The Regulation of Non-Judicial Debt Collection and the Consumer's Choice among Repayment, Bankruptcy and Informal Bankruptcy

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This article measures the impact of state laws on defaulting borrowers. Prior literature has assessed the impact of laws that limit the enforcement of judgments on bankruptcy filings. However, (1) the majority of defaulting consumers do not file for bankruptcy, and (2) most debt collection takes place outside of the courtroom. Federal law prohibits collection techniques that are designed to harass or that are deemed abusive, but it exempts creditors who originated the loan or purchased the loan before default. About half of the states have enacted statutes that grant consumers a private right of action against these creditors. This article finds that states with anti-harassment statutes have lower bankruptcy filing rates, but borrowers living in these states are more likely to default without filing for bankruptcy. Our results suggest that these (or related) laws may reduce creditors' ability to pressure debtors to repay.

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Economists studying the effects of the law on the consumer bankruptcy filing decision generally look at statutes limiting the enforcement of judgments. Typically, the focus is on exemptions of assets in bankruptcy (the level of the homestead exemption and other property exemptions) or limitations on creditors' ability to seize property or garnish wages in state courts prior to bankruptcy. This article examines another set of laws that could play an equally important effect on the bankruptcy decision: laws that regulate aggressive non-judicial debt collection.

Many creditors rely heavily on non-judicial debt collection techniques such as dunning letters and telephone calls to debtors, foregoing the legal process altogether. Bankruptcy rarely serves as a means of collection for general unsecured creditors; fewer than five percent of Chapter 7 cases have non-exempt assets available for distribution (Flynn, Burke and Hazard, 2004). Creditors do collect in state court, but the use of courts to collect consumer debt varies tremendously by state (Hynes, 2008). Moreover, even in the most litigious states many creditors choose not to sue. For example, Virginia has one of the highest civil filing rates in the country, and consumer debt collections account for a substantial majority of the over seven hundred thousand civil filings that its general district courts receive in a typical year (Hynes, 2008). These civil filings dwarf the fewer than twenty-eight thousand consumer bankruptcy filings made in Virginia in 2008. However, evidence from the payday lending industry suggests that they represent a small fraction of creditors' collection efforts.[1] Lawsuits may also be declining in importance as a means of

[1] We do not know how often most creditors sue when their debtor fails to pay, but Virginia's Corporation Commission keeps records for the payday lending industry. In 2007 Virginia payday lenders charged-off 82,291 checks as uncollectible but sued just 11,790 consumers for non-payment (Virginia Bureau of Financial Institutions, 2008).

collecting debts. The rate of civil litigation has remained fairly stable over the last thirty years, and the evidence suggests that the change in rate of consumer debt collection litigation has not matched the generally upward trend of consumer borrowing or the bankruptcy filing rate (Hynes, 2008).

The fact that creditors do not sue does not mean that they do not try to collect. Either they or third-party debt collectors will use telephone calls, dunning letters and variety of other non-judicial debt collection techniques to try to convince the debtor to pay. The pressure on the debtor may be severe, and may often be enough to cause a debtor to choose bankruptcy. Sullivan, Warren & Westbrook (1989) find that about two-thirds of bankrupt debtors file before they are sued, and Stanley & Girth (1971) found similar results a generation ago.

At least some of the non-judicial collection techniques employed by creditors and their agents can be fairly described as aggressive, if not harassing or abusive, and the law tries to limit this conduct. For example, the New York State Attorney General's office recently obtained a court order to shut down a Buffalo-area debt collection operation. Employees were alleged to have routinely impersonated police officers, threatening to arrest consumers and throw them in jail unless they made arrangements to pay the company immediately.[2] In more common incidents, collectors threaten debtors that if they are successfully sued and do not pay, they may be jailed; and collectors telephone debtors at their workplace, knowing that the employer does not permit such contacts.[3]

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[2] Bray, Chad, "NY AG Shuts Down Buffalo Debt Collection Operation," Dow Jones Newswire, June 23, 2009; http://www.oag.state.ny.us/media_center/2009/june/june23a_09.html.

[3] Chatzky, Jean, "Stop Calling Me!" *Time*, March 10, 2003, p. 68.

The federal Fair Debt Collections Practices Act (FDCPA) regulates collection practices. It limits whom the creditor may contact and when the creditor may contact them, and it gives the consumer the right to sue the creditor for violations of this act. Significantly, however, the federal FDCPA largely exempts the original creditors from its coverage; rather it targets third-party debt collectors (including lawyers) and creditors who purchased the debt after default.

The original creditors, however, are not entirely free from regulation. The Federal Trade Commission uses its power to police "unfair or deceptive acts or practices" to bring administrative actions against creditors for overly aggressive debt collection, and state unfair trade practice statutes and tort law provide further protection (National Consumer Law Center, 2004). In addition, many state legislatures have passed statutes specifically regulating non-judicial debt collection. These laws vary greatly. Some merely require licensing and others apply only to third-party debt collectors. This article focuses on those statutes that fill the gap created by the Fair Debt Collection Practices Act by giving the consumer a private right of action against the abusive or harassing original creditor. About half of the states have such a statute.

