make our bankruptcy system more fair and efficient. As well, this bill would cut down on the ability to abuse the current system."); id. at S1821 (statement of Sen. Sessions) ("When a person in America undertakes an obligation to pay someone, they ought to pay them . . . . We are drifting a bit to suggest there is no real obligation to pay the debts we incur. If we get to that point, then we have eroded some very important fundamental moral principles . . . . in America."); see also Press Release, The White House, President Signs Bankruptcy Abuse Prevention, Consumer Protection Act (Apr. 20, 2005), http://www.whitehouse.gov/news/releases/2005/04/20050420-5.html# (statement of President George W. Bush) ("In recent years, too many people have abused the bankruptcy laws.").


210. See id. § 707(b)(2)(A).
tion or a call or order to active duty...[,] that justify additional expenses or adjustments of current monthly income." 211

These conditions, which make up the so-called means test, are one of BAPCPA's most substantial and controversial changes to the Bankruptcy Code. 212 The means test is designed to force those debtors who have the ability to repay at least some of their debts into a Chapter 13 repayment plan. 213 This allows the debtor's creditors, particularly unsecured creditors like credit card companies, to recover more money than they would have if the debtor had received a discharge under Chapter 7. 214

Congress justified the means test in part by noting that the provision would impact only 10% of all consumers. According to Senator Hatch, "[O]nly 10 percent of bankruptcy filers will ever be moved into [Chapter 13] repayment plans. ... [I]t is [not] too much to ask that these relatively high-income debtors, who can afford to pay their debts, pay back some of what they owe." 215 In other words, to address potential abuse by 10% of all debtors, Congress approved amendments to the Bankruptcy Code that subjected all debtors to the means test, including the overwhelming majority of bank-

211. See id. § 707(b)(2)(B)(i).


213. See, e.g., id. at S1842 (daily ed. Mar. 1, 2005) (statement of Sen. Hatch) ("A key component of [BAPCPA] is a means test.... All [the means test] does is identify those who can repay at least some of their debts. It makes certain they enter into a [C]hapter 13 reorganization and repayment plan rather than let them simply walk away from their obligations...."); id. at S1836 (statement of Sen. Kennedy) (noting that the means test is "at the heart of" the 2005 Bankruptcy Amendments); see also Press Release, The White House, President Signs Bankruptcy Abuse Prevention, Consumer Protection Act (Apr. 20, 2005), http://www.whitehouse.gov/news/releases/2005/04/20050420-5.html# (statement of President George W. Bush) ("Under the [BAPCPA], Americans who have the ability to pay will be required to pay back at least a portion of their debts."). See generally Jones & Zywicki, supra note 18, at 199.

214. See 151 Cong. Rec. S1843 (daily ed. Mar. 1, 2005) (statement of Sen. Hatch) ("There is something inherently unfair in denying full restitution to creditors."); see also id. at S1842 (statement of Sen. Hatch) ("The problem...is...about 10 percent of...[C]hapter 7 filings are fraudulent.... This represents $3 billion in costs that can be recovered.").

215. Id. at S1843 (statement of Sen. Hatch); see also id. at S1820 (statement of Sen. Sessions) ("[O]nly 10 percent of...filers...will be impacted. ...[S]ome of those are the biggest offenders. Some of those are the people with the highest income. As a matter of fact, all of them will be people with incomes above the median income. They ought to pay some of their debts back. [BAPCPA] will say they must do that.").
rupt debtors (i.e., the other 90%) who "[did not] have two nickels to rub together."216 Thus, Congress seemed to embrace the idea that all debtors should be subject to scrutiny for cheating,217 even though at most only 10% of consumer debtors abuse the bankruptcy system.218 The means test is meant to treat all debtors alike,219 even though it is the "American spirit."220

216. Id. at S1823 (statement of Sen. Durbin).

217. See id. ("The bill we are considering assumes that the majority of people are out to cheat the system. Despite the fact that even the credit card industry says 90 percent of the people are not, this bill assumes they are.").

218. This assumes that failing the means test automatically means that the failing debtor is in fact abusing the consumer bankruptcy system.

219. Professor Elizabeth Warren explained to Congress that the means test is problematic because it treats all consumer debtors alike:

[T]he means test... has... [a] basic problem: It treats all families alike. It assumes that everyone is in bankruptcy for the same reason—too much unnecessary spending. A family driven to bankruptcy by the increased costs of caring for an elderly parent with Alzheimer's disease is treated the same as someone who maxed out his credit cards at a casino. A person who had a heart attack is treated the same as someone who had a spending spree at the shopping mall. A mother who works two jobs and who cannot manage the prescription drugs needed for a child with diabetes is treated the same as someone who charged a bunch of credit cards with only a vague intent to repay. A person cheated by a sub-prime mortgage lender and lied to by a credit counseling agency is treated the same as a person who gamed the system in every possible way.

151 CONG. REC. H2055 (daily ed. Apr. 14, 2005) (statement of Professor Elizabeth Warren); see also id. at S1818 (daily ed. Mar. 1, 2005) (statement of Sen. Durbin) ("Sadly, [BAPCPA] makes no distinction between the irresponsible... and those who have done everything humanly possible and end up in debt.").

220. Senator Edward M. Kennedy, the United States Senator from Massachusetts, identified this American priority:

[W]hen life throws you an unexpected setback, you can count on your neighbors to pitch in. If you lose your job or you fall seriously ill, we all want to help out. You should be given a second chance to pick yourself up, dust yourself off, work hard, and reclaim the American dream for you and your family. That is the American way. That is the American spirit. That is what our bankruptcy courts should be about: giving average Americans who have lived responsibly a second chance.

Id. at S2326 (daily ed. Mar. 1, 2005) (statement of Sen. Kennedy); see also id. at S1838 (statement of Sen. Kennedy) ("[W]hen financial disaster strikes a family—when a business collapses, when medical bills pile up, when a reservist is
to help the responsible but unfortunate. That is, Congress declined to distinguish between the irresponsible and the unfortunate debtor, rejecting, for example, Amendment Number 28, which would have exempted from the means test those debtors “whose financial problems were caused by serious medical problems.”

In addition, BAPCPA imposes burdens on consumer debtors that may prevent them from obtaining financial relief under our consumer protection system. Senator Durbin, for instance, provided an example of how a debtor struggling to pay bills (e.g., unexpected medical expenses) might be adversely affected by BAPCPA’s means test:

Imagine you have this huge medical debt hanging over your head. The creditors are not only calling you at home, they are calling your kids at home. The kids are crying, saying: How many more phone calls do we have to take, Mom?

You get to go to bankruptcy court, but you just discovered something. You don’t have enough money on hand. You have barely enough to get from paycheck to paycheck, and the attorney says: I will represent you, but there is a $209 filing fee to go into bankruptcy court, and I am going to need at least $500 to start this proceeding as your attorney.

What am I going to do? I have a credit card. I am going to go ahead and take cash out of my credit card to pay the filing fee and to get $500 for the lawyer so I can go to court.

If I do that within 70 days of filing bankruptcy, they declare this as a fraudulent transaction that cannot be discharged in bankruptcy. That credit card debt for $750 plus within 70 days of filing is with me forever. The credit card company has me forever until I pay it off.

BAPCPA requires a Chapter 7 petitioner to produce paperwork, including a copy of pay stubs or other evidence of payments received, for the sixty days prior to filing for bankruptcy. It also requires a copy of a tax return called up for extended active duty, when workers lose their jobs because of a plant closing or outsourcing - the economic catastrophes can be hidden from view. That is where our bankruptcy laws come in... It is the American spirit to help these families through financial disasters.”

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for the most recent year prior to filing.\footnote{225} BAPCPA further provides that bankrupt debtors must receive credit counseling prior to receiving bankruptcy relief.\footnote{226} If debtors do not comply with these provisions, their petitions may be denied\footnote{227} and they may be prevented from receiving the relief that they need. Responsible-but-unfortunate debtors—according to Senator Hatch, the 90% of Americans that would qualify for Chapter 7 protection even under BAPCPA’s means test—stand to loose the most under this system.

To ensure compliance with BAPCPA’s requirements, debtors may employ a bankruptcy attorney (i.e., a “debt relief agency”\footnote{228}), but BAPCPA holds such attorneys personally liable for any errors they make.\footnote{229} Though some members of Congress worried that burdens such as these would impede the ability of debtors to obtain consumer bankruptcy protection,\footnote{230} Congress nevertheless enacted BAPCPA in an effort “to restore integrity to the bankruptcy process.”\footnote{231}

Indeed, Congress in part enacted BAPCPA to ensure that Americans—broadly construed—did not have to pay for the debts of those debtors who could afford to repay at least some of their obligations (i.e., debtors who abuse the consumer bankruptcy system).\footnote{232} Still, there is a possibility of substantial abuse that BAPCPA does not address.\footnote{233}

\footnote{225} Id. § 521(e)(2)(A).
\footnote{226} Id. § 521(b)(1).
\footnote{227} See id. § 521(e)(2)(b), 521(i)(1).
\footnote{228} Id. § 101(12)(A).
\footnote{229} See id. §§ 526(a)(2), 707(b)(4)(D).
\footnote{230} See 151 CONG. REC. S1836 (daily ed. Mar. 1, 2005) (statement of Sen. Kennedy) (“In short, [BAPCPA] does everything the mind of the purveyors of predatory plastic could think up to make their cardholders pay in full, and prevent them from getting the ‘fresh start’ that bankruptcy offers them. Its purpose is to keep the credit card payments rolling in, and prevent that money from being used to feed their children or pay their hospital bills or make their mortgage payments. It labels them as abusers of the system.”).
\footnote{232} See 151 CONG. REC. S1842 (daily ed. Mar. 1, 2005) (statement of Sen. Hatch) (“The problem... is... about 10 percent of... [C]hapter 7 filings are fraudulent... This represents $3 billion in costs that can be recovered rather than being passed along to consumers. You and I and everybody else pay for these abuses of the system.”); id. at S1844 (statement of Sen. Hatch) (“When some people game the system to walk away from debts that they are perfectly
The bankruptcy amendments do not deal with abuses of the commercial bankruptcy system (i.e., Chapter 11) by so-called “corporate bankrupt cheaters.” In the words of Senator Durbin:

In the last few years, America has seen this parade of corporate bankruptcy . . . . In some cases, the CEOs, many of whom are on trial, and their top officers were paid multimillion-dollar bonuses even as the companies were being run into the ground. Then the companies filed for Chapter 11 bankruptcy protection and asked a judge to throw out worker contracts and cancel pension plans and health benefits, leaving thousands of families devastated.

