

The Bankruptcy Revolving Door

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Using credit report data dating back to 1997, this study unveils that nearly 46% of consumer bankruptcy filings in 2023 came from people with a prior bankruptcy record. This percentage has increased at an average rate of 61 basis points per year since 2016. The majority of repeat filings occur after a discharged case rather than a dismissed one, and nearly half of refilers have previously filed under Chapter 7, challenging conventional beliefs about repeated filings. Moreover, the temporal gap between successive filings is substantial, with most refilings occurring over 7 years after the initial filing. This paper then reveals that a person's past filings are strongly correlated with increased future filings after 7 years, even after controlling for a wide range of variables including debt levels and demographic characteristics. Therefore, this paper contends that the prevalence of refiling can be attributed to two main reasons: first, individuals with a prior bankruptcy frequently face new financial distress, and second, they are more predisposed to file for bankruptcy compared to those with no bankruptcy record.

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Introduction

Over the past decade, millions of Americans have filed for bankruptcy—repeatedly. According to credit bureau data, nearly 46% of the bankruptcy cases filed in 2023 came from individuals with multiple bankruptcy records since 1997, a substantial increase from the 37% observed in 2016. Among individuals who filed for bankruptcy between 2016 and 2018, nearly 9% had already refiled in the same district by February 2022, court records indicate. This raises an important question: why are so many people repeatedly filing for bankruptcy?

Drawing insights from the University of California Consumer Credit Panel and a novel, decades-long court record dataset, this paper argues that repeated filing is widespread due to two primary factors: first, individuals who have filed for bankruptcy previously often encounter new financial distress, and second, these individuals are significantly more predisposed to file for bankruptcy compared to people who have never went bankrupt.

Understanding the phenomenon of repeated bankruptcy filings is important because it can have broad implication for a substantial body of literature. This paper underscores that a notable proportion of the bankruptcy cases analyzed by many influential empirical studies, such as Indarte (2023), Keys, Mahoney and Yang (2023), Gross et al. (2021), Kleiner, Stoffman and Yonker (2021), Dobbie et al. (2020), Dobbie, Goldsmith-Pinkham and Yang (2017), and Dobbie and Song (2015), originates from people’s subsequent bankruptcies rather than their initial encounters with the system.¹ If a first-time filer reacts to her bankruptcy differently from a refiler, as the ratio between these two groups evolves over time, so will the observed effect. Therefore, studying repeated filing is necessary for us to better interpret this literature and extrapolate the findings to future years.

Furthermore, the growing proportion of refilings poses a challenge to the con-

¹Many of the cited papers excluded repeated filers observed in their data. However, as this paper will show, most refilers from recent years refiled over 8 years after the initial filing, which means that when the sample period is not long enough, observed refilers would be a small and special subset of all refilers. Therefore, simply excluding observed refilers is likely an insufficient solution to the problem and can introduce selection bias.

sumer bankruptcy system. As shown in Figure 1, in some jurisdictions, refilers constitute nearly half, if not more than half, of all cases filed between 2016 and 2018. If we do not account for repeated filings, we would overestimate the number of people impacted by the bankruptcy system and the extent to which the system's benefits or harms are distributed across the population. While the United States Bankruptcy Code enables indebted individuals to modify their debt drastically, often eliminating all liabilities, the prevalence of repeated filings raises questions about the system's efficacy in providing a genuine fresh start.

This paper first demonstrates the prevalence of refiling using court records from 66 out of the 90 bankruptcy districts in the continental U.S., supplemented by credit bureau data.² The objective is to fill gaps in the existing literature by presenting a broad set of previously unknown facts of this phenomenon, such as refilers' chapter preferences and the temporal patterns of refiling.

Among the notable findings is that a majority of repeat filings occur after a discharged case rather than a dismissed one. Relatedly, nearly half of refilers had previously filed under Chapter 7. Contrary to conventional beliefs, the temporal gap between successive filings is considerable, with most refilings happening over 7 years after the initial filing.³ These facts challenge the notion that refilings are predominantly abusive back-to-back Chapter 13 cases. Instead, most refilings seem to be genuine attempts by debtors seeking to address recurring financial distress.

What motivates individuals to file for bankruptcy again, if not abusive intent? This study first employs a series of OLS regressions to investigate whether a person's financial distress, proxied by credit scores, and level of indebtedness can predict refiling behaviors. As expected, these regressions reveal that low

²Appendix A provides a broad comparison between the two datasets.

³Some debtors chose to file a Chapter 13 immediately after completing a Chapter 7 to engage in a strategy colloquially known as "Chapter 20." The long temporal gap between filings suggests that such strategy is rarely used. Instances of Chapter 13 filings within a year after completing a Chapter 7, a classic Chapter 20 scenario, constitute less than 1% of all cases from repeat filers. Therefore, despite the hypothetical benefits of Chapter 20, it is not a common strategy that affects the prevalence of repeated filing.

credit scores and high debt levels linked to initial bankruptcy filings also increase subsequent refilings. For instance, an individual with a credit score of 500 in 2017 is roughly 2 percentage points more likely to file for bankruptcy again in 2018 compared to someone with a 600 credit score—a notable 143% increase from the baseline refiling rate of 1.4%. This finding aligns with the hypothesis that repeated bankruptcy filings may stem from recurring financial distress that persists even after the initial filing.

Nevertheless, financial distress alone cannot fully explain the prevalence of repeated filing. This is because a strong correlation continues to exist between an individual’s prior and subsequent filings, even after adjusting for a comprehensive range of financial and demographic factors. Despite a long list of controls, a successfully discharged bankruptcy still strongly predicts a high filing rate after 7 years, coupled with a reduced filing rate in the initial 7 years. Similarly, a dismissed case is associated with an even higher filing rate in the initial 7 years, and a moderately high filing rate thereafter.

Specifically, a successfully completed bankruptcy over 7 years ago is associated with a 67 basis points increase in the likelihood of filing for bankruptcy in 2018, which is approximately 1.7 times the population average filing rate from that year. This result suggests that individuals who have previously filed for bankruptcy are more inclined to file for bankruptcy again in the future, compared to other individuals with similar financial and demographic backgrounds but no bankruptcy record.

There are two potential explanations for this correlation between a person’s past and future bankruptcy filing rates. The first hypothesis is that prior interactions with the bankruptcy system can causally increase people’s readiness to use bankruptcy as a means of resolving financial difficulties. Prior literature has indicated that reduced stigma and enhanced knowledge can make an individual more inclined to file for bankruptcy when those around them do so. Kleiner, Stoffman and Yonker (2021); Miller (2015); Cohen-Cole, Duygan-Bump et al.

(2008). There are ample grounds to believe that similar mechanisms may link a person's past bankruptcy to their future filings: A person who has previously filed for bankruptcy has accumulated first-hand knowledge from experience, and the stigma cost associated to a subsequent bankruptcy is likely different from the stigma cost associated with a first bankruptcy. Therefore, it is possible that after undergoing bankruptcy once, individuals become more willing to utilize this option in the future.

Alternatively, the correlation could be driven by personal traits unaffected by bankruptcy, akin to an omitted variable bias. In this scenario, unobserved factors that influenced a person's likelihood to file for bankruptcy in the past may continue to influence their likelihood to file in the future.

Unfortunately, without an exogenous shock, it is impossible to distinguish between these hypotheses statistically. Exogenous shocks that solely affect past bankruptcy filing behaviors without influencing future filing rates are rare, if not impossible to find in observational studies. Traditional research tools, such as changes in income or access to information, would not suffice here as they tend to affect future bankruptcy filings just as they would affect past ones. Essentially, what is needed is an experiment that randomly assigns a past event, which is not feasible in observational research.

Nevertheless, it is important to note that pinpointing the root cause of this correlation may not be necessary to draw firm conclusions. Regardless of whether it is driven by increased familiarity with the bankruptcy system or by unobservable personal traits, the overarching pattern remains clear: repeated bankruptcy filings are prevalent not only because individuals face recurring financial distress but also because those with prior filings exhibit a higher predisposition to file again, compared to individuals with no prior bankruptcy history.

Finally, this paper explores whether the amount of debt relief obtained in the first bankruptcy affects people's willingness to refile. Notably, high amount of student loans—a typical non-dischargeable debt—is correlated with a slight in-

crease in the refiling rate following a discharged Chapter 7 bankruptcy, mirroring the patterns observed for similarly hard-to-discharge secured loans. On the other hand, high credit card debt prior to bankruptcy is correlated with a slightly lower refiling rate when the case is discharged but a higher refiling rate when the case is dismissed. These patterns suggest that the benefit from prior bankruptcy reduces the need of a second bankruptcy. However, it is important to note that the absolute magnitude of these effects is relatively small, necessitating further in-depth analysis.

Despite the importance of repeated filing, previous research has been limited in its ability to deal with this phenomenon. Most studies have focused solely on dismissed Chapter 13 cases, where a debtor seeks a payment plan in exchange for debt forgiveness but fails to complete the process. Such studies provide little insight into serial filings that involve Chapter 7 liquidations, the most prevalent form of bankruptcy, or successfully completed Chapter 13 payment plans. For instance, Dobbie, Goldsmith-Pinkham and Yang (2017) found that 43% of the dismissed Chapter 13 filers in their sample refiled or converted to Chapter 7 within the sample period of their study, but did not provide information on Chapter 7 cases or completed Chapter 13 cases. This leaves a significant gap in our understanding of the broader landscape of repeated bankruptcy filings.

Studying the refiling behavior after a successful bankruptcy filing is challenging because the law typically requires debtors to wait many years before they can obtain a second discharge, that is, to eliminate their debt through bankruptcy.⁴ Consequently, studying this phenomenon empirically requires datasets spanning several decades, a resource not widely available to researchers until recent years.

This study represents, to the best of my knowledge, the most comprehensive multi-court examination of repeated filing within the context of consumer bankruptcy filings in recent years. The extensive time frame of the datasets allows for a detailed analysis of repeated filings across different types of bankruptcy

⁴Section I.B explains this restriction in more detail.

cases, providing a deeper understanding of the phenomenon.

In a broader context, the phenomenon of repeated filings can be viewed as a specific form of temporal spillover effect, where past experience with the system is correlated with a high likelihood of future bankruptcy filings. This concept aligns with research on the spillover effects of bankruptcy filing or the take-up of other social benefits, as explored in Dahl, Løken and Mogstad (2014), Miller (2015), Kleiner, Stoffman and Yonker (2021), and many others. Within this body of literature, reduced stigma and information sharing have emerged as plausible explanations for spillover effects. Similarly, the high prevalence of repeated filing may indicate that subsequent filings are associated with lower incremental or perceived stigma. In addition, individuals may have acquired knowledge that minimizes the learning curve, thereby increasing their willingness to file for bankruptcy again when faced with financial difficulties.

Politically, repeated filers have gained notoriety because some debtors attempt to exploit the bankruptcy system in bad faith to hinder creditors' collection efforts, especially by filing a series of Chapter 13 cases consecutively. A recent case that garnered media attention involved a Long Island man who reportedly forestalled foreclosure for 23 years by filing seven consecutive bankruptcy cases and four lawsuits.⁵ These negative perceptions surrounding repeated filers played a significant role in the enactment of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (BAPCPA), which imposed stricter regulations on individuals seeking to file for bankruptcy repeatedly.⁶

However, my study reveals that individuals using bankruptcy as a stalling technique, often labeled abusers, constitute only a small fraction of the phenomenon, despite their notoriety. Only 7.6% of all refilers filed two dismissed Chapter

⁵Georgett Roberts and Kathianne Boniello, *Long Island man dodges eviction for 20 years, living in house he doesn't own*, New York Post (May 1, 2021). Although he was foreclosed on in 2000, he was still residing in the property as of May 2021. *Id.*

⁶For instance, President George W. Bush, who signed BAPCPA into law, remarked that “[t]o make the system more fair, the new law will also make it more difficult for serial filers to abuse the most generous bankruptcy protections.” Press Release, White House Office Press Secretary, President Signs Bankruptcy Abuse Prevention, Consumer Protection Act (Apr. 20, 2005).

13 cases within a year, and not all of these individuals engage in abuse. On the contrary, the majority (67%) had successfully completed their previous case and received discharge, presumably in good faith, primarily through a successful Chapter 7 liquidation. The law typically requires these individuals to wait years before they can file again, suggesting that their repeated filing is probably not a delaying technique. Indeed, the median filer waited for 9.6 years before the second filing, and over 77% of the debtors waited for over 3 years. Therefore, bad faith abusers cannot be the main force behind the prevalence of repeated filing in recent years.

This paper proceeds as following: Section I provides background information on consumer bankruptcy and the restrictions against repeated filing. Section II presents the two main datasets used in this paper. Section III presents summary statistics about the repeated filers, with particular emphasis on their composition. Section IV describes how repeated filing varies over time. Section V introduces the statistical analyses, which are elaborated in Sections VI to VIII. Finally, Section IX concludes.

A. Literature Review

Prior literature on repeated bankruptcy filers has largely centered around the enactment of BAPCPA and how it failed to prevent abuse. Miller and Miller (2008); Bartell (2015); Greene (2015); Porter (2015). These studies mostly focus on dismissed Chapter 13 cases, because it is the most common outcome for debtors who filed for bankruptcy only to stall foreclosure and other collection effort—that is, the abusers that BAPCPA tried to sanction.