Section III uses the existence of these anti-harassment statutes and county-level bankruptcy data to reexamine one of the most commonly-asked questions in the consumer finance literature: whether differences in the law affect the consumer's bankruptcy filing decision. Anti-harassment laws may reduce the pressure that creditors can exert on a consumer in default, and they may therefore reduce the demand for bankruptcy protection. We find that counties in states without anti-harassment statutes have average bankruptcy filing rates that are twelve to nineteen percent higher than counties in states that do. This

effect remains statistically and economically significant in a wide variety of regressions using county-level data.[4]

Regressions that use aggregate bankruptcy filing rates could confound several effects because, in addition to the direct effects discussed above, anti-harassment laws may have several indirect effects on the bankruptcy filing rate. Anti-harassment laws may reduce the cost of default and thereby increase the number of defaults, and some of these additional defaults could ultimately lead to bankruptcy. To the extent that these laws reduce the ability of a creditor to collect, they may also reduce the supply of credit. If this results in lower debt burdens, it may ultimately lead to fewer bankruptcies. Ideally one would use individual repayment records to separate these three effects, and Section IV uses data from individual credit card accounts to do just this. Section IV finds that defaulting credit-card holders who live in states with anti-harassment laws are more likely to become "informally bankrupt."[5] *Informal bankruptcy* is a term that describes borrowers who have defaulted, but who have not filed for formal bankruptcy protection. At the same time, borrowers in these states are less likely to file for bankruptcy. We find that the thought experiment of moving a borrower from a state without an anti-harassment law to a state with an anti-harassment law increases the likelihood of informal bankruptcy by 14%, and decreases the likelihood of formal bankruptcy by 15%. These results, taken together, strongly suggest that anti-harassment laws

[4] A previous version of this article found statistically significant results using state-level data.

[5] Two prior articles have examined informal bankruptcy using proprietary data from credit card issuers. Dawsey & Ausubel (2001) studied the phenomenon of consumer default without any accompanying bankruptcy filing and coined the term "informal bankruptcy." They documented its occurrence and explained its frequency using proprietary data of a national credit card issuer. Agarwal, et al (2003) find the same results as Dawsey and Ausubel using proprietary data from another national credit card issuer.

significantly decrease the cost of resisting creditors' collection activities and thereby significantly decrease consumers' use of the bankruptcy courts.

Section I reviews the bankruptcy filing debate. Section II provides an overview of the regulation of non-judicial debt collection. Section III tests whether states and counties that grant debtors a private right of action against an abusive creditor have lower aggregate filing rates. Section IV uses data from individual credit-card accounts to show that individuals who live in states with anti-harassment laws are less likely to repay their credit card obligations and less likely to file for bankruptcy. Section V concludes.

1. The Consumer Bankruptcy Debate

Americans filed 149 bankruptcies for every 100,000 persons in 1984. By 2004, the rate had risen to 545 for every 100,000 persons. This rise in the filing rate led to prolonged debates in both Congress and academia. The Congressional debate ultimately resulted in the Bankruptcy Reform Act of 2005 and a sharply reduced bankruptcy filing rate. In 2007, Americans filed at the rate of just 282 bankruptcies per 100,000.

The result of the academic debate is less clear. Three explanations for the rise in bankruptcy filings achieved some level of acceptance.[6] Perhaps the most plausible explanation for the rise in bankruptcy filings is the rise in consumer debt which in turn was probably influenced by technological changes in the lending industry. Some scholars argue that at least some of the rise in bankruptcy filings should be attributed to a decline in the cost of filing for bankruptcy, perhaps due to a decline in the stigma of filing. Others argue that an increase in the risks faced by consumers is responsible for much of the increase. We do not

[6] A summary of this debate can be found in Kowalewski (2000).

need to revisit this debate for the purposes of this paper. It is sufficient to note that few, if any, scholars would attribute much of the rise in bankruptcy filings to a change in the law.[7]

Prior to 2005, the last major change in consumer bankruptcy law occurred in 1978, and a number of scholars tested whether this change increased the number of bankruptcy filings. In reality they were testing whether one of a number of legal changes that occurred at roughly the same time increased the filing rate. In the same year, the Supreme Court ruled that a bank could charge an interest rate permitted by the state where it is chartered even though that rate would be prohibited in the state of the borrower. (*Marquette vs. First Omaha Services,* (439 U.S. 239 (1978)), a decision that promptly led to the effective elimination of most usury ceilings on credit card debt. In 1977 the Supreme Court issued another opinion that prohibited many limits on attorney advertising. (*Bates v. State Bar*, (433 U.S. 350 (1977)). The literature fails to clearly establish that any of these changes increased the bankruptcy filing rate. Some studies found a statistically significant break in the filing rate around 1978 (Shepard, 1984; Peterson & Aoki, 1984; Boyes & Faith, 1986), while others did not (Bhandari & Weiss, 1993; Domowitz and Eovaldi, 1993). In any case, it would be difficult to attribute the continued rise in bankruptcy filings to legal changes that occurred a generation ago.

One of the main reasons that the 1978 Act was thought to have increased the incentive for consumer bankruptcy filings was that it introduced new federal, bankruptcy-only exemptions that were more generous than the exemptions previously available in many states. Nevertheless, about two-thirds of the states had opted out of the federal exemptions

[7] We do not mean to suggest that the law has no effect on the bankruptcy filing rate. BAPCPA demonstrated that, at least in the short-run, the law clearly matters.

within four or five years (Hynes, Malani & Posner, 2004), and so it is unclear if this change had much practical significance. This change may, however, have increased academic interest in property exemptions. These exemptions vary dramatically from state to state, and a number of scholars have examined whether differences in these exemptions help to explain differences in the filing rates across states.[8]

On balance, the literature does not suggest a strong link between property exemptions and the bankruptcy filing rate. One early study found that exemptions increase the filing rate, but the estimated effect was small. (White (1987); see also Edmiston (2007).) A number of other studies found either no statistically significant effect or even a negative relationship. (Apilado, Dauten & Smith (1978); Peterson & Aoki (1984); Shiers & Williamson (1987); Lefgren & McIntyre (2009)). Later articles examined aggregate panel data (Buckley & Brinig (1998); Weiss, Bhandari & Robins (1996); Pomykala (1997); Hynes (1998)) and even individual level data (Fay, Hurst & White (2002)), but the results did not really change. The literature has largely failed to establish a clear link between property exemptions and the bankruptcy filing rate.