Wouldn’t one think in a bankruptcy bill we would go after some of these corporate bankrupt cheaters? . . . Wouldn’t that be fair, and wouldn’t it be timely. It would. You will not find one word about it in [the bankruptcy amendments] . . . .

Boy, sounds like the subject of a bill which Congress might one day consider, but, no, it will not be today. We do not talk about those people. We are talking about the woman who went in diagnosed with breast cancer, who did not have health insurance and ended up with tens of thousands of dollars of medical bills and found out she could not pay for them and in desperation filed for bankruptcy. We are going after her."234

able to repay, an injustice occurs that has ramifications for our entire economy. And guess who has to pay for their dishonesty. You and I and everybody else because we pay an average of $400 a year for this bankruptcy system . . . . The cost of bankruptcy to taxpayers: $44 billion in debt discharged per year, or $110 million every day, a $400 yearly bankruptcy tax on every household in the country.”).

233. Significantly, the substantial abuse of the consumer bankruptcy system by dishonest debtors (i.e., those who obtain a Chapter 7 discharge even though they can presumably repay at least some of their obligations) costs each American household less than $30 per year. As indicated by Senator Orrin Hatch, only $3 billion of the $44 billion that is discharged annually in bankruptcy is due to fraudulent filings. See supra note 231 and accompanying text. In other words, less than 7% of the amount discharged annually in bankruptcy is due to fraudulent filings. Thus, if the bankruptcy system costs each American household $400 per year, less than 7% of that amount (i.e., less than $28 per household per year) pays for fraudulent filings.

234. 151 Cong. Rec. S1819 (daily ed. Mar. 1, 2005) (statement of Sen. Durbin); see also id. at H2654 (daily ed. Apr. 14, 2005) (testimony of Professor Elizabeth Warren); id. at S1822 (daily ed. Mar. 1, 2005) (statement of Sen. Durbin) (“This bill is all about the bankruptcies of ordinary Americans, ordinary Americans who are seeing their jobs outsourced, ordinary Americans who are seeing their health insurance downsized if they are lucky enough to have it,
Furthermore, even though BAPCPA made it more difficult for consumer debtors to protect assets through homestead exemptions, the potential for abuse of homestead provisions remains. As Senator Kennedy stated: “[BAPCPA] ... fails to deal effectively with the unlimited homestead exemptions in a few States which allow the rich to hold on to their multi-million-dollar mansions while middle-class families in other States lose their modest homes.” Even though some supporters of BAPCPA in Congress downsized every year, ordinary Americans who have seen their real wages decline, ordinary Americans who are not even being paid a minimum wage that reflects the cost of getting by in America, ordinary workers who are losing overtime pay because this administration is restricting the rules for eligibility on overtime. These are the people we are after. We are not after those corporate CEOs. We will save them for another day. Right. Don’t hold your breath.”; id. at S1923 (statement of Sen. Kennedy). In sum, members of Congress who opposed BAPCPA were upset at how the bankruptcy amendments forced consumer debtors, even those who incurred substantial medical bills through no fault of their own, to honor their obligations; yet, BAPCPA does not hold corporate CEOs to the same standard:

Corporate CEOs can force their companies into bankruptcy and enrich themselves, but they are not held accountable. This bill ignores their irresponsible actions. But an average American facing cancer can lose everything under this bill: their home, their savings, their hopes, their dreams.

They get no second chance.

Id. at S1923 (statement of Sen. Kennedy) (discussing Amendments Number 28 and Number 29, which would have provided an exemption from the means test and an increased homestead exemption for consumer debtors who experienced serious medical problems).

235. Under BAPCPA, a debtor must actually live in a house in the state for two years in order to take advantage of that state’s homestead exemption. See 11 U.S.C.A. § 522(b)(3)(A) (West 2004 & Supp. 2007). According to proponents of BAPCPA, this provision, though not perfect, will prevent bankrupt debtors from “buying a house on the eve of filing bankruptcy” in order to protect assets that would otherwise be used to repay creditors. 151 CONG. REC. S1820 (daily ed. Mar. 1, 2005) (statement of Sen. Sessions).

236. 151 CONG. REC. S2321 (daily ed. Mar. 1, 2005) (statement of Sen. Kennedy); see also id. at S1822 (statement of Sen. Durbin) (“Here you are with a multimillion-dollar home and these debts and you do not pay your debts, and the States of Florida, Texas, Kansas, and a few others say whatever you home is worth, it is exempt. It is a loophole in the law. If we are talking about just and right conduct in this situation, then clearly we would change the homestead law.”); id. at S1906 (daily ed. Mar. 1, 2005) (statement of Sen. Durbin) (providing the example of Illinois resident Joyce Owens, who would not be able to keep her home if she sought consumer bankruptcy protection to discharge the $200,000 of medical-bill debt that she incurred as a result of caring for her
recognized that homemest exemptions can be abused and the discrepancies between state homemest exemptions may be unfair, they nevertheless voted for BAPCPA because “perfect is not always achievable.” In fact, Congress specifically rejected Amendment Number 68, which would have “limit[ed] the homemest exemption nationwide to $300,000.”

Another criticism of BAPCPA is that it does not adequately address questionable lending practices such as extending credit to the elderly, quadriplegic son); id. at S1892 (daily ed. Mar. 1, 2005) (statement of Sen. Feingold) (explaining how the homestead exemption varies from state to state and how the homestead exemption in too many states is “woefully inadequate”). In some states, such as Florida, Kansas, and Texas, the homestead exemption is not restricted to a certain amount. See Fla. Const. art. X, § 4(a)(1); Kan. Const. art. XV, § 9; Tex. Const. art. XVI, § 50. Therefore, bankrupt debtors in these states can keep their home, regardless of its value and regardless of how much they owe to creditors. See 151 Cong. Rec. S1819 (daily ed. Mar. 1, 2005) (statement of Sen. Durbin) (explaining how the former commissioner of Major League Baseball, Bowie Kuhn, “took advantage” of Florida’s homestead exemption by purchasing a multimillion dollar home “with every penny he owned” prior to filing bankruptcy “[s]o everything he ever had in life was protected”); see also id. at S1830 (statement of Sen. Durbin); id. at S1907 (statement of Sen. Durbin).

237. See, e.g., 151 Cong. Rec. S1820 (daily ed. Mar. 1, 2005) (Statement of Sen. Sessions) (“Are there additional abuses we would like to deal with, one in particular . . . , the homestead exemption? I would like to have gone further.”).

238. Id. Senator Sessions added: “It is in the constitution of quite a number of States that homesteading is so much and Senators have dug in their heels and said this overrides the Florida constitution, the Kansas Constitution, the Texas constitution, or I cannot agree to do that on the floor, I will fight [BAPCPA] and object to it if anyone tries to do that.” Id.; see also id. at S1893 (statement of Sen. Hatch) (asserting that choices regarding homestead provisions belong to the states and not the federal government).

239. Id. at S2325 (statement of Sen. Kennedy). Amendment Number 68 was rejected by a vote of 47 to 53. Id. at S2326. It should also be noted that Congress rejected Amendment Number 17, which would have imposed a “uniform Federal floor for homestead exemptions of $75,000, applicable . . . to bankruptcy debtors over the age of 62.” Id. at S1892 (statement of Sen. Feingold). Amendment Number 17 was rejected by a vote of 40 to 59. Id. at S1894. Additionally, Congress rejected Amendment Number 29, which said that “if one has severe medical problems that are going to drive one into bankruptcy, [one] will be able to have a protection for up to $150,000 in home equity.” Id. at S1924 (statement of Sen. Kennedy) (discussing Amendment Number 29). In other words, Amendment Number 29 would have provided protection for homeowners who had “severe” medical debt. Amendment Number 29 was rejected by a vote of 39 to 58. Id. at S1924.

240. Id. at S1838 (statement of Sen. Kennedy).
college students,\textsuperscript{241} the working poor,\textsuperscript{242} and infants.\textsuperscript{243} Credit card companies attract many unsuspecting consumers by highlighting minimum monthly payments in bold type on advertisements and contracts and by hiding the "exorbitant interest payments that inevitably result" in the "fine print."\textsuperscript{244} Congress rejected Amendment Number 15, which would have required "enhanced disclosure to consumers regarding the consequences of making only minimum required payments in the repayment of credit card debt."\textsuperscript{245} Congress further rejected Amendment Number 38, which would have "discourage[d] predatory lending practices"\textsuperscript{246} such as "hidden and excessive fees and interest rates; lending without regard to the borrower's ability to pay; repeatedly refinancing a loan over a short period of time without any economic gain, known as loan flipping; and committing outright fraud and deception, such as intentionally misleading borrowers about the terms of the loan."\textsuperscript{247}

Thus, opponents of the bankruptcy amendments claimed that Congress enacted BAPCPA primarily, or solely, to benefit credit card companies and major financial institutions. As Senator Durbin remarked:

Who wants this bill [i.e., BAPCPA]? That is the most important question to ask about any legislation that comes to the floor. The people who want this bill are the credit card companies and major financial institutions.

Why do they want it? Here is the circumstance. Imagine, if you will, that you and your family are so deeply in debt that there is no way out. It could be because of medical bills you did not anticipate. It might be because somebody lost a job and could not find one. It could be because of a divorce or some other extraordinary situation. . . .

What is this bankruptcy reform bill about? The purpose of this bill is to make certain for many people that if you go into court to

\textsuperscript{241} Id.
\textsuperscript{242} Id.
\textsuperscript{243} Id. at S1819 (daily ed. Mar. 1, 2005) (statement of Sen. Durbin) (noting that a three-and-a-half-year-old boy and a nine-month-old girl received credit card solicitations).
\textsuperscript{244} Id. at S1838 (statement of Sen. Kennedy).
\textsuperscript{245} Id. at S1892 (describing the purpose of Amendment Number 15, which was proposed by Senator Akaka, the United States Senator from Hawaii). Amendment Number 15 was rejected by a vote of 40 to 59. Id. at S1894.
\textsuperscript{246} Id. at S1920 (describing the purpose of Amendment Number 38).
\textsuperscript{247} Id. at S1920 (statement of Sen. Durbin). Amendment Number 38 was rejected by a vote of 40 to 58. Id. at S1984.
file for bankruptcy, the slate will not be wiped clean. You will not walk out of that bankruptcy court at the end of the day with no debt. You will end up in a circumstance where you will carry many of these debts to the grave. What kind of debts are we talking about? Credit card debt, other debts that you have incurred that will stay with you for a lifetime.