Research from this period provided varying estimates of how often individuals file for bankruptcy multiple times. Those with sufficiently long dataset tend to coincide with this paper’s estimate. Llewellyn and Lown (2005) reports that a third of pre-BAPCPA filers in Utah filed multiple times in their 20-year sample. Norberg (1999) suggests that this number is 39% for Southern Mississippi. Sulli-

van, Warren and Westbrook (1999) reports that merely 8% of their sample (120 of 1,502) had filed before, although the authors acknowledged that the data in this study does not include all repeated filers. Golmant and Ulrich (2006), which uses an incredibly comprehensive dataset, reports that 8% of all consumer filers filed repeatedly within the sample period. Unfortunately, their dataset only covers a 10-year period that predates BAPCPA.

Post BAPCPA, Greene (2015) studies a rich survey dataset from 2007 and reports that 14.7% of the filers were repeat filers. This number is much lower than my sample, most likely because survey data requires the debtor to self-report prior filings. In contrast, the datasets of this paper are based on court records matched by Social Security Number and/or Taxpayer Identification Number. Miller and Miller (2008) manually collects court record data from the Northern District of Texas and finds that 16.94% of the debtors who filed for bankruptcy in 2006 were repeated filers. The source of their data is very similar to the court records used by this study. However, the records they studied are restricted to one district, and it began in 1992,⁷ reducing their sample period to only 14 years. In contrast, 55 out of the 66 bankruptcy courts in my sample provide records from 1985 or earlier. The other 12 courts' records go back to at least 1991. The earliest one, Northern District of Alabama, started adjudicating bankruptcy cases in 1909 and its coverage goes back to 1969.

Therefore, this paper is the first multi-court study of the phenomenon of repeated filing in recent years. The length of the datasets also allows a more comprehensive study than prior literature.

I. Background on Consumer Bankruptcy

This section provides background information on consumer bankruptcy with a focus on issues related to serial filers.

⁷The authors state that they could find cases from 1992 although PACER states that NDTX's records cover back to 1989 at time of my writing.

A. Consumer Bankruptcy in General

Bankruptcy is a legal process that provides individuals and businesses with relief from their debts and the opportunity to start fresh financially. Individual consumers who complete the bankruptcy process can usually obtain a bankruptcy discharge, which is a court order that releases the debtor from the obligation to repay certain debts. It is a permanent injunction that prohibits creditors from taking any collection action against the debtor for the discharged debts.

In the United States, there are generally two forms of bankruptcy for consumers struggling with household debt: Chapter 7, usually referred to as “liquidation bankruptcy”; and Chapter 13, usually referred to as “wage earner’s bankruptcy.” The two regimes mainly differ by how assets are administered during the bankruptcy.

By default, in a Chapter 7 bankruptcy, all assets must be surrendered to pay back creditors, with limited federal and state exemptions.⁸ In contrast, in Chapter 13 bankruptcy, the debtor can retain almost any asset, subject to a court-approved payment plan to repay creditors. This plan typically requires debtors to use all their disposable income over the next three to five years to compensate creditors.

In practice, most Chapter 7 cases have no assets for the trustee to seize. Among all Chapter 7 cases filed between 2016 and 2018, only 6.53% are “asset cases,” meaning that they had some asset to distribute to unsecured creditors. However, this does not take into account any assets that are fully encumbered by secured debt, such as houses, cars, etc., which are important assets that can be protected by a Chapter 13 bankruptcy. Theoretically, debtors of asset cases could have spent the money before bankruptcy rather than distributing it to the unsecured creditors, so it is puzzling why there is any asset case filed under Chapter 7 at all. One possibility is that some debtors tried to hide assets from the trustee but

⁸Practically, when an asset is fully encumbered, the secured creditor may agree to let the debtor keep the collateral, especially when the debtor “reaffirms” the debt and maintains the monthly payments. The debtor may be able to avoid a formal reaffirmation with the creditor’s consent. For example, in a “ride-through,” an auto loan creditor simply abstains from repossessing the car as long as payments are kept current.

were discovered, causing their cases to be marked as asset cases.

This ability to retain assets makes Chapter 13 more desirable than Chapter 7 for many debtors. Nevertheless, Chapter 7 cases have consistently accounted for a larger proportion of all bankruptcy filings over the years. Between 2016 and 2018, 61.33% of all consumer cases were filed under Chapter 7, according to the Federal Judicial Center's Integrated Database (the FJC Dataset). This is probably because a Chapter 7 case is generally quicker and easier to complete than a Chapter 13 case. Among cases filed between 2010 and 2014,⁹ 95.27% of Chapter 7 cases obtained a discharge, while only 48.84% of Chapter 13 cases did so. Among those who obtained a standard discharge, the median duration between filing and disposition is 105 days for Chapter 7 cases, compared to 1,664 days for Chapter 13 cases. Finally, Chapter 13 requires the debtor to have sufficient income to support a payment plan, which means that Chapter 7 may be the only option for many debtors.

Regardless of the chapter, a powerful legal protection called the automatic stay goes into effect when a consumer debtor files for bankruptcy. The automatic stay is a provision in bankruptcy law that immediately stops most collection actions against the debtor, such as lawsuits, wage garnishments, foreclosure proceedings, and debt collection calls. It remains in effect until the bankruptcy case is closed, dismissed, or until the creditor obtains a court order lifting the stay. Creditors may ask the court to lift the automatic stay in certain situations, such as when they believe the debtor is hiding assets or is not acting in good faith.

The automatic stay is designed to provide debtors with breathing room and protect them from creditor harassment while they work through the bankruptcy process. However, it also allows individuals facing aggressive collection efforts to use the bankruptcy system as a way to obtain immediate relief. Debtors who file for bankruptcy with no intention to follow through with the case, but only to

⁹To avoid selection bias as much as possible, I used these earlier years because a Chapter 13 case often takes 6 years to complete due to extensions to the plan or delays in the administration.

hinder the collection efforts of creditors, are typically considered bad-faith filers. These debtors file for bankruptcy but spend very little effort to complete the process, enjoying a few months of relief from creditors until the case is dismissed for missing documents or late payments.

Features of the Chapter 13 bankruptcy makes it an easier target for this kind of abuse than Chapter 7 bankruptcy. Almost immediately after a person files for bankruptcy under Chapter 7, a trustee will be appointed to oversee the liquidation of the debtor's assets. In contrast, when a person files under Chapter 13, she retains access to essentially all her assets and generally remains free to use them as she wants. Moreover, if a debtor do not intend to carry through the bankruptcy process but fails to dismiss her Chapter 7 case on time, her assets will be seized and liquidated regardless of her intent.¹⁰ In contrast, failure to meet any deadlines in a Chapter 13 case usually results in the case being dismissed without further consequences.

Other than Chapters 7 and 13, consumers can also use Chapter 11 if they primarily hold business debt, or Chapter 12 if they are "family farmers" or "family fishermen" with regular income. These two chapters are extremely rare, accounting for about 0.1% of all cases filed by individuals in recent years.

B. Rules Against Repeated Filing

To prevent abuse and discourage repeated filings, Congress has put into the Bankruptcy Code several constraints on debtors who seek to file for bankruptcy again. Rather than imposing a strict rule that prohibits such filings altogether, Congress has mainly resorted to limiting the benefits that can be obtained from filing for bankruptcy repeatedly.

One of the exceptions is that, if a prior bankruptcy petition was dismissed within the preceding 180 days due to the debtor's willful failure to appear before

¹⁰That is, if a debtor wants to use Chapter 7 bankruptcy to delay foreclosure, but does not want to lose her other assets, she must voluntarily dismiss her Chapter 7 before a deadline. If she misses the deadline, her Chapter 7 case will carry on and she will lose all her assets in a liquidation.

the court or comply with court orders, or if the petition was voluntarily dismissed after creditors sought relief to recover property on which they hold liens, the individual is ineligible to file for bankruptcy all together.¹¹

Other constraints primarily aim to limit the availability of the automatic stay, which prevents creditors from pursuing debt collection actions against the debtor. For example, if a debtor has had a prior bankruptcy case dismissed within the year before filing a new case, the automatic stay will terminate within 30 days of the new case filing. This termination can be postponed if the debtor files a motion requesting an extension and convinces the court that the new case was filed in good faith. The court will likely schedule a hearing on the motion and require the debtor to appear in court.¹²

If a debtor has had two or more bankruptcy cases dismissed within the last year, no automatic stay goes into effect. The debtor must file a motion to request the stay within 30 days of the new case filing and persuade the court that the new case was filed in good faith. Until the court grants a stay, creditors can proceed with debt collection actions as if no bankruptcy case was filed.¹³

Additionally, the Bankruptcy Code imposes time restrictions on when a debtor may be granted a discharge in a later case. These time restrictions help ensure that debtors are not repeatedly granted a discharge in a short period of time and must reasonably satisfy their obligations to creditors before being able to receive another discharge.

For example, if a debtor received a discharge under Chapter 7 or 11 in a case filed within eight years before filing a second petition, a Chapter 7 discharge will be denied in the later case.¹⁴ If the debtor previously received a discharge in a Chapter 13 or 12 case filed within six years before the second case, a Chapter 7 discharge will be denied unless the debtor either paid all “allowed unsecured”

¹¹11 U.S.C. §§ 109(g), 362(d) and (e).

¹²11 U.S.C. § 362(c)(3) and (4).

¹³*Id.*

¹⁴11 U.S. Code § 727 (a)(8).

claims in full in the earlier case, or made payments under the plan totaling at least 70% of the allowed unsecured claims and the plan was proposed in good faith and the payments represented the debtor's best effort.¹⁵

Similarly, a debtor is ineligible for discharge under Chapter 13 if they received a prior discharge in a Chapter 7, 11, or 12 case filed four years before the current discharge order or in a Chapter 13 case filed two years before the current discharge order.¹⁶ Because discharged Chapter 13 cases rarely last less than two years, there is practically no restriction on seeking another discharge under Chapter 13 after a previously discharged Chapter 13 filing.

Finally, the bankruptcy courts have inherent power to sanction debtors for outrageous behavior, which may include banning them from filing for bankruptcy for a certain period of time.¹⁷ However, despite anecdotal evidence suggesting the existence of this practice, courts rarely use this power on individuals, and its effect goes unstudied.

Courts can also warn the debtor by threaten to convert a bad-faith Chapter 13 case to a Chapter 7 liquidation for "unreasonable delay by the debtor that is prejudicial to creditors."¹⁸ If a debtor files Chapter 13 repeatedly just to deter creditors, she risks losing everything in an involuntary conversion to a Chapter 7 liquidation.¹⁹

II. Data

The first dataset this paper relies on is the University of California Consumer Credit Panel (UC-CCP). The UC-CCP is a recently developed dataset containing de-identified consumer credit information. The primary objective of this dataset

¹⁵11 U.S. Code § 727 (a)(9).

¹⁶11 U.S.C. § 1328 (f).

¹⁷Federal Rules of Bankruptcy Procedure 9011, 11 U.S.C. § 105.

¹⁸11 U.S.C. § 1307(c). Technically, the court can only convert the case upon request of a party in interest or the United States trustee, but practically the court can suggest the trustee to file this motion. Of course, notice and a hearing are required.

¹⁹There is a debate among legal authorities regarding whether a debtor has an unconditional right to dismiss a bankruptcy case under § 1307(b) when faced with an intervening motion to convert. *See, e.g.,* In re Johnson, 228 B.R. 663, 668 (Bankr. N.D.Ill. 1999); In re Vieweg, 80 B.R. 838, 841 (Bankr. E.D.Mich. 1987); In re Crowell, 292 B.R. 541 (Bankr. E.D.Tenn. 2002).

is to investigate the financial well-being of consumers and examine trends related to credit, debt, income, and mobility among California households, but it also contains a national dataset that includes quarterly snapshots of the credit reports for a randomly selected 2% of the U.S. population from 2004 to 2023. Each credit report snapshot comes with a corresponding public record snapshot that captures the person's bankruptcy filing history, covering the preceding 7 years for Chapter 13 filings and the preceding 10 years for Chapter 7 filings.

Compared to other credit panels commonly available to researchers, the UC-CCP is unique in its length and comprehensiveness. This dataset allows me to track people's bankruptcy filing over a long period of time from 1997 to 2023. The richness of this dataset allows me to conduct the empirical analysis in the later sections.

Additionally, I assembled a new dataset using court records. I obtained waivers from fees to use records hosted by the Public Access to Court Electronic Records (PACER) platform for 66 out of the 90 bankruptcy districts in the continental United States. Collectively, these 66 districts account for 78% of all consumer cases filed in continental U.S. between 2016 and 2018. All the districts in the dataset provide data up to 1991 (year 25). Beyond that, 58 out of 67 districts provide data beyond 1986 (year 30) and 46 out of 67 districts provide data beyond 1981 (year 35).

I first randomly selected 2,000 cases filed between 2016 and 2018 from each district, based on the list of all cases filed in the U.S. provided by the FJC Dataset.²⁰ The only exceptions are Vermont and Alaska, which only had 1,550 and 1,206 cases filed during the sample period. Out of these cases, I located the filing history and downloaded the relevant PACER records for 130,684 cases.²¹

²⁰Due to restraints in the fee waivers or mismatch between FJC and PACER, for 6 districts I could only sample the largest one or two offices: Eastern District of Texas, Western District of Texas, Northern District of California, Northern District of Georgia, Southern District of Indiana, and Southern District of West Virginia. The sampled offices account for 54%, 66%, 74%, 73%, 70%, and 65% of the district's cases, respectively.