There are a number of possible explanations for these results. First, the studies measured the effect of marginal differences in exemptions, and the marginal differences may have been relevant for very few debtors. For a consumer with no home or no home equity the difference between a $100,000 or even $10,000 homestead exemption and an "unlimited" exemption is meaningless. Second, these studies suffer from the standard problem of omitted

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[8] Some states allow homeowners to exempt their home regardless of the home's value, and others provide no homestead exemptions. In 2004 the bankruptcy filing rate of the highest state (Tennessee) was about four and a half times that of the lowest state (Alaska).

variable bias. For example, most prior studies were unable to control for the amount of consumer debt in each state. If the exemptions reduce the ability of a creditor to collect, they may have made creditors less willing to lend (Gropp, Scholz & White (1997)). Consumers with less access to debt should be less likely to file for bankruptcy. Third, states with a high bankruptcy filing rate may choose to adopt lower exemptions. We try to address this simultaneity bias by using homestead exemptions from 1920 as an instrument for current homestead exemptions.

A third, and more serious, problem is that most exemptions protect the debtor both inside and outside bankruptcy (i.e. most exemptions also apply to actions in state court), and thus they do not necessarily make bankruptcy relatively more attractive. We should model the consumer's decision as between three choices: repayment, formal bankruptcy filing, and "informal bankruptcy" (simply defaulting, without seeking the protections of bankruptcy court). Two existing papers use proprietary credit card repayment data to model this decision: Dawsey & Ausubel (2001) and Agarwal, et al (2003). Even though many exemptions protect consumers who choose informal bankruptcy, each paper finds that generous exemptions increase the willingness of consumers to make a formal bankruptcy filing.

These two papers also find that restrictions on non-bankruptcy collections affect the bankruptcy filing rate. Specifically, they find that laws that limit the amount of wages that a creditor can garnish in state court reduce the bankruptcy filing rate. These laws reduce the cost of "informal bankruptcy" — simply refusing to pay — and thus make bankruptcy relatively less attractive. A number of prior studies that use aggregate level data also find that laws that restrict wage garnishment reduce bankruptcy filings (Apilado, Dauten & Smith

(1978), Ellis (1998), Heck (1981), Lefgren & McIntyre (2009). But see Bhandari & Weiss (1993).

When evaluating "informal bankruptcy" we should not, however, confine ourselves to laws that determine the amount that a creditor can collect in state court. The civil filing rate is roughly the same today as it was a generation ago, and there is no evidence suggesting that the amount of consumer debt collection in state courts has grown appreciably, despite the considerable growth in consumer indebtedness and bankruptcy (Hynes (2008)). In contrast to the stable civil litigation rate, consumer debt collections appear to have increased substantially as creditors may have turned to non-judicial debt collection techniques such as dunning letters and telephone calls. The laws that regulate this conduct are described in the next section.

2. The Regulation of Non-Judicial Debt Collection

This article measures the impact of differences in state statutes that regulate non-judicial debt collection. However, these statutes comprise just a portion of the law regulating this conduct. Any discussion of the regulation of non-judicial debt collection should begin with the federal Fair Debt Collection Practices Act. Some provisions of the FDCPA regulate collection in state courts (judicial debt collection),[9] but this article focuses on those provisions that limit non-judicial collection efforts. The FDCPA gives the consumer the right to demand that the collector stop non-judicial collection efforts entirely. Even absent such a consumer request, the FDCPA prohibits communications at an unusual time or place such as after 9 p.m. at night or at the consumer's place of employment if the collector has

[9] For example, the FDCPA restricts the venue in which a debt collector may sue the consumer. 15 U.S.C. § 1692i (1977).

reason to know that the employer prohibits these contacts. In addition, the FDCPA limits contacts with third parties and prohibits "harassment or abuse," "false or misleading misrepresentations," and "unfair practices." The FDCPA provides for both administrative enforcement and private rights of action to enforce these provisions.

The Fair Debt Collections Practices Act does, however, contain a very significant limitation. Its provisions regulate "debt collector[s]", and this term does not include a creditor who originated the debt or purchased the debt before a default unless such creditor makes it appear that a third party is collecting the debt. The Federal Trade Commission uses its power to police "unfair or deceptive acts or practices" to regulate much of the conduct prohibited by the Fair Debt Collections Practices Act, and the FTC's authority extends to the original creditor as well. In fact, the FTC has explicitly stated that it relies on the FDCPA as model of appropriate conduct for creditors when deciding whether to bring an action. However, the FTC Act does not give consumers the right to sue abusive creditors.

If a consumer wishes to sue an abusive creditor, she must rely on state law. State tort law provides a number of possible causes of actions that a consumer may bring against a creditor for overly aggressive non-judicial debt collection including: intentional or negligent infliction of emotional distress, abuse of process interference with contractual relationships (usually employment), and invasion of the right of privacy (National Consumer Law Center (2004)). Nearly every state has a consumer protection statute that prohibits deceptive sales practices, and many of these statutes extend to "unfair" practices as well. These statutes almost always provide a private right of action. A number of state courts have interpreted their states' statutes to apply to aggressive debt collection, though some state courts either faced statutes with more limiting language or have read the language more narrowly. To the

extent that these statutes apply to debt collection at all, they apply to both third-party debt collectors and the original creditor.

The statutes that are the subject of the empirical analysis below are those that specifically regulate consumer debt collection. Some of these statutes are little more than licensing requirements, and others largely regulate the relationship between the debt collector and the original creditor. Still others prohibit very specific actions such as simulating a legal process. Some statutes prohibit abusive or harassing collection actions more generally, and most of these statutes either explicitly provide a private right of action or have been read to imply a private right of action. All of the statutes that provide a private right of action provide for statutory or enhanced damages and the recovery of attorney's fees as well.

The large amount of law regulating non-judicial debt collection does not imply that collection is prohibitively costly or even that abusive techniques are effectively prohibited. The debt collection industry is enormous, implying that collectors have found some way to navigate the law. In addition, the private rights of action will do little good unless a consumer knows of the law and can find a lawyer willing to take the case. As a result, it is not clear that we should expect the anti-harassment laws to have a significant effect on consumer behavior.