Naturally, the credit card industry and big banks want this bill. They believe if they can hang on forever and will not be discharged in bankruptcy, they will get something back in the process. They believe this bill will discourage people from filing bankruptcy, and people will just labor under this debt they never paid off longer and longer.248

III. Prior Empirical Studies of BAPCPA

Although there is a wealth of empirical studies that focus on consumer bankruptcies, only two studies have looked at information available after BAPCPA became effective.249 This Section will briefly discuss these post-
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BAPCPA studies. It will also examine pre-BAPCPA studies that discussed the potential implications of BAPCPA for consumer bankruptcies based on pre-BAPCPA data.

Professor Charles J. Tabb's study is “the first study that [took] into account the impact of BAPCPA, both in anticipation of and in the aftermath of its effective date.” In a two-part paper published in consecutive issues of the American Bankruptcy Institute Journal, Tabb examined consumer bankruptcy filing trends and indicators. Part I of his article looked at consumer bankruptcy filing rates and sought to identify predictors for filing rates. That is, Professor Tabb asked, “What causes consumer bankruptcy?” Part II of Professor Tabb’s article examined the correlation of several economic indicators to the consumer bankruptcy filing rate.

In Part I, Professor Tabb examined statistical data on Chapter 7 and 13 filings both pre- and post-BAPCPA. He concluded that: (1) filing rates had increased dramatically since the Bankruptcy Code went into effect, with the bulk of the increase occurring 1985-1997, when filings quadrupled; (2) in anticipation of BAPCPA’s effective date, non-business filings, especially in Chapter 7, had increased substantially; (3) after BAPCPA’s effective date, consumer filings had declined dramatically; (4) however, when findings (2) and (3) were taken together, the total filings since BAPCPA’s enactment

have their cases dismissed because they did not need to file in the first place); Richard L. Wiener et al., Unwrapping Assumptions: Applying Social Analytic Jurisprudence to Consumer Bankruptcy Education Requirements and Policy, 79 Am. Bankr. L.J. 453 (2005) (using statistical analysis in an attempt to show a disconnect between people’s behavior and the assumptions on which BAPCPA was enacted).


252. Id.

253. Tabb II, supra note 250, at 42. The economic indicators examined include:

1) total consumer credit outstanding; 2) revolving consumer credit; 3) non-revolving consumer credit; 4) revolving credit as a percentage of total consumer credit; 5) personal, non-farm mortgage debt (or ‘home’ mortgages); 6) sum of total consumer credit and home mortgage debt; 7) ratio of total consumer credit to personal income; 8) ratio of “total debt” (i.e., total consumer credit + home mortgage debt) to personal income; 9) credit card charge-off rates; and 10) credit card delinquency rates.

Id. (internal citations omitted).
were "virtually identical to prior filing rates," indicating that bankruptcy filings were likely to revert quickly to historic levels; (5) Chapter 7 filing rates had a greater rate of increase prior to BAPCPA's effective date and, correspondingly, had filing rates that, after BAPCPA's effective date, declined faster than rates for Chapter 13 filings (Chapter 13 filings remained essentially unchanged after BAPCPA); and (6) the ratio of Chapter 7 to Chapter 13 filings shifted in light of BAPCPA, increasing prior to BAPCPA and declining post-BAPCPA, with "a slight increase in the [Chapter 7] percentage since the enactment of BAPCPA." 254

Part II of Professor Tabb's study examined the correlation of several economic indicators to the consumer bankruptcy filing rate from 1980 to 2006. 255 He found a very strong correlation between bankruptcy and revolving consumer credit, as well as strong correlations between bankruptcy and six of the economic indicators he studied. 256 In essence, Professor Tabb found that it likely was not abuse of the bankruptcy system that caused the dramatic increase in consumer bankruptcy filings; rather, the bankruptcy filing rate increase was more likely related to the increase in consumer credit card debt. 257 He posited:

Changing the bankruptcy law to make it harder for consumer debtors—as Congress did in 2005—may be a fool's errand. If revolving credit continues to grow... then these data suggest that nonbusiness bankruptcy filings are likely to follow in like measure (unless BAPCPA can somehow change history). The post-BAPCPA drop in filings is likely to end, and soon, given the amount of outstanding revolving consumer credit. Thus, if Congress really wants to slow or even reverse the increase in bankruptcy filings, the real target should be the underlying cause—credit card debt—and not the bankruptcy law itself. 258

He also noted, however, that since 2002, revolving credit had gone down slightly each year and a "market saturation point" may have arisen from the fact that there were few "untapped candidates for revolving consumer credit out in the market place." 259 Based on his observations, it is

254. Id. at 61.
255. Id. at 43.
256. Id. at 42.
257. Id. at 100 ("[G]iven that revolving credit is principally credit card debt [charts 10 and 11 in Tabb's article] indicate that the enormous increase in credit card debt in the past quarter century may have helped trigger the correlative jump in, and closely predicts the rate of, nonbusiness bankruptcy filings.").
258. Id.
259. Id. at 101.
unlikely that there will be another “explosion” in revolving credit like the one that occurred from 1983 to 1998; in turn, we are also unlikely to see the “exponential increase” in consumer bankruptcies that occurred during that time.  

Ultimately, Professor Tabb found that the bankruptcy filing rate post-BAPCPA would soon return to the range of pre-BAPCPA levels, at least once the anomalous periods just prior to and after BAPCPA’s effective date played out. Indeed, once bankruptcy rates return to their pre-BAPCPA range, they are likely to remain stable over the next few years, because the level of outstanding consumer credit seems to have leveled off.

Probably the most comprehensive empirical study done in recent years is the so-called Chapter 13 Project of Scott F. Norberg and Andrew J. Velkey. Their study was national in scope, examining seven federal judicial districts. Its purpose was to “provide a detailed picture of Chapter 13 bankruptcies and the extent to which Chapter 13 had achieved its objectives of providing debtors fresh starts and creditor repayment.” Their study is particularly important now that BAPCPA’s means test has made it more difficult for debtors to file for Chapter 7 relief. That is, in light of Chapter 7’s more stringent requirements, more debtors may choose, or be forced, into filing Chapter 13 plans.

The Chapter 13 Project studied 795 Chapter 13 cases filed in 1994 in 7 federal judicial districts. No fewer than 100 cases from each district were included in the study based on a quota sample of 1% of the Chapter 13 cases filed in each district in 1994. The study found several interesting things, including the fact that at least 50% of the debtors had filed more than one case and the fact that 1 in 7 debtors who received a discharge went on to file another case. Forty-five percent of the cases involved proposed distributions that paid no more than 25% of unsecured claims versus 31% that pro-

260. Id.
261. See id. at 103.
262. Id. Professor Tabb also notes, however, that the recent increase in home mortgage debt might point to an increase in non-business bankruptcy filings, though the significant drop in credit card charge-off rates “points the other way.” Id.
264. Id. at 475-76.
265. See id. at 478-79.
266. Id. at 479.
267. Id.
268. Id. at 476.
posed to pay 100%. Fewer than 10% proposed to pay between 26% and 99%.269

Norberg and Velkey also found that a large percentage of debtors proposed repayment plans that were substantially longer than the 36 months required by the code—most were near 60 months.270 Interestingly, those debtors who proposed shorter repayment plans were more likely to complete their plans, and joint filers were more likely than individual filers to complete their plans.271 The Project also found that debtors who had completed their plans were usually those who were worse off when they had filed.272 The study found that less than 33% of the distributions under Chapter 13 were to general unsecured creditors.273 Debtors in the Chapter 13 project, like debtors in previous studies, tended to be poor: The mean annual household income of the debtors was less than 50% of that for all households, and the median was less than 60%.274

IV. Non-Business Bankruptcy Filing Statistics in the Tenth Circuit

Over the past three decades, consumer bankruptcies in America increased dramatically, leading creditors to assert that the bankruptcy system was being abused by debtors and in serious need of reform.275 Looking at the Tenth Circuit in the three year period pre-BAPCPA and the one-year period post-BAPCPA, filing statistics appear to fall in line with the national trend rising in the years prior to BAPCPA: Bankruptcy rates fell in the period immediately post-BAPCPA and then rose once again.276 Pre-BAPCPA

269. Id. at 477.
270. Id.
271. Id.
272. See id. (noting that debtors who completed their plans owed more debt pre-bankruptcy and had higher debt-income ratios than those whose cases were dismissed or converted and conjecturing that those who were more reluctant to file in the first place were “more committed to doing what was necessary to complete a plan”).
273. Id. This is interesting because it is the unsecured creditors lobby that was largely responsible for pushing BAPCPA; however, it appears that these creditors may not be any better off under the new rules than they were under the old.
274. Id. at 478.
275. See supra Section I.A (discussing consumer bankruptcy statistics between 1980 and 2005).
276. U.S. Bankruptcy Court filing statistics by chapter of the bankruptcy code can be found at http://www.uscourts.gov/bankruptcystats/statistics.htm. Full year statistics for 2006 are not yet available so statistics for “the one-year period
filings 2002–2004 show consumer filing rates that increased by approximately 11%. During these years, Chapter 13 filings held steady at around 16,000 per year, and Chapter 7 filings were largely responsible for the increase in filings.

There was an anomaly in 2005, as the enactment of BAPCPA skewed filing statistics significantly higher. That year saw a significant jump in non-business bankruptcy filings in the Tenth Circuit. In the fourth quarter of 2005 alone—the quarter BAPCPA took effect—there were 46,542 non-business filings in the Tenth Circuit. Almost 93% of these filings (43,179) were for Chapter 7. This is most likely due to the rush to file for Chapter 7 liquidation before BAPCPA went into effect and made filing for Chapter 7 significantly more difficult.

Post-BAPCPA” rely on quarterly statistics for September through December 2005 as well as quarterly statistics available through September 2006. BAPCPA went into effect during the fourth quarter of 2005, and statistics for that quarter are very high relative to other quarters.