²¹This number is not 132,000 for the following reasons, ordered by affected case numbers: (1) bankruptcy is so rare in Alaska and Vermont that fewer than 2,000 cases were filed in these districts during the sample period; (2) the Middle District of Tennessee (MDTN) misses 489 cases because the

The filing history is obtained from the Associated Cases tab on each court's PACER website, which provides the docket number for all cases the debtor filed in the same district found by the PACER system based on the debtor's Social Security Number and/or Taxpayer Identification Number.²²

Using the case numbers, I obtained the basic information of the last case filed by refilers using the headers of PACER's query system, which is free to all PACER users. The information includes the case's chapter, asset case status, filing date, and assigned judge. Most districts also provide the case's disposition and dismissal/discharge date in the header. If the header does not provide the information I need, which happens very often when the case is decades old, I use PACER's Case Summary reports to gather as much detail as possible. Occasionally, I used the docket record to determine the case's outcome. Combining all these methods, I collected data on 46,628 cases filed between 1972 and 2018 by the debtors in the above-mentioned random sample, which accounts for 99.9% of the 46,677 refilers identified previously.

In addition, I matched the dataset to the FJC Dataset. This dataset provides quantitative details on the debtors, including the aggregate value of their assets and liabilities, monthly income, monthly expenses, and other relevant information.

Table 1 provides an overview of the cases included in the sample. Section III discusses this table in more detail.

Because courts do not look into other districts to verify a debtor's filing history, if a debtor files for bankruptcy in a different district, it will not show up in the court records. Consequently, the actual number of refilings is likely higher than what is officially documented by the courts. This is not a problem for this study, because the UC-CCP dataset contains filings from all districts, gathered from

office code provided by the FJC Dataset does not match PACER's office designation for this district; (3) Alaska misses 101 cases for the same reason; (4) sealed or confidential cases; (5) rare mismatches between FJC and PACER in other districts; (5) when scraping code crashes, I drop the last case before the crash in case it is not properly registered. Missing records account for less than 0.1% for 58 districts and less than 1.4% of all district except for MDTN and Alaska.

²²This information was confirmed by a court clerk from the Southern District of New York.

public records.

Appendix A illustrates this point by comparing the court records to the UC-CCP dataset. Despite that the court records cover a much more extended time-frame, the UC-CCP dataset typically records a greater number of refilings.

III. Summary Statistics and Chapter Choice of Repeated Filers

Table 1 compares the summary statistics and chapter choice of refilers and first-time filers based on the court record dataset. Columns (1) and (2) summarize the status of the debtors when they filed in the sample period (2016-2018). Column (3) summarizes the outcome of the last filing of the refilers, which occurred anywhere from less than a year to over 38 years before the sample period. To clarify, a debtor may have multiple filings prior to the filing in the sample period. Column (3) includes only the immediately preceding case (i.e. the last filing), not all the prior filings. Finally, Column (4) provides the same statistics for all cases filed within the country in 2015 as a benchmark.²³

The first takeaway from Table 1 is that repeated filing is common. About 36% of all debtors have filed previously, before they filed again during 2016 to 2018 in the same district. Virtually all (99.45%) repeated filing happened over 30 days after the previous filing, so it is unlikely due to clerical errors. Therefore, it is important to discuss repeated filers when studying consumer bankruptcy. Excluding these cases for simplicity, as many researchers do, can cause significant selection bias.

Table 1 also demonstrates that, although back-to-back Chapter 13 cases are important, they are not the only type of repeated filing, or even the most common one. 57% of all serial filings occurred after Chapter 7 cases, most of which had been successfully discharged. As to the subsequent case, nearly half of the repeated filers chose to file under Chapter 7 instead of Chapter 13. Therefore,

²³Column (4) is truly national, that is, it includes every single case filed in the country during that year.

the phenomenon of repeated filing is not merely a story of abusers and bad-faith Chapter 13 filings.

Table 2 further illustrates this point. While a third of the repeated filing involved two consecutive Chapter 13 cases, even more (38.47%) involved two consecutive Chapter 7 cases, and a comparable number (29.16%) involved switching chapters. When we exclude consecutive cases with less than a year in between in Panel B, the percentage of repeated Chapter 13 drops by 4.67 percentage points. This reflects the fact that a minority of the cases are indeed back-to-back Chapter 13 filings. However, this drop is not as drastic as it would be if abusers are abundant, suggesting that even among consecutive Chapter 13 filings, many were probably filed in good faith with a judge-sanctioned repayment plan.

It is well-known that some debtors chose to file a Chapter 13 immediately after completing a Chapter 7 to engage in a strategy colloquially known as “Chapter 20,” because they face financial challenges that cannot be addressed by either a Chapter 7 or a Chapter 13 bankruptcy alone. The benefit of filing for Chapter 13 immediately after a discharged Chapter 7 is that the debtor can extend the payment period of certain non-dischargeable debt, such as certain tax liabilities and mortgage arrearages. The drawback is that the debtor cannot receive a second discharge in the Chapter 13 bankruptcy, and the process can be costly.

Despite the public awareness of Chapter 20, this paper finds that such strategy is rarely used. Instances of Chapter 13 filings within a year after filing a Chapter 7 petition, a classic Chapter 20 scenario, constitute less than 1% of all cases from repeat filers. Therefore, despite the hypothetical benefits of Chapter 20, it is not a common strategy that meaningfully affects the prevalence of repeated filing.

Despite the persistence in Chapter choice, Table 1 shows that the subsequent case is significantly less likely to be a Chapter 7 case compared to first-time filers. The last filing of these refilers, as shown in Column (3), is also less likely to be Chapter 7 cases compared to first-time filers in Column (2) or the benchmark in Column (4).

There are many possible reasons why Chapter 7 is less prevalent among refilers than first-timers. On the demand side, refilers may have different financial and demographic characteristics compared to the first-timers, causing them to prefer Chapter 13 over Chapter 7. Notably, repeated filers are older than first-timers on average and they also tend to have higher income and more secured debt, as shown in Table 1, making Chapter 13 more attractive to them relative to first-timers.

On the supply side, repeated filers face restrictions that first-timers do not have when they choose between the chapters, such as the statutory constraints described in Section I.B. For example, a debtor may file under Chapter 13 immediately after a Chapter 7 discharge to manage their undischageable debt in a payment plan (i.e. create a Chapter 20 case as discussed *supra*). In contrast, filing under Chapter 7 immediately a discharged case provides little benefit regardless of the previous case's chapter, because Chapter 7 cases do not contain a payment plan and the debtor must wait for many years before getting a second discharge.

Table 3 further illustrates the second point. This table shows the percentage of refilers who chose to file under Chapter 7 during the sample period (2016-2018), grouped by how long it has been since their last filing. The debtors who refiled in less than 8 years mostly chose Chapter 13, but those who refiled after 8 years mostly chose Chapter 7. If we only look at people who refiled after 8 years, about 69% of these people refiled under Chapter 7, which is very close to the benchmark in Column (4) of Table 1.

Table 3 also shows the danger of studying repeated filings using datasets that are not long enough in time. If the data goes back only a decade or less,²⁴ we would find that the majority of refilers refiled under Chapter 13 without success after a dismissed case, which fits the profile of Chapter 13 abusers like the Long

²⁴For example, most credit reports only contain bankruptcy records, sometimes called the "bankruptcy flags," from the past 7 to 10 years. Therefore, when using credit bureau data to study bankruptcy, it is important to pool together multiple archives or snapshots of the credit reports for each person, rather than relying on only one year's credit reports.

Island man. In contrast, when we look at cases filed over 10 years later, most refilers refiled under Chapter 7 after their prior filing was successfully discharged, suggesting a very different profile for refilers.

Finally, the outcome and the personal experience of the previous case probably also play a role in people’s decision to refile and their chapter choice. Table 1 shows that refilers are more likely to file pro se, which means that they are not represented by attorneys, compared to first-timers.²⁵ The pro se rate among the previous cases filed by the refilers in Column (3) is significantly higher than all other groups, suggesting that attorney representation is somehow correlated with refile behavior. However, as the footnote of this row explains, this 14.28% is likely biased because I do not have the pro se status of cases filed prior to 2008. It remains to be tested whether the attorney of the refiler’s first case can affect her subsequent chapter choice.

IV. Time Trends in Repeated Filing

When is repeated filing most common? This section provides stylistic facts about the timing of repeated filing that were previously unknown. Each subsection below focuses on a different metric of the phenomenon’s prevalence.

A. *Percentage of Cases that Came from Refilers: 46% for 2023 Cases and Increasing*

This subsection focuses on the percentage of cases that were filed by people who had already filed previously. In probability terms, this subsection explores the time trend of

$$(1) \quad Pr(\text{Filed before Year T} | \text{Filed in Year T}).$$

Table 4 provides this statistics for every year after 2016. Nearly 46% of all cases filed in 2023 came from people who had already filed before, according to

²⁵The pro se rate for Columns (1) and (4) happen to be the same after rounding. This is not a typo.

the UC-CCP dataset. Overall, this percentage has been increasing steadily as the total number of bankruptcy cases declines.²⁶

While Column (1) of Table 4 uses the entire filing history dating back to 1997 to determine who are refilers, Column (2) only check the past 20 years, and Column (3) only check the past 15 years. The introduction of a lookback period in these two columns eliminates the influence of selection bias on the observed trends.²⁷ On average, the proportion of cases with a prior bankruptcy record rises by 61 basis points each year since 2016.

Figure 2 visually illustrates the data presented in Table 4. Just like Column (2) of Table 4, the green line fixes the lookback period to 15 years. The trend has been increasing since at least 2013, meaning that refilers are taking up a larger and larger portion of all cases, except for a slight dip during the COVID-19 pandemic.

This upward trend highlights the importance of studying repeat filers, as they may soon become the majority of all cases.

B. Percentage of Cases that Eventually Refiled: 26% Refiled in 20 Years, Historically

This subsection focuses on the percentage of cases/debtors that would refile at some point in the future. In probability terms, this subsection explores the time trend of

$$(2) \quad Pr(\text{Refiled after Year T} | \text{Filed in Year T}).$$

As Table 5 shows, nearly 26% of all cases filed between 1997 and 2003 refiled within 20 years. Chapter 7 refilers are much less likely to refile compared to Chapter 13 filers—while 22% of the former refiled within 20 years, a remarkable

²⁶Figure 13 illustrates this decline in the total number of bankruptcy cases over the past decade.

²⁷The selection bias exists because we can observe a longer history for cases filed in the later years, so this percentage is mechanically higher for the later years. This is not big problem for the PACER data because the records of most districts go back to at least 1981.

40% of the latter did the same. This high refiling rate among Chapter 13 cases is likely driven by the dismissed cases, over 52% of which refiled within 20 years.

Surprisingly and alarmingly, refiling rate remains high even for discharged cases—one out of every five debtors who successfully navigated the bankruptcy process and emerged with their debts eliminated eventually finds themselves back in bankruptcy again. This observation raises critical questions about the effectiveness of the bankruptcy system as a social safety net, namely its ability to provide lasting relief and long-term financial stability.

I do not observe the 20-year refiling rate for years after 2003 because the dataset ends in 2023. This selection bias or left-truncation probably drives the downward slope observed in Figure 3, which plots the percentage of cases in each filing year cohort that refiled prior to the end of 2023. Despite the truncation bias, it is clear from this figure that the likelihood for Chapter 13 debtors to refile is consistently higher than Chapter 7 debtors, and this likelihood is substantial regardless of the chapter.

In terms of timing, Figure 4 presents the cumulative refiling rate in the years following a bankruptcy case. Each line represents cases from a different filing year cohort. Because the dataset ends in 2023, the later cohorts have shorter lines than the earlier cohorts. However, for the cohorts that I do observe sufficient years, the majority of refiling happened after the 8th year, again highlighting the importance of using a sufficiently long dataset when studying repeated filers.

The unadjusted Subfigure (a) of Figure 4 exhibits a strong cohort effect, meaning that cases filed in different years have different likelihood of refiling in the subsequent years. Part of this cohort effect is due to the fact that bankruptcy is more popular in some years than others, such as the years following the 2008 financial crisis, as illustrated in Figure 13. Therefore, Subfigure (b) subtracted the corresponding unconditional per capita filing rate from the cumulative refiling rate to mitigate the effect of macro trend.

To put it differently, in a hypothetical scenario where bankruptcies were dis-

tributed randomly among households, we would still observe a higher number of households filing for bankruptcy multiple times when the dataset covers a longer timeframe. Therefore, Subfigure (b) calculated the baseline refiling rate in this counterfactual world, that is, the unconditional likelihood of refiling within the entire U.S. population, and then subtracted it from the actual observed refiling rate. The resulting graph looks very similar to the unadjusted one, which demonstrates that refiling is not occurring randomly, but rather, it exhibits distinct patterns and reflects non-random behavior.

Figure 6 further shows that, among dismissed cases, refiling most commonly happened within 8 years, while among discharged cases, refiling most commonly happened after 8 years. This pattern holds true for both Chapter 7 and Chapter 13 cases, demonstrating that the timing of refiling is more driven by the case outcome than by the chapter choice.

Finally, even after the above-mentioned adjustment, notable cohort effects persist in Figures 4 and 6. While some of the cohort effect in Figure 4 can be attributed to the shifting relative popularity of the two bankruptcy chapters, chapter choice cannot explain the differences observed in Figure 6.