3. Analysis of Anti-Harassment Statutes Using County-Level Data

Anti-harassment statutes may help to protect the consumer against aggressive collection techniques. To the extent that they do, they should be expected to reduce the benefit of filing for bankruptcy — as the relief provided by the automatic stay is diminished — and therefore the incidence of bankruptcy . This section uses aggregate data to test

whether these anti-harassment laws reduce bankruptcy filing rates. The next section then uses individual data to address some confounding effects.

3.1. Data and Variables

This section tests the effect of anti-harassment statutes using 2008 county-level bankruptcy filing rates (filings per 100,000 people). We define a dummy variable (**Harassment**) that equals one if the county is in a state with a statute that provides a private right of action against a harassing or abusive creditor. Twenty-three states have enacted such laws; these states are indicated in Table 2.[10] We also control for a number of other legal limits on debt-collection. Federal law limits wage garnishment by general creditors to the lesser of twenty-five percent of the consumer's income or the amount by which the consumer's weekly take-home pay exceeds thirty times the federal minimum wage, but states may protect more of a debtor's wages. We define a dummy variable, **Garnishment**, that equals one for counties in states that protect more than seventy-five percent of debtors' income from garnishment.[11] Seventeen states have enacted such laws; these states are also indicated in Table 2. **Months to foreclose** is HUD's estimate (measured in months) of how long it should take a diligent creditor to foreclosure on a home mortgage.

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[10] This measure has the advantage of simplicity, but it ignores the possibility of close substitutes in the form of the common law tort theories discussed above. Nearly every state has some form of these theories, but the ability of a plaintiff to use them will depend on judicial interpretations that are extremely difficult to code. We generated a measure of the availability of these common law measures to test our results for robustness. Although the sign of the coefficient remained the same, the coefficient was no longer statistically significant.

[11] Alternatively, we could have identified states that prohibit the garnishment of the wages of a head of household without the consumer's consent or states that protect more than thirty times the federal minimum wage. *See infra* Table 2. These alternative specifications do not materially affect our results.

This is not a paper about property exemptions. However, because of the large number of earlier studies that offer conflicting results (and in order to avoid omitting a variable that is potentially significant), we report the results for a few different specifications of the exemption variables. **Homestead exemption** represents the dollar limit on the homestead exemption available in a state, and **Personal exemption** represents the dollar limit on exemptions that can be applied to cash or motor vehicles. Some states provide no dollar limit on exemptions, and so we cap these exemptions at the highest observed dollar limit for that type of property. If exemptions have any effect, the effect should be non-linear: the difference between a $10,000 exemption and a $20,000 exemption should be far more important than the difference between a $510,000 exemption and a $520,000 exemption. We therefore include both the value of the exemption and the square of the value of the exemption in most specifications, the log of the exemptions in one specification, and we divided the exemptions into quartiles in another. We also tried to control for the endogeneity of exemptions by using homestead exemptions from 1920 as an instrument for current law. As discussed below, none of these alternative specifications materially affected our results.

We also control for a series of economic and demographic variables including the percent of households in various income categories, the unemployment rate in the prior year, the median home value in the county, race, the percent of the population with a high school education, the percent of the population without health insurance, the percent of the population over fifteen that is divorced and the crime rate. In one specification we also control for the percent of filings made in Chapter 13 as these filings usually do not result in a discharge, and others have argued that counties with high percentage of bankruptcies in chapter 13 have artificially inflated filing rates (Lefgren & McIntyre (2009)). Variable

definitions and summary statistics are set forth in Table 1. Our legal variables (harassment, garnishment, months to foreclose, homestead exemption and personal exemption) are state-level variables. All other variables are county level.

3.2. Results

The first three columns of Table 3 present regressions of the log of the 2008 filing rate. The regressions suggest that counties in states with anti-harassment laws have significantly lower bankruptcy filing rates even after controlling for a host of other factors.[12] The coefficient on the harassment variable is robust to the inclusion of other explanatory variables (see the alternative specifications in columns (1) – (3) of Table 3), to the use of the bankruptcy filing rate instead of its log (see column (4) of Table 3), and even to the use of pre-BAPCPA (2004) bankruptcy filing rates (see column (5) of Table 3). The estimated magnitude of the relationship is relatively large. Our estimates suggest that the presence of an anti-harassment statute may reduce the bankruptcy filing rate by between twelve and nineteen percent.

We cannot offer direct evidence that consumers use these anti-harassment statutes with any regularity or that concerns about liability under these statutes restrains creditors from engaging in aggressive collections efforts. We recognize that the measured effect of the anti-harassment laws may be due to omitted variables that are correlated with these laws; for example, the anti-harassment statute may serve as a proxy for debtor protections more

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[12] Given the large number of papers that try to explain the bankruptcy filing rate, we will not dwell on the coefficients for most of our variables. However, we note in passing that the negative and significant coefficient on garnishment is consistent with the prior literature, as is the lack of support for the claim that large property exemptions increase the filing rate. We continue to find this lack of support when we use historic exemptions (1920) as a proxy for current laws.

generally. Panel data would allow us to better control for these omitted variables, but these laws appear to change infrequently. We compared the summary of these laws in the 1987 volume of the National Consumer Law Center's publication of Fair Debt Collection to the summary in the 2008 volume, and there appeared to be no more than four significant changes in state law.

4. Analysis of Anti-Harassment Statutes Using Individual Data

We have posited that anti-harassment statutes, by reducing the aggressiveness of creditors' collections efforts, would reduce the benefit of consumer bankruptcy filings. Moreover, in the previous section, we found the empirical result (consistent with this mechanism) that bankruptcy filing rates were significantly lower in jurisdictions with anti-harassment statutes. Our point of departure for the current section is to observe that the same logic which led to reductions in "formal" bankruptcies should also imply increases in "informal" bankruptcies. That is, if anti-harassment statutes reduce the aggressiveness of collections efforts and thereby reduce the probability that an individual files for bankruptcy, conditional on defaulting on a debt, then these laws would also be likely to increase the probability that an individual remains in default (but without an accompanying bankruptcy filing).