278. See id.

279. Overall non-business bankruptcy filings in the United States jumped by almost half a million filings from 2004 to 2005. Compare id. (providing data for 2005 at “2005 Calendar Year by Chapter” hyperlink), with id. (providing data for 2004 at “2004 Calendar Year by Chapter” hyperlink). In the Tenth Circuit, filings increased nearly 27% and all of the increase is attributable to Chapter 7 filings; Chapter 13 filings actually declined from over 16,000 in 2004 to under 15,000 in 2005. See id.

280. See id.

281. Id. (providing data for 2005 at “2005 Calendar Year by Chapter” hyperlink).

282. Id.

283. Several scholars have written on the “rush to file” phenomenon that occurred in the days leading up to BAPCPA’s effective date. See, e.g., Sather, supra note 250, at 74 (“The imminent change in the bankruptcy laws was well known to the bar and the public. As a result, many people sought to file before the new law became effective. Some of these filers no doubt accelerated their decision to file bankruptcy. Because of the change in the law, others may have filed who would not otherwise have filed. . . . There may have been some impulsive or hysterical behavior at work. . . . Anecdotal evidence from the clerk’s office tells of people filing for bankruptcy despite not having any creditors. The author witnessed multiple instances of pro se debtors filing [C]hapter 7 and then asking to dismiss their cases on the basis that they did not need to file in the

277. See id.

278. See id.

279. Id. (providing data for 2005 at “2005 Calendar Year by Chapter” hyperlink).

280. Id.
Because filing statistics are not yet available for calendar year 2006, the statistics discussed for the year post-BAPCPA are based on quarterly filing statistics for the three months ending in December 2005 and the available 2006 quarterly statistics.\textsuperscript{284} As previously mentioned, fourth-quarter 2005 statistics are skewed very high and represent more than double the filings of the subsequent three quarters.\textsuperscript{285} The three months ending March 31, 2006 saw a dramatic decline in filings, totaling just 5292.\textsuperscript{286} Chapter 7 filings comprised 3843 (73\%) of the total, and Chapter 13 filings comprised 1445 of the total. The following quarter saw total filings jump to 8188, with Chapter 7 filings jumping to 6285 (76\%).\textsuperscript{287} For the quarter ending September 30, 2006, filings again rose, totaling 8838.\textsuperscript{288}

In terms of BAPCPA reducing the overall rate of Chapter 7 filings (one of its key goals), the preliminary data show that BAPCPA has had modest success, as Chapter 7 filings declined about 9\% in the Tenth Circuit during the studied period.\textsuperscript{289} Chapter 13 filings increased somewhat—from an average of 16\% of filings to over 22\%.

\begin{itemize}
\item \textsuperscript{285} See id. Non-business filings in the Tenth Circuit during the three months ending December 31, 2005 totaled more than 46,000. The combined non-business filings for the subsequent three quarters totaled just over 22,300. \textit{Compare id.} (providing data for the final quarter of 2005 at "December 2005" hyperlink), \textit{with id.} (providing data for the first three quarters of 2005 at "March 2005," "June 2005," and "September 2005" hyperlinks).
\item \textsuperscript{286} See id. (providing data for the first quarter of 2006 at "March 2006" hyperlink).
\item \textsuperscript{287} See id. (providing data for the second quarter of 2006 at "June 2006" hyperlink).
\item \textsuperscript{288} \textit{Id.} (providing data for the third quarter of 2006 at "September 2006" hyperlink).
\item \textsuperscript{289} See supra note 285.
\end{itemize}
V. Methodology and Statistical Findings

Findings were based on data collected from the United States Bankruptcy Courts of the Tenth Circuit, which handle cases from Colorado, Kansas, New Mexico, Oklahoma, Utah, and Wyoming. We originally intended for there to be three data sets: (1) a random sample of Chapter 13 cases filed in 2002, (2) a proportional allocation sampling of Chapter 13 cases filed in 2004, and (3) a population data set for all Chapter 13 cases filed post-BAPCPA (i.e., October 17, 2005 to October 16, 2006).

During the data collection process, we detected a huge spike in the number of post-BAPCPA Chapter 13 cases filed starting around the end of July 2006, approximately nine months after BAPCPA became effective. In the interest of time and money, for the last three months of our study we switched back to a proportional allocation sampling scheme similar to the one used for the 2004 data set.

We conducted the analysis that follows on four data sets: (1) a random sample of Chapter 13 cases filed in 2002 (Sample 2002), (2) a proportional allocation sampling of Chapter 13 cases filed in 2004 (Sample 2004), (3) a population data set for all Chapter 13 cases filed post-BAPCPA (i.e., October 17, 2005 to July 25, 2006) (Population 2005-2006: Nine Months), and (4) a proportional allocation sampling of Chapter 13 cases filed between July 2, 2006, and October 16, 2006 (Sample 2006: Three Months).

A. Sampling Scheme

The sample plan for 2002 called for systematic sampling. We intended to collect every $n^{th}$ case for a combined target sample size from all states in the Tenth Circuit to be a minimum of 150. This data set (Sample 2002) was for benchmarking; we wanted to ensure that the data set would be similar enough to past profiles of Chapter 13 filers that we could conduct a reasonable analysis of pre-BAPCPA to post-BAPCPA data.

Since constraints required sampling of 2004 data, we decided that a proportional allocation scheme would be most beneficial. A stratified sample with proportional allocation produces estimators with smaller variance than that produced by simple random sampling when considerable variability exists among the stratum means. Additionally, if sampling costs are nearly equal from stratum to stratum, stratified random sampling with optimal allocation yields estimators with smaller variance than proportional allocation when there is variability among the stratum variances. While...

290. See supra notes 278, 285.
293. Cochran, supra note 291, at 103.
the different states did yield differing means, the variability and distributions were remarkably similar; therefore, we determined that a proportional allocation sampling scheme was appropriate.

Statistical sampling and analysis have long been used in legal settings and for policy making.\textsuperscript{294} Thus, we analyzed the bankruptcy data using descriptive statistics, tests of significance, and predictive modeling. Using the first 100 Chapter 13 cases filed anywhere in the Tenth Circuit, we obtained an estimate of the standard deviation in order to determine the minimum necessary sample size under the proportion allocation sampling plan. Since an important focus of this Article is the relative position of unsecured creditors pre-BAPCPA and post-BAPCPA, we used the variable \textit{Total Unsecured Debt} for this estimate. The standard deviation for this variable for the first 100 cases in 2005 was 7865.\textsuperscript{295} A standard deviation is a measure of average dispersion from the mean of the data set.\textsuperscript{296} The standard deviation is important because we can use this measure in conjunction with the mean of a sample data set to estimate population measures from which the sample data is derived.\textsuperscript{297} For example, we may wish to know the average (mean) amount of unsecured debt for all filers in 2004 and will estimate this amount using the sample mean and standard deviation. This will produce an interval estimate; we would say at a 95% confidence level the population mean should fall between the lower bound and upper bound on the interval.\textsuperscript{298}

The proportional allocation calculation yielded a minimum sample size of \( n = 382.299 \).\textsuperscript{299} The decision was made to take this to \( n = 500 \) to allow for mis-

\begin{align*}
294. & \text{ For an excellent treatise on the use of statistics in law and public policy, see 1-2 Joseph L. Gastwirth, \textit{Statistical Reasoning in Law and Public Policy} (1988).} \\
295. & \text{See Cochran, supra note 291, at 276.} \\
296. & \text{Michael O. Finkelstein & Bruce Levin, \textit{Statistics for Lawyers} 18-19 (2d ed. 2001).} \\
297. & \text{Id. at 172.} \\
298. & \text{Id.} \\
299. & \text{n} = \frac{\sum N_i \sigma_i^2}{ND + \frac{1}{n} \sum N_i \sigma_i^2} = \quad \text{(2)}
\end{align*}
AN EMPIRICAL ANALYSIS OF THE EFFECTIVENESS OF BAPCPA

coded data and other possible errors requiring case elimination. In addition, secondary variables may have larger standard deviations. Using 500 as a sample size and allocating to the strata (states) using

\[ n_i = \frac{N_i}{N} (n) \]

produces the sample sizes per state shown in Table 1.300

<table>
<thead>
<tr>
<th>Stratum</th>
<th>( N )</th>
<th>( N_i )</th>
<th>( n_i )</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>8,912</td>
<td>398</td>
<td>22</td>
</tr>
<tr>
<td>NM</td>
<td>8,912</td>
<td>427</td>
<td>24</td>
</tr>
<tr>
<td>WY</td>
<td>8,912</td>
<td>112</td>
<td>6</td>
</tr>
<tr>
<td>UT</td>
<td>8,912</td>
<td>3,435</td>
<td>193</td>
</tr>
<tr>
<td>OK</td>
<td>8,912</td>
<td>1,940</td>
<td>109</td>
</tr>
<tr>
<td>KS</td>
<td>8,912</td>
<td>2,600</td>
<td>146</td>
</tr>
<tr>
<td>Total</td>
<td>8,912</td>
<td></td>
<td>500</td>
</tr>
</tbody>
</table>

* Using proportional allocation sampling.

This same proportional allocation sample scheme was applied to the remaining three months of post-BAPCPA data with sample sizes per state shown in Table 2.

\[
\frac{700(7865)^2 + 350(7865)^2 + 80(7865)^2 + 1200(7865)^2 + 550(7865)^2}{2880(750)^2} + \frac{700(7865)^2 + 350(7865)^2 + 80(7865)^2 + 1200(7865)^2 + 550(7865)^2}{2880} \]

\[= 381.6\]

See SCHEAFFER ET AL., supra note 292, at 137.

300. See id.
### Table 2. Sample Sizes Per State—2006 Data*

<table>
<thead>
<tr>
<th>Stratum</th>
<th>$N$</th>
<th>$N_j$</th>
<th>$n_j$</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>3,720</td>
<td>634</td>
<td>85</td>
</tr>
<tr>
<td>NM</td>
<td>3,720</td>
<td>238</td>
<td>32</td>
</tr>
<tr>
<td>WY</td>
<td>3,720</td>
<td>48</td>
<td>6</td>
</tr>
<tr>
<td>UT</td>
<td>3,720</td>
<td>833</td>
<td>112</td>
</tr>
<tr>
<td>OK</td>
<td>3,720</td>
<td>1,227</td>
<td>165</td>
</tr>
<tr>
<td>KS</td>
<td>3,720</td>
<td>740</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>502</td>
</tr>
</tbody>
</table>

* Using proportional allocation sampling.