C. Percentage of Cases that Refiled in Each Following Year, Conditional on Not Having Refiled Before (i.e. the Hazard Rate): Varies by Case Outcome

Related to Figures 4 and 6, Figures 7 and 8 plot the hazard rate, that is,

$$(3) \quad Pr(\text{Refiled in Year } T | \text{Did Not Refile Before Year } T, \text{ Observed}).$$

Following the conventional definition for hazard rates, this represents the conditional probability of filing for bankruptcy at time T , given that the individual has not refiled before time T . In essence, these plots provide insights into the probability of refiling for the first time in each successive year following the debtor's initial filing. They offer a dynamic view of the changes in Figures 4 and 6 from

one year to the next.²⁸

As anticipated, Figure 7 shows that the probability of a dismissed filer refiling within the initial 8 years is notably higher compared to that of a discharged filer. This behavior can be attributed to the constraints on repeated discharge explained in detail in Section I.B. Simply put, a debtor must wait for 6 to 8 years after an earlier filing to be eligible for a second discharge under Chapter 7. Because the discharge is arguably the biggest benefit that a bankruptcy can provide, these constraints greatly lower people's incentive to file again shortly after a recent discharge, even though it is technically possible.

This difference between dismissed and discharged cases highlights the difficulty of adjusting for repeated filing when available datasets are not long enough in time. Most importantly, observed refilers should not be excluded from studies, especially when the lookback period is around 8 years. Doing so will likely introduce selection bias, because the excluded cases will mostly come from people who have previously attempted Chapter 13 but failed to secure a discharge.

Another significant observation derived from Figure 7 is that the substantial contrast in refiling patterns between Chapter 7 and Chapter 13 primarily stems from the difference between discharged and dismissed cases. As Table 1 summarizes, approximately 95% of Chapter 7 cases result in discharge, while only about 40% to 50% of Chapter 13 cases achieve the same outcome. Consequently, the refiling trends of Chapter 7 cases closely mirror those of discharged cases, whereas the refiling trends of Chapter 13 cases closely mirror those of dismissed cases.

Lastly, let's consider the impact of BAPCPA on refiling timing. The lower half of Figure 7 zeroes in on cases filed before BAPCPA's effective date. Overall, these two subplots resemble the first two subplots, which subset on post-BAPCPA cases. However, BAPCPA distinctly suppressed the number of discharged cases that refiled within the 5 to 8-year timeframe.

²⁸For simplicity, Figures 7 and 8 are not adjusted for the baseline per capita filing rate. The comparison with baseline is later provided in Figure 9.

The impact of BAPCPA becomes even more evident when examining Figure 8, which illustrates the overall hazard rate for each filing year cohort. For instance, among cases filed in 1997, we observe two peaks: one occurring around the 8th year, reflecting the passage of BAPCPA, and another around the 13th year, reflecting the aftermath of the 2008 financial crisis. The magnitude of the effect of these two macro-events appears to be surprisingly comparable. As we progress to later years, these two peaks gradually converge and overlap.

D. Percentage of Past Filers That Refiled in A Given Year: About 1% to 2% Per Year, or 6 to 9 Times Per Capita Filing Rate

Finally, this subsection focuses on the percentage of people with a bankruptcy record that would refile at some point in the future. In probability terms, this percentage is

$$(4) \quad Pr(\text{Refiled in Year } T | \text{Filed before Year } T).$$

Figure 9 compares this conditional refiling rate with the per capita bankruptcy filing rate. To avoid selection bias, the lookback period is fixed to 15 years. The dashed segments of the lines are periods where I do not observe the full 15 years.

Between 2011 and 2020, from 1 to 2% of the people who have filed in the past 15 years would refile every year. This filing rate is about 6 to 9 times higher than the per capita filing rate among people who have not filed in the past 15 years. The synchronicity between these two filing rates is likely caused by macroeconomic factors that affect both first-time filers and refilers, including the 2005 BAPCPA, the 2008 financial crisis, and the 2020 Covid-19 pandemic. Notably, the filing rate among refilers has generally risen since 2017, except during the pandemic years, while the per capita filing rate for first-time filers continues to decline.

V. Empirical Analysis on the Appeal of Refiling: Introduction

Why did so many people file for bankruptcy repeatedly? This paper posits two primary reasons: firstly, many individuals who have previously filed for bankruptcy continue to encounter financial distress years after the initial filing, and secondly, these individuals exhibit a significantly higher predisposition to file for bankruptcy when faced with financial challenges, compared to those with no prior bankruptcy record.

To illustrate the first point, Section VI reveals that a substantial proportion of bankruptcy filers continue to experience financial distress years after their initial bankruptcy. Moreover, a series of OLS regressions show that a low credit score and high debt levels are correlated with a high refiling rate, mirroring the correlation observed in the first-time bankruptcy filing rate. This supports the hypothesis that repeated bankruptcy filings may stem from persistent financial distress after the initial filing.

However, Section VII highlights that even after adjusting for an extensive set of financial and demographic controls, individuals with a prior bankruptcy history are still significantly more likely to file for bankruptcy. This implies that financial distress alone cannot account for the prevalence of repeated filings. Instead, individuals with a previous bankruptcy history are markedly more inclined to file for bankruptcy again in the future compared to those with similar financial backgrounds but without a bankruptcy history, constituting the second reason for the prevalence of refiling.

VI. Post-Bankruptcy Financial Distress as Motivation for Refiling

This section explores how financial distress can motivate repeated filings. First, it uses the distribution of credit scores to illustrate how a substantial proportion of bankruptcy filers continue to face financial distress 10 to 15 years after bankruptcy. Then, it uses a set of OLS regressions to show that credit scores

and debt levels are correlated with refiling rate in a way that mirrors the correlation with first-time filing rate. This suggests that financial distress can motivate refiling in the same way as it motivates people to file bankruptcy for the first time.

A. *Financial Distress after Bankruptcy*

Despite the social stigma associated with it, consumer bankruptcy is generally regarded as helpful, particularly in the short term. Dobbie and Song (2015). Indeed, as Figure 10 illustrates, the average credit scores of individuals who filed for bankruptcy between March 2004 and December 2009 have improved remarkably over the past decade.²⁹ Starting at a pre-bankruptcy level of 552, the average score increased to 643 by the end of 2019. This finding aligns with prior literature, and suggests that, overall, filing for bankruptcy helps people improve their financial health.

However, bankruptcy filers continue to exhibit lower average credit scores than the general population 10 to 15 years after obtaining debt relief, as shown by Figure 10. Moreover, there is substantial variation in bankruptcy filers' long-term trajectories, with a significant minority of them experiencing persistent financial distress.

To illustrate this point, Figure 11 compares the distribution of credit scores right before individuals' first bankruptcy between March 2004 and December 2009 with their credit scores 10 to 15 years later at the end of 2019. Despite the overall improvement, there remains a notable overlap between the two distributions. Significantly, a substantial proportion of bankruptcy filers remained below the "Subprime" line of 600³⁰ a decade after their supposed fresh start. This suggests that, despite the significant improvement in the group average, a substantial

²⁹The sample period commenced in March 2004, as this represents the earliest point when the dataset incorporates individuals' credit scores.

³⁰The credit bureau that provided the UC-CCP data splits the scores into four tiers: 300-600 is Subprime, 601-660 is Near Prime, 661-780 is Prime, and 781-850 is Superprime.

number of people continue to experience financial distress even after obtaining a bankruptcy discharge.

B. Motivation for Refiling

Does the financial distress discussed in the subsection above drive individuals to file for bankruptcy again? This subsection delves into this question by examining how people’s credit scores and debt levels are correlated with their bankruptcy filing or refiling propensity.

In particular, Table 6 assesses the correlation between a person’s indebtedness at the end of 2017 and their likelihood to file for bankruptcy in 2018. The regressions use a binary dependent variable that equals 1 if the person files for bankruptcy in 2018. The independent variables include credit scores and various measures of indebtedness, with listed controls at the bottom of the table. Each individual with a credit record represents one observation, and the dataset comprises a randomly selected 2% sample of the U.S. population with credit reports.

Column (1) includes individuals who filed for bankruptcy before January 1, 2011—those who went bankrupt over 7 years ago. Column (2) includes individuals who filed more recently, between January 1, 2011, and December 31, 2017. Finally, Column (3) consists of individuals with no bankruptcy record before 2018. The bankruptcy records for this analysis extend back to 1997 for Chapter 13 cases and 1994 for Chapter 7 cases.

The key insight arises from a horizontal comparison of the columns: the direction and relative magnitude of the coefficients in Columns (1) and (2) tend to mirror those in Column (3). This means that the factors most predictive among individuals with no bankruptcy record also tend to be most predictive among those who have filed previously, though to varying degrees. In simpler terms, factors associated with people’s initial bankruptcy filings also tend to contribute to subsequent filings.

Examining the rows of Table 6, credit scores emerge as the most predictive

factor in a person's filing behavior, with the likelihood of bankruptcy decreasing rapidly as credit scores rise. For instance, an individual with a credit score of 500 in 2017 is approximately 2 percentage points more likely to refile in 2018 compared to someone with a 600 credit score—a striking 143% increase from the baseline refiling rate of 1.4%. This alignment makes sense, given that credit scores aim to capture people's overall financial health and their likelihood of default.

To further illustrate how financial distress influences the likelihood of filing for bankruptcy, Figure 12 depicts how the likelihood of filing in 2018 decreases as credit scores at the end of 2017 increase. The three lines correspond to the three columns of Table 6—individuals who went bankrupt over 7 years ago, those who went bankrupt more recently, and those who have never filed bankruptcy before. Across all groups, lower credit scores correlate with higher bankruptcy filing rates. Notably, the refiler groups' filing rates have significantly higher absolute levels, a point that will be further explored in Section VII.

Once credit scores are taken into account, the predictive power of most debt measures diminishes in economic magnitude in Table 6. However, factors such as a person's credit card debt level, the number of active collections, and the number of inquiries still exhibit some remaining predictive power across the three groups. This aligns with the hypothesis that financial distress is an important motivator for repeated bankruptcy filings.

VII. Heightened Bankruptcy Filing Rate Among Refilers

This section presents the second reason why repeated filing is prevalent, that it, individuals with a prior bankruptcy record are significantly more likely to file for bankruptcy compared to others, even after controlling for an extensive list of factors. Essentially, the statistical model below shows how a person's past filing can “predict” her future filing patterns, and this correlation between a person's past and future filings is robust to a wide range of controls.

A. Model Specification

The analysis in this section revolves around two key variables:

$Y = \{0, 1\}$ indicates whether a person files for bankruptcy in the current period.

$D = \{0, 1\}$ indicates whether a person has filed for bankruptcy in a prior period.

Our objective is to quantify the direct effect of D on Y . This can be modeled by relating a person's past filing, D , to her current filing decision, Y :

$$(5) \quad Y_i = \alpha + \beta_1 D_i + \beta_2 X_i + \epsilon_i$$

for individual i , where X_i is the vector of control variables, including the individual's other characteristics that could affect Y .

I now expand upon this simple model to reflect that in reality, there are numerous periods preceding the current one, and the timing of the previous bankruptcy virtually determines its impact on the subsequent filing decision. In other words, we cannot merely aggregate all prior filings into a single variable D . As explained in Section I.B and illustrated by Figure 7, discharged cases exhibit artificially low refiling rates in the following 7 years due to the legal restrictions on repeated discharges. Consequently, we must separately evaluate the effect of discharged cases and dismissed cases, with consideration for the recency of the case.

Suppose the unit of time is one year, the expanded model is

$$(6) \quad Y_i = \alpha + \beta_1^1 d_i^{7+,s} + \beta_1^2 d_i^{7+,f} + \beta_1^3 d_i^{7-,s} + \beta_1^4 d_i^{7-,f} + \beta_2 X_i + \epsilon_i$$

where $d_i^{7+,s}$ signifies whether this person has filed over seven years ago and successfully obtained a discharge (the superscript s denotes "success"); $d_i^{7+,f}$ signifies whether this person has filed over seven years ago but failed to obtain a discharge (the superscript f denotes "failure"); $d_i^{7-,s}$ signifies whether this person has filed less than seven years ago and successfully obtained a discharge; and $d_i^{7-,f}$ signifies whether this person has filed less than seven years ago but failed to obtain a

discharge. This way, we separately estimate the effect of having experienced each of these events on the subsequent filing rate.

We now have to determine the appropriate time period(s) for X_i , assuming that all necessary controls are observable at all time. This is necessary because some of the person's characteristics, such as debt level and zip code, can change greatly over time. Hence, we must decide which time period's values to use for the control variables.

The selection of control variables should align with the primary purpose of the analysis, which is to explore how prior bankruptcy experience affects people's willingness to file for bankruptcy. In this context, control variables should account for any alternative factors that could introduce a correlation between a prior bankruptcy and the likelihood of filing for bankruptcy in the current period.

A reasonable assumption here is that an individual's decision to file for bankruptcy during a specific period is primarily influenced by their circumstances at the outset of that period. Given this assumption, the most appropriate control variables should capture these circumstances at the beginning of the current period. Consequently, the regressions presented in the following section use control variables that are measured at the beginning of the current year, equivalent to the end of the preceding year.

B. Regression Results

Table 8 presents the results of OLS regressions as specified by Equation 6, with varying sets of controls.

Specifically, this analysis encompasses 2,600,484 individuals from the national UC-CCP dataset, constituting a randomly selected 2% sample of the U.S. population with a credit report at the end of 2017. After excluding individuals with missing data, narrowing the age range to 20-70, and trimming the top 1% for debt levels, the dataset comprises 1,715,280 individuals for the full model.³¹

³¹I repeated the analysis using 2016, 2017, and 2019 data, and the results remained consistent. An

The dependent variable, denoted as Y_i , indicates whether an individual filed for bankruptcy in 2018. In essence, the regression models aim to forecast the probability of an individual filing for bankruptcy in 2018 using their characteristics at the end of the previous year.