Unlike formal bankruptcy statistics, which are compiled by the Administrative Office of the U.S. Courts, there are no official statistics collected on "informal bankruptcy." However, in this section, we are able to utilize a proprietary dataset from a large credit card issuer to examine the question. We use individual-level cardholder data to test whether these laws both reduce the probability that a defaulting individual files for bankruptcy and

increase the probability that an individual will remain in default without filing for bankruptcy.

4.1. Data and Variables

The dataset we use in this section includes variables, generated by a large U.S. credit card issuer, describing nearly 50,000 pre-approved gold card recipients. The bank collected the data from respondents to three sets of solicitations mailed between 1995 and 1997. The data was originally obtained for studying adverse selection in connection with credit card offers (see Ausubel (1999)). As such, it includes variables describing the terms of the solicitation, including the introductory interest rate and its duration. It also contains detailed variables from the respondents' credit histories, such as their credit scores, obtained from a credit bureau at the time of solicitation. Finally, the dataset includes variables describing the subsequent use of the gold card, including the amount of borrowing and whether a default or bankruptcy occurs, obtained from tracking each account for several years. We used the borrowers' zip codes to match the credit card data to the state- and county-level information described in the previous section, including our measures of exemptions, garnishment laws, and anti-harassment statutes.

The outcome measure specifies a borrower's choice among three options: Repayment, bankruptcy, and informal bankruptcy. The lender recorded whether the borrower filed a formal bankruptcy, and we categorized a borrower as informally bankruptcy if she was charged off for long term delinquency (usually after six months).

The borrower is assumed to choose among her options according to which yields the highest utility. The stochastic component of her utility function is assumed to follow an

extreme-value distribution. This error structure yields a multinomial logit, so that the probability of outcome k is given by:

$$P_k = \frac{e^{\beta_k' X}}{e^{\beta_R' X} + e^{\beta_I' X} + e^{\beta_F' X}} \ .$$

The subscripts R, I, and F refer to the outcomes of repayment, informal bankruptcy, and formal bankruptcy, respectively. The coefficient estimates are not readily interpretable, and therefore the average marginal effects will be presented and discussed.

4.2. Results

Table 4 reports the average marginal effect of the explanatory variables on the probability that a borrower will repay, file for bankruptcy or choose informal bankruptcy. The results are most readily interpreted by considering the thought experiment of moving a borrower from a state without an anti-harassment law to a state with an anti-harassment law. The coefficient on the harassment variable implies that, all other things being equal, a move to an anti-harassment state decreases the likelihood of a formal bankruptcy filing by around 0.21 percentage points (see column (3) of Table 4). Since the baseline probability of a bankruptcy filing in our data set is 1.42%, a reduction of 0.21% implies a decline in the bankruptcy filing rate of 15% in anti-harassment states. This is consistent with our estimate using county-level data in Section III. The same move to an anti-harassment state would also increase the likelihood of informal bankruptcy by around 0.17 percentage points, implying an increase in the informal bankruptcy rate of 14%. The implied increase of informal bankruptcy obviously cannot be compared with any official statistics, but is consistent with our earlier prediction. The results in all specifications that we considered indicate that living in a state with anti-harassment statutes reduces the likelihood that a borrower will choose to

file for bankruptcy and increases the likelihood that she will choose to remain in informal bankruptcy. Meanwhile, our estimates do not yield a statistically-significant relationship between the presence of anti-harassment laws and the overall rate of repayment.

5. Conclusion

Non-judicial debt collection is a huge and growing industry. The growth in debt collections has been matched by a growth in complaints; the FTC receives more complaints about debt collectors than complaints about any other industry (almost twenty percent of all complaints). (Federal Trade Commission, 2007). Several layers of law (federal and state, statutory and common law) regulate debt collection activity, and this article has tried to measure the impact of one of these layers — state statutes that give the consumer a private right of action against an overly aggressive creditor. This article has found that states with anti-harassment statutes have significantly lower bankruptcy filing rates than states without these laws, but that the reduction in official bankruptcy statistics conceals an offsetting increase of “informal bankruptcy” by individuals who live in these states. The net effect of these laws on repayment is not statistically significant.

The estimated impact of the harassment variable was large. By way of comparison, in our estimates based on individual data, the marginal effect of an anti-harassment statute on both formal and informal bankruptcies was the same order of magnitude as the marginal effect of a state law limiting garnishment. In our regressions based on county-level 2004 bankruptcy filings, the measured effect of the harassment variable was the same as that of the garnishment variable, while in our regressions based on county-level 2008 filings, the measured effect of the harassment variable was about half that of the garnishment variable.

These empirical results are surprisingly robust, but they do not tell us whether states *should* enact anti-harassment laws. First, the measured effects could be due not to the laws, but to omitted variables that are correlated with the presence of these laws. Second, even if these laws do have a direct effect on bankruptcy and repayment, their desirability is ambiguous. Anti-harassment laws could deter legitimate collection efforts and make it too easy for consumers to avoid paying debts without incurring the costs of bankruptcy or the scrutiny of the courts. On the other hand, these laws may allow defaulting consumers some extra breathing room before filing for bankruptcy, enabling some to recover financially and to be able to repay their debts in full. In addition, society may want to allow some consumers to default without filing for bankruptcy because of the expense of the bankruptcy process. Finally, society may want to force creditors to go to court to prove their claims, in order to minimize collection activity against consumers who do not actually owe the alleged debts. In any event, our results do suggest that anti-harassment laws may have a significant impact on how aggressively creditors collect their debts through non-judicial methods, and they suggest that if the pressure of non-judicial debt collection is reduced, bankruptcy filings will less frequently occur.