The following variables were collected from each bankruptcy case filed for each of the four data sets (Sample 2002, Sample 2004, Population 2005-2006: Nine Months, Sample 2006: Three Months). To the extent that Colorado is the only state to have a standard Chapter 13 filing form required of all filers, some states had missing data for some variables where Colorado is for the most part complete.

The following variables were collected:

1. *District* (state of filing)
2. *Dismissed* (if the case was dismissed or not)
3. *Attorney’s Fees and Filing Costs*
4. *Total Tax* (total taxes owed)
5. *Total Unsecured Claims Under Plan* (total number of unsecured claims to be paid under the Chapter 13 plan)
6. *Total All Types Debt Under Plan* (total of all debt to be paid under the Chapter 13 plan)
7. *Trustee Compensation* (total amount the trustees will earn from a Chapter 13 plan)
8. *Total All Types Debt Under Plan + Trustee* (all debt to be paid under Chapter 13 plan plus the trustee’s compensation)
9. *Non-Exempt Property if Chapter 7* (value of property that would be non-exempt if Chapter 7 were filed instead of Chapter 13)
10. *Recoverable Property if Chapter 7* (value of property recoverable under avoiding powers if Chapter 7 were filed instead of Chapter 13)
11. *Estimated Chapter 7 Adm. Fees* (estimated Chapter 7 administrative expenses)
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12. *Estimated Unsecured Amount Paid if Chapter 7* (estimated amount payable to class 4 creditors if Chapter 7 were filed instead of Chapter 13)

13. *Estimated Unsecured Amount Paid for Chapter 13* (estimated amount to be paid to unsecured creditors under the chapter 13 plan)

14. *Excess Amount Available for Unsecured ≥ 0* (the amount of unsecured creditors debt that is to be paid by the Chapter 13 plan—in some cases, a negative amount was reported and this was recoded to be 0)

15. *Value of Real Property Owned by Debtor*

16. *Value of Personal Property Owned by Debtor*

17. *Amount of Debt Secured by Interest in Property*

18. *Amount of Unsecured but Given Favorable Priority* (amount of debt that was unsecured but given favorable treatment)

19. *Amount of Unsecured and Not Given Favorable Priority* (amount of unsecured debt not given favorable treatment)

20. *Total Debt*

21. *Chapter 13 Total Plan To Pay / Total Debt* (a ratio of the total amount of debt that is to be paid under the Chapter 13 plan to the total amount of debt owed)

22. *Unsecured Debt / Total Debt* (a ratio of total unsecured debt owed to the total debt owed)

23. *Unsecured Owed – Unsecured Paid with Plan* (total unsecured debt owed less total unsecured debt paid by plan)

24. *Total Unsecured Debt*

B. Analysis

1. *Is It Reasonable To Conclude the Sample 2004 Data Is Sufficiently Similar to Sample 2002 Data To Use as the pre-BAPCPA Reference?*

If the *Sample 2004* data is to be the pre-BAPCPA reference, then it is important that the earlier data shows a similar pattern to the distribution with means that are not significantly different. While one might expect (under a cost of living analysis) the mean to increase over those two years, we are concerned with a large difference.\(^\text{301}\) The variable *Total Unsecured Claims* is analyzed. The mean for *Sample 2002* is $3,234.58 and the mean for

\(^\text{301}\) See Finkelstein & Levin, *supra* note 296, at 134-135.
Sample 2004 is $3,570.68, a difference of $336.10. In consideration of the means comparison and the similarity in distributions (see Figures 1 and 2 below) on the key variable Total Unsecured Claims, it is reasonable to use the Sample 2004 data as the pre-BAPCPA.


The mean amount of unsecured debt for the Population 2005-2006: Nine Months is $5,078.93 and the mean for the Sample 2006: Three Months is $5,234.61. While this does suggest that debtors are starting to have more average unsecured debt over the latter part of the one year post-BAPCPA
period, the difference of $155.68 is not sufficiently large to be significant (see Figures 3 and 4 below). Additionally, the distributions of variables for these two time periods are fairly similar. Combining these two time periods is reasonable to represent post-BAPCPA data.

Figure 3. Population 2005-2006: Nine Months

Figure 4. Sample 2006: Three Months

Unless otherwise specified, the data sets will consist of pre-BAPCPA (Sample 2004 data) and post-BAPCPA (a combination of the population data from the first nine months post-BAPCPA and the sample of the remaining three months of the first year post-BAPCPA).

3. Do the States Differ Significantly on Any Variable of Interest?

Working through all the variables, there are only two on which any state varies greatly from all others. In the state of Utah, no taxes are reported as
owed by any filers. Table 3 below provides the average Taxes Owed by each state for the post-BAPCPA data.

<table>
<thead>
<tr>
<th>State</th>
<th>Average Taxes Owed</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>$1,435</td>
<td>113</td>
</tr>
<tr>
<td>KS</td>
<td>$1,388</td>
<td>97</td>
</tr>
<tr>
<td>NM</td>
<td>$19,903*</td>
<td>37</td>
</tr>
<tr>
<td>OK</td>
<td>$1,522</td>
<td>332</td>
</tr>
<tr>
<td>UT</td>
<td>$0</td>
<td>513</td>
</tr>
<tr>
<td>WY</td>
<td>$804</td>
<td>6</td>
</tr>
</tbody>
</table>

*Includes one case in which $725,217 was owed. If this case is excluded from the New Mexico data, that state's average is $311.

Additionally, the percent of cases out of Utah that are ultimately dismissed is significantly greater than any other state (see Figure 5 below).

![Figure 5: Pre-BAPCPA](image)

It is worthwhile to test if this difference is statistically significant. To do this we use hypothesis testing to determine if the proportion dismissed in Utah is significantly different from (either greater or less than) the proportion dismissed for all other states. Using information about the sample proportion and standard deviation for the sample proportions we derive a test statistic that will let us know how far (as measured by the number of stan-
standard deviations) one sample proportion is from all the other sample proportions combined.\(^3\)\(^0\)\(^2\)

When the resulting z-score or t-score (a number indicating how many standard deviations the sample proportion is from the other sample proportions) is large, it may be sufficient evidence that one population proportion is different from another. The z-score or t-score is reported along with a p-value. The p-value is the probability associated with a z-score or t-score. The p-value represents the risk one actually needs to take of making a mistake when concluding that one population proportion is different from another.\(^3\)\(^0\)\(^3\)\(^0\)\(^4\) A p-value that is quite small is indicative of compelling evidence to reject the equality of the population proportions, while one that is relatively large suggests that the proportions may be similar.\(^3\)\(^0\)\(^5\)

The test statistic for the test is \(z = -5.65\) and the p-value associated with this z-score is \(< .001\). This is strong evidence to refute the assumption that the population proportions are equal, and it is reasonable to conclude that Utah has a higher proportion of percent dismissed than other states. If there really is no difference in the proportions, the number of standard deviations Utah's proportion would be from the other states' proportions (the test statistic z-score) would be within about two. This observation, \(z = -5.65\), falls far from the two standard deviations criteria; it falls more than five standard deviations. We would say this is very unlikely to occur by chance if the proportions are really approximately equal. The probability it could occur by chance is the p-value \(< .001\). More specifically the p-value is \(0.000000016\); only sixteen in one billion times will this occur by chance.\(^3\)\(^0\)\(^6\)

While both Tax Paid and Proportion of Dismissal Percent show that states are not equivalent on every variable measured, neither of these two variables were used in the models developed. All other variables were measured to be about the same across the six states. There may be some social construct at work here for these differences; that would go beyond the scope of this paper and perhaps be a topic for future research.

\[ Z = \frac{(p_1 - p_2)}{\sqrt{\frac{\hat{p}_c(1-\hat{p}_c)}{n_1} + \frac{\hat{p}_c(1-\hat{p}_c)}{n_2}}} \text{ where } \hat{p}_c = \frac{x_1 + x_2}{n_1 + n_2} \]

*See Finkelstein & Levin, supra note 296, at 120-122.*


303. *Id.*

304. *Id.*

C. Impact Assessment: Has the Financial Profile of the Debtor Under Chapter 13 Changed Pursuant to the New Laws?

We now consider the impact of the change in bankruptcy laws. Specifically, did these changes in the bankruptcy filing rules have an impact on intended targets? To answer this question we will look at several variables, comparing Sample 2004 data to 2006 Combined data:

1. **Value of Real Property Owned by Debtor**
2. **Value of Personal Property Owned by Debtor**
3. **Amount of Debt Secured by Interest in Property**
4. **Total Debt**
5. **Chapter 13 Total Plan To Pay / Total Debt**
6. **Unsecured Debt / Total Debt**
7. **Total Unsecured Debt**

Table 4 below summarizes the data for comparing pre-BAPCPA and post-BAPCPA.