The independent variables of interest adhere to the definitions outlined in Equation 6; they are indicator variables denoting whether the individual had previously filed within the past 7 years (or over 7 years) and whether the prior filing resulted in discharge (or dismissal).

Column (1) does not include any controls. Column (2) includes controls for the individuals' debt levels and zip codes. Column (3) includes demographic controls in addition to the controls in Column (2), as summarized by Table 7. As specified in the last section, the control variables are based on the credit report at the end of December 2017.

It is worth noting that, as Table 7 shows, people are significantly more likely to have experienced a discharged bankruptcy case than a dismissed one. While nearly 10% of the sample have filed and obtained a discharge in the past, only 1% have had a prior case dismissed. This might appear counterintuitive since dismissed debtors are more likely to refile, as indicated in Table 5. However, these two observations are, in fact, complementary—precisely because dismissed debtors often refile immediately until they secure a discharge, a larger number of individuals have experienced discharged cases compared to dismissed cases.

As mentioned earlier, Table 8 shows that individuals with prior experience of a discharged case over 7 years ago exhibit a higher likelihood of filing for bankruptcy compared to those with no such experience. In contrast, if the discharge occurred within the past 7 years, the likelihood of filing is suppressed due to legal mandates that often require debtors to wait 7 years before filing again, as discussed in

earlier version of this paper utilized a logistic regression model to address the binary nature of the dependent variable. However, combining logistic models with fixed effects requires variation in outcomes within each category of the fixed effect. Since bankruptcy is a rare event, many zip codes lack bankruptcy observations in 2018, leading to their exclusion from the regressions and biasing the coefficients downwards. Therefore, all regressions in this paper are OLS models, despite the binary nature of the dependent variables.

Section IV.C and illustrated by Figure 7.

Having a dismissed case from over 7 years ago also increases the filing rate, although its effect is slightly less than that of a discharged case. On the other hand, experiencing a recent dismissal within the last 7 years significantly elevates the likelihood of filing, as there are typically no restrictions on refiling following a dismissed case.

When we compare the columns, we can see that approximately 30% of the increase in the filing rate associated with prior bankruptcy can be attributed to the individual's debt level and zip codes at the beginning of the period. The inclusion of demographic controls, such as gender, marital status, homeownership, birth year, education, and occupation groups, further helps explain away some of the heightened filing rates observed among individuals with a prior bankruptcy. However, the incremental explanatory power of these demographic factors is relatively small compared to debt levels and zip codes.

The effectiveness of these control variables corroborates the results from Section VI, indicating that a significant factor contributing to the high refiling rate among individuals with a prior bankruptcy is their high likelihood of being in stressful circumstances where bankruptcy is a common recourse. Nevertheless, even after accounting for an extensive set of controls, individuals with a prior bankruptcy still exhibit a remarkably high propensity to file for bankruptcy when the law permits them to do so, compared to individuals who have never went bankrupt before.

Specifically, having a discharged case over 7 years ago is correlated with a 67 basis points increase in the filing rate for the following year. For context, Table 7 indicates that the average annual filing rate in our sample is 0.50%, making this increase equivalent to 1.34 times the average filing rate. Similarly, a dismissed case over 7 years ago is linked to a 114% increase over the average filing rate.

As discussed in Introduction, this persistent increase in bankruptcy filing rates among individuals with prior bankruptcy supports the hypothesis that, all else

being equal, prior bankruptcy experience causes individuals to be more willing to file for bankruptcy. This interpretation aligns with insights from the literature on spillover effects in welfare benefit take-up, which suggests that reduced stigma and learning costs can amplify individuals' likelihood of filing for bankruptcy.

However, it is also possible that the persistent correlation between past and future bankruptcy filings is driven by unobserved individual characteristics unaffected by bankruptcy, such as personality traits and financial habits.

Regardless of the cause, the fundamental pattern remains evident: repeated bankruptcy filings are widespread not only due to individuals encountering recurrent financial distress, but also because those with prior filings demonstrate a heightened predisposition to file again compared to individuals with no prior bankruptcy history.

In other words, when adverse conditions arise, we should anticipate that individuals with prior bankruptcy filings will file more frequently than new filers. Likewise, refilers are probably more responsive to policy changes compared to new filers. As refilers make up a growing share of all bankruptcy filers, the observed overall responsiveness to policy changes may increase, even though the policy's efficacy remains unchanged.

VIII. Effect of Non-Dischargeable Debt Levels on Refiling

The existence of debts that cannot be easily discharged through bankruptcy, particularly student loans, diminishes the benefit of bankruptcy, which can increase the need for a second discharge. The analysis below tests whether the amount of debt discharged in the earlier bankruptcy can predict the likelihood of repeated bankruptcy filings.

Each column of Table 9 presents an OLS regression where the dependent variable is a binary indicator, denoting whether an individual filed for bankruptcy again after the initial filing. The independent variables include the levels of various types of debts, measured at the commencement of the quarter when the person

filed initially, alongside controls such as zip code fixed effects, filing year-quarter fixed effects, age, and gender. These regressions specifically focus on individuals who filed for bankruptcy at least once between 2006 and 2019, with no bankruptcy record between 1997 and 2006. The dependent variable, representing the refiling status, is determined based on all cases observed between 2006 and June 2023.

Student loans, a typical non-dischargeable debt, is associated with a slight increase in the refiling rate following a discharged Chapter 7 bankruptcy, mirroring the patterns observed for similarly non-dischargeable secured loans. Specifically, a two standard deviation increase in student loans corresponds to a 36 basis points increase in the refiling rate, while the average refiling rate stands at about 11%. On the other hand, elevated credit card debt prior to bankruptcy is associated with a lower refiling rate when the case is discharged but a higher refiling rate when the case is dismissed.

The coefficients' signs are consistent with the argument that the "benefit" of the first bankruptcy, that is, the amount of debt discharged, decreases the need for a second bankruptcy. However, it's important to note that the absolute magnitude of these effects is relatively small, necessitating further in-depth analysis.

IX. Conclusion

Repeated filing is a common phenomenon. Using randomly selected cases from 66 districts, I found that refilers account for nearly 46% of all bankruptcy cases filed in 2023. This percentage varies from court to court, and in some districts almost half, if not over half, of all cases filed between 2016 and 2018 were filed by people who had filed for bankruptcy before, while the national average is about 38%. The phenomenon of repeated filing, also known as "serial filing," poses significant questions about the bankruptcy system's efficacy.

Why did these people file for bankruptcy repeatedly? This paper first provides a relatively comprehensive profile of refilers using court records dating back for decades. Prior literature is insufficient because it is uncommon to have a dataset

that is long enough to study repeated filing other than back-to-back Chapter 13 filings, which accounts for a small minority of the phenomenon.

The profile presented by this paper looks very different from the conventional idea that serial filing is driven by Chapter 13 abusers. Quite to the contrary, 57% of the refilers filed their previous case under Chapter 7, which were mostly discharged. Moreover, most repeated filing happened more than 8 years after the initial filing. The typical “abusers” who file several consecutively dismissed cases over a short period of time account for only a small number of all refilers in the database.

Then, this paper argues that the prevalence of refiling can be attributed to two primary factors: individuals who have filed for bankruptcy previously often continue to face financial distress, and they are more predisposed to file for bankruptcy compared to people who have never filed before.

For the first point, this paper shows that a substantial minority of bankruptcy filers continue to have low credit scores over a decade after their bankruptcy. Moreover, low credit scores and high debt levels are associated with high refiling rates, mirroring the relationship between financial distress and first-time filing rates.

For the second point, this paper reveals a strong correlation between a person’s past and future bankruptcy filings that is robust to a wide range of controls. A successfully completed bankruptcy over 7 years ago is associated with a 67 basis points increase in bankruptcy filing rate in 2018, which is over 1.3 times the national average during this period, even after controlling for a wide range of financial and demographic factors. A discharged case less than 7 years ago, on the other hand, is associated with a sharp drop in bankruptcy filing rate, which is likely due to legal restrictions on repeated filing.

Put simply, while financial distress undoubtedly plays a role, it alone cannot fully account for the prevalence of repeated bankruptcy filings. This paper reveals an equally, if not more crucial factor: individuals with prior bankruptcy

experiences exhibit a markedly greater propensity to pursue bankruptcy protection again in the face of financial distress, compared to those without such history. This suggests that repeated filers may be more sensitive to environmental changes and policy shifts, as they are more ready to file for bankruptcy in times of financial distress.

Finally, this paper explores how non-dischargeable loans like student loans can affect refiling. While high credit card debt prior to the first bankruptcy is associated with a low refiling rate, a high balance of student loan or similarly hard-to-discharge secured debt are associated with a high refiling rate. Nevertheless, the absolute magnitude of these effects is relatively small.

Tables

Table 1—: Summary Statistics

	Random Sample of 2,000 Cases per District, 2016-2018			
	Refilers	First-Time Filers	Last Filing of Refilers	All Cases Filed in 2015
	(1)	(2)	(3)	(4)
% Chapter 7	48.84	71.86	56.99	63.11
% Discharged, Chap. 13 ¹	41.46	53.80	30.95	43.53
% Discharged, Chap. 7	93.93	96.68	93.55	94.62
% Asset Cases, Chap. 7	6.09	6.92	5.14	6.99
% Female, Chap. 13 ²	57.62	54.38	-	-
% Female, Chap. 7 ²	64.14	58.60	-	-
% Joint Filers ⁴	27.00	21.85	28.85	23.14
% Pro Se Filers ⁴	9.02	6.29	14.28	9.02
% Black Majority Zips ²	11.56	7.35	-	13.39
Average Age ³	51.27	45.54	42.55	47.39
Average Total Assets ⁴	104,155.00	97,645.43	123,551.30	115,359.80
Average Real Assets ⁴	78,045.75	66,320.15	105,951.20	89,561.43
Average Total Liabilities ⁴	143,695.80	151,047.60	173,206.70	325,442.40
Average Secured Debt ⁴	97,743.28	74,952.49	129,552.60	276,685.80
Average Monthly Income ⁴	3,263.98	3,005.95	3,325.17	3,030.31
Average Monthly Expenses ⁴	3,058.89	2,954.44	3,062.39	2,916.86
Observations	46,677	82,738	46,628	805,076
% Refiler	36.07			

1) For Columns (1) and (2), for cases that are pending on June 30, 2023, we imputed the discharge rate based on data from 2016.

2) Data not available for NDAL, NDGA, SDIN, and SDWV. To determine the gender of the debtors, I matched the first name provided in the PACER dataset with the Social Security Administration's List of Baby Names spanning from 1932 to 2012. The most common gender associated with each first name was used to impute the gender of the debtor. For any names not present in the Social Security data, I relied on the Harvard Dataverse's World Gender Name Dictionary v2.0 to determine the gender. Race is provided by the 2010 Census.

3) Data from the UC-CCP dataset.

4) For Column (3), data is not available for cases filed before 2008.

Table 2—: Percent of Refilers by Chapter

A—All Repeated Filing			
Prior Case Chapter	New Case Chapter		
	13	7	
	13	32.37%	10.21%
	7	18.95%	38.47%
Number of Obs.	46,365		

B—Repeated Filing after Over 365 Days			
Prior Case Chapter	New Case Chapter		
	13	7	
	13	27.70%	10.29%
	7	20.36%	41.64%
Number of Obs.	41,164		

The sum of all four categories is 100% for each panel.

Table 3—: Composition of Refilers by Years After the Previous Filing

Years	% Refilers Whose Last Filing Was Chapter 7	% Refilers Whose Last Filing Was Discharged	% Refilers Whose New Filing Was Discharged	% Cases	# Cases
Under 1	23%	23%	6%	11%	5,199
1-3	19%	33%	16%	15%	6,765
4-7	15%	46%	69%	14%	6,559
8-10	69%	83%	90%	16%	7,491
11-15	69%	83%	92%	25%	11,560
16-20	69%	83%	92%	13%	5,976
Over 20	67%	80%	92%	6%	2,805
All Cases	49%	63%	68%	100%	46,355

This table includes all refilers identified in the court record dataset, as summarized in Table 1, for whom we have case outcome data. The “new filings” refer to the randomly selected cases filed between 2016 and 2018, while the “last filings” include the immediately preceding case filed by the same debtor. To identify refilers, data is available for all districts back to 1991 (year 25). Beyond that, 58 out of 67 districts provide data beyond 1986 (year 30), and 46 out of 67 districts provide data beyond 1981 (year 35). Discharged cases include those discharged as of June 30, 2023.

Table 4—: Percentage of Cases that Came from People Who Have Already Filed Before

	% Cases From Refilers		
	Full History (1)	Past 20 Years (2)	Past 15 Year (3)
2016	36.89	36.89	31.42
2017	39.11	38.70	32.28
2018	40.88	39.58	32.70
2019	41.50	39.41	31.98
2020	40.76	37.94	29.33
2021	42.03	38.26	29.70
2022	46.31	41.92	35.11
2023	45.93	40.55	34.01

This table shows the percentage of cases that came from refilers, that is, people who have already filed before. To determine who are refilers, Column (1) considers the entire filing history dating back to 1997, while Column (2) looks back over a span of 20 years, and Column (3) looks back 15 years. The introduction of a lookback period in Columns (2) and (3) eliminates the influence of selection bias on the observed trends.