Table 1

Variable	**Definition**	**Mean (S.D.) (weighted by population)**
Bnkr rate08	Bankruptcy filings per 100,000 in 2008. (PACER & Census).	5.74 (5.00)
Bnkr rate04	Bankruptcy filings per 100,000 in 2004.	1.99 (1.28)
	LEGAL VARIABLES – ALL STATE LEVEL	
Harassment	County is in a state that has a statute granting consumers a private right of action against a harassing creditor in 2004; there were no changes between 2004 and 2008. (NCLC)	0.58 (0.49)
Garnishment	Protects more than 75% of an head of household's income from garnishment; more restrictive than the federal limitation	0.38 (0.49)
Months to foreclose	HUD estimate of months for diligent foreclosure in 2005. There were no updates to this estimate for 2008	7.52 (3.2)
Homestead exemption	Homestead exemption for married couple in year of regression (2004 or 2008) in $10,000. States with "unlimited" exemptions presented as if they had highest observed exemption.[13]	17.26 (20.38)
Homestead1920_q1	Homestead exemption in 1920, divided into quartiles. Smallest quartile is omitted	
Personal exemption	Personal Property Exemption (wildcard and motor vehicle). States with "unlimited" exemptions presented as if they had highest observed exemption, in thousands (state statutes)	9.07 (0.68)
	COUNTY LEVEL VARIABLES	
Percent divorced	Percent of householders that are divorced	.10 (.02)
Inc2040	Percent of households with income between 20,000 and 40,000 in 1999.	25.15 (4.46)
Inc4060	Percent of households with income between 40,000 and 60,000 in 1999.	19.68(2.26)
Inc60100	Percent of households with income between 60,000 and 100,000 in 1999.	20.87 (4.97)
Incg100	Percent of households with income greater than 100,000 in 1999.	12.49 (7.07)
Unemp	Unemployment rate in county one year before year of bankruptcy studied (2007 mean reported here)	4.68 (1.33)
Home value	Median home value, in $100,000	13.77 (9.20)
Percent black	Percent of the population that is black	12.0 (12.7)
Percent Hispanic	Percent of the population that is Hispanic.	12.7 (15.2)
HS grad	Percent of population that graduated from high school	75.37 (8.69)

[13] 1995 exemption laws were used in the individual level regressions.

Crime rate	Crime rate - FBI	4.33 (1.97)
Uninsured	Percent of population without health insurance	14.27 (4.60)
Percent in c13	Percent of bankrupt borrowers filing under Chapter 13	31.48 (16.9)
Log income	Self reported income, logged	10.55 (.924)
Years on file	Years on file at credit reporting agency	1.16 (0.73)
Balance transferred	Balance transferred onto gold card (in $1000s)	$ 1.41(0.73)
Credit Score	Initial credit score on card	627.8 (88.3)
Limit	Credit limit on card (in $1,000s)	$7.24 (3.80)
Intro duration	Duration of introductory period, in months	9.84 (9.61)
Intro rate	Introductory rate	5.9 (1.46)

Table 2 (2008 Laws)

ST	Home	Personal	Garn	Harass	ST	Home	Personal	Garn	Harass
AL	10,000	6,000	0	0	MT	250,000	5,000	0	0
AK	67,500	7,500	0	0	NE	120,000	4,800	1	1
AZ	150,000	10,000	0	0	NV	550,000	30,000	0	0
AR	Unlimited	8,600	0	0	NH	200,000	22,000	1	1
CA	75,000	8,800	0	1	NJ	0	2,000	1	0
CO	90,000	10,000	0	1	NM	120,000	9,000	0	0
CT	150,000	9,000	0	1	NY	100,000	4,800	1	0
DE	50,000	50,500	1	0	NC	37,000	7,000	1	1
FL	Unlimited	4,000	0	1	ND	160,000	7,400	0	0
GA	20,000	10,000	0	1	OH	10,000	2,800	0	0
HI	50,000	8,600	1	1	OK	Unlimited	15,000	0	0
ID	100,000	9,600	0	0	OR	39,600	5,100	0	1
IL	30,000	12,800	1	0	PA	40,400	8,600	1	1
IN	48,600	18,600	0	0	RI	300,000	27,000	0	0
IA	Unlimited	16,000	1	1	SC	100,000	6,200	1	1
KS	Unlimited	80,000	0	0	SD	Unlimited	6,000	1	0
KY	10,000	7,000	0	0	TN	7,500	8,000	0	0
LA	25,000	15,000	0	1	TX	Unlimited	60,000	1	1
ME	70,000	10,800	0	1	UT	40,000	5,000	0	0
MD	0	22,000	0	1	VT	75,000	19,800	1	1
MA	500,000	8,600	0	1	VA	0	15,000	0	0
MI	40,400	8,600	0	1	WA	125,000	5,400	0	1
MN	315,000	8,600	0	0	WV	40,000	11,000	1	1
MS	150,000	20,000	0	0	WI	40,400	8,600	1	1
MO	15,000	8,550	1	0	WY	20,000	4,800	0	0

