Barriers to Debt Relief through Bankruptcy: Evidence on the Filing Decision from a Legal Technology Platform*

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Abstract

Millions of households could increase their net worth by filing for bankruptcy, yet fewer than 10% of these households file each year. We study 18,055 debtors considering bankruptcy who have an average benefit from filing of $42,189 (approximately 20 months of average household income), just 52% of whom file. We show that many households are deterred by a $338 filing fee. In a regression discontinuity design that exploits an income threshold for obtaining a waiver of the filing fee, we estimate that the fee causally reduces filing rates by 7.8 percentage points (14%). Marginally deterred debtors mirror filers, except that they have fewer assets and even higher levels of debt. Our results highlight that even relatively small fees can impede the targeting of social insurance.

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1 Introduction

Prospective beneficiaries of government policies frequently do not access the benefits for which they are eligible (Currie, 2006). Barriers to access are policy choices that can enhance welfare when they are less costly for the targeted beneficiaries and vice versa (Nichols and Zeckhauser, 1982; Kleven and Kopczuk, 2011; Finkelstein and Notowidigdo, 2019). These barriers can include means testing, application costs, administrative ordeals, and complexity. Despite the centrality to optimal policy design, understanding whether programs are targeted efficiently is often hampered by difficulty observing individuals who forgo benefits and estimating the causal deterrent effect of barriers to access. Overcoming these challenges in a novel high-stakes setting, we show that application costs meaningfully limit access to government benefits without improving targeting efficiency.

We study the consumer bankruptcy filing decision, where the benefits of access typically imply tens of thousands of dollars of debt relief and the barriers to access have long been a central component of policy design.[1] The average Chapter 7 bankruptcy relieves approximately $115,000 of debt (US Courts, 2023). White (1998) estimated that as many as 15 percent of households could increase their net worth by filing for bankruptcy, and this remains true of between 8 and 16 percent of individuals, even after a 2005 reform made it less beneficial to file (see Appendix Figure A.1). While many individuals could benefit from bankruptcy, less than one percent of all households file in a typical year. The low take-up rate and large potential benefits of bankruptcy raise important policy questions: How do debtors decide whether to file? How do barriers to access, such as court fees, affect filing choices? We exploit novel data to answer these questions. While debtors with more to gain from bankruptcy are more likely to file, many debtors with larger-than-average potential benefits cannot afford to pay the $338 fee to file for bankruptcy.

New technologies like artificial intelligence are transforming access to financial and legal services, as the costs of distribution and providing personalized service decline with automation (Gisbert, 2024; Strange et al., 2024). We partner with Upsolve, a 501(c)(3) nonprofit that provides software to help debtors complete bankruptcy filing forms without hiring an attorney.[2] Upsolve provides

[1] The bankruptcy code has an unusually punitive policy history with roots in debtors' prisons and highly stigmatized treatment of debtors. See American Bankruptcy Institute (n.d.) for more on this history and examples.

[2] Upsolve's bankruptcy filing tool is similar to tax preparation software such as TurboTax, H&R Block, or IRS Free File.

a free substitute for bankruptcy attorneys, which typically cost around $2,000 (O'Neill, 2023), and creates an opportunity to explore who gains access to debt relief through bankruptcy when labor-replacing technologies lower cost barriers.

Upsolve offers a valuable context for studying the targeting properties of bankruptcy and the filing decision for three reasons. First, we observe both filers and *prospective filers who did not file*, enabling a rich characterization of who follows through on filing conditional on considering bankruptcy as an option. Specifically, we observe 18,055 Upsolve users who completed their bankruptcy filing paperwork with an average financial benefit from filing of $42,189, only 52% of whom file. Second, the bankruptcy filing petition and associated schedules include much more complete and granular data on prospective filers' debts, assets, income, and expenses than virtually any other dataset on household finances. By partnering with Upsolve, we are able to supplement this rich data with a survey of their users' financial lives and reasons for considering bankruptcy. Third, Upsolve serves a large number of debtors in difficult financial circumstances who would meaningfully benefit from debt relief through bankruptcy but may be marginally deterred by barriers to filing. In particular, we estimate the causal effect of the $338 court fee on whether a debtor files using variation in eligibility for a waiver of the filing fee. We observe a significant number of debtors around the eligibility threshold, which is set at 150 percent of the Federal Poverty Level (FPL).

We provide new descriptive evidence on the reasons debtors consider bankruptcy and what predicts whether they ultimately file. We find that prospective filers most often cite falling behind on bills, job loss, and irresponsible spending as reasons for considering bankruptcy. Medical debt, frequently cited as the leading cause of filing for bankruptcy, plays a comparatively minor role. The financial benefit of filing, defined as dischargeable debt minus non-exempt assets and filing costs, is a key determinant of whether debtors follow through on filing. We estimate that a 10% increase in the financial benefit of filing increases the probability of filing by 0.6 percentage points. Nonetheless, many individuals forgo filing, leaving tens of thousands of dollars of potential debt relief on the table.

We use a regression discontinuity (RD) design around the fee waiver eligibility threshold and estimate that debtors are 7.8 percentage points (14%) more likely to file when they qualify for a waiver of the $338 filing fee in our preferred instrumental variables (IV) estimate. In our first

stage, we estimate a stark 89.1 percentage-point increase in fee waiver applications for prospective bankruptcy filers below the FPL threshold. We find no evidence of bunching or differences in prospective filers' characteristics around the threshold, supporting the validity of the research design. Our RD results are broadly robust to the included controls, bandwidth selection, kernel weights, and functional form. This effect is remarkably large given that waiver-ineligible non-filers above the threshold (150–250% of the FPL) have an estimated $46,971 of dischargeable debt on average (median $36,613) and the filing fee is just $338.[3] It is even starker given that 57.8% of waiver-ineligible filers within this income range pay the filing fee in installments.

Our RD results reveal that many "marginal filers" file if and only if they receive a fee waiver. In theory, by deterring these marginal filers, the filing fee could improve targeting efficiency. For example, one might conjecture that marginal filers are sensitive to the filing fee because their net financial gain from filing is small. Under this conjecture, the filing fee efficiently preserves the time and resources of court officials for individuals with the most to gain from filing. Using our unique setting, we show that this conjecture is false: marginal filers have *more* to gain from filing than typical filers.

Specifically, estimating our RD specification in disjoint subsamples, we find that the filing fee is a greater deterrent for individuals with higher debt. Consistent with these findings, nearly all Upsolve users report that they would be either unable to file (56.4%) or would need to delay filing (40.1%) if they had to pay for an attorney. More broadly, we find no evidence that marginal filers are less financially vulnerable than always takers. In this sense, we find no evidence that the filing fee improves targeting. If anything, the opposite is true: the fee worsens targeting by excluding individuals with above-average benefits from filing. This evidence is difficult to rationalize with a frictionless model in which filing choices depend solely on monetary benefits. Instead, it suggests that frictions such as misperceptions or stigma prevent debtors from obtaining a "fresh start", such that the marginal filer gains a great deal from bankruptcy.

We make two primary novel contributions. First, we demonstrate that the $338 fee to file for Chapter 7 bankruptcy is a prohibitive barrier for many. Even in our sample of debtors seriously

[3] We estimate dischargeable debt by mapping users' reported liabilities to the debt categories in Appendix Table A.4, which we flag as dischargeable or nondischargeable based on the bankruptcy code.

considering bankruptcy, the filing fee reduces the filing rate by 14%. Second, we show that the filing fee does not improve the targeting efficiency of bankruptcy protection: if anything, marginal filers who are deterred by the fee have more to gain from bankruptcy than typical filers. Our results suggest that even small, seemingly innocuous barriers to filing may prevent the most vulnerable debtors from accessing the benefits of debt relief through bankruptcy.

In related work, Gross et al. (2014) find that anticipated liquidity provided by tax rebates increased bankruptcy filings by 2% in 2001 and 6% in 2008 (when rebates were higher). Similarly, using variation in mortgage payment reductions, Indarte (2023) finds that increases in liquidity lead to more filings.[4] Relative to this earlier work, we contribute new evidence on liquidity barriers to filing by analyzing the causal effect of a direct policy choice – the filing fee and fee waiver eligibility threshold – and provide a rich characterization of who this excludes from debt relief through bankruptcy. Our focus on the filing fee is particularly relevant for policy: the Consumer Bankruptcy Reform Act of 2020 (Warren, 2020) includes a proposal for reducing the filing fee to increase bankruptcy access to vulnerable populations.

The large effect of the filing fee on filing has important implications for the design of bankruptcy policy. Prior work shows that discharging debt through bankruptcy improves finances, increases earnings, reduces mortality, and decreases mortgage default (Li et al., 2011; Dobbie and Song, 2015; Dobbie et al., 2017), and these effects could be especially large in our context given the vulnerability of the population we study. Imposing a filing fee as a barrier to accessing the benefits of bankruptcy will only increase welfare if it is more costly for the households who are more likely to abuse the bankruptcy system. We find little evidence that the debtors who are marginally deterred by the filing fee are those that policymakers might have intended to exclude. On average, they have dischargeable debt equivalent to 15 months of their monthly household income. While policymakers must weigh the cost of easier access to bankruptcy against higher costs and lower supply of credit (Mitman, 2016; Gross et al., 2021), our results show that even modest fees do not appear to be an effective screening tool. Liquidity constrained filers who cannot pay the filing fee may resort to Chapter 13 filings, which exhibit high rates of failure, despite having few assets to protect (Argyle

[4]Using variation in wage garnishment rules, Argyle et al. (2020) find that an additional $100 in monthly cash flows actually delays bankruptcy filing by an average of one month.

et al., 2023). This paper demonstrates that expanded eligibility for fee waivers, technology that lowers filing costs, and policy proposals that would allow Chapter 7 filers to pay filing costs over time (as is allowed in Chapter 13) would likely have outsized effects on the ability for low-resource households to access debt relief through bankruptcy.

Our research contributes to the literature on the bankruptcy filing decision and the implications for bankruptcy policy. Early papers used data from the Survey of Consumer Finances (SCF) and the Panel Study of Income Dynamics (PSID) to examine drivers of the filing decision and showed that the financial benefit, asset exemptions, stigma, and the option to file later all play a role (Gropp et al., 1997; White, 1998; Fay et al., 1998; Chakravarty and Rhee, 1999; Fay et al., 2002). Recent work focuses on the role of credit expansions (White, 2007; Skiba and Tobacman, 2019) and adverse shocks like job loss (Keys, 2018) and health events (Himmelstein et al., 2005; Dobkin et al., 2018a,b; Himmelstein et al., 2019; Gross et al., 2021). We contribute new evidence to the longstanding puzzle of why more debtors do not file for bankruptcy by analyzing granular new data on prospective filers who stand to gain considerably from filing – half of whom do not file. While a 10% increase ($4,219, on average) in the financial benefit from filing increases the probability of filing by 0.6 percentage points, this effect is an order of magnitude smaller than the effects of the filing fee, which suggests a very limited role for "strategic filing" in comparison to barriers to filing.