Table 5—: Percentage of Cases Whose Debtor Refiled in 20 Years

	Chapter 7	Chapter 13	Discharged Cases	Dismissed Cases	All Cases
2003	18.87	38.06	18.79	51.03	23.74
2002	20.80	41.47	20.67	54.24	26.13
2001	22.08	42.20	21.98	54.24	27.14
2000	21.88	42.92	21.92	54.49	27.62
1999	22.96	43.84	23.26	52.96	28.30
1998	23.95	42.83	24.36	52.82	28.59
1997	26.08	45.77	26.19	55.07	29.19
All Cases	21.99	39.85	21.92	52.06	25.80
Obs.	187,230	50,864	193,738	25,443	238,094

This table shows the percentage of cases in which the debtor refiled within 20 years, based on the UC-CCP dataset.

Table 6—: OLS Regressions—Predicting Refiling in 2018 with Financial Characteristics, Refilers vs. Others

	(1)			(2)			(3)		
	Bankr. 7+ Years Ago	Bankr. 7- Years Ago	No Bankruptcy Record	Coef.	S.E.	$p > t $	Coef.	S.E.	$p > t $
Credit Scores ('00)	-0.0798	0.0062	***	-0.0697	0.0114	***	-0.0220	0.0012	***
Squared Credit Scores ('0000)	0.0051	0.0004	***	0.0044	0.0009	***	0.0013	0.0001	***
Mortgage (\$'00,000)	-0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	*
Auto Loan/Lease (\$'000)	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	***
Credit Card (\$'000)	0.0006	0.0001	***	-0.0002	0.0001	*	0.0002	0.0000	***
Student Loan (\$'000)	0.0000	0.0000	**	0.0000	0.0000		0.0000	0.0000	***
Utilities (\$'000)	0.0178	0.1626		-0.0349	0.0957		-0.0562	0.0257	**
Miscellany (\$'000)	0.0005	0.0001	***	0.0001	0.0002		0.0001	0.0000	***
Other Debts (\$'000)	0.0011	0.0002	***	0.0008	0.0003	**	0.0005	0.0001	***
# Open Loans	-0.0001	0.0001		-0.0002	0.0002		-0.0001	0.0000	***
# Delinquent Loans	0.0104	0.0014	***	0.0009	0.0017		0.0055	0.0004	***
# Active Collections	0.0020	0.0005	***	0.0030	0.0008	***	0.0014	0.0002	***
# Inquiries	0.0009	0.0001	***	0.0005	0.0002	***	0.0004	0.0000	***
Included controls: Zip fixed effects, education level fixed effects, gender, marital status, household size (number of adults/children), homeowner/renter dummies, occupation group fixed effects, age and squared age.									
Number of Obs.	164,469	72,353		1,495,692					

Sig. Levels: *** $p < .01$, ** $p < .05$, * $p < .1$. Standard errors clustered at zip code level.

The dependent variable indicates whether the individual filed for bankruptcy in 2018. Column (1) includes individuals who filed for bankruptcy before 2011 (i.e. over 7 years ago), Column (2) includes individuals who filed for bankruptcy between 2011 and 2018 (i.e. less than 7 years ago), Column (3) includes individuals with no bankruptcy record. The bankruptcy records for this analysis extend back to 1997 for Chapter 13 cases and 1994 for Chapter 7 cases.

Debt levels are trimmed at top 1%. Mortgage includes home equity and other secured debt.

Education levels and occupation groups include dummies as specified in Table 7. The credit bureau discloses that its data source includes collected data and modeled data.

Table 7—: Summary Statistics for Regression Inputs

Variable	Mean	Std. Dev.	Min	Max
Outcome Variable				
Filed in 2018	0.0050	0.0707	0	1
Refiler Dummies				
Filed Over 7 Years Ago, Discharged	0.0893	0.2852	0	1
Filed Over 7 Years Ago, Dismissed	0.0107	0.1027	0	1
Filed Less Than 7 Years Ago, Discharged	0.0379	0.1910	0	1
Filed Less Than 7 Years Ago, Dismissed	0.0056	0.0746	0	1
Financial Characteristics				
Credit Score ('00)	7.08	1.00	3	8.50
Mortgage/Home Equity/Secured Loan (\$'000)	67.15	113.51	0	644.90
Auto Loan (\$'000)	7.63	11.72	0	60.31
Credit Card (\$'000)	3.49	5.80	0	37.63
Student Loan (\$'000)	5.84	16.18	0	121.76
Other Unsecured Loan (\$'000)	0.32	1.59	0	15.46
Utilities (\$'000)	0.00	0.00	0	0.04
Miscellany (\$'000)	1.74	3.96	0	30.65
# Open Loans	6.14	4.35	1	23
# Delinquent Loans	0.10	0.39	0	3
# Active Collections	0.27	0.75	0	5
# Inquiries	2.70	3.32	0	20
Demographic Characteristics				
# Adults at the Same Address	2.52	1.51	0	8
# Children at the Same Address	0.44	0.94	0	7
Female Dummy	0.51	0.50	0	1
Age	46.57	13.64	20	70
Education				
High School Diploma	0.01	0.12	0	1
Some College	0.26	0.44	0	1
Bachelor Degree	0.31	0.46	0	1
Graduate Degree	0.19	0.39	0	1
Less Than High School Diploma	0.10	0.30	0	1
Unknown	0.11	0.31	0	1
Occupation				
Management/Technical/Professional	0.03	0.17	0	1
Sales	0.31	0.46	0	1
Farmers	0.36	0.48	0	1
Blue Collar	0.01	0.08	0	1
Other	0.21	0.41	0	1
Retired	0.04	0.19	0	1
Unknown	0.04	0.20	0	1
Marital Status				
Married	0.58	0.49	0	1
Single	0.18	0.38	0	1
Unknown	0.24	0.42	0	1
Homeownership				
Owner	0.59	0.49	0	1
Renter	0.05	0.22	0	1
Unknown	0.36	0.48	0	1
Observations	1,715,280			

Table 8—: OLS Regressions—Bankruptcy Filing in 2018 on Bankruptcy Record Dummies

	(1)	(2)	(3)
Filed Over 7 Years Ago, Discharged	0.0106 *** (0.0003)	0.0075 *** (0.0003)	0.0067 *** (0.0003)
Filed Over 7 Years Ago, Dismissed	0.0120 *** (0.0010)	0.0069 *** (0.0010)	0.0057 *** (0.0011)
Filed Less Than 7 Years Ago, Discharged	-0.0009 *** (0.0003)	-0.0050 *** (0.0003)	-0.0060 *** (0.0003)
Filed Less Than 7 Years Ago, Dismissed	0.0600 *** (0.0024)	0.0522 *** (0.0024)	0.0532 *** (0.0026)
Credit Scores ('00)		-0.0296 *** (0.0011)	-0.0305 *** (0.0013)
Squared Credit Scores ('0000)		0.0019 *** (0.0001)	0.0019 *** (0.0001)
# Adults at the Same Address			-0.0003 *** (0.0000)
# Children at the Same Address			-0.0001 (0.0001)
Female			0.0004 *** (0.0001)
Marital Status			
Married			Omitted
Single			-0.0002 (0.0002)
Unknown			0.0002 (0.0001)
Homeownership			
Own			Omitted
Rent			-0.0013 *** (0.0003)
Unknown			-0.0009 *** (0.0002)
Clustered SE	Yes	Yes	Yes
Debt Level Controls	No	Yes	Yes
Zip FE	No	Yes	Yes
Birth Year FE	No	No	Yes
Education Level FE	No	No	Yes
Occupation Group FE	No	No	Yes
Observations	2,600,484	2,153,290	1,715,280

Sig. Levels: *** $p < .01$, ** $p < .05$, * $p < .1$. Standard errors in parenthesis are clustered at zip code level.

Each individual is an observation. The dependent variable is whether the individual filed for bankruptcy in 2018. The independent variables of interest are dummies that equal 1 if the person has filed for bankruptcy before, grouped by the timing and the outcome of this prior filing.

Debt level controls include all variables listed in Table 7 as Financial Characteristics, trimmed at top 1%. Education levels and occupation groups include dummies as specified in Table 7. The credit bureau discloses that its data source includes collected data and modeled data.

Table 9—: OLS Regression—Predict the Likelihood of Refiling Using the Amount of Debt Prior to the First Bankruptcy, by the Outcome and Chapter of the First Bankruptcy, All Bankruptcy Filers

	Discharged		Dismissed	
	Chap. 7 (1)	Chap. 13 (2)	Chap. 7 (3)	Chap. 13 (4)
Amount of Debt Prior to First Bankruptcy				
Mortgage, Home Equity, Other Secured Debt (\$'00,000)	0.0019*** (0.0005)	-0.0016 (0.0013)	0.0073 (0.0075)	0.0246*** (0.0031)
Auto Loan/Lease (\$'000)	0.0006*** (0.0001)	0.0002 (0.0002)	0.0004 (0.0013)	0.0035*** (0.0003)
Credit Card (\$'000)	-0.0006*** (0.0001)	-0.0011*** (0.0001)	0.0042*** (0.0012)	0.0001 (0.0005)
Student Loan (\$'000)	0.0001*** (0.0000)	-0.0000 (0.0001)	0.0008 (0.0007)	0.0003 (0.0002)
Debt in Collection (\$'000)	-0.0000 (0.0001)	-0.0004 (0.0003)	0.0056*** (0.0018)	0.0014* (0.0008)
Other Debts (\$'000)	0.0003*** (0.0001)	-0.0000 (0.0002)	0.0013 (0.0015)	0.0000 (0.0001)
Number of Observations	149,618	25,457	4,584	21,989
Zip Code Fixed Effect	Yes	Yes	Yes	Yes
Filing Year-Quarter Fixed Effect	Yes	Yes	Yes	Yes
Age and Age Sqrt	Yes	Yes	Yes	Yes
Gender Fixed Effect	Yes	Yes	Yes	Yes
Clustered by Zip Code	Yes	Yes	Yes	Yes

Sig. Levels: *** $p < .01$, ** $p < .05$, * $p < .1$

Standard errors are clustered at zip code level. Debt variables are trimmed at 1% level. Subset on people with a credit report who are alive and aged between 30 and 70 years in 2019, among those who filed bankruptcy at least once between 2006 and 2019.

Each bankruptcy case filed between 2006 and 2019 is an observation. The dependent variable of the OLS regressions is a dummy that equals 1 if the debtor filed for bankruptcy again after the case. The independent variables are the amount of debt of each type prior to the first bankruptcy, in the specified unit. The bankruptcy record goes up to the June 2023.

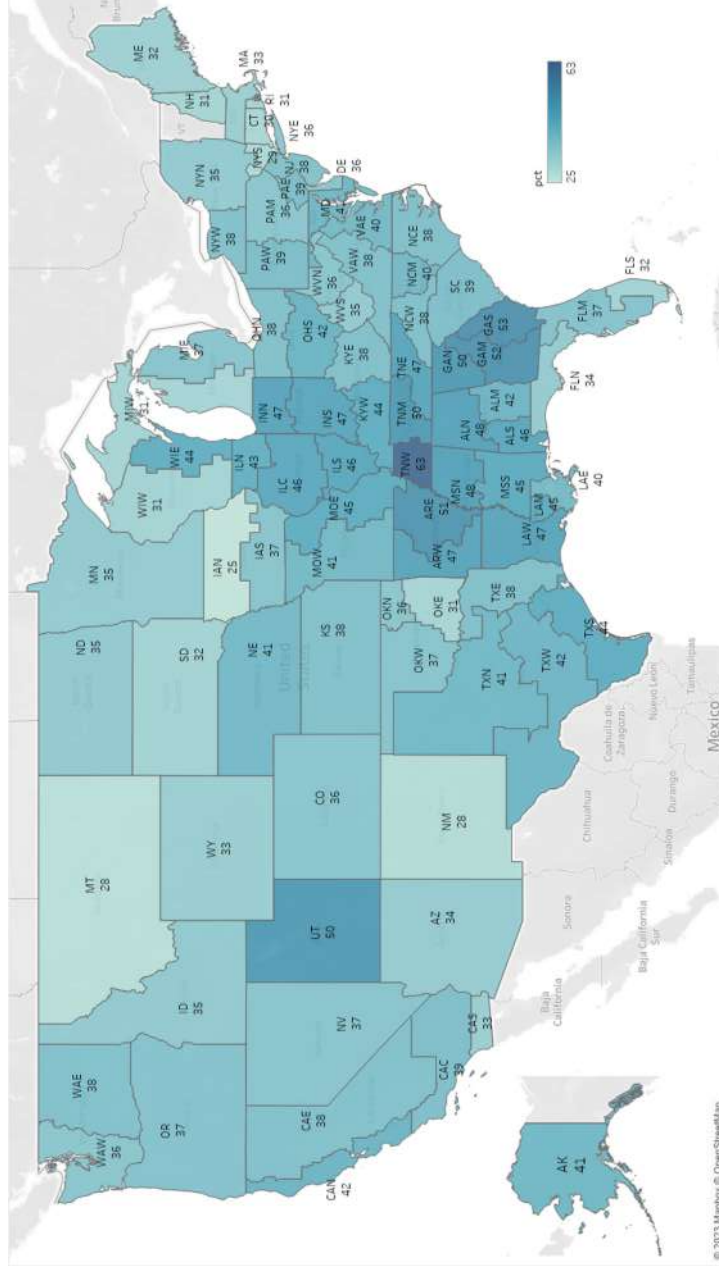
Table 10—: OLS Regression—Debt Level Summary Statistics

	Mean	Std. Dev.	Min	Max
Refiling Dummy (Dependent Variable)	0.11	0.32	0.00	1.00
Mortgage, Home Equity, Other Secured Debt (\$'00,000)	0.97	1.56	0.00	10.48
Auto Loan/Lease (\$'000)	7.88	11.64	0.00	67.62
Credit Card (\$'000)	10.03	13.75	0.00	79.84
Student Loan (\$'000)	6.45	18.97	0.00	186.72
Debt in Collection (\$'000)	2.76	6.24	0.00	53.49
Others (\$'000)	3.77	9.02	0.00	106.80
Number of Observations	205,161			

Trimmed at 1% level. Subset on people with a credit report who are alive and aged between 30 and 70 years in 2019, among those who filed bankruptcy at least once between 2006 and 2019.
Summary statistics for Table 9.