Table 3: COUNTY LEVEL REGRESSIONS

	(1)	(2)	(3)	(4)	(5)
	log_bnkr_08	log_bnkr_08	log_bnkr_08	bnk__rate08	log_bnkr_04
Harassment	-0.172***	-0.136**	-0.180**	-68.90**	-0.212***
	(0.0634)	(0.0622)	(0.0855)	(25.78)	(0.0585)
Garnishment	-0.398***	-0.360***	-0.403***	-122.8***	-0.212***
	(0.0814)	(0.0676)	(0.109)	(25.94)	(0.0523)
Months to foreclose	0.0147	0.00398	0.0164	-1.425	-0.00520
	(0.0119)	(0.0117)	(0.0136)	(4.081)	(0.00692)
Homestead exemption	-0.0226**			-10.65***	-0.0240***
	(0.00971)			(3.315)	(0.00708)
Homestead exemption_sq	0.000282			0.151**	0.000340***
	(0.000171)			(0.0571)	(0.000116)
Log homestead exemption	7.733***	6.953***	6.852***	2537***	6.033***
	(1.228)	(1.315)	(1.515)	(557.7)	(1.568)
Log personal exemption	0.0218*	0.0290**	0.0324**	3.685	0.0206**
	(0.0129)	(0.0120)	(0.0130)	(4.273)	(0.00935)
Homestead1920_q4	0.0264*	0.0302**	0.0343**	9.214	0.0115
	(0.0131)	(0.0129)	(0.0143)	(5.536)	(0.0104)
Homestead1920_q3	0.0321***	0.0376***	0.0410***	11.09***	0.0377***
	(0.00784)	(0.00868)	(0.00818)	(3.224)	(0.00484)
Homestead1920_q2	0.0108	0.0182**	0.0172*	2.750	-0.00108
	(0.00888)	(0.00859)	(0.00948)	(3.018)	(0.00649)
Percent divorced	0.215***	0.192***	0.214***	80.00***	0.189***
	(0.0476)	(0.0490)	(0.0488)	(19.35)	(0.0449)
inc2040	-0.0115***	-0.0107***	-0.0116***	-4.294***	-0.0105***
	(0.00300)	(0.00308)	(0.00292)	(1.210)	(0.00247)
inc4060	0.00567	-0.00214	0.00545	-4.773	-0.0416***
	(0.0145)	(0.0166)	(0.0209)	(5.155)	(0.00883)
inc60100	-0.000438**	-0.000314	-0.000397	-0.000858	0.000488***
	(0.000210)	(0.000237)	(0.000271)	(0.0786)	(0.000158)
incg100	0.00340	0.00803***	0.00847***	2.993***	0.00716***
	(0.00208)	(0.00217)	(0.00207)	(1.020)	(0.00134)
Unemp	0.00315	0.00383	0.000631	0.838	-0.00247
	(0.00309)	(0.00304)	(0.00296)	(1.012)	(0.00245)
Unemp_sq	-0.0168*	-0.0152*	-0.0170	-5.066	-0.00225
	(0.00985)	(0.00875)	(0.0136)	(3.961)	(0.00864)
Home value	0.00492	6.37e-05	0.00400	0.777	0.0276***
	(0.0145)	(0.0153)	(0.0156)	(4.525)	(0.00972)
Home value_sq	-0.00596	-0.00865*	-0.0127***	-2.739	-0.00335
	(0.00439)	(0.00460)	(0.00406)	(1.709)	(0.00403)
Percent black	0.00461***				
	(0.00168)				

Percent Hispanic		-0.117***			
		(0.0245)			
Uninsured		-0.0306			
		(0.0641)			
Crime rate			-0.0688		
			(0.111)		
HS grad			0.0420		
			(0.125)		
Percent in c13			0.0576		
			(0.101)		
Constant	3.178***	4.694***	2.990***	-240.7	4.286***
	(0.549)	(0.827)	(0.687)	(200.0)	(0.473)
Observations	2566	2388	2562	2571	2569
R-squared	0.609	0.608	0.538	0.558	0.687
Robust p-values in parentheses					
*** p<0.01, ** p<0.05, * p<0.1					

Table 4: Credit Card Data – Multinomial Logit Results – Marginal Effects (standard errors in parentheses)

	Repay	Informal Bankruptcy	Bankruptcy
Harassment	0.000364	0.00172**	-0.00209*
	(0.00145)	(0.000780)	(0.00107)
Garnishment	0.00181	0.00118	-0.00299***
	(0.00132)	(0.000810)	(0.00107)
Months to foreclose	0.000340**	-3.79e-05	-0.000302*
	(0.000153)	(9.80e-05)	(0.000156)
Homestead exemption	8.62e-05	0.000456	-0.000542
	(0.00207)	(0.00162)	(0.00157)
Homestead exemption_sq	-5.76e-05	6.56e-06	5.11e-05
	(0.000312)	(0.000240)	(0.000235)
Years on file	0.000906	-0.00259***	0.00168**
	(0.00101)	(0.000916)	(0.000748)
Balance transferred	-0.00103***	-4.78e-06	0.00103***
	(0.000290)	(0.000176)	(0.000145)
Credit score	0.000102***	-3.44e-05***	-6.80e-05***
	(6.48e-06)	(4.38e-06)	(3.87e-06)
Limit	0.00284***	-0.00137***	-0.00147***
	(0.000199)	(0.000153)	(0.000162)
Intro duration	0.000487***	-0.000248***	-0.000239***
	(0.000157)	(7.81e-05)	(8.73e-05)
Intro rate	-0.00345***	0.00173***	0.00172***
	(0.000883)	(0.000534)	(0.000528)
Percent divorced	-0.0636*	0.0303*	0.0333
	(0.0333)	(0.0179)	(0.0283)
Log income	-0.00330***	0.00106***	0.00224***
	(0.000748)	(0.00034)	(0.000582)
Unemp	-0.000587	0.000146	0.000441
	(0.000523)	(0.000415)	(0.000335)
Unemp_sq	2.70e-05	-6.88e-06	-2.02e-05
	(2.74e-05)	(1.57e-05)	(1.67e-05)
Home value	-0.00187	0.00365*	-0.00178
	(0.00277)	(0.00221)	(0.00178)
Home value _sq	0.00138***	-0.00117***	-0.000214
	(0.000479)	(0.000431)	(0.000285)
Percent black	-0.000144**	6.38e-05	7.97e-05
	(6.16e-05)	(4.24e-05)	(5.39e-05)
Percent Hispanic	-0.000141	-2.18e-05	0.000163*
	(8.83e-05)	(3.23e-05)	(9.31e-05)
Uninsured	9.13e-06	-4.04e-05	3.13e-05
	(0.000223)	(0.000172)	(0.000142)
Crime rate	0.000957***	-8.28e-05	-0.000874***
	(0.000249)	(0.000228)	(0.000292)
HS grad	6.38e-06	-0.000138	0.000131

	(0.000137)	(8.51e-05)	(9.17e-05)
Observations	48342	48342	48342
Standard errors in parentheses			
*** p<0.01, ** p<0.05, * p<0.1			

Agarwal, Sumit, Chunlin Liu, and Lawrence Mielnicki. 2003. “Exemption Laws and Consumer Delinquency and Bankruptcy Behavior: An Empirical Analysis of Credit Card Data.” *Quarterly Review of Economics and Finance* 43:273.