In this vein, we also contribute to the broader literature on how program design affects the take-up and targeting of social programs. While bankruptcy is an unusual social program in that the primary costs are borne by other borrowers (Gross et al., 2021) rather than taxpayers, the consequences of these policy choices are particularly significant given the magnitude of debt relief potentially available to eligible debtors. A central focus of this literature is how program design can encourage self-targeting, where individuals facing higher benefits from participation are more likely to enroll, thereby improving targeting efficiency (Nichols and Zeckhauser, 1982). Prior studies examine barriers to enrollment and found that notifying potential beneficiaries of their eligibility increases take-up of college financial aid (Bettinger et al., 2012), the Earned Income Tax Credit (Bhargava and Manoli, 2015; Linos et al., 2022), and the Supplemental Nutrition Assistance Program (Finkelstein and Notowidigdo, 2019). Deshpande and Li (2019) and Goda (2024) highlight how financial and administrative frictions can disproportionately deter higher-need populations,

undermining targeting efficiency. In contrast, (Rafkin et al., 2024) find that the social benefits from self-targeting generally exceed the social costs of ordeals in their analysis of eight major safety net programs. Our fee waiver RD provides new evidence on how financial barriers to access, even if small relative to the benefits of the program, can prevent interested recipients from accessing benefits. We find no evidence that the filing fee increases targeting efficiency and, if anything, is likely to deter prospective filers who would impose smaller credit market externalities given their smaller debt burden.[5]

The paper proceeds as follows. Section 2 provides background on the U.S. bankruptcy code and Upsolve. Section 3 describes the data. Section 4 describes our empirical framework. Section 5 describes the results. Section 6 concludes.

2 Setting

2.1 U.S. Bankruptcy Code

The U.S. bankruptcy code includes two chapters to discharge eligible debts through personal bankruptcy. We focus on Chapter 7, the most popular chapter.[6] In Chapter 7, a debtor discharges eligible debts and, in exchange, forfeits their non-exempt assets to repay creditors (US Courts, 2024c). Eligible debts typically include credit card debt, medical debt, utility bills, auto loans, personal loans, and payday loans.[7] Asset exemptions protect certain assets from being forfeited. Exemptions, which are specified both federally and by state, typically protect one's primary residence ("homestead"), motor vehicle, household essentials, health aids, jewelry, and professional implements. In addition, federal and most state exemptions include a "wildcard" exemption that protects some otherwise non-exempt property. Due to these generous rules, the average Chapter 7 debtor discharges $115,000 of debt and fewer than 5% of Chapter 7 debtors surrender any assets.[8]

[5] This is similar to the Shepard and Wagner (2023) result that increasing barriers to health insurance enrollment screens out some of the lowest risk beneficiaries.

[6] In Chapter 13 "reorganization", a debtor keeps their assets but establishes a judge-approved repayment plan: the debtor partially repays debts over three to five years. In 2023, 58% of bankruptcy filers chose Chapter 7 (US Courts, 2023).

[7] Secured debts are not discharged if the underlying collateral is retained (e.g., an auto loan linked to an exempt vehicle). Some other categories of debt, such as student loans or domestic support obligations, are typically not discharged either.

[8] See https://www.abi.org/abi-journal/chapter-7-asset-cases. Surrendered nonexempt assets are sold by a trustee to repay creditors, see Antill (2024) for details.

Debtors who discharge their debt through Chapter 7 are ineligible to file again for eight years and their credit reports include a bankruptcy flag for ten years (US Courts, 2024d).

This paper focuses on the process of filing for Chapter 7 bankruptcy. Access to Chapter 7 is limited in a few ways. First, a prospective filer must pass the "means test," which prohibits high-income individuals from filing for Chapter 7. This test was instituted in 2005 under the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA). Second, the filer must complete the required forms.[9] Third, the filer must pay the upfront costs of filing: (1) approximately $100 for mandatory pre-filing education courses,[10] (2) the court fee of $338,[11] and (3) attorney fees of approximately $2,000 if the debtor chooses to hire an attorney (O'Neill, 2023). Most filers work with an attorney, but 6.5% percent of filers file *pro se* (i.e., on one's own behalf) (Federal Judicial Center, 2024).

The Fee Waiver: Low-income filers can apply for a waiver of the $338 court filing fee. Specifically, a filer whose income is below 150% of the federal poverty line (FPL) is eligible to apply for a court fee waiver (US Courts, 2024b). If they are ineligible for a waiver, a filer may request to pay the $338 fee in up to four installments. The last installment must be paid within 120 days of the filing date (US Courts, 2024a).

2.2 Upsolve

We partner with Upsolve, a 501(c)(3) nonprofit organization that provides free online resources to help debtors in the United States understand their debt relief options, dispute or negotiate their debt, or file for personal bankruptcy. Most users arrive at Upsolve's website through web searches that lead them to their online resources, which include attorney-written articles on debt- and bankruptcy-related topics such as asset exemptions, debt collection practices, and wage gar-

[9] Required forms include: (1) a voluntary petition which initiates the bankruptcy filing; (2) schedules of assets, liabilities, income, and expenses; (3) a statement of financial affairs which covers any legal proceedings, property transfers, and other relevant financial activities; and (4) a statement of current monthly income used to confirm eligibility under the means test (US Courts, 2024c).

[10] BAPCPA requires filers to complete a credit counseling and post-filing debtor education course. Different course providers charge different fees. Regardless of the provider, debtors with incomes below 150% of the FPL are eligible to apply for a course-fee waiver for these courses. We do not observe these course-fee waivers in our data.

[11] The $338 court fee consists of a $245 filing fee, a $78 administrative fee, and a $15 trustee surcharge, payable upon filing the petition. The Chapter 7 court fee is constant throughout our study period. The fee was last adjusted in December 2020, increasing from $335 to $338 (Rao, 2020).

nishment.

Upsolve's leading service is a "TurboTax for Bankruptcy" application that helps qualified users prepare their Chapter 7 bankruptcy filing forms without incurring the cost of an attorney.[12] The application auto-populates users' Chapter 7 paperwork using their responses to a detailed questionnaire that covers sources of income, secured and unsecured debts, real and personal assets, expenses, and household characteristics.[13] At the end of the questionnaire, the application automatically assesses users' eligibility for the fee waiver and helps users complete the filing fee waiver application form. Roughly 17,000 debtors have discharged more than $750 million of debt using Upsolve's bankruptcy filing application since its founding in 2016.

Upsolve offers a valuable setting to study the bankruptcy filing decision. We observe all components of 18,055 users' filing forms, including asset and liability-level information. We also observe their demographics and motivations for filing, as measured in an intake survey. While all users in our sample completed their filing paperwork, only 9,356 (52%) ultimately filed, allowing us to compare filers and non-filers. We observe the same detailed information for both sets of users and can thus can explore a large set of observable factors that influence the filing decision. Further, 62% of users have incomes below the fee waiver eligibility threshold (150% FPL), which provides identifying variation for our regression discontinuity (RD) design. Debtors filing using Upsolve comprise 15% of *pro se* Chapter 7 filers over our sample period and 20% of *pro se* filers who do not own a home and filed individually (see Appendix Table A.1 and Appendix Figure A.2).

3 Data

We obtained deidentified data on 18,055 users who completed the bankruptcy filing forms using Upsolve's application between September 2021 and May 2025. We observe each field required to complete the forms including income, expenses, account-level assets and debts, and household structure. We also observe responses to an intake survey that asks users about: (i) their motivations for

[12] Access to the application is limited to debtors with comparatively simple bankruptcy cases, excluding debtors who own homes, plan to file jointly with a spouse, or are involved in personal injury lawsuits. The tool also does not serve users with high incomes that are likely to fail the means test. Upsolve instead connects these users with a bankruptcy attorney in their area.

[13] To assist users with filling out the questionnaire, Upsolve pulls their most recent credit report and pre-populates some fields.

considering bankruptcy, (ii) the other actions they have taken to improve their financial situation, (iii) whether they would file in the absence of Upsolve, and (iv) basic demographic questions. Upsolve tracks whether users applied for a fee waiver, whether they ultimately filed for bankruptcy, and whether filers received a discharge.[14]

Table 1 presents Upsolve user characteristics and how these characteristics correlate with decisions to file. The average Upsolve user is 42 years old, unmarried (80.9%), and female (62.0%). Nearly half (42.8%) have dependents and 32.1% receive some form of government benefits. Upsolve users are more likely to be Black (30.6%) than the national population. Filers tend to be older and are less likely to be married or have dependents. They are also more likely to receive government benefits. The most commonly cited reasons for considering bankruptcy are falling behind on bills (64.1%), job loss (37.3%), irresponsible spending (36.8%), and medical bills (24.3%).

Appendix Table A.1 compares the Upsolve sample to all Chapter 7 and Chapter 13 personal bankruptcy filers in the Federal Judicial Center (FJC) Integrated Database, which records all bankruptcy filings in the United States, during our sample period. Upsolve users have significantly lower monthly income ($2,006 vs. $3,772) and assets ($13,553 vs. $86,880) on average than Chapter 7 filers overall (see Appendix Figure A.3 for a comparison of the income distributions). Upsolve users have less debt overall ($80,366 vs. $128,198) than typical Chapter 7 filers, but this difference is driven entirely by secured debt such as mortgages. Upsolve users have as much unsecured non-priority debt, which is the most easily dischargeable debt in bankruptcy, as typical Chapter 7 filers ($67,299 vs. $67,775). Compared to typical Chapter 7 filers, Upsolve filers are much more likely to apply for a fee waiver (58.0% of Upsolve filers applied for a waiver, while only 4.0% of all Chapter 7 filers received a waiver).

Prospective filers face extreme financial hardship. The average Upsolve user has $80,366 in total debt, of which $48,218 is likely dischargeable through bankruptcy. In other words, by filing for bankruptcy, the average Upsolve user could discharge an amount of debt equal to over two years of their income. Appendix Tables A.3 and A.4 provide more detailed breakdowns of Upsolve users'

[14] We do not observe whether users ultimately received a filing fee waiver, or whether they applied for or received fee waivers for the pre-filing credit counseling or post-filing debtor education courses. Some providers automatically waive these fees if the US Bankruptcy Court waived the debtor's filing fee, while others require eligible debtors to complete a form requesting a fee waiver.

assets and liabilities, including an overview of available exemptions and debt dischargeability.

4 Empirical Framework

We use an RD design to estimate the causal effect of the $338 filing fee on the decision to file for bankruptcy. Our design exploits the threshold for fee waiver eligibility—income equal to 150% of the FPL. At this threshold, we estimate the discontinuity in applications for the fee waiver (and thus exposure to the filing fee). The running variable (income as a percentage of the FPL) is recorded when Upsolve evaluates the prospective filer's eligibility for the fee waiver, and users are notified of their eligibility after completing the questionnaire. Applying for the fee waiver is optional, but Upsolve automatically screens users for eligibility and 94% of eligible users complete the paperwork to apply. For a small number of users, eligibility can change (e.g., if they wait to file and their income shifts above or below the threshold). To account for this imperfect compliance, we use a "fuzzy RD design": we instrument for fee waiver applications using an indicator for whether the user's reported income exceeds 150% of the FPL.We estimate a two-stage least squares regression with the following first and second stage equations:

$$W_i = \alpha_0 + \alpha_1 E_i + \alpha_2(FPL_i - 150) + \alpha_3 E_i \times (FPL_i - 150) + \alpha_4 X_i + \gamma_s + \delta_t + \varepsilon_i \tag{1}$$

$$F_i = \beta_0 + \beta_1 \hat{W}_i + \beta_2(FPL_i - 150) + \beta_3 E_i \times (FPL_i - 150) + \beta_4 X_i + \gamma_s + \delta_t + \varepsilon_i. \tag{2}$$

In these equations, i indexes users, FPL_i is income as a percentage of FPL, E_i is an indicator for waiver eligibility (determined by $\mathbb{1}[FPL_i < 150]$), and W_i is an indicator for fee waiver application. Our outcome variable is F_i, an indicator for filing for bankruptcy. The running variable, $(FPL_i - 150)$, represents the percentage-point distance from the 150% eligibility threshold. The vector X_i contains controls for user characteristics. We include year-month fixed effects (δ_t) and state fixed effects (γ_s). Our coefficient of interest is β_1, the effect of receiving the fee waiver ($\hat{W}_i$) on filing (F_i).