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306. For an interesting discussion of evaluation research, see Burke Johnson & Larry Christensen, *Educational Research* 10 (2d ed. 2004).
<table>
<thead>
<tr>
<th>Table 4. Pre- and post-BAPCPA Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value of Real Property Owned by Debtor</strong></td>
</tr>
<tr>
<td>Mean pre-BAPCPA</td>
</tr>
<tr>
<td>Mean post-BAPCPA</td>
</tr>
<tr>
<td>Testing for Significance of Difference</td>
</tr>
<tr>
<td><strong>Value of Personal Property Owned by Debtor</strong></td>
</tr>
<tr>
<td>Mean pre-BAPCPA</td>
</tr>
<tr>
<td>Mean post-BAPCPA</td>
</tr>
<tr>
<td>Testing for Significance of Difference</td>
</tr>
<tr>
<td><strong>Amount of Debt Secured by Interest in Property</strong></td>
</tr>
<tr>
<td>Mean pre-BAPCPA</td>
</tr>
<tr>
<td>Mean post-BAPCPA</td>
</tr>
<tr>
<td>Testing for Significance of Difference</td>
</tr>
<tr>
<td><strong>Total Debt</strong></td>
</tr>
<tr>
<td>Mean pre-BAPCPA</td>
</tr>
<tr>
<td>Mean post-BAPCPA</td>
</tr>
<tr>
<td>Testing for Significance of Difference</td>
</tr>
<tr>
<td><strong>Chapter 13 Total Plan to Pay / Total Debt</strong></td>
</tr>
<tr>
<td>Mean pre-BAPCPA</td>
</tr>
<tr>
<td>Mean post-BAPCPA</td>
</tr>
<tr>
<td>Testing for Significance of Difference</td>
</tr>
<tr>
<td><strong>Unsecured Debt / Total Debt</strong></td>
</tr>
<tr>
<td>Mean pre-BAPCPA</td>
</tr>
<tr>
<td>Mean post-BAPCPA</td>
</tr>
<tr>
<td>Testing for Significance of Difference</td>
</tr>
<tr>
<td><strong>Total Unsecured Debt</strong></td>
</tr>
<tr>
<td>Mean pre-BAPCPA</td>
</tr>
<tr>
<td>Mean post-BAPCPA</td>
</tr>
<tr>
<td>Testing for Significance of Difference</td>
</tr>
</tbody>
</table>
The value of real property owned, the value of personal property owned, and the amount of debt secured by interest in property have all shown a statistically significant change from pre-BAPCPA to post-BAPCPA and they have all increased. This would suggest a better-situated debtor from the perspective of what is owned. The total debt has shown a statistically significant change from pre-BAPCPA to post-BAPCPA with an increase here also.

Preliminarily, these findings seem to be in alignment with the stated goals of BAPCPA. Individuals who have more and owe more are being channeled into repayment plans. Presumably, other things being equal, many of these debtors would have chosen to file a Chapter 7 petition for relief and would not have voluntarily chosen to enter into a repayment plan. We must caution, however, that we cannot discount the possibility that the large number of filers who filed for relief immediately prior to the enactment of BAPCPA is distorting the findings.

D. Efficiency Assessment

We now look at the cost effectiveness of the new bankruptcy laws. Specifically, what is the overall effect on the debtor and the creditors?

1. Are Debtors in a Better or Worse Financial Position Under the New Laws?

Table 5 below provides the amount of unsecured debt (not given favorable treatment) per dollar paid by debtors in repayment plans for pre-BAPCPA and post-BAPCPA comparison.

<table>
<thead>
<tr>
<th>Time period</th>
<th>Average Dollars To Be Paid / Average Dollars Owed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-BAPCPA</td>
<td>22¢</td>
</tr>
<tr>
<td>Post-BAPCPA</td>
<td>39¢</td>
</tr>
</tbody>
</table>

Table 5 illustrates a dramatic finding from the study. Unsecured creditors are scheduled to be repaid an average of 77% more post BAPCPA. This provides at least preliminary evidence that one of the stated goals of BAPCPA—to increase the percentage of unsecured debt repaid to creditors—is proving effective. Along with the concern that the immediately pre-

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307. Prior to calculating the values in this table, the data was recoded to reflect values of no more than 100% for the amount that was paid divided by the amount that was owed. In the original data there were many instances in which debtors were shown to pay substantially more to unsecured creditors (not given priority) than what was owed to these creditors. We assumed these were data entry errors.
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BAPCPA filers are distorting these figures, we must add the additional cautionary note that this finding is only measuring unsecured debt scheduled to be repaid. It does not measure debt actually repaid. States have vastly different plan failure rates, and the effect of more debtors filing Chapter 13 plans provides an additional unknown factor. Whether the increased percentage of debt scheduled to be repaid to unsecured creditors results in increased payments made to unsecured creditors remains to be seen.

<table>
<thead>
<tr>
<th>Table 6. Changes for Average Debtor Post-BAPCPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Debt</td>
</tr>
<tr>
<td>Attorney’s Fees and Filing Costs</td>
</tr>
<tr>
<td>Trustee’s Compensation</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

2. Are Unsecured Creditors in a Better or Worse Financial Position Under the New Laws?

We will look at the unsecured creditors' relative standing in terms of amount of debt owed to them and not paid by the Chapter 13 plan. While not showing a statistically significant difference (t-score = .66, p-value >.5), it is interesting to note that the difference between what is owed to all unsecured creditors (both those given favorable priority and all others) less the amount paid to these unsecured creditors has increased from the pre-BAPCPA amount of $27,913 to the post-BAPCPA amount of $29,391, meaning that on average the unsecured creditor is seeing a widening gap ($1,478) between what is owed and what is paid. Figures 6 and 7 below show the distributions of this variable for the two time periods.

Figure 6. Pre-BAPCPA
Figure 7. Post-BAPCPA

3. What Are the Amounts in Total Dollars for post-BAPCPA Data for Some Variables of Interest?

Table 7 shows the totals in terms of dollars for these variables over the first nine months of post-BAPCPA filings; population data was used.

<table>
<thead>
<tr>
<th>Interested Parties</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Available for All Unsecured Creditors</td>
<td>$15,538,385</td>
</tr>
<tr>
<td>Total Amount Owed to All Unsecured Creditors But Not Paid</td>
<td>$28,851,184</td>
</tr>
</tbody>
</table>

E. Prediction

We shall consider the relative merits of two models used to predict variables. Since Colorado was the only state with complete, standardized forms, we will limit our models to Colorado and use only the pre-BAPCPA data (sample data from 2004). We will first consider a model to predict Total Debt (the dependent variable). The independent variables (the ones we will use to predict Total Debt) are Value of Real Property Owned, Estimated Unsecured Amount Paid, and Unsecured Owed Less Unsecured Paid. SAS Output for the linear regression model, Table 8, is shown below.308

308.

\[ Y_{\text{pred}} = a + b_1 x_1 + b_2 x_2 + b_n x_n \]

194
Table 8. Linear Regression Predicting Total Debt: Colorado pre-BAPCPA

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>3</td>
<td>4.478765E11</td>
<td>1.492922E11</td>
<td>443.50</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Error</td>
<td>48</td>
<td>16157913592</td>
<td>336623200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>51</td>
<td>4.640344E11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional Summary Measures

- Root MSE: 18347
- Dependent Mean: 104052
- Coeff Var: 17.63274
- R-Square: 0.9652
- Adj R-Sq: 0.9630

Parameter Estimates

| Variable                      | DF | Parameter Estimate | Standard Error | t Value | Pr > |t| |
|-------------------------------|----|--------------------|----------------|---------|-------|---|
| Intercept                     | 1  | 16147              | 3516.38        | 4.59    | <.0001|
| Value of Real Property Owned  | 1  | 0.79001            | 0.03293        | 23.99   | <.0001|
| Estimated Unsecured Amount    | 1  | 5.46376            | 1.2391         | 4.41    | <.0001|
| Owed Less Unsecured Paid      | 1  | 0.95661            | 0.0437         | 21.89   | <.0001|

The regression equation is:

Predicted Total Debt = 16147 + 0.79001 (Value of Real Property Owned) + 5.46376 (Estimated Unsecured Amount Paid) + 0.95661 (Unsecured Owed - Unsecured Paid)
All independent variables have p-values < .0001, which means they are all useful to the model in the presence of the other independent variables. The p-value associated with the statistics that addresses the issue of whether there is at least one useful variable in the model is < .0001. The R² of .9652 tells us that 96.5% of the variation in Total Debt is explained or accounted for by looking at the variation in Value of Real Property Owned, Estimated Unsecured Amount Paid, and Unsecured Owed Less Unsecured Paid. Based on all the p-values, this is a reasonable model. In other words, we have found that pre-BAPCPA, the variables that are useful predictors for Total Debt are Value of Real Property Owned, Estimated Unsecured Amount Paid, and Unsecured Owed Less Unsecured Paid.

The regression equation is interpreted as follows:

- A one unit increase in Value of Real Property Owned is associated with a .79 increase in Predicted Total Debt.
- A one unit increase in Estimated Unsecured Amount Paid is associated with a 5.46 increase in Predicted Total Debt.
- A one unit increase in Unsecured Owed Less Unsecured Paid is associated with a .96 increase in Predicted Total Debt.

Since these variables are all in dollars, we can see that a $1 increase in the Estimated Unsecured Amount Paid is associated with the largest change in Predicted Total Debt, an increase of $5.46. Pre-BAPCPA, it seems that unsecured debt paid was a lynchpin for understanding the debt structure of the debtor. If we are told the amount that the debtor repaid unsecured creditors, we could make a fairly reasonable estimate of the total debt the debtor owed.

Table 9 below provides a similar analysis for post-BAPCPA Colorado data linear regression modeling.


310. See id.

311. See id.

312. See id.
Table 9. Linear Regression Predicting Total Debt: Colorado post-BAPCPA

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Pr &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>3</td>
<td>1.660137E+12</td>
<td>5.53379E+11</td>
<td>470.93</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Error</td>
<td>107</td>
<td>1.257342E+11</td>
<td>1175085725</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>110</td>
<td>1.785871E+12</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional Summary Measures

| Root MSE | 34280 |
| Dependent Mean | 179596 |
| Coeff Var | 19.08703 |
| R-Square | 0.9296 |
| Adj R-Sq | 0.9276 |

Parameter Estimates

| Variable                           | DF | Parameter Estimate | Standard Error | t Value | Pr > |t| |
|------------------------------------|----|--------------------|----------------|---------|-------|
| Intercept                          | 1  | 9784.71922         | 5598.59025     | 1.75    | 0.0834|
| Value of Real Property Owned       | 1  | 0.94853            | 0.03188        | 29.75   | <.0001|
| Fair Market Value of Collateral    | 1  | 0.22950            | 0.09826        | 2.34    | 0.0214|
| Amount of Unsecured and Not Given Favorable Treatment | 1 | 0.97383 | 0.05717 | 17.04 | <.0001 |

This regression equation using the post-BAPCPA data indicates that a different collection of variables are useful in predicting total debt and are interpreted as follows:

- A one unit increase in Value of Real Property Owned is associated with a .95 increase in Predicted Total Debt.
• A one unit increase in **Fair Market Value of Collateral** is associated with a .23 increase in **Predicted Total Debt**.

• A one unit increase in **Amount of Unsecured Not Given Favorable Treatment** is associated with a .97 increase in **Predicted Total Debt**.