Apilado, Vincent P., Joel J. Dauten, and Douglas E. Smith. 1978. “Personal Bankruptcies.” *Journal of Legal Studies* 7:371-92.

Ausubel, Lawrence M. 1999. “Adverse Selection in the Credit Card Market.” Unpublished manuscript. University of Maryland, Department of Economics, June.

Bhandari, Jagdeep S., and Lawrence A. Weiss. 1993. “The Increasing Bankruptcy Filing Rate: An Historical Analysis.” *American Bankruptcy Law Journal* 67:1 .

Boyes, William J., and Roger L. Faith. 1986. “Some Effects of the Bankruptcy Reform Act of 1978.” *Journal of Law & Economics* 29:139.

Buckley, F.H., and Margaret F. Brinig. 1998. “The Bankruptcy Puzzle.” *Journal of Legal Studies* 27:187-207.

Dawsey, Amanda E. and Lawrence M. Ausubel. 2001. “Informal Bankruptcy.” Unpublished manuscript. University of Maryland, Department of Economics, April.

Domowitz, Ian and Thomas Eovaldi. 1993. “The Impact of the Bankruptcy Reform Act of 1978 on Consumer Bankruptcy.” *Journal of Law & Economics* 36:803.

Edmiston, Kelly D.. 2006. “New Insights in the Determinants of County Bankruptcy Filing Rates.” Working paper. Federal Reserve Bank of Kansas City, Kansas City, MO.

Ellis, Diane. 1998. “The Influence of Legal Factors on Personal Bankruptcy Filings.” *Bank Trends* 98-03.

Fay, Scott, Erik Hurst, and Michelle J. White. 2002. “The Household Bankruptcy Decision.” *American Economic Review* 92:706.

Federal Trade Commission, Annual Report 2007: Fair Debt Collection Practices Act, available at http://www.ftc.gov/reports/fdcpa07/P0748032007FDCPAReport.pdf

Gropp, Reint, John Karl Scholz, and Michelle J. White. 1997. “Personal Bankruptcy and Credit Supply and Demand.” *Quarterly Journal of Economics* 112:217.

Heck, Romona K. Z.. 1981. “An Econometric Analysis of Interstate Differences in Nonbusiness Bankruptcy and Chapter Thirteen Rates.” *Journal of Consumer Affairs* 15:13-31.

Hobbs, Robert J., Carolyn L. Carter, O. Randolph Bragg, Joanne S. Faulkner, and Richard Rubin. 2004. *Fair Debt Collection*. Boston, Mass.: National Consumer Law Center.

Hynes, Richard M., Anup Malani, and Eric Posner. 2004. “The Political Economy of Property Exemption Laws.” *Journal of Law & Economics* 47:19.

Hynes, Richard. 1998. “Three Essays on Consumer Bankruptcy and Exemptions.” Unpublished dissertation. University of Pennsylvania, Department of Economics (on file with UMI Dissertation Services).

Hynes, Richard M. 2008. “Broke but Not Bankrupt: Consumer Debt Collection in State Court.” *Florida Law Review* 60:1.

Kowalewski, Kim. *Personal Bankruptcy: A Literature Review* (Congressional Budget Office Paper No. 2421, Sept. 2000) *available at* http://www.cbo.gov/showdoc.cfm?index=2421&sequence=0)

Lefgren, Lars, and Frank McIntyre. 2009. “Explaining the Puzzle of Cross-State Differences in Bankruptcy Rates.” *Journal of Law & Economics* 52: 367.

Peterson, Richard L., and Kyomi Aoki. 1984. “Bankruptcy Filings Before and After Implementation of the Bankruptcy Reform Act.” *Journal of Economics & Business* 36:95-105.

Pomykala, Joseph. 1997. “Bankruptcy Reform, Principles and Guidelines.” *Regulation* 20:41-48

Shepard, Lawrence. 1984. “Personal Failures and the Bankruptcy Reform Act of 1978.” *Journal of Law & Economics* 27:419.

Shiers, Alden F., and Daniel P. Williamson. 1987. “Nonbusiness Bankruptcies and the Law: Some Empirical Results.” *Journal of Consumer Affairs* 21:277-92.

Stanley, David T., and Marjorie Girth. 1971. *Bankruptcy: Problem, Process, Reform*. Washington, D.C.: Brookings Institution.

Sullivan, Teresa A., Elizabeth Warren, and Jay Lawrence Westbrook. 1989. *As We Forgive Our Debtors*. Washington, D.C.: Beard Books.

U.S. Department of Justice. 2003. “Bankruptcy by the Numbers: Chapter 7 Asset Cases: Part II” http://www.usdoj.gov/ust/eo/public_affairs/articles/docs/abi_04_2003.htm (last updated April 2003).

Weiss, Lawrence A., J.S. Bhandari, and Russell P. Robins. 2001. "An Analysis of State-Wide Variation in Bankruptcy Rates in the United States." Bankruptcy Developments Journal 17: 407

White, Michelle J.. 1987. "Personal Bankruptcy Under the 1978 Bankruptcy Code: An Economic Analysis." *Indiana Law Journal* 63:1-53.

Fair Debt Collections Practices Act, 15 U.S.C. § 1692a(6)(A) (2000). **Possibly need to delete this from the reference list, but it's unclear. They don't offer any format for statutory citations and they specifically exclude case citations from bibliography.

Commonwealth of Virginia. State Corporation Commission. Bureau of Financial Institutions. 2005. *Payday Lender Licensees, Check Cashers*, *Supplement to the 2005 Annual Report*. Richmond, Va.: http://www.scc.virginia.gov/bfi/annual/ar04-05.pdf