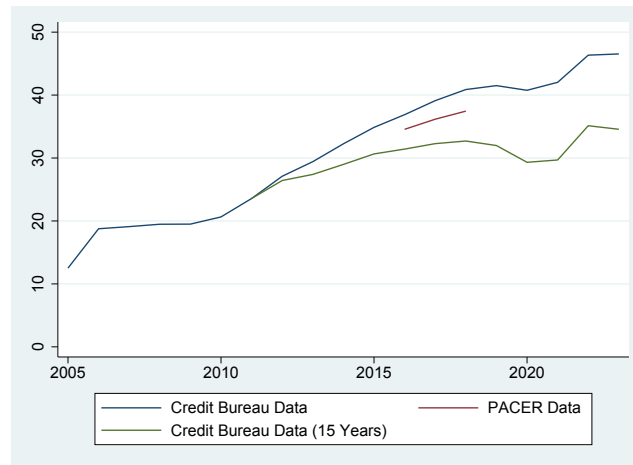
Figures

Figure 1. : Percent of Cases that Are Refilers by District



Calculated based on cases filed between 2016 and 2018 recorded in the UCCCP dataset, which goes back to 1997 for Chapter 7 cases and 1994 for Chapter 13 cases.

Figure 2. : Percentage of Cases Filed in Each Year That Came from People Who Had Already Filed Before

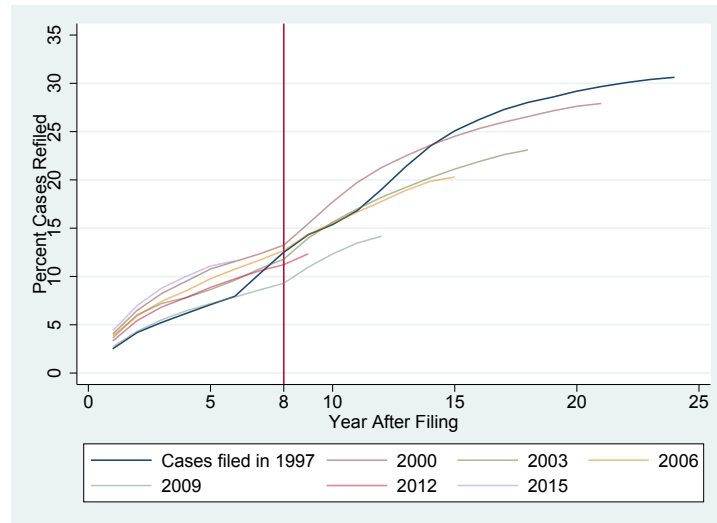


The Credit Bureau Data line shows the percentage of cases that came from people who had filed previously since 1997. The PACER Data line shows the percentage of cases that came from people who had filed previously in the same district since at least 1991 (1981 for most districts).

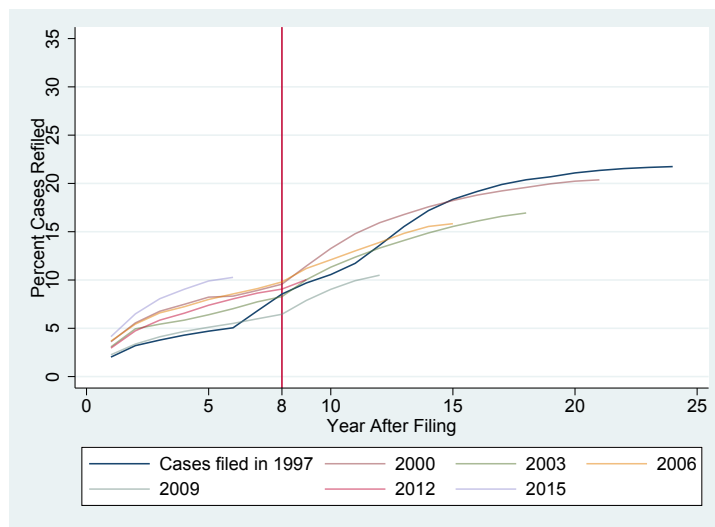
Figure 3. : Percentage of Cases in Each Filing Year Cohort that Refiled by the End of 2023



Figure 4. : Percentage of Cases that Refiled Within X Years



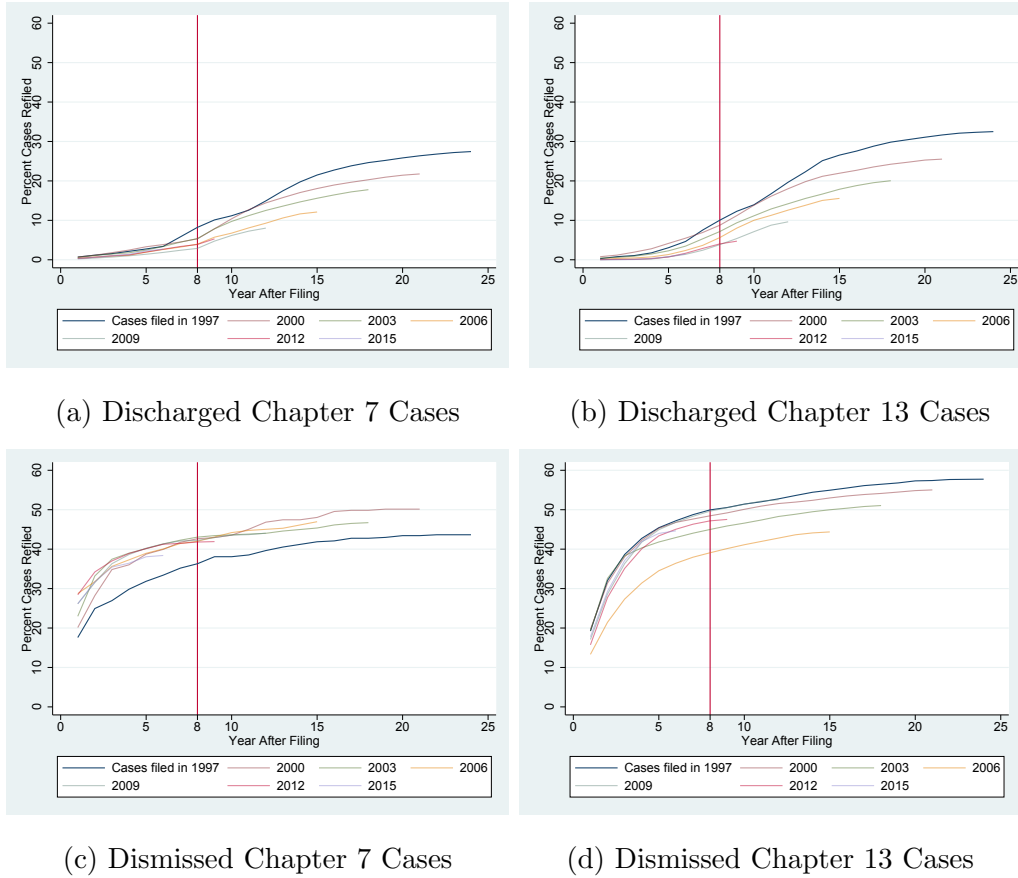
(a) Without Adjustment



(b) Adjusted for Baseline Per Capita Filing Rate

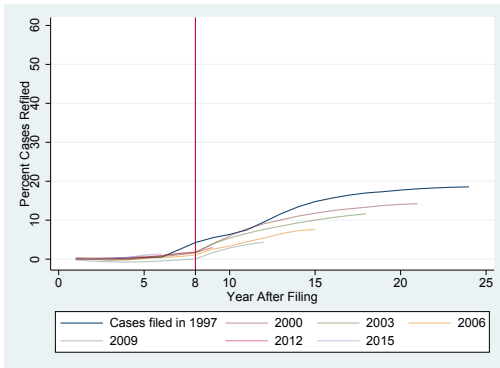
These plots show the percentage of cases in each filing year cohort that refiled within x years (calculated from the UC CCP dataset ending in 2023), but Subfigure (b) is adjusted by subtracting the corresponding annual per capita filing rate from each refile rate data point. The corresponding annual per capita filing rate is calculated from bankruptcy filing data from the American Bankruptcy Institute and population data from the census bureau.

Figure 5. : Percentage of Cases that Refiled Within X Years, Unadjusted

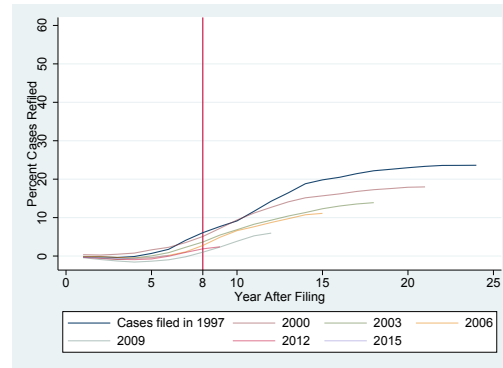


These plots are exactly the same as Figure 4 Subfigure (a) but Figure 4 combined all Chapter 7 and Chapter 13 cases regardless of case outcome.

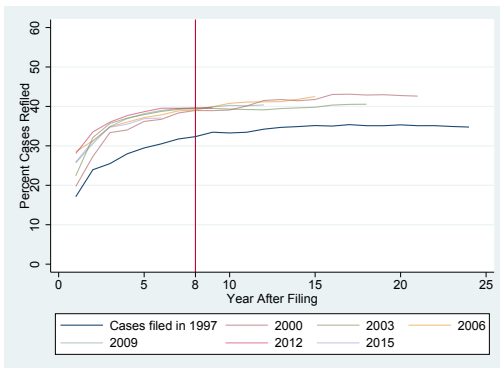
Figure 6. : Percentage of Cases that Refiled Within X Years, Adjusted for Baseline Per Capita Filing Rate



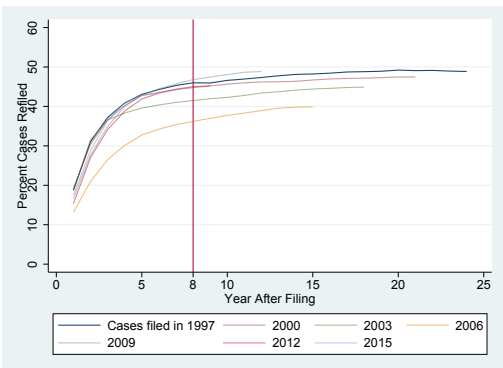
(a) Discharged Chapter 7 Cases



(b) Discharged Chapter 13 Cases



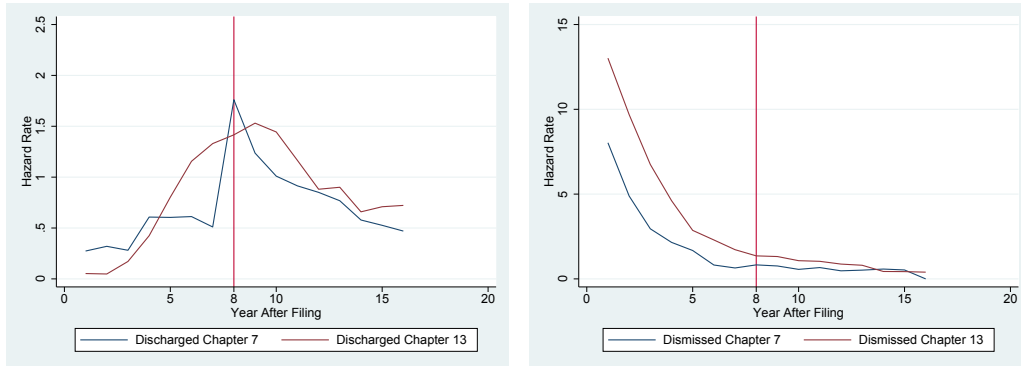
(c) Dismissed Chapter 7 Cases



(d) Dismissed Chapter 13 Cases

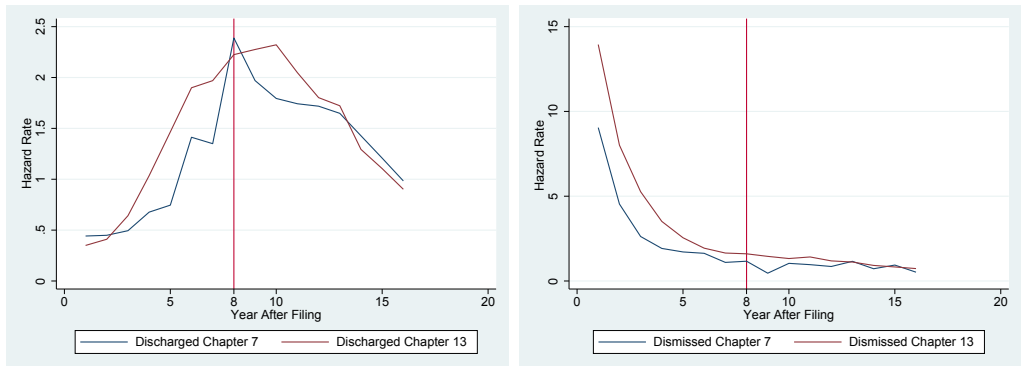
These plots are exactly the same as Figure 4 Subfigure (b) but Figure 4 combined all Chapter 7 and Chapter 13 cases regardless of case outcome.