Our baseline specification uses a 100 percentage-point bandwidth (50–250% of the FPL), as-

sumes linear relationships above and below the threshold, and uses uniform kernel weights.[15] We control for the number of days the user spent on the questionnaire, the log of each category of debt, the log of each category of assets, demographics, and indicators for users' reasons for considering bankruptcy. The demographic controls include a linear term for age (along with an indicator for age missing) and indicators for gender (female, other, or missing; male omitted), race (Black, Hispanic or Latino, other, or missing; white omitted), having dependents, being married, renting housing, having unstable housing, and receiving government income.

Our identifying assumption is that, absent the discontinuity in fee waiver eligibility, the filing rate and any relevant factors for the filing decision would trend smoothly through the discontinuity. In Appendix B, we show three tests that support this assumption. First, we present the McCrary (2008) and Cattaneo et al. (2020) tests for manipulation of the running variable, which could suggest selection into eligibility for the fee waiver. We find no evidence of bunching around the threshold, which is visually evident in Figure 1 and confirmed by the tests presented in Appendix Figure A.4 (p-values of 0.240 and 0.270, respectively). We also assess whether covariates trend smoothly through the discontinuity by estimating equations (1) and (2) with each of the covariates listed above as the dependent variable. These results are shown in Appendix Table A.5. As one would expect by random chance given the large number of tests, a small handful of covariates (2 out of 35) have statistically significant discontinuities at the threshold. We plot these covariates in Figure A.5 and note that discontinuities at 150% of FPL are not visually pronounced. Further, as described above, we flexibly control for these and other covariates. These controls *strengthen* our main estimates, rather than weakening them as one would expect if the changes in filing behavior were caused by factors other than the fee waiver.

In Table 2 we sequentially add controls for state and year-month fixed effects, debt, assets, demographics, and reasons for filing, controlling for questionnaire completion time in all specifications (our baseline specification in column (6) includes all controls). In Appendix B, we also show robustness to alternate RD specifications. To evaluate the bias-variance tradeoff, we vary the bandwidth from 10 to 150 percentage points and apply triangular kernel weights, which are inversely propor-

[15] Given our relatively limited sample size of 18,055 users, we select a 100 percentage-point bandwidth to increase precision while avoiding bias from users with incomes far from the threshold. In particular, zero-income users account for 18% of the full sample.

tional to the distance from the threshold. This bandwidth range includes the mean squared error (MSE) optimal bandwidth, based on the algorithm from Calonico et al. (2020), which we calculate as 39.8 and 43.5 percentage points when using uniform and triangular kernels, respectively.

5 Results

5.1 Predictors of the Filing Decision

We leverage our unique data to provide new descriptive evidence on two long-standing questions. First, what are the most important reasons debtors consider filing for bankruptcy? Second, why do so few debtors who would benefit follow through on filing?

There is widespread debate over the reasons debtors file for bankruptcy. We collect the self-reported reasons for considering bankruptcy in an intake survey of Upsolve users. This new dataset provides a larger sample of filers than the Consumer Bankruptcy Project (CBP), which has been recognized as the only systematic data collection on bankruptcy filers (Foohey et al., 2021). Table 1 Panel D summarizes these responses.[16] The most common reasons for considering bankruptcy are being behind on bills (64.1%), job loss (37.3%), and spending irresponsibly (36.8%). Medical reasons are often portrayed as a leading cause (Himmelstein et al., 2009, 2019), but only a quarter of Upsolve users list medical bills as a reason. Of those users, it comprises just 7.0% of outstanding debt, suggesting that medical bills play a meaningful role but are not themselves the leading cause of bankruptcy, as is frequently claimed.[17] Sickness and disability, income loss, and wage garnishment also appear to play meaningful roles as triggers for considering bankruptcy.

While the above characterization provides insight into why these debtors considered bankruptcy in the first place, it does not explain why – conditional on completing the paperwork to file – only 52% follow through with filing. The puzzle of why more households do not file for bankruptcy dates back to White (1998), who estimated that as many as 15 percent of households could increase their net worth by filing for bankruptcy. We update these estimates in Appendix Figure A.1, and find that 8.3 percent of households would increase their net worth by filing for Chapter 7 in the

[16] Appendix Table A.6 shows the most common combinations of reasons and Appendix Table A.7 shows the composition of debt by reason for considering bankruptcy.

[17] See, for example, "Health Care Costs Number One Cause of Bankruptcy for American Families" at the American Bankruptcy Institute. See Dobkin et al. (2018b) for some of the limitations of relying only on self-reports of filers.

2022 SCF but just 0.2 percent file.[18] By leveraging the granular data from users' filing forms, we can understand how financial factors like the composition of household balance sheets, sources of income, and the financial benefit from bankruptcy influence the decision to file.

Table 1 displays this information for the full sample, filers, and non-filers (Columns 1-3), the t-test of the difference in means (Columns 4-5), and the coefficient from a regression of an indicator for filing on the explanatory variable, controlling for income. Several relationships are worth highlighting. Surprisingly, not all debts are positively correlated with following through on filing in the Upsolve sample. Credit card and medical debt are strongly positively associated with filing, while auto debt and debt in collections are *negatively* associated with filing. The auto debt relationship may reflect an aversion to asset forfeiture, as these loans are secured by a vehicle and only dischargeable if the vehicle is surrendered. Debt in collections may be less of a factor because little of this debt is ever repaid and it has smaller financial consequences than other types of debt (Kluender et al., 2024). Upsolve users with more assets, particularly liquid assets, are much more likely to file, indicating that available resources may be an important driver of filing. Conditional on income, individuals who receive income from government benefits are more likely to file, potentially reflecting heightened economic need or lower perceived stigma associated with debt relief. Among the reasons for considering bankruptcy, job loss is the strongest predictor of filing. The other reasons for filing are largely similar across filers and non-filers.

Finally, we can reduce the dimensionality of this exercise and estimate the elasticity of the filing decision to the prospective financial gain from filing. Figure 2 Panel A plots the distribution of the financial benefit, defined as dischargeable debt minus non-exempt assets and the cost of filing. The mean financial benefit is $42,189 and the median benefit is $31,575. Given the low incomes within our sample (average monthly household income of $2,006), even those with smaller benefits may significantly increase their net worth by filing. Panel B shows that the financial benefit is strongly associated with the decision to file: a 10% increase in the benefit of filing increases the likelihood of filing by 0.6 percentage points (+1.2%). Our results echo the Fay et al. (2002) result in a much

[18] We see similar failures to take advantage of COVID debt relief programs, where a quarter of non-performing eligible government-sponsored enterprise (GSE) mortgages failed to take advantage of forbearance (Kim et al., 2024); income-driven loan repayment, where more than 60 percent of borrowers failed to re-certify their income and returned to their original payments (Herbst, 2023); and other government programs like the EITC (Bhargava and Manoli, 2015; Linos et al., 2022), SNAP (Finkelstein and Notowidigdo, 2019), and SSDI (Armour, 2018).

larger sample of marginal bankruptcy filers and a different bankruptcy policy regime.[19]

5.2 Effects of the Filing Fee

Figure 1 presents the first- and second-stage estimates from our baseline RD specification. Panel A presents the distribution of income, with the colors of the bars indicating who opted to apply for a fee waiver (red), apply to pay the fee in installments (blue), or pay the fee in full (green). Panel B plots the first-stage effect of income on application for the filing fee waiver, as estimated in equation (1). Users just below the threshold are 89.1 percentage points more likely to apply for the fee waiver than those just above the threshold. The majority of prospective filers who are ineligible for the fee waiver apply to pay the filing fee in installments rather than upfront, which provides a partial remediation of the liquidity barrier to filing for those above the threshold. As a result, we will understate the impacts of the $338 filing fee on the filing rate relative to a world in which the fee must be paid in full by everyone who does not receive a waiver.

Panel C of Figure 1 presents the second-stage estimates of the fee waiver on bankruptcy filing, as estimated in equation (2). We observe a positive relationship between income and filing below the fee waiver eligibility threshold that flattens above the threshold, and a clear discontinuity in filing at threshold. The $338 filing fee significantly reduces the likelihood of filing by 7.7 percentage points (14%, p-value < 0.001). We emphasize that this estimate reveals an extraordinary degree of sensitivity to the financial barriers prospective filers face in order to obtain debt relief. Non-filers just above the eligibility threshold forgo $46,971 of debt relief on average. This sensitivity would be difficult to generate in any theoretical model that does not include extreme binding liquidity constraints or perceived nonfinancial costs, like stigma, that generate ambivalence toward filing (making individuals more sensitive to small marginal barriers).

Our results are broadly robust to alternative specifications. Table 2 presents how our results change when we incrementally add controls for demographics, debt, assets, and reasons for considering bankruptcy (our baseline specification in column (5) includes the full set of controls). The

[19] Using the Panel Study of Income Dynamics from 1984 to 1995, Fay et al. (2002) show that a $1,000 higher financial benefit is associated with a 0.021 percentage-point (+7%) higher probability of filing. In the Upsolve sample, a $1,000 higher financial benefit (+2.4%) is associated with a 0.131 percentage-point (+0.3%) higher probability of filing. We observe 9,356 bankruptcy filings compared to the 254 in their sample.

RD estimate generally increases in magnitude with the number of controls, varying from 7.4 to 8.8 percentage points, and it remains significant at the 1% level. In Appendix Figure A.6, we vary the bandwidth from 10 to 150 percentage points and test triangular kernel weights. Under both kernels, the RD estimate holds steady between 6.5 and 9.5 percentage points until the bandwidth falls below 25 percentage points, after which the small sample size introduces noise. The 95% confidence interval around the estimate predictably widens with narrower bandwidths. The RD estimate remains significant at the 5% level up to a 35 percentage-point bandwidth in the uniform kernel specification and up to a 40 percentage-point bandwidth in the triangular kernel specification. Our estimate remains robust at the MSE-optimal bandwidth under both kernels (39.8 percentage points for uniform and 43.5 for triangular).[20]

5.3 Who Does the Filing Fee Prevent from Filing?

Our results show that the filing fee significantly deters bankruptcy filings, even among debtors who are strongly considering bankruptcy. We estimate that the filing fee causally reduces the filing rate by 7.7 percentage points, despite amounting to less than 1% of the average potential debt discharge in our sample. The filing fee is thus a meaningful barrier to bankruptcy access for many potential filers. We now analyze whether this barrier improves the targeting efficiency of bankruptcy. In the targeting literature, the efficiency of a barrier is typically assessed by characterizing the compliers who are deterred by the barrier (Kleven and Kopczuk, 2011). We implement this standard approach by estimating the characteristics of the compliers who file if and only if they receive a fee waiver.