Since these variables are all in dollars, we can see that a $1 increase in the **Amount of Unsecured Not Given Favorable Treatment** is associated with the largest change in **Predicted Total Debt**, an increase of just under a dollar.

We find that the mix of important variables for predicting **Total Debt** pre-BAPCPA to post-BAPCPA has changed. They were **Value of Real Property Owned**, **Estimated Unsecured Amount Paid**, and **Unsecured Owed Less Unsecured Paid**; now they are **Value of Real Property Owned**, **Fair Market Value of Collateral**, and **Amount of Unsecured and Not Given Favorable Treatment**. As we discuss below, we are unsure how to explain this change.

In this next model we will use logistic regression analysis to predict whether or not a Chapter 13 case is dismissed.\(^{313}\) The purpose of logistic regression is to predict a case group membership on the dependent variable by calculating the probability that a case will belong to the 1 = yes category.\(^{314}\) The following variables were considered in developing the model:

1. **Amount of Unsecured and Not Given Favorable Priority** (amount of unsecured debt not given favorable treatment)
2. **Total Debt**
3. **Unsecured Debt / Total Debt** (a ratio of total unsecured debt owed to the total debt owed)
4. **Total Unsecured Debt**
5. **Value of Real Property Owned by Debtor**
6. **Value of Personal Property Owned by Debtor**
7. **Amount of Unsecured but Given Favorable Treatment** (amount of debt that was unsecured but given favorable treatment)
8. **Trustee Compensation** (total amount the trustees will earn from a Chapter 13 plan)
9. **Total Tax** (total taxes owed)


\[^{314}\] $\ln[\text{odds}] = a + b_1x_1 + b_2x_2 + \ldots + b_nx_n$

$\varphi_{\text{pred}} = \ln[\text{odds}] = a + b_1x_1 + b_2x_2 + b_nx_n$
10. Attorney’s Fees and Filing Costs

11. Dismissed (if the case was dismissed or not)

Our dependent variable is Dismissed (0=no, 1=yes), and the independent variables that ultimately proved useful315 in predicting whether or not a case would be dismissed are Value of Real Property Owned (in thousands), Amount of Unsecured Debt Given Favorable Treatment (in thousands), Total Debt (in thousands), and Trustee’s Compensation (in thousands). See Table 10 below.

<table>
<thead>
<tr>
<th>Table 10. Logistic Regression Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing Global Null Hypothesis: BETA = 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test</th>
<th>DF</th>
<th>Chi-Square</th>
<th>Pr &gt; Chi Sq</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood Ratio</td>
<td>4</td>
<td>24.9032</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Score</td>
<td>4</td>
<td>14.2350</td>
<td>0.0066</td>
</tr>
<tr>
<td>Wald</td>
<td>4</td>
<td>8.5121</td>
<td>0.0745</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analysis of Maximum Likelihood Estimates</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>DF</th>
<th>Estimate</th>
<th>Standard Error</th>
<th>Wald Chi-Square</th>
<th>Pr &gt; ChiSq</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1</td>
<td>-0.2099</td>
<td>0.7986</td>
<td>0.0691</td>
<td>0.7927</td>
</tr>
<tr>
<td>Value of Real Property Owned</td>
<td>1</td>
<td>0.0281</td>
<td>0.0160</td>
<td>3.0812</td>
<td>0.0792</td>
</tr>
<tr>
<td>Amount of Unsecured Debt</td>
<td>1</td>
<td>1.5841</td>
<td>0.9067</td>
<td>3.0526</td>
<td>0.0806</td>
</tr>
<tr>
<td>Total Debt</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsecured Debt/Total Debt</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Unsecured Debt</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Tax</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attorney’s Fees and Filing</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value of Personal Property</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Owned by Debtor</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

315. It is interesting to note that neither individually nor in combination with other variables were the following variables useful for predicting dismissal: Amount of Unsecured and Not Given Favorable Priority, Total Debt, Unsecured Debt/Total Debt, Total Unsecured Debt, Total Tax, Attorney’s Fees and Filing Costs, and Value of Personal Property Owned by Debtor.
<table>
<thead>
<tr>
<th>Effect</th>
<th>Point Estimate</th>
<th>95% Wald Confidence Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of Real Property Owned in Thousands</td>
<td>1.029</td>
<td>0.997 1.061</td>
</tr>
<tr>
<td>Amount of Unsecured Debt Given Favorable Treatment in Thousands</td>
<td>4.875</td>
<td>0.825 28.822</td>
</tr>
<tr>
<td>Total Debt in Thousands</td>
<td>0.953</td>
<td>0.916 0.992</td>
</tr>
<tr>
<td>Trustee Compensation in Thousands</td>
<td>3.434</td>
<td>1.189 9.924</td>
</tr>
</tbody>
</table>

An absolute measure of validity of the logistic regression model is the likelihood ratio test. Here we see this is associated with a p-value of <.0001 so we conclude the model is valid. With a p-value of <.05 Total Debt in Thousands and Trustee Compensation in Thousands are useful to the model. At p-values <.10 Value of Real Property Owned in Thousands and Amount of Unsecured Debt Given Favorable Treatment in Thousands are useful to the model.

The odds ratio estimates provide some interesting information. If the chances of something occurring are greater than the chances of it not occurring, the odds will be greater than 1. If the chances of an event failing to occur are greater, the odds will be less than 1. We find the following:

316. See Meyers, supra note 314, at 238.

• The odds of a case being dismissed are 4.875 times greater with an additional thousand dollars in *Amount of Unsecured Debt Given Favorable Treatment*.

• The odds of a case being dismissed are 1.029 times greater with an additional thousand dollars in *Value of Real Property Owned*.

• The odds represents a .05 (1 - 0.953) reduction in risk of a case being dismissed with an additional thousand dollars in *Total Debt*.

• The odds of a case being dismissed are 3.434 times greater for a case with an additional thousand dollars in *Trustee Compensation*. This finding may just be measuring the fact that trustees invest greater amounts of time and receive greater compensation in cases in which they play a role in getting the case dismissed.

All variables with the exception of *Total Debt* are associated with an increase in likelihood of dismissal. *Total Debt* is associated with a decrease in likelihood of dismissal. Another way to think about these odds ratio estimates is in terms of the effect of an additional thousand dollars in any one of these independent variables on the predicted odds of dismissal. An additional thousand dollars in *Amount of Unsecured Debt Given Favorable Treatment* increases the predicted odds of dismissal by 387% (4.875 - 1). An additional thousand dollars in *Value of Real Property Owned* increases the predicted odds of dismissal by 2.9% (1.029 - 1). An additional thousand dollars in *Trustee Compensation* increases the predicted odds of dismissal by 243% (3.434 - 1). An additional thousand dollars in *Total Debt* decreases the predicted odds of dismissal by 5% (0.953 - 1). *Amount of Unsecured Debt Given Favorable Treatment* and *Trustee Compensation* clearly have the biggest impact on prediction of dismissal.

This model can be used to predict likelihood of dismissal. The data used for the model came from the state of Colorado only and since post-BAPCPA cases have insufficient time for most dismissal to surface, we are limited to the pre-BAPCPA data for Colorado. This data set has a sample size of 52, small in terms of building a predictive model but adequate as a starting point for investigating the predictive model with recommendations for follow-up studies with larger sample sizes and additional districts.

318. See id.

319. \( \frac{e^{\text{pred}}}{1 + e^{\text{pred}}} = \text{predicted probability} \)

See Meyers, supra note 314, at 231-33.
The logistic regression model is:

\[
\text{Dismissal}_{\text{predicted}} = -0.2099 + 0.0281 (\text{Value of Real Property Owned in Thousands}) + 1.5841 (\text{Amount of Unsecured Debt Given Favorable Treatment in Thousands}) - 0.0479 (\text{Total Debt in Thousands}) + 1.2338 (\text{Trustee Compensation in Thousands})
\]

Suppose we have a debtor with the following values for these variables (Tables 11 and 12):

<table>
<thead>
<tr>
<th>Table 11. Hypothetical Debtor Profile 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td>----------------------------------------</td>
</tr>
<tr>
<td>Value of Real Property Owned</td>
</tr>
<tr>
<td>Unsecured Debt Given Favorable Treatment</td>
</tr>
<tr>
<td>Total Debt</td>
</tr>
<tr>
<td>Trustee Compensation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 12. Hypothetical Debtor Profile 1 Applied to Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Variable</strong></td>
</tr>
<tr>
<td>--------------------------</td>
</tr>
<tr>
<td>Model Constant</td>
</tr>
<tr>
<td>Value of Real Property Owned</td>
</tr>
<tr>
<td>Unsecured Debt Given Favorable Treatment</td>
</tr>
<tr>
<td>Total Debt</td>
</tr>
<tr>
<td>Trustee Compensation</td>
</tr>
<tr>
<td>SUM</td>
</tr>
</tbody>
</table>

The \( \text{Dismissal}_{\text{predicted}} \) = 12.12. The following equation will provide the predicted probability that this particular case will be dismissed:

\[
\text{Predicted Probability} = \frac{2.717^{12.12}}{1+2.718^{12.12}} = 0.022436
\]

This case has a low probability of being dismissed, 2%. Probabilities range from 0 to 1 and any predicted probability greater than .50 means dis-
AN EMPIRICAL ANALYSIS OF THE EFFECTIVENESS OF BAPCPA

missal is likely. \(^{320}\) We now predict for a debtor with a different set of values for the variables (Tables 16 and 17).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Dollar Amount</th>
<th>In Thousands of Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of Real Property Owned</td>
<td>$16,000</td>
<td>$16</td>
</tr>
<tr>
<td>Unsecured Debt Given Favorable Treatment</td>
<td>$40,000</td>
<td>$4</td>
</tr>
<tr>
<td>Total Debt</td>
<td>$250,000</td>
<td>$250</td>
</tr>
<tr>
<td>Trustee Compensation</td>
<td>$4,500</td>
<td>$4.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>(A) Coefficient</th>
<th>(B) In Thousands of Dollars</th>
<th>(A) times (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Constant</td>
<td>-.2099</td>
<td></td>
<td>-.2099</td>
</tr>
<tr>
<td>Value of Real Property Owned</td>
<td>.0281</td>
<td>$16</td>
<td>.45</td>
</tr>
<tr>
<td>Unsecured Debt Given Favorable Treatment</td>
<td>1.5841</td>
<td>$4</td>
<td>6.34</td>
</tr>
<tr>
<td>Total Debt</td>
<td>-.0479</td>
<td>$250</td>
<td>-11.98</td>
</tr>
<tr>
<td>Trustee Compensation</td>
<td>1.2338</td>
<td>$4.5</td>
<td>5.55</td>
</tr>
<tr>
<td>SUM</td>
<td></td>
<td></td>
<td>.15</td>
</tr>
</tbody>
</table>

The \( \text{Dismissal}_{\text{predicted}} = 0.15 \). The following equation will provide the predicted probability that this particular case will be dismissed:

\[
\text{Predicted Probability} = \frac{2.717^{15}}{(1+2.718)^{15}} = 0.953153
\]

This case has a high probability of being dismissed, 95%. With a larger data set and sufficient time for post-BAPCPA cases to make their way through the Chapter 13 system, a more robust predictive model could be built and validated. This type of model could be very useful to courts and other interested parties as debtors find themselves facing bankruptcy.