Figure 7. : Percentage of Cases that Refiled in Each Year Following the Filing, Conditional on Not Having Refiled Already (*i.e.* Hazard Rate)



(a) Discharged Cases, Post-BAPCPA

(b) Dismissed Cases, Post-BAPCPA



(c) Discharged Cases, Pre-BAPCPA

(d) Discharged Cases, Pre-BAPCPA

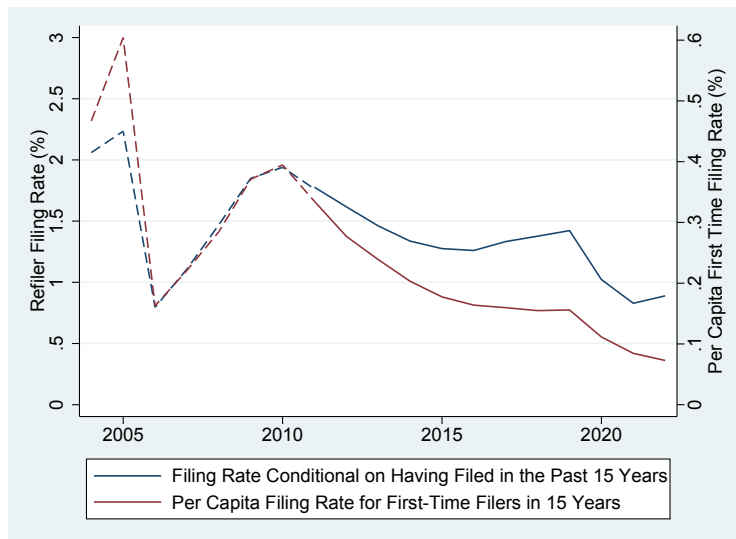
These plots show the percentage of cases that refiled in each year following the first filing, conditional on not having refiled previously and that the dataset covers a sufficient time span after the initial filing date. Cases filed after October 30, 2005 are included in the Post-BAPCPA plots, and cases filed before then are included in the Pre-BAPCPA plots.

Figure 8. : Hazard Rate by Filing Year Cohort



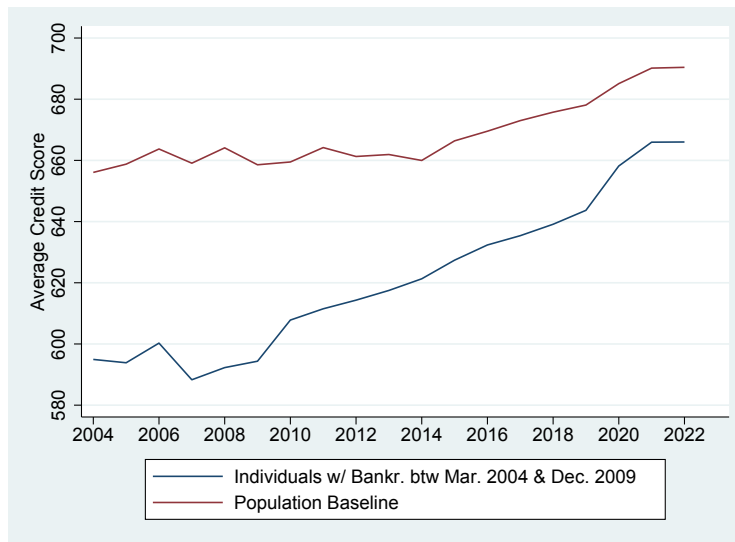
This plot is exactly the same as Figure 7 but combining all cases within each filing year cohort.

Figure 9. : Filing Rate Among Refilers vs National Per Capita Filing Rate



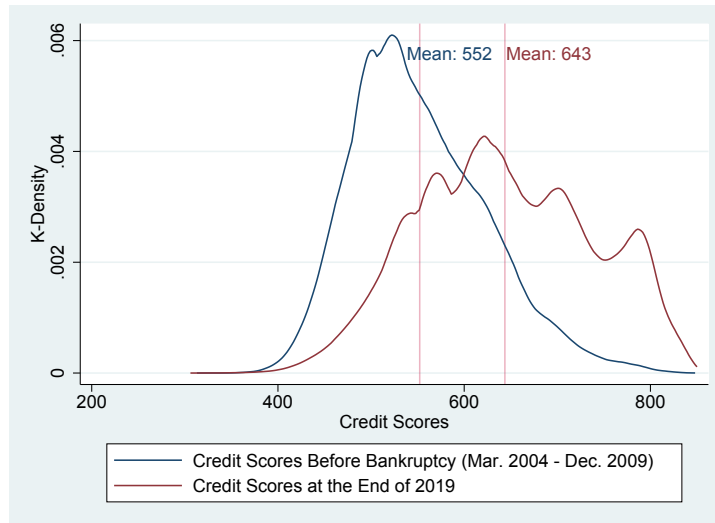
The dashed segments of the lines represent periods where we do not observe the full 15 years. The blue line shows the percentage of people who have filed in the 15 years prior to year x that refiled in year x . The red line shows the per capita filing rate among people who have not filed for bankruptcy in the 15 years prior to year x , which is calculated based on the total number of non-business cases per year (published by the American Bankruptcy Institute), the estimated population (estimated by the Census Bureau), and the percentage of cases that does not have a prior case in the past 15 years (calculated using the UC CCP dataset, same as the green line in Figure 2).

Figure 10. : Average Credit Scores

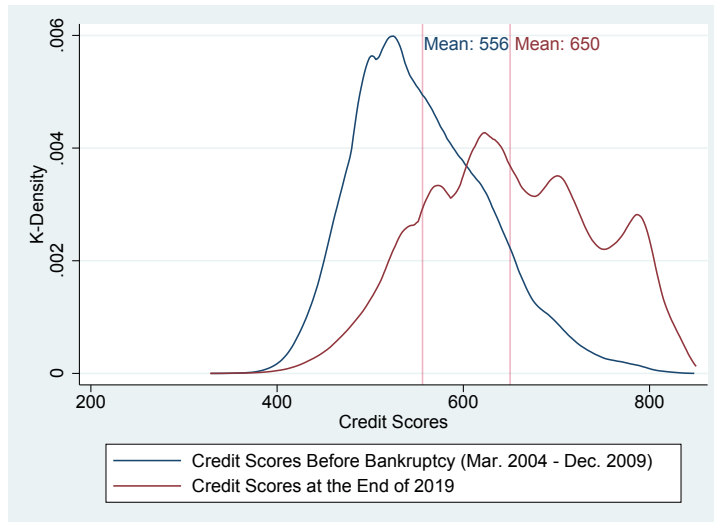


This plot shows the average credit scores for individuals who have filed for bankruptcy between March 2004 and December 2009. As a benchmark, the red line shows the average credit scores of 5,000 individuals randomly selected from the UC-CCP dataset, representing the average credit scores of the U.S. population.

Figure 11. : Distribution of Credit Scores, Pre-Bankruptcy Level vs. 2019 Level



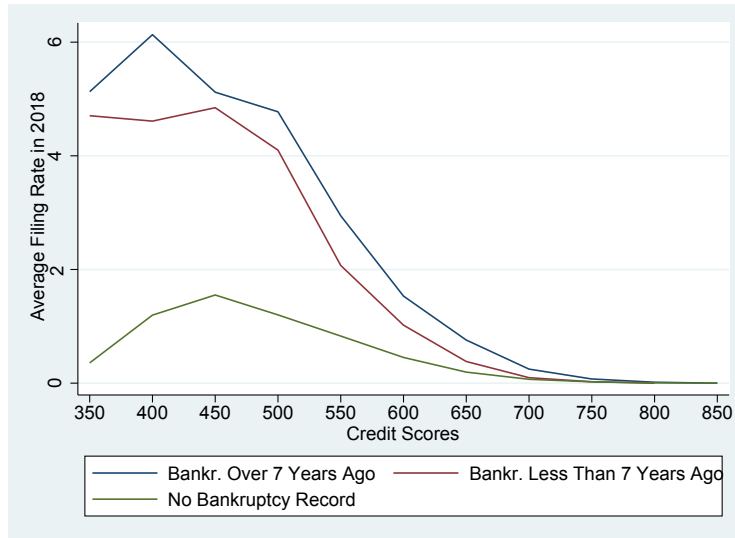
(a) All Bankruptcy Filers from March 2004 to December 2009



(b) Bankruptcy Filers from March 2004 to December 2009 Who Were Successfully Discharged

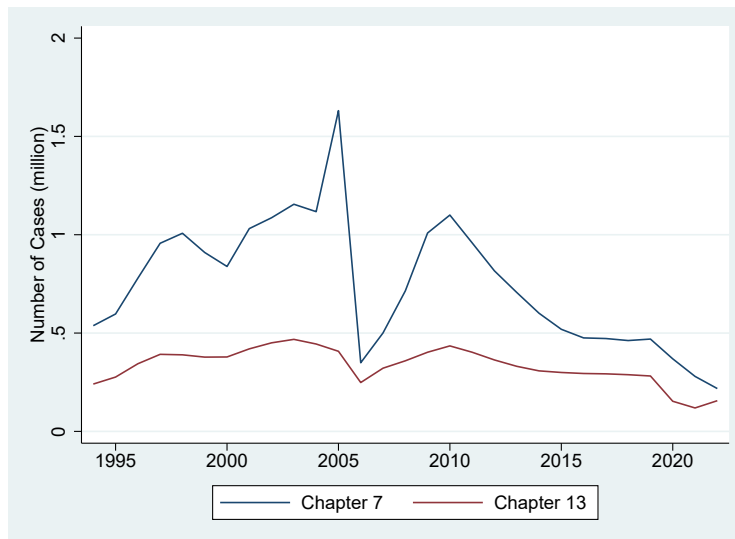
These plots show the distribution of credit scores for bankruptcy filers from March 2004 to December 2009. The blue lines depict these filers' pre-bankruptcy credit score, which is measured at the end of the quarter preceding the bankruptcy. For example, if a person filed for bankruptcy in May 2004, her pre-bankruptcy credit score would be the credit score she had at the end of March 2004. The red lines depict these filers' credit scores at the end of 2019, about 10 to 15 years after their bankruptcy filing. While Panel (a) includes all filers from this time period, Panel (b) only includes filers who have successfully obtained a discharge.

Figure 12. : Average Credit Scores



This plot shows the percentage of individuals with varying credit scores at the end of 2017 that filed for bankruptcy in 2018. The navy line represents individuals with a bankruptcy filing over 7 years earlier, that is, before 2011. The red line represents individuals with a bankruptcy filing after 2011 but before 2018. Finally, the green line represents individuals who have no bankruptcy record before 2018.

Figure 13. : Total Number of Bankruptcy Cases by Year



This plot shows the number of cases filed each year, according to the American Bankruptcy Institute.

APPENDIX A COMPARING THE DATASETS

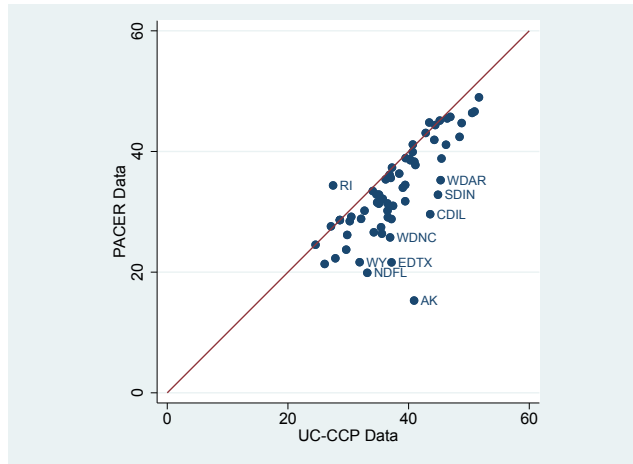
This Appendix presents a simple comparison between two datasets: the UCCCP dataset and the court records obtained from PACER. To ensure a meaningful comparison, I narrowed down the scope to cases filed between 2016 and 2018 and calculated the percentage of these cases that had filed previously since 1997. I excluded districts with fewer than 10 bankruptcy cases from the UCCCP dataset to maintain statistical reliability.

To be specific, in the UCCCP dataset, districts are determined based on the zip codes listed in the records, with each zip code assigned to the most frequently occurring district according to data from the Federal Judicial Center.

As expected, the refiler rate observed in the court records generally equals or is lower than the rate observed in the UCCCP dataset. This discrepancy arises because individuals can file for bankruptcy in different districts, and the court records cannot capture such cross-district filings.

The only exception is Rhode Island, where the UCCCP dataset documents fewer refilers than the court records. Several factors could contribute to this anomaly. Firstly, the relatively small sample size in the UCCCP dataset, comprising only 131 cases, may lead to statistical variations. Secondly, Rhode Island's unique geographic location may result in a mismatch between residents' zip codes and their designated bankruptcy filing district. Finally, although less likely, errors in either the credit reports or the court's system cannot be entirely ruled out as a potential cause for this discrepancy.

Figure A1. : Percentage of Cases Filed between 2016 and 2018 That Had Filed Previously Since 1997



*

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