Analyzing the efficiency of the filing fee is particularly relevant for policy given recent changes to the bankruptcy code and active proposals for reform. The 2005 BAPCPA reform aimed to prevent "strategic" bankruptcy filings by opportunistic consumers who could have otherwise repaid their debts. BAPCPA implemented a number of barriers to filing that are similar in character to the filing fee (e.g., mandatory credit counseling and post-filing debtor education courses that must be paid for by the debtor) which have substantially reduced filings (Gross et al., 2021). Understanding which debtors are marginally deterred by the filing fee can inform our understanding of these reforms,

[20] Detailed regression output and RD plots are shown for selected bandwidths (149, 100, 75, and 50 percentage-point and MSE-optimal) are shown in Appendix Table A.8 and Appendix Figure A.7.

as well as the potential effects of the filing fee reduction proposed in the Consumer Bankruptcy Reform Act of 2020 (Warren, 2020). We estimate the characteristics of those who are marginally deterred by the filing fee using two complementary approaches that produce the same conclusion: Debtors deterred from filing by the fee are just as vulnerable as those who pay the fee and file. If anything, the deterred compliers have *more* to gain from filing than typical filers. In this sense, the filing fee worsens the targeting efficiency of the bankruptcy code.

The magnitudes of our RD treatment effect estimates (β_1 in equation (2)) capture the extent to which the filing fee deters filings. If the treatment effect is larger for some populations, that suggests that fee waivers are a more significant deterrent for that population. Accordingly, if the treatment effect is larger in subsamples of debtors who the bankruptcy code is designed to help (and smaller in subsamples of debtors who may be more opportunistic), that suggests that the filing fee might be increasing Type I errors (i.e., screening out debtors the bankruptcy code is designed to help).

We implement subsample RDs for a given binary variable X by estimating our main RD specification separately for the subsample in which $X = 1$ and the subsample in which $X = 0$. We control for only state and year-month fixed effects and questionnaire completion time, aligning with the specification in column (1) of Table 2.

Table 3 presents the subsample RD estimates in columns 1-7 (corresponding figures can be found in Appendix Figure A.8). Filing fees are more likely to deter filings among those who are more financially constrained: the RD estimate is 3.2pp larger for those with less than $10,000 of assets and 1.7pp larger for those with over $50,000 of debt. Prospective filers with limited assets and high levels of debt are the most likely to benefit from the "fresh start" that a Chapter 7 discharge offers. Filing fees appear to be an even lager deterrent for debtors with more to gain from bankruptcy.

Additionally, our subsample RDs reveal interesting heterogeneity in treatment effects across individuals with different types of debt. We estimate larger RD estimates for prospective filers with more than $10,000 of credit card debt (8.3pp vs. 6.8pp), which tends to carry high interest rates and is easily dischargeable in bankruptcy. We also estimate larger effects for those with non-zero medical debt (11.0pp vs. 6.0pp), who may be struggling in the aftermath of a negative health shock, and those with student loan debt (10.7pp vs. 4.5pp). Student loan debt is generally not

dischargeable through bankruptcy. The larger effects for this subsample could imply that these debtors struggle to service their overall portfolio of debt. We also find document treatment effects which vary across demographics. RD estimates are larger for debtors who are non-white (4.8pp) and single (3.4pp). We are generally underpowered to test for the statistical significance of these differences between the subsample RDs, but the strong statistical significance for the highlighted subsample RD estimates in isolation makes it clear that the filing fee is particularly binding for debtors who need debt relief from bankruptcy the most.

6 Conclusion

Consumer bankruptcy provides an important form of insurance for US households: Chapter 7 bankruptcy filings discharge $115,000 of debt on average (US Courts, 2023). Despite these benefits, only a small share of debtors who would benefit from filing file in any given year. Nevertheless, the generous nature of the bankruptcy option has drawn attention from policymakers concerned about abuse who have instituted a number of barriers to accessing debt relief to deter these cases. Understanding who files for bankruptcy and who is marginally deterred by barriers to filing for bankruptcy is essential for evaluating ongoing efforts at reforming the bankruptcy code.

We study a unique proprietary dataset covering 18,055 debtors who have completed all of their paperwork to file for bankruptcy, only 52% of whom file. We find that prospective filers most often cite falling behind on bills, job loss, and irresponsible spending as reasons for considering bankruptcy. The financial benefit from filing helps explain whether a debtor follows through on filing for bankruptcy; a 10% increase in the financial benefit of filing increases the probability of filing by 0.6 percentage points. Nevertheless, nearly half the sample is leaving tens of thousands of dollars on the table by not filing.

We study the effect of one barrier to accessing debt relief through bankruptcy, the $338 filing fee, on filing. In an RD design comparing prospective filers around the eligibility threshold for a filing fee waiver at 150% of the FPL, we estimate that the filing fee causally reduces filings by 7.7 percentage points (14%). Those marginally excluded from filing forgo an average of $46,971 of debt relief.

The targeting efficiency of the filing fee depends on whether those marginally deterred from

filing for bankruptcy are the intended targets of the policy. We find that the deterrence effects of the filing fee are larger for those who appear to be good candidates for relief, including those with less than $10,000 in assets and more than $50,000 in debt. In a high-stakes setting, our results show how even small financial barriers to accessing government benefits and programs can have outsized consequences for the most vulnerable. Similar barriers appear across various government programs, including naturalization fees, GED testing fees, professional licensing fees, unemployment insurance job-search workshops, Medicaid buy-in premiums, and small business license application fees, highlighting the widespread relevance of our findings for policies where upfront costs may limit access for vulnerable populations.

Our results are relevant for ongoing debates over the bankruptcy code and regulations on technology providing financial assistance. Our effects on the targeting efficiency of the filing fee suggests that the aspects of the recently proposed Consumer Bankruptcy Reform Act of 2020 that aim to simplify the filing process and reduce filing fees are likely to improve access for vulnerable households. Our results are also relevant for the ongoing debate over whether to allow technology to automate legal and financial advice. Given the high cost of legal representation and capacity constraints of non-profits, the software tool we study in this paper expands access to financial services and debt relief for the sample we study — 96.5% of whom say they would be unable to file without access to the tool.

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Table 1. Summary Statistics and Predictors of Filing

	Means			t-test		Filed $\sim X_i$	
	Full sample	Filers	Non-filers	Difference	p	Coefficient[1]	p
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Demographics and household characteristics							
Age (years)	41.7	42.7	40.6	2.1	0.000	0.1	0.000
Male (%)	36.7	37.3	36.2	1.1	0.146	1.0	0.199
Female (%)	62.0	61.6	62.4	-0.8	0.273	-0.8	0.295
Black (%)	30.6	31.0	30.1	0.9	0.238	0.8	0.329
Hispanic or Latino (%)	13.1	12.8	13.4	-0.6	0.221	-1.7	0.141
White (%)	57.8	57.4	58.3	-0.9	0.268	-1.3	0.090
Has dependents (%)	42.8	41.1	44.6	-3.5	0.000	-3.4	0.000
Married (%)	19.1	17.6	20.7	-3.0	0.000	-5.1	0.000
Government benefits (%)	32.1	33.0	31.1	1.9	0.006	4.8	0.000
Monthly household income ($)	2,006	2,059	1,948	110	0.000	.	.
Panel B: Household assets							
Total assets ($)	13,553	14,142	12,920	1,222	0.000	2.4	0.000
Liquid financial assets ($)	475	513	434	78	0.000	2.9	0.000
Vehicle assets ($)	6,859	7,157	6,538	619	0.000	0.6	0.000
Panel C: Household debt							
Total debt ($)	80,366	84,955	75,427	9,528	0.000	5.3	0.000
Unsecured debt ($)	71,288	76,423	65,763	10,660	0.000	5.8	0.000
Dischargeable debt ($)	48,218	51,974	44,176	7,797	0.000	8.8	0.000
Alternative debt ($)	456	492	417	75	0.003	0.4	0.001
Auto debt ($)	13,519	12,875	14,213	-1,338	0.000	-0.6	0.000
Credit card debt ($)	17,769	20,596	14,728	5,868	0.000	2.9	0.000
Debt in collections ($)	5,721	5,916	5,511	405	0.007	-0.7	0.000
Medical debt ($)	1,834	2,024	1,630	394	0.001	1.0	0.000
Student debt ($)	23,380	24,680	21,981	2,698	0.000	0.1	0.341
Other debt ($)	15,394	16,179	14,551	1,628	0.001	0.3	0.000
Panel D: Reasons for considering bankruptcy							
Behind on bills (%)	64.1	62.7	65.7	-3.0	0.000	-2.2	0.022
Lost job (%)	37.3	37.4	37.3	0.1	0.924	3.0	0.001
Spent irresponsibly (%)	36.8	35.8	37.8	-2.0	0.009	-1.6	0.064
Medical bills (%)	24.3	23.1	25.7	-2.6	0.000	-2.0	0.049
Sick or disabled (%)	22.3	21.8	22.9	-1.0	0.118	0.8	0.438
Hours or pay cut (%)	20.0	20.2	19.9	0.3	0.656	1.9	0.070
Wages garnished (%)	12.6	12.5	12.7	-0.2	0.709	0.1	0.928
Divorce (%)	11.1	10.6	11.7	-1.0	0.041	-1.6	0.214
Other reason (%)	51.0	51.2	50.8	0.4	0.637	1.5	0.079
Observations							
N	18,055	9,356	8,699				

Notes: Columns (1) to (3) present summary statistics for the full Upsolve sample, those who file for bankruptcy, and those who do not file. Columns (4) and (5) report the difference in means between filers and non-filers and the p-value from the difference in means t-test. Columns (6) and (7) report the estimated coefficient from an OLS regression of an indicator for filing on the respective characteristic, controlling for income as a percent of the FPL (n Panel E, we additionally control for the number of reasons for considering bankruptcy that the user reported). Users who do not report gender, ethnicity, age, or reasons for considering bankruptcy are excluded from the respective statistics and regressions. The variables in Panels C and D are winsorized at the 99^{th} percentile conditional on being non-zero.

[1]For dollar-based variables, we apply a log transformation before estimating the coefficient. We add one before taking the log to avoid dropping zeroes.

Table 2. Estimated Effect of the Fee Waiver on the Decision to File

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Reduced form (Filed ∼ Below 150% FPL)						
Below 150% FPL (E_i)	6.6	6.9	7.4	7.4	7.2	6.9
	(1.8)	(1.8)	(1.8)	(1.8)	(1.8)	(1.8)
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Panel B: First stage (Waiver ∼ Below 150% FPL)						
Below 150% FPL (E_i)	89.8	89.3	89.3	89.3	89.1	89.1
	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Panel C: Second stage (Filed ∼ $\tilde{Waiver}$)						
Waiver ($\hat{W}_i$)	7.4	7.8	8.3	8.3	8.1	7.8
	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)	(2.0)
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
R^2	0.003	0.018	0.047	0.054	0.064	0.070
Observations						
N	11,390	11,390	11,388	11,388	11,388	11,388
Controls						
Questionnaire duration	Yes	Yes	Yes	Yes	Yes	Yes
Year-month FE	No	Yes	Yes	Yes	Yes	Yes
State FE	No	Yes	Yes	Yes	Yes	Yes
Debt	No	No	Yes	Yes	Yes	Yes
Assets	No	No	No	Yes	Yes	Yes
Demographics	No	No	No	No	Yes	Yes
Reasons	No	No	No	No	No	Yes