\(^{320}\) See id.
F. Predicting Dismissal Rates post-BAPCPA?

The post-BAPCPA data is truncated since we have only one year of cases beginning with October 2005. Due to this, many potential dismissals have yet to appear. A very tentative model for predicting future Colorado dismissals with fairly speculative values can be obtained using the logistic regression model variables from pre-BAPCPA. The following variables from Colorado pre-BAPCPA were used in a discriminant analysis to predict probabilities associated with each case being dismissed: Value of Real Property Owned, Unsecured Debt Given Favorable Treatment, and Total Debt. The resulting predictions are listed below in Table 15.

<table>
<thead>
<tr>
<th>Table 15. Actual and Estimated Dismissal Rates Colorado</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-BAPCPA Colorado Dismissal Rates</td>
</tr>
<tr>
<td>Post-BAPCPA Colorado Dismissal Rates</td>
</tr>
</tbody>
</table>

VI. Analysis and Conclusion

Our study offers some preliminary empirical findings and models, points to the necessity of focusing the debate on the available empirical evidence, and provides a call for further research in other jurisdictions and over longer periods of time. The study also provides an analysis of the available empirical evidence on whether BAPCPA was enacted in response to a genuine social problem or in response to rhetorical posturing and reviews the debates that underlay BAPCPA. It reports a number of statistically significant findings, some of which we can analyze only preliminarily. Still, these findings are important to make available to other researchers. Below we lay out our major findings and begin the process of explaining the implications that may flow from our findings, if they are replicated elsewhere and over time.

First, has the profile of Chapter 13 filers who confirm plans changed pre-BAPCPA as compared to post-BAPCPA? We answer this question in two ways. Descriptively, the profile of debtors has changed in important ways. Compared with the pre-BAPCPA debtor, the post-BAPCPA debtor on average owns more expensive real property and has more personal property. The value of debtors’ real property increased by 32.7% and the value of personal property owned by the debtor increased by 23.3%. At the same time, debtors’ average amount of debt has also increased. The amount of debt secured by real property jumped 27.7%; total unsecured debt increased by 20.8%; and total debt overall increased by 25.6%.

It is interesting to consider whether these findings are consistent with what we would predict from a system that aims to channel more debtors into filing Chapter 13 repayment plans instead of Chapter 7 liquidations. The average Chapter 13 debtor post-BAPCPA both has more and owes
more. It might be argued that this finding reveals a benefit of BAPCPA. The changes have forced higher-wealth individuals, who also have more debt, into plans in which they must repay a portion of their debts.

Using regression models, we also examine whether we can predict the total debt of a post-BAPCPA bankruptcy filer. This is analogous to asking prospective bankruptcy filers about their total debt and seeing how close we can come to predicting their responses.\textsuperscript{321} While other factors in the model are also important, most significantly we find that unsecured debt paid is the best predictor of total debt. If random Chapter 13 debtor A told us that she was going to pay $1000 in unsecured debt under the plan and random debtor B told us that he was going to pay $2000 in unsecured debt, we would predict that B had $5460 more total debt. Post-BAPCPA, however, the regression model does not have such a dramatic predictor. In fact, the model has shown that the landscape has changed; post-BAPCPA the same set of variables are not useful in predicting total debt.

We struggle to explain this change. We are not sure why the regression model that worked pre-BAPCPA does not work post-BAPCPA. We are also unsure why unsecured debt to be paid under the plan is no longer strongly predictive of changes in total debt. We believe that the answer will come with time. Still, modeling of this type is important, even with the caveat that our model may need refining post-BAPCPA. Modeling aids public policy decisionmaking and will allow researchers to test BAPCPA’s effectiveness at accomplishing Congress’s goals. For example, if researchers could pinpoint the variables that predict which individuals will seek bankruptcy protection, or which factors are associated with large changes in total debt, Congress could address those issues more effectively. To the extent that a variable is within the control of an individual (e.g., the decision to purchase real property or have a mortgage of a certain amount), changes in the Bankruptcy Code can provide incentives or disincentives to the behavior. To the extent the relevant variable is associated with societal issues such as a lack of health care, it is important for Congress to be able to target the greater social problem and not attempt to alter individual behavior with incentives or disincentives in the Bankruptcy Code.

Has BAPCPA been a win for unsecured creditors? The data to date indicates that the average Chapter 13 debtor is repaying a far greater percentage of his or her unsecured debt. Debtors post-BAPCPA have confirmed plans that average repayments of their general unsecured debt of $0.39 on the

\textsuperscript{321} Imagine forming a model to predict weight based on questions about height, genetics, eating habits, and level of activity. If we could form a robust model to predict weight based on these factors, we could determine whether small changes in the behavior over which an individual has control would have a large effect on weight, or whether weight is due largely to factors beyond an individual’s control.
dollar as compared to $0.22 on the dollar pre-BAPCPA. A 77% average increase is a dramatic jump in repayment.322

Also, far fewer debtors are filing bankruptcy. Does this reflect the fact that debtors who are looking for an easy way to avoid repaying their debts have realized it will be harder for them to utilize the bankruptcy system to get an easy forgiveness of their obligations? Or does this reflect a “hangover effect” from the large number of debtors who filed bankruptcy before BAPCPA went into effect or attorneys’ and debtors’ unfamiliarity with the new system? If so, the number of filers should steadily increase, an effect that cannot yet be measured. Though we do see increases in the number of filers in the last quarter of the study, it is not clear if this represents a trend or simply seasonal anomalies.

Finally, we know that a certain percentage of debtors who confirm Chapter 13 plans will fail to make the required payments and have their Chapter 13 cases dismissed. This number varies by state. We have developed a logistic regression model to predict who will fail their plans. To our knowledge, this is the first published research attempting to predict such behavior. We believe this to be the first time such modeling has been done. We hope that our attempts, however preliminary, will draw attention to the necessity of empirical research to determine which factors are predictive of an individual failing to complete his or her plan. Such research has implications for public policy, attorneys advising clients, and judges and trustees exercising discretion in plan content and approval.

If researchers can develop robust models of the issues facing debtors, models that predict which variables are associated with failure to complete plans, then lawmakers can alter the requirements for plan confirmation in an informed and non-ideological fashion. Attorneys can make adjustments in plan details or counsel clients to explore other financial options. Judges and trustees can help debtors not confirm plans, or adjust their financial planning, to avoid failure. And to the extent that we can use logistic regression models to predict changes in failure rates post-BAPCPA, we can understand whether BAPCPA has been effective in channeling a greater percentage of debtors into Chapter 13 plans.

In developing our model, what we did not find is in some ways as instructive as what we did find. We started off trying to develop a profile of a debtor who would be unlikely to complete his or her confirmed plan. In essence, we tried to model the classic picture of irresponsible debtors on the assumption they would be least likely to make their required plan payments. We tried logistic regression modeling of (1) debtors who had the highest general unsecured debt, (2) debtors who had the highest general unsecured

322. On the other hand, while total unsecured debt has increased, the ratio of unsecured debt to total debt has decreased. Perhaps the unsecured creditors have made some gains.
debt relative to the value of their real property, (3) debtors who had the highest real property values, and (4) debtors with the highest total debt. None of these models were robust individually or in interaction.

The model that we ultimately derived from the 2004 data on failure rates of confirmed Chapter 13 plans in 2004 is based on an interaction of the value of real property, the amount of priority unsecured debt, total debt, and trustee compensation. We find that every additional $1000 of priority unsecured debt increases the predicted odds of dismissal by 387%. An increase in the amount of each of the other independent variables in the model predicts an increase in the likelihood of failure. The only exception is in the amount of total debt. An additional $1000 of total debt decreases the predicted odds of dismissal by 5%.

We struggle to understand why this was the only model that was predictive of debtors who would have their plans dismissed. Unsecured priority debt is essentially composed of domestic support obligations, attorneys' fees, and taxes. An increase in this category may indicate that the additional burden of repaying tax obligations, making domestic support payments or paying attorneys represents an additional cost that debtors living paycheck to paycheck cannot absorb.

An increase in this category is so strongly predictive of failure that it may have public policy implications if the model is found to be robust across jurisdictions and over time. When this model is applied to post-BAPCPA confirmed cases, we find an increase in failure rates from 32.7% to 37.2%. Of course, there are a number of issues that are raised by using a logistic regression model to predict future rates of failure. As we outlined, the economic profile of debtors and the amount paid to attorneys post-BAPCPA is different than pre-BAPCPA. In attempting to apply the same model to post-BAPCPA data, we may be comparing apples and oranges. We will not know until more time has gone by for post-BAPCPA Chapter 13 debtors to fail to complete their plans. That said, the need for empirical scholars to develop increasingly robust models to predict failure is paramount.

In conclusion, this study is the first of its kind to statistically test the impact and unanticipated consequences of BAPCPA. We have attempted to situate these findings within the greater context of the available empirical data and theories to explain the triggers for filing for bankruptcy protection and highlight some of the debate on BAPCPA found in the Congressional Record. While BAPCPA has not been in effect for enough time for us to make definitive public policy recommendations, we hope our work will

323. See 11 U.S.C. § 507(a) (2000) (listing which unsecured creditors receive priority and in what order). We were not able to disaggregate which of these categories was most predictive of failure to obtain a discharge.
serve as a call for and a focus on the validity and important of empirical legal research in the area of bankruptcy.