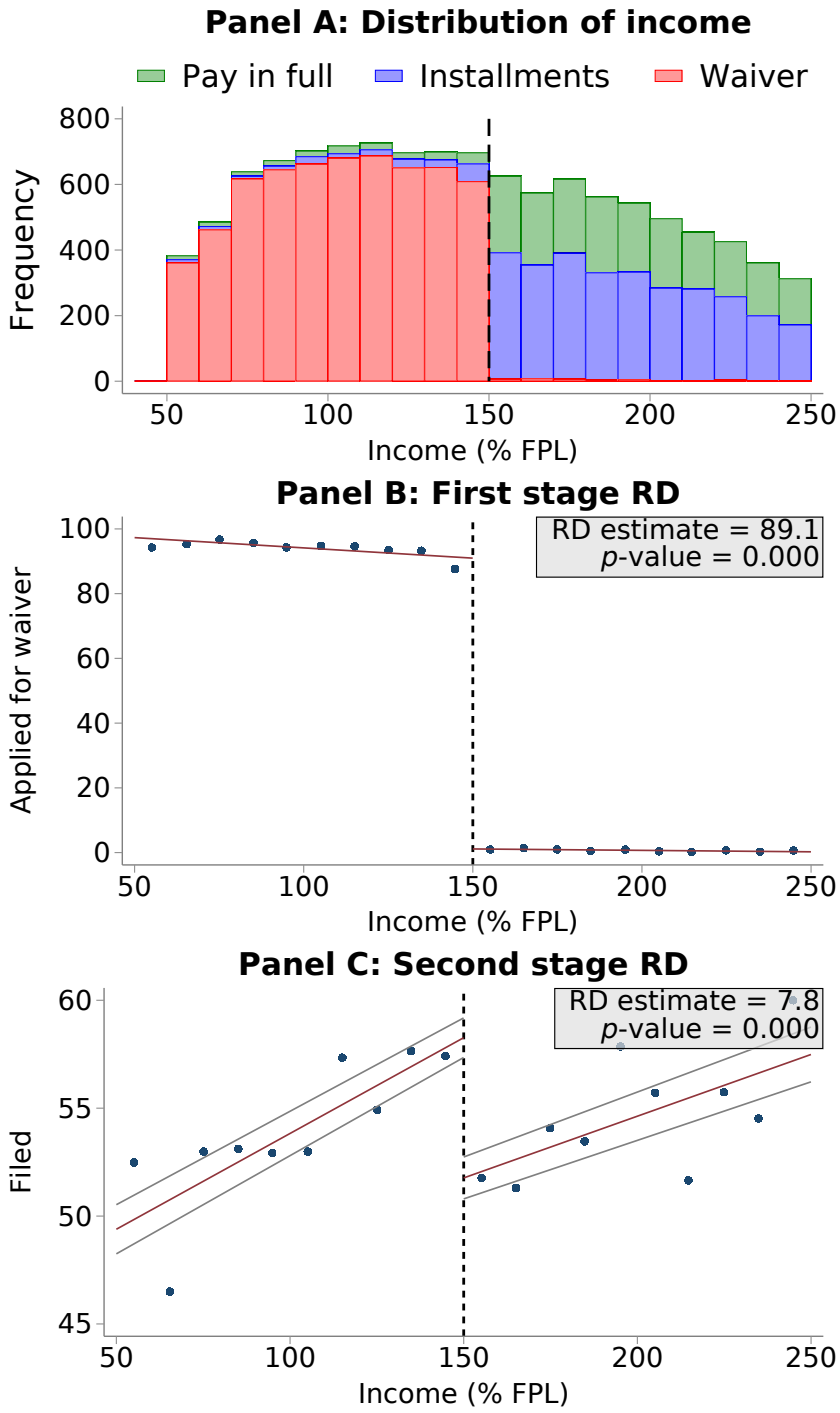
Notes: Table presents linear RD estimates from the Upsolve fuzzy RD model outlined in equations (1) and (2), using a 100-percentage-point bandwidth. Columns incrementally control for questionnaire completion time, state and year-month fixed effects, debt, assets, demographics, and reasons for considering bankruptcy (these controls are outlined in Section 4). For each specification we present first-stage (Panel B) and second-stage (Panel C) estimates, as well as reduced-form estimates from the OLS regression of filing on fee waiver eligibility (Panel A). Robust standard errors and p-values are reported in parentheses and square brackets, respectively, below the point estimates. At the bottom of Panel C we present the R^2 from the second-stage model.

Table 3. Heterogeneous Treatment Effects

	X=1			X=0			Difference	
	β_1	p	N	β_1	p	N	Diff.	p
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Demographics								
Female	5.67	0.031	6,814	6.16	0.090	3,646	-0.49	0.912
	(2.63)			(3.63)			(4.48)	
Non-white	9.74	0.003	4,295	4.94	0.079	6,051	4.80	0.267
	(3.29)			(2.81)			(4.32)	
Married	5.37	0.233	2,391	8.74	0.000	8,999	-3.37	0.503
	(4.51)			(2.26)			(5.04)	
Has dependents	7.82	0.008	5,478	7.36	0.009	5,912	0.46	0.909
	(2.93)			(2.82)			(4.07)	
Panel B: Household assets and debts								
Assets below $10K	9.61	0.001	6,201	6.43	0.029	5,189	3.18	0.433
	(2.80)			(2.94)			(4.06)	
Liquid assets below $200	8.01	0.005	5,883	8.46	0.003	5,507	-0.46	0.910
	(2.84)			(2.87)			(4.04)	
Owns vehicle	8.53	0.000	7,961	5.59	0.137	3,429	2.94	0.510
	(2.40)			(3.76)			(4.46)	
Debt over $50K	8.49	0.001	6,494	6.84	0.030	4,896	1.66	0.685
	(2.61)			(3.14)			(4.09)	
Credit card debt over $10K	8.32	0.002	5,870	6.41	0.031	5,518	1.91	0.634
	(2.70)			(2.97)			(4.01)	
Has auto debt	8.27	0.001	7,193	6.83	0.039	4,195	1.44	0.730
	(2.54)			(3.31)			(4.17)	
Has medical debt	11.03	0.001	3,622	6.04	0.016	7,766	4.99	0.235
	(3.37)			(2.51)			(4.20)	
Has debt in collections	7.68	0.003	7,498	6.66	0.043	3,890	1.02	0.805
	(2.55)			(3.29)			(4.16)	
Has student debt	10.72	0.000	5,639	4.52	0.115	5,749	6.21	0.125
	(2.86)			(2.87)			(4.05)	
Panel C: Financial benefit from filing								
Fin. benefit over $30K	7.84	0.005	5,695	8.39	0.004	5,695	-0.54	0.893
	(2.80)			(2.87)			(4.01)	
Panel D: Reasons for considering bankruptcy								
Behind on bills	8.42	0.002	6,442	4.24	0.250	3,552	4.18	0.360
	(2.70)			(3.69)			(4.57)	
Lost job	4.00	0.331	2,846	8.35	0.001	7,148	-4.35	0.370
	(4.12)			(2.56)			(4.85)	
Spent irresponsibly	8.08	0.021	3,744	6.80	0.014	6,250	1.27	0.776
	(3.51)			(2.77)			(4.47)	
Medical bills	14.01	0.001	2,490	5.40	0.032	7,504	8.61	0.084
	(4.31)			(2.52)			(4.99)	
Sick or disabled	13.31	0.006	2,064	5.77	0.017	7,930	7.54	0.164
	(4.85)			(2.42)			(5.42)	
Hours or pay cut	17.16	0.000	2,175	4.23	0.087	7,819	12.94	0.013
	(4.57)			(2.47)			(5.19)	

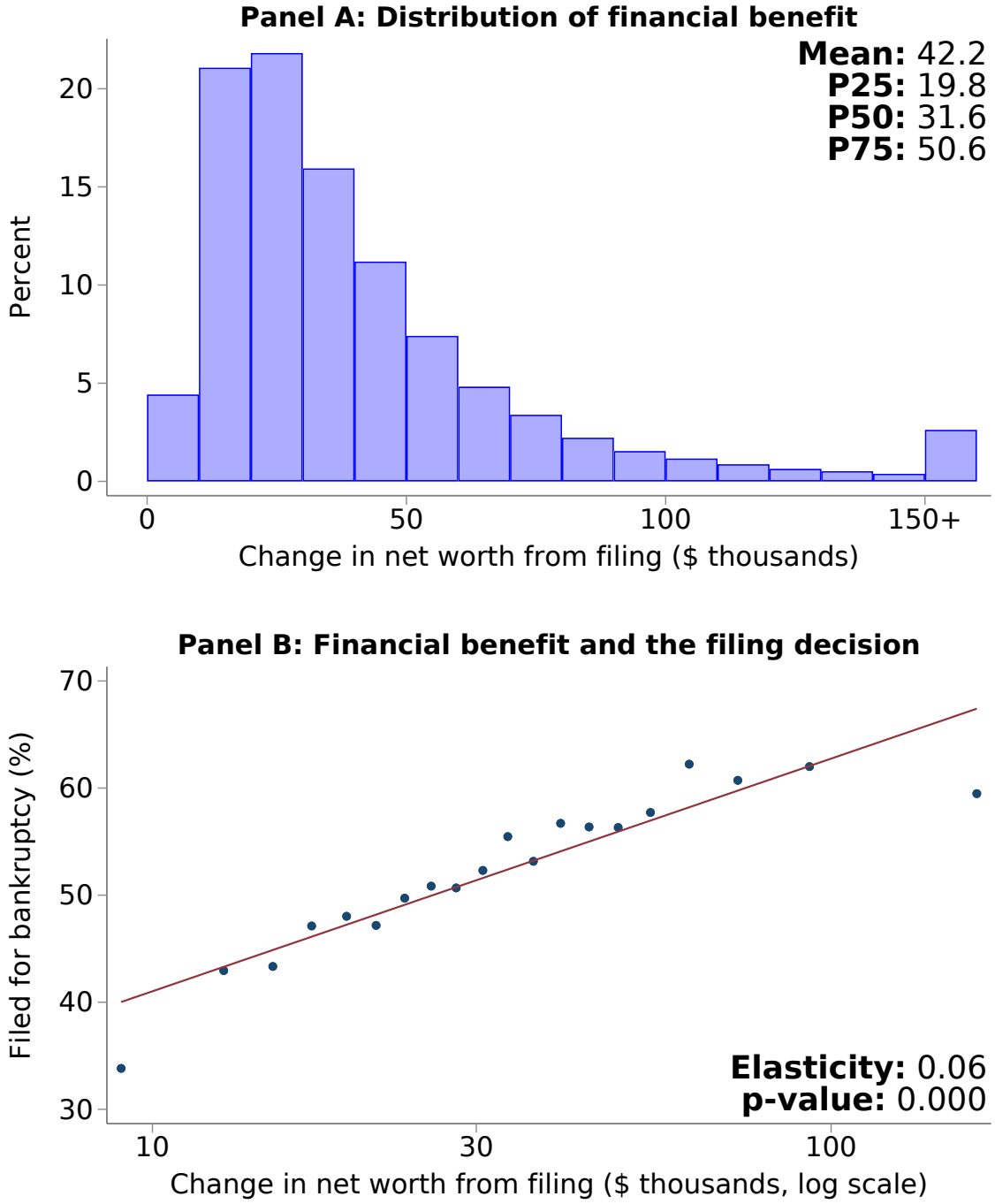
Notes: Table presents linear RD estimates for sub-groups based on binary characteristics defined prior to treatment. We use a 100 percentage-point bandwidth and control for questionnaire completion time and state and year-month fixed effects. Columns (1) and (4) show coefficient estimates with standard errors below in parentheses. Columns (2) and (5) show p-values, and columns (3) and (6) show sample sizes. Column (7) presents the difference in sub-group RD estimates, and Column (8) presents the p-value of this difference. Users who do not report gender, ethnicity, or reasons for considering bankruptcy are excluded from the respective sub-group regressions.

Figure 1. Distribution of Applicant Income and Regression Discontinuity Estimation



Notes: Panel A presents the distribution of income as a percent of the FPL within a 100 percentage-point bandwidth, highlighting users who applied for a fee waiver, applied to pay the fee in installments, or opted to pay the fee in full. Panel B shows the first-stage effect of fee-waiver eligibility (income below 150% FPL) on fee waiver application, and Panel C shows the second-stage effect on filing for bankruptcy. We control for questionnaire completion time, state and year-month fixed effects, debt, assets, demographics, and reasons for considering bankruptcy. The RD estimate and corresponding p-value is included in the top right of panel C. Dots show the mean waiver application and filing rates for 20 quantile income bins. Solid lines are fitted values from first-order polynomials, and gray lines represent 95% confidence intervals.

Figure 2. Upsolve Financial Benefit from Filing and the Filing Decision



Notes: Figure shows the distribution of Upsolve users' financial benefit from filing (Panel A) and the relationship between the financial benefit (on a log scale) and the likelihood of filing (Panel B). The financial benefit from filing is the change in net worth one would experience if they filed for Chapter 7 bankruptcy, calculated using Equation A. The financial benefit is deflated to August 2024 prices and winsorized the at the 99^{th} percentile. In Panel B, the binned scatterplot includes 20 quartile bins, and the red line represents a fitted line from the regression of the filing decision on log financial benefit. The estimated elasticity and p-value from this regression are in the bottom right of the plot.

A Financial Benefit from Filing

Following White (1998), we calculate the percent of US households that would benefit from filing for Chapter 7 bankruptcy using data from the Survey of Consumer Finances (SCF). The financial benefit from filing is defined as the increase in net worth that results from filing. Bankruptcy affects a household's net worth through (1) the relief of dischargeable debts, (2) the sale of nonexempt assets, and (3) the imposition of bankruptcy filing costs (the filing fee, legal costs, and required course fees). We calculate the financial benefit from bankruptcy as follows:

$$Benefit_i = max(Discharged_i - Nonexempt_i - Fee, 0)$$

Asset exemptions are set at the state level; however, 19 out of 50 states and Washington, D.C. allow filers to select between state exemptions and federal exemptions. In these states, filers cannot mix and match state and federal exemptions – they must apply the same set of exemptions across all assets. State exemptions can vary widely, with some states much more or less generous than the federal exemptions. Table A.9 shows the main exemptions that are typically included, along with the current federal limits. In the federal exemptions and in many states, married couples who file jointly may claim two sets of exemptions.

In our calculation, we apply the federal exemptions to all households because the publicly available SCF data does not include information on each respondent's state of residence. We assume that all households would use all available exemptions, including the wildcard and unused homestead exemptions. Assets can be partially exempt – in this case, the bankruptcy trustee would liquidate the asset, return the exempt portion of its value in cash to the filer, and use the remaining proceeds to repay debts. This exercise requires two assumptions about how individuals apply exemptions. First, if an individual has multiple assets in the same category, we assume that the individual would exempt the more higher-equity asset first. Second, when applying the wildcard and unused homestead exemptions, we assume individuals prioritize the following categories of assets in the following order: homestead, motor vehicles, investment properties, non-motor vehicles, actively managed businesses, jewelry, miscellaneous assets of significant value (e.g., electronics, art). Table A.10 presents an example of how we apply exemptions.

Next, we calculate dischargeable and nondischargeable debt. Dischargeable debt includes credit card debt, other consumer debt (e.g., charge cards, buy now pay later, personal loans), and secured debt associated with nonexempt assets. Nondischargeable debt includes student debt and secured debt associated with exempt assets.

Finally, we update the framework from White (1998) by showing what portion of households that would financially benefit from bankruptcy are actually eligible to file. The Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) of 2005 implemented a new means test that imposed Chapter 7 eligibility requirements on bankruptcy filers. Previously, all prospective filers could select between Chapter 7 and Chapter 13. The means test is implemented in two steps. First, if an individual's monthly income is less than their state's median monthly income for their household size, they are automatically eligible. Second, if a person fails this initial test, the user is exempt if their projected disposable income over five years (i.e., monthly income times 60 less allowable living expenses such as housing, utilities, and food) is less than 25% of outstanding nonpriority unsecured debts. Given limited data on allowable expenses, we determine eligibility using only the first step of the means test. Because state data is not available, we compare users' monthly income to the population-weighted average state median income, based on the state medians provided by US Trustee Program (2024) that align with the most months of the SCF data collection period.

The results are shown below in Figure A.1.

B Regression Discontinuity Specification and Robustness

This section investigates potential threats to our primary empirical specification and assesses robustness to alternate specifications. As described in Section 4, we use a regression discontinuity design to estimate the causal effect of the $338 filing fee on the decision to file for bankruptcy. Our running variable is income as a percent of the federal poverty line and the discontinuity is at 150% FPL, the threshold below which individuals are eligible for the fee waiver.

Figure A.9 shows the distribution of our running variable for the full sample, excluding a handful of positive outliers. The color of the stacked bars indicates who applied for a fee waiver, applied to pay the fee in installments, or opted to pay the fee in one lump-sum payment. While there is a strong discontinuity in the probability of waiver application around the threshold, it does not jump from zero to one, motivating our use of a fuzzy RD design. This imperfect compliance is unlikely to be driven by lack of knowledge about the fee waiver, because Upsolve automatically calculates eligibility and encourages eligible users to apply. However, users may wait to file after completing their questionnaire and retroactively update their income if it changes, potentially shifting eligibility for the waiver.

Equations (A.1) and (A.2) outline the first- and second-stage equations of our fuzzy RD model (equivalent to equations (1) and (2) in the main text). FPL_i denotes the running variable, income of a percent of the FPL. E_i denotes eligibility for the fee waiver, determined by $FPL_i - 150 < 0$. W_i is an indicator for fee waiver application, and F_i is an indicator for filing for bankruptcy. γ_s and δ_t are state and year-month fixed effects, respectively. X_i controls for days spent on the questionnaire, demographics, reasons for considering bankruptcy, and the log of each debt and asset category. The demographic controls include a linear term for age (along with an indicator for age missing) and indicators for gender (female, other, or missing; male omitted), race (Black, Hispanic or Latino, other, or missing; white omitted), having dependents, being married, renting housing, having unstable housing, and receiving government income.

$$W_i = \alpha_0 + \alpha_1 E_i + \alpha_2 (FPL_i - 150) + \alpha_3 E_i \times (FPL_i - 150) + \alpha_4 X_i + \gamma_s + \delta_t + \varepsilon_i \tag{A.1}$$

$$F_i = \beta_0 + \beta_1 \hat{W}_i + \beta_2 (FPL_i - 150) + \beta_3 E_i \times (FPL_i - 150) + \beta_4 X_i + \gamma_s + \delta_t + \varepsilon_i \tag{A.2}$$

In our primary specification, we use a 100 percentage-point bandwidth around the threshold. We use a uniform kernel, which applies equal weight to all observations within the bandwidth. We assume the relationship between income (% FPL) and filing has a linear functional form, and we allow the slope of this relationship to vary above and below the threshold. Under these assumptions, we estimate the fee waiver increases the probability of filing by 7.7 percentage points (14%, $p < 0.001$). Section B.1 tests robustness of our main estimate to varying each of these assumptions, and Section B.2 presents a series of tests to support our identification assumption.

B.1 Robustness to Bandwidth, Kernel, and Functional Form

Bandwidth: When setting the RD bandwidth, we face a trade-off between maximizing power and minimizing bias from observations further from the cutoff. Panel A of Figure A.6 illustrates how our RD estimate varies with bandwidths ranging from 10 to 150 percentage points, and Panel C shows how our sample size is affected. Table A.8 and Figure A.7 show regression output and RD plots for a handful of these bandwidths, including the mean squared error (MSE) optimal bandwidth calculated using the algorithm from Calonico et al. (2020). Our sample size drops off

steadily with narrower bandwidths. Our RD estimate holds steady between 6.5 and 9.5 percentage points until the bandwidth falls below 25 percentage points, after which the estimate fluctuates given the smaller sample size. As expected, the 95% confidence interval widens with narrower bandwidths, and the RD estimate loses significance at the 5% level once the bandwidth falls below 35 percentage points. The red vertical line in Figure A.6 denotes the MSE-optimal bandwidth of 39.8 percentage points, which restricts the sample to 5,172 users (29% of the full sample). While our RD estimate is robust to this bandwidth, we set the bandwidth at 100 percentage points in our baseline specification to increase precision with a larger sample size of 11,390 users (63%) while avoiding bias from users with substantially different income levels.

Kernel Weights: Another way of managing the bias-variance trade-off is to reweight observations based on their distance from the cutoff. Our baseline specification uses a uniform kernel (also called a rectangular kernel), which applies equal weight to all observations within the bandwidth. We test robustness to using a triangular kernel, which weights observations inversely proportionately from their distance from the cutoff. Compared to a uniform kernel, a triangular kernel reduces bias from observations further from the cutoff but reduces power. We select the uniform kernel in our baseline to preserve power. Panel B of Figure A.6 shows that our RD estimate is broadly robust to applying triangular kernel weights (see also Table A.8 and Figure A.7). As with the uniform kernel, the RD estimate holds steady near 8 percentage points until the bandwidth falls below 25 percentage points. The RD estimate loses significance at the 5% level once the bandwidth narrows to 40 percentage points, a bit earlier than with the uniform kernel. As a result, our RD estimate is insignificant when we apply both the MSE-optimal bandwidth (now 43.5 percentage points) and triangular kernel weights. However, because the magnitude and direction of the estimate are robust in this specification, we view this insignificance as a result of power constraints rather than poor identification.

B.2 Examining Our Identification Assumption

Our main identification assumption is that within the 100 percentage-point bandwidth, users just above and below the 150% threshold are similar in all observed and unobserved characteristics, ensuring that that a discontinuous jump in filing behavior around the threshold is caused by the fee waiver rather than by other factors. If individuals manipulate their income to affect their fee waiver eligibility, this assumption will be violated. We present three pieces of evidence that suggest our identification assumption holds.

Manipulation Tests: First, we test for manipulation of the running variable at the cutoff using the tests proposed by McCrary (2008) and Cattaneo et al. (2020). These tests estimate density functions above and below the cutoff and examine whether there is a significant jump in density at the cutoff. As shown in Figure A.4, the p-values are 0.240 and 0.270, respectively, indicating there is no significant discontinuity. These results suggest that individuals do not strategically manipulate their reported income to qualify for the fee waiver.

Covariate Balance: Second, we check for covariate balance by examining discontinuities in covariates at the cutoff. For each covariate, we estimate a linear RD with the covariate as the outcome variable, income (% FPL) as the running variable, and no fixed effects or control variables. Following our baseline model, we use a 100 percentage-point bandwidth and a uniform kernel. The results are shown in Table A.5. Among the 35 covariates, two have significant discontinuities at the 150% cutoff: marital status and receipt of government benefits. Figure A.5 visually presents these

discontinuities with RD plots. Given the large number of tests, some false positives are expected. Further, the magnitudes of these discontinuities are relatively small, so we do not believe they pose a threat to identification.

Appendix Tables

Table A.1. Summary Statistics of Upsolve Users vs. All Chapter 7 Filers

	Upsolve			FJC	
	All (1)	Non-Filers (2)	Filers (3)	Ch. 7 (4)	Ch. 13 (5)
Panel A: Filing characteristics (%)					
Chapter 7	.	.	99.9	100.0	0.0
Applied for waiver	59.0	60.1	58.0	.	.
Received fee waiver	.	.	.	4.0	0.0
Pro se	.	.	98.7	6.7	7.5
Panel B: Filing outcomes (%)					
Discharged	.	.	69.8	81.7	1.2
Panel C: Monthly income ($)					
Monthly household income	2,006	1,948	2,059	3,772	5,215
Panel D: Assets ($)					
Total assets	13,553	12,920	14,142	86,880	171,553
Panel E: Debts ($)					
Total debt	80,366	75,427	84,955	128,198	181,299
Secured debt	8,497	8,813	8,204	59,036	130,320
Unsecured priority debt	3,701	3,441	3,942	2,402	4,504
Unsecured non-priority debt	67,299	61,977	72,245	67,775	59,565
Panel F: Region (%)					
Northeast	14.2	13.6	14.8	11.4	10.2
Midwest	23.7	25.2	22.3	27.6	22.2
South	33.5	34.8	32.2	35.6	55.9
West	28.7	26.5	30.7	24.8	9.9
Observations					
N	18,055	8,699	9,356	913,910	605,202

Notes: Table compares Upsolve filers and non-filers to individuals in the Federal Judicial Center (FJC) Integrated Database who filed for personal bankruptcy (Federal Judicial Center, 2024). The FJC sample is limited to individuals with consumer debt who filed new Chapter 7 or 13 bankruptcy cases between September 1, 2021 and March 31, 2025. Income, assets, and debts are deflated to August 2024 prices and winsorized at the 99^{th} percentile. For the Upsolve sample, monthly income, assets, and debt are as of the Upsolve interview date. For the FJC sample, data are as of the closing date if the bankruptcy case is closed, and they are as of March 31, 2025 if the bankruptcy case is still pending.

Table A.2. Summary Statistics and Predictors of Filing

	Means			t-test		Filed $\sim X_i$	
	Full sample	Filers	Non-filers	Difference	p	Coefficient[1]	p
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Demographics and household characteristics							
Age (years)	41.7	42.7	40.6	2.1	0.000	0.1	0.000
Male (%)	36.7	37.3	36.2	1.1	0.146	1.0	0.199
Female (%)	62.0	61.6	62.4	-0.8	0.273	-0.8	0.295
Black (%)	30.6	31.0	30.1	0.9	0.238	0.8	0.329
Hispanic or Latino (%)	13.1	12.8	13.4	-0.6	0.221	-1.7	0.141
White (%)	57.8	57.4	58.3	-0.9	0.268	-1.3	0.090
Has dependents (%)	42.8	41.1	44.6	-3.5	0.000	-3.4	0.000
Married (%)	19.1	17.6	20.7	-3.0	0.000	-5.1	0.000
Rents housing (%)	53.2	54.7	51.6	3.0	0.000	1.9	0.012
Unstable housing (%)	3.6	2.9	4.5	-1.6	0.000	-10.0	0.000
Government benefits (%)	32.1	33.0	31.1	1.9	0.006	4.8	0.000
Monthly household income ($)	2,006	2,059	1,948	110	0.000	.	.
Panel B: Household assets							
Total assets ($)	13,553	14,142	12,920	1,222	0.000	2.4	0.000
Liquid financial assets ($)	475	513	434	78	0.000	2.9	0.000
Vehicle assets ($)	6,859	7,157	6,538	619	0.000	0.6	0.000
Panel C: Household debt							
Total debt ($)	80,366	84,955	75,427	9,528	0.000	5.3	0.000
Unsecured debt ($)	71,288	76,423	65,763	10,660	0.000	5.8	0.000
Dischargeable debt ($)	48,218	51,974	44,176	7,797	0.000	8.8	0.000
Alternative debt ($)	456	492	417	75	0.003	0.4	0.001
Auto debt ($)	13,519	12,875	14,213	-1,338	0.000	-0.6	0.000
Credit card debt ($)	17,769	20,596	14,728	5,868	0.000	2.9	0.000
Debt in collections ($)	5,721	5,916	5,511	405	0.007	-0.7	0.000
Medical debt ($)	1,834	2,024	1,630	394	0.001	1.0	0.000
Personal loans ($)	2,128	2,319	1,923	396	0.000	-0.1	0.329
Priority claims ($)	3,701	3,942	3,441	501	0.047	0.5	0.000
Student debt ($)	23,380	24,680	21,981	2,698	0.000	0.1	0.341
Other debt ($)	9,566	9,918	9,187	731	0.045	0.3	0.000
Panel D: Reasons for considering bankruptcy							
Behind on bills (%)	64.1	62.7	65.7	-3.0	0.000	-2.2	0.022
Lost job (%)	37.3	37.4	37.3	0.1	0.924	3.0	0.001
Spent irresponsibly (%)	36.8	35.8	37.8	-2.0	0.009	-1.6	0.064
Medical bills (%)	24.3	23.1	25.7	-2.6	0.000	-2.0	0.049
Sick or disabled (%)	22.3	21.8	22.9	-1.0	0.118	0.8	0.438
Hours or pay cut (%)	20.0	20.2	19.9	0.3	0.656	1.9	0.070
Wages garnished (%)	12.6	12.5	12.7	-0.2	0.709	0.1	0.928
Divorce (%)	11.1	10.6	11.7	-1.0	0.041	-1.6	0.214
Other reason (%)	51.0	51.2	50.8	0.4	0.637	1.5	0.079
Observations							
N	18,055	9,356	8,699				

Notes: Columns (1) to (3) present summary statistics for the full Upsolve sample, those who file for bankruptcy, and those who do not file. Columns (4) and (5) report the difference in means between filers and non-filers and the p-value from the difference in means t-test. Columns (6) and (7) report the estimated coefficient from an OLS regression of an indicator for filing on the respective characteristic, controlling for income as a percent of the FPL (n Panel E, we additionally control for the number of reasons for considering bankruptcy that the user reported). Users who do not report gender, ethnicity, age, or reasons for considering bankruptcy are excluded from the respective statistics and regressions. The variables in Panels C and D are winsorized at the 99$^{\text{th}}$ percentile conditional on being non-zero.

[1]For dollar-based variables, we apply a log transformation before estimating the coefficient. We add one before taking the log to avoid dropping zeroes.

Table A.3. Composition of Assets and Exemption Status

	Covered by exemption			Distribution of non-zero assets ($)			
	Federal	State	N	Mean	P25	P50	P75
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Panel A: Vehicles							
Vehicles	✓	✓	11,860	10,442	2,789	6,561	15,051
Total			**11,860**	**10,442**	**2,789**	**6,561**	**15,051**
Panel B: Other personal assets							
Books	✓	✓	3,349	134	41	90	158
Clothes	✓	✓	18,042	283	100	197	338
Collectibles			2,204	321	65	151	339
Electronics	✓	✓	17,178	839	284	591	1,134
Farm animals	✓	✓	58	573	41	113	233
Non-farm animals	✓	✓	7,195	139	10	59	124
Firearms		✓	1,740	389	154	260	459
Furniture	✓	✓	13,648	562	133	319	702
Health aids	✓	✓	2,680	190	21	62	156
Instruments	✓	✓	1,707	244	59	108	245
Mobile homes		✓	137	7,100	516	1,750	8,450
Recreational items			3,516	208	45	103	218
Tools of the trade	✓	✓	1,498	1,486	308	736	1,477
Wedding rings	✓	✓	2,463	396	68	160	498
Other jewelry	✓	✓	7,935	169	42	100	199
Other personal items			549	1,592	211	505	1,231
Total			**18,055**	**2,120**	**695**	**1,438**	**2,657**
Panel C: Liquid financial assets							
Liquid financial assets		✓	18,055	475	39	160	522
Total			**18,055**	**475**	**39**	**160**	**522**
Panel D: Other financial assets							
College savings accounts	✓	✓	58	4,059	60	519	3,503
Domestic support	✓	✓	906	18,411	2,708	9,593	24,627
Government benefits	✓	✓	55	10,324	998	2,952	11,970
Government payments			3,611	1,863	1,255	1,278	1,833
Health savings accounts		✓	919	381	21	114	445
Illiquid investments			786	915	19	124	568
Insurance	✓	✓	2	158,066	52,582	158,066	263,551
Intangible assets		✓	261	943	5	97	441
IRAs	✓	✓	785	4,719	46	313	2,715
Retirement plans	✓	✓	3,988	8,683	636	2,370	8,645
Rental security deposit		✓	5,885	1,179	516	958	1,577
Other deposits			958	270	123	206	315
Other claims			474	5,101	313	1,068	3,485
Other financial assets			8,516	49	1	1	13
Total			**14,033**	**5,049**	**239**	**1,278**	**3,500**
Observations							
N			18,055				

Notes: Table shows the number of Upsolve users with each category (in bold) and sub-category (not in bold) of assets, along with the distribution of asset values among asset holders. The "Covered by Exemptions" columns indicate whether (1) the asset sub-category is covered by the federal exemptions and (2) the asset sub-category is covered by an exemption in at least one state. Asset categories (e.g., other personal assets) and sub-categories (e.g., clothes) are winsorized at the 99^{th} percentile conditional on being positive.

Table A.4. Composition of Debt and Dischargeability

	Discharged	N	Distribution of non-zero debt ($)			
			Mean	P25	P50	P75
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Auto debt						
Secured auto debt	If collateral is surrendered	7,169	19,442	9,891	16,867	25,383
Unsecured auto debt	✓	5,828	17,996	8,039	13,770	23,387
Total		**11,000**	**21,516**	**9,928**	**17,480**	**28,184**
Panel B: Credit card debt						
Secured credit cards	If collateral is surrendered	573	2,210	282	561	1,510
Unsecured credit cards	✓	16,991	18,805	3,785	12,448	25,869
Total		**17,032**	**18,271**	**3,684**	**12,048**	**25,151**
Panel C: Debt in collections						
Debt in collections	✓	11,754	8,789	1,683	4,842	11,275
Total		**11,750**	**8,475**	**1,638**	**4,684**	**10,941**
Panel D: Medical debt						
Medical debt	✓	5,494	6,032	625	1,870	5,384
Total		**5,490**	**5,852**	**608**	**1,809**	**5,208**
Panel E: Predatory debt						
Buy now pay later	If collateral is surrendered	1,701	1,184	278	695	1,503
Lease-to-own debt	✓	953	2,983	1,142	2,159	3,701
Payday loans	✓	1,304	2,637	543	1,290	3,177
Total		**3,341**	**2,373**	**523**	**1,376**	**3,000**
Panel F: Personal loans						
Personal loans	✓	4,941	7,781	1,623	4,919	10,666
Total		**4,937**	**7,489**	**1,558**	**4,737**	**10,264**
Panel G: Priority claims						
Domestic support		706	15,515	828	4,860	17,279
Fines and restitution		1,828	10,862	565	1,851	6,684
Priority judgment debt		278	32,750	2,569	6,665	14,025
Past-due taxes	Older income taxes only	2,715	11,044	1,231	3,522	9,927
Other unsecured priority debt		182	11,589	1,370	4,968	13,184
Total		**4,664**	**13,921**	**1,134**	**3,900**	**12,056**
Panel I: Student debt						
Student debt		9,080	46,499	11,456	29,619	61,768
Total		**9,076**	**44,894**	**11,119**	**28,932**	**60,192**
Panel J: Other debt						
Overdrafted bank accounts	✓	872	1,993	348	774	1,797
$r_unsecnpr_consolidation$	✓	237	12,363	6,467	10,369	15,894
Debt owed to peers	✓	1,027	12,516	2,006	5,087	10,420
Government debt	✓	394	31,123	3,636	10,880	26,523
Insurance debt	✓	275	1,839	217	440	1,000
Non-priority judgment debt	✓	3,007	16,277	3,812	8,293	17,114
Secured mortgages	If collateral is surrendered	141	123,002	13,113	65,821	201,506
Unsecured mortgages	✓	149	87,125	6,190	18,279	72,538
Past-due rent	✓	974	7,718	1,794	4,677	9,128
Retirement plan loans		38	4,620	1,266	2,908	4,649
Utilities debt	✓	5,385	1,983	418	1,005	2,358
Other secured debt	If collateral is surrendered	271	11,788	1,089	4,404	12,594
Other unsecured non-priority debt	✓	6,807	7,911	1,067	3,572	9,479
Total		**11,894**	**14,158**	**1,800**	**5,830**	**14,455**
Observations						
N		18,055				

Notes: Table shows the number of Upsolve users with each category (in bold) and sub-category (not in bold) of debt, along with the distribution of balances among debt holders. The "Discharged" column indicates our assumption for whether each sub-category of debt is discharged in bankruptcy. Debt categories (e.g., auto debt) and sub-categories (e.g., secured auto debt) are winsorized at the 99^{th} percentile conditional on being non-zero.

Table A.5. Test for Covariate Balance

	Means			Linear RD	
	Full sample	50-150% FPL	150-250% FPL	Estimate	p-value
	(1)	(2)	(3)	(4)	(5)
Panel A: Demographics and household characteristics					
Has dependents (%)	48.1	52.5	42.4	1.7	0.408
Age (years)	28.6	28.9	28.2	0.8	0.370
Age missing (%)	33.4	33.0	33.8	-0.4	0.826
Female (%)	59.8	62.2	56.7	2.0	0.314
Other gender (%)	1.1	1.0	1.1	-0.1	0.836
Missing gender (%)	8.2	8.1	8.3	-0.8	0.505
Married (%)	21.0	22.2	19.4	4.6	0.005
Black (%)	27.6	28.0	27.1	1.9	0.302
Hispanic or Latino (%)	11.7	11.5	11.9	-0.1	0.930
Other race or ethnicity (%)	5.6	5.6	5.6	-0.8	0.394
Missing race or ethnicity (%)	9.2	9.0	9.3	-2.0	0.091
Rents housing (%)	57.9	53.7	63.4	0.6	0.767
Unstable housing (%)	2.4	2.8	1.8	-0.8	0.159
Government benefits (%)	29.4	42.6	12.4	4.9	0.003
Panel B: Log assets					
Vehicle assets	6.1	5.7	6.6	0.2	0.172
Liquid financial assets	5.0	4.8	5.3	-0.1	0.076
Other personal assets	7.2	7.1	7.3	0.0	0.731
Other financial assets	5.3	4.9	5.8	0.0	0.796
Panel C: Log debt					
Alternative debt	1.4	1.3	1.5	0.0	0.987
Auto debt	6.1	5.9	6.4	0.1	0.472
Debt in collections	5.4	5.6	5.3	-0.0	0.942
Credit card debt	8.6	8.4	8.8	-0.2	0.109
Medical debt	2.4	2.2	2.6	0.0	0.860
Personal loans	2.3	2.2	2.6	0.1	0.648
Priority claims	2.0	1.8	2.3	-0.0	0.962
Student debt	5.0	4.8	5.3	-0.1	0.532
Other debt	5.6	5.6	5.7	0.1	0.644
Panel D: Reasons for considering bankruptcy					
Behind on bills (%)	56.6	56.0	57.3	-3.3	0.101
Lost job (%)	25.0	26.8	22.6	-0.8	0.632
Spent irresponsibly (%)	32.9	29.9	36.7	-2.1	0.270
Sick or disabled (%)	18.1	20.1	15.6	-0.7	0.633
Wages garnished (%)	13.1	13.8	12.2	0.5	0.692
Hours or pay cut (%)	19.1	19.4	18.7	-1.7	0.285
Divorce (%)	9.8	9.9	9.7	0.6	0.650
Medical bills (%)	21.9	20.7	23.3	-2.0	0.228
Missing reasons (%)	12.3	12.1	12.4	1.1	0.403
Panel E: Time to complete questionnaire					
Days to finish questionnaire	42.9	42.9	42.9	1.7	0.728
Observations					
N	11,390	6,175	5,215		

Notes: Table presents summary statistics for the full Upsolve sample and users within the left and right 100-percentage point bandwidths. The four rightmost columns report coefficients on an indicator for fee-waiver eligibility (income below 150% FPL) and p-values from our baseline RD specification, using a 100-percentage point bandwidth and excluding the fixed effects and controls.

Table A.6. Top Combinations of Reasons for Considering Bankruptcy

	Behind on bills (1)	Lost job (2)	Spent irresponsibly (3)	Medical bills (4)	Sick or disabled (5)	Hours or pay cut (6)	Wages garnished (7)	Separation or divorce (8)	Other reason (9)	N (10)	(%) (11)	Filers (12)	(%) (13)	Filed (%) (14)
1.									✓	3,188	17.7	1,791	19.1	56.2
2.	✓									1,065	5.9	587	6.3	55.1
3.	✓		✓							1,050	5.8	522	5.6	49.7
4.	✓	✓								905	5.0	456	4.9	50.4
5.		✓								743	4.1	397	4.2	53.4
6.			✓							599	3.3	319	3.4	53.3
7.	✓	✓	✓							517	2.9	243	2.6	47.0
8.	✓					✓				412	2.3	218	2.3	52.9
9.	✓		✓	✓						380	2.1	185	2.0	48.7
10.	✓			✓						346	1.9	165	1.8	47.7
11.					✓					316	1.8	167	1.8	52.8
12.	✓	✓			✓					308	1.7	157	1.7	51.0
13.							✓			276	1.5	159	1.7	57.6
14.	✓				✓					271	1.5	144	1.5	53.1
15.	✓		✓			✓				263	1.5	129	1.4	49.0
16.		✓	✓							237	1.3	142	1.5	59.9
17.	✓						✓			236	1.3	111	1.2	47.0
18.	✓	✓				✓				232	1.3	120	1.3	51.7
19.						✓				218	1.2	124	1.3	56.9
20.	✓	✓		✓						214	1.2	115	1.2	53.7

Notes: Table lists the top 20 most common combinations of reasons for considering bankruptcy among Upsolve users. For users that list at least one reason from columns (1) to (8), we group users that do or do not select "other" as a reason. Columns (10) and (11) show the number of users with each combination of reasons and the share of total observations. Columns (12) and (13) show the number of users who filed with each combination of reasons and the share of total users who filed. Column (14) reports the share of users with a given combination of reasons who filed for bankruptcy.

Table A.7. Composition of Debt by Reason for Considering Bankruptcy

	Full sample (1)	Behind on bills (2)	Lost job (3)	Spent irresponsibly (4)	Medical debt (5)	Sick or disabled (6)	Hours or pay cut (7)	Wages garnished (8)	Divorce (9)	Other (10)
Total debt ($)										
Total debt	80,366	81,285	84,166	76,658	84,504	81,829	80,929	79,585	90,974	81,478
Dischargeable debt	48,218	47,368	51,171	45,894	48,974	49,414	47,803	45,612	54,056	48,622
Non-dischargeable debt	31,046	32,899	31,752	30,044	34,195	31,181	32,310	33,158	35,374	31,504
Composition of debt (%)										
Alternative debt	0.6	0.7	0.5	0.7	0.6	0.6	0.7	0.5	0.4	0.6
Auto debt	17.3	19.0	16.1	17.8	17.3	15.3	18.3	20.2	17.7	21.1
Credit card debt	22.8	19.9	24.0	23.7	15.8	22.9	22.0	11.3	9.9	25.0
Debt in collections	7.3	7.6	7.6	6.7	8.5	7.6	6.9	9.1	8.0	7.8
Medical debt	2.3	2.2	2.1	1.9	7.0	4.1	1.8	3.4	3.0	1.9
Personal loans	2.7	2.7	2.4	3.4	2.3	2.2	2.8	1.5	1.3	3.2
Priority claims	4.7	4.6	5.4	3.5	4.7	5.4	4.2	7.9	6.9	5.4
Student debt	29.9	31.7	29.3	31.8	32.6	29.6	31.4	30.3	26.5	32.7
Other debt	12.3	11.6	12.6	10.5	11.2	12.4	12.0	15.8	13.8	14.1
Observations										
N	18,055	10,148	5,904	5,818	3,850	3,532	3,171	1,993	1,761	8,074

Notes: Table presents total debt, dischargeable and nondischargeable debt, and the composition of debt by category for the full sample (column 1) and for users who select each reason for considering bankruptcy (columns 2-10). Debt categories are winsorized at the 99^{th} percentile conditional on being non-zero. Users may select multiple reasons for considering bankruptcy.

Table A.8. Robustness of RD Estimation to Kernel Weights and Selected Bandwidths

	Bandwidth selection				
	149pp	100pp	75pp	50pp	MSE Optimal
	(1)	(2)	(3)	(4)	(5)
Panel A: Uniform kernel					
Coefficient on Below 150% FPL (E_i)	89.9	89.1	88.2	86.8	85.6
(Outcome = Waiver)	(0.6)	(0.7)	(0.8)	(1.1)	(1.3)
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Coefficient on Waiver ($\hat{W}_i$)	6.6	7.8	7.1	9.3	6.7
(Outcome = Filed)	(1.7)	(2.0)	(2.2)	(2.8)	(3.1)
	[0.000]	[0.000]	[0.001]	[0.001]	[0.034]
R^2	0.070	0.070	0.072	0.082	0.091
N	13,949	11,388	9,325	6,458	5,171
Panel B: Triangular kernel					
Coefficient on Below 150% FPL (E_i)	88.9	87.9	87.0	85.3	84.2
(Outcome = Waiver)	(0.7)	(0.8)	(1.0)	(1.3)	(1.4)
	[0.000]	[0.000]	[0.000]	[0.000]	[0.000]
Coefficient on Waiver ($\hat{W}_i$)	7.2	7.7	7.9	7.5	6.3
(Outcome = Filed)	(1.8)	(2.2)	(2.5)	(3.1)	(3.4)
	[0.000]	[0.000]	[0.001]	[0.014]	[0.066]
R^2	0.071	0.074	0.079	0.089	0.094
N	13,949	11,387	9,325	6,453	5,171

Notes: Table presents RD estimates from the Upsolve fuzzy RD model outlined in equations (1) and (2), using different bandwidths around the 150% FPL threshold and different kernel weights. The bandwidth is indicated in the column header. Panel A uses uniform weights and Panel B uses triangular weights. Both panels control for questionnaire completion time, state and year-month fixed effects, debt, assets, demographics, and reasons for considering bankruptcy (outlined in Section 4). The coefficients on "Below 150% FPL" are first-stage estimates, and the coefficients on "Waived" are second-stage estimates. Robust standard errors and p-values are reported in parentheses and square brackets, respectively, below the point estimates. The R^2 for the second-stage model and sample size are shown at the bottom of each column.

Table A.9. Bankruptcy Exemptions

Exemption	**Coverage**	**Federal Limit (effective as of) April 1, 2022**
Homestead	Equity in one's primary residence	$27,900
Vehicle	One motor vehicle	$4,450
Personal Assets	Personal items (e.g. furniture, appliances, clothing)	$14,875
Jewelry	Jewelry	$1,875
Tools of the Trade	Tools used for work (e.g., books, instruments, tools)	$2,800
Life Insurance	Life insurance policy with cash value	$14,875
Wildcard	Any assets not covered by other exemptions	$1,475
Unused Homestead	Any assets not covered by other exemptions (only available if homestead exemption was not fully used)	Up to $13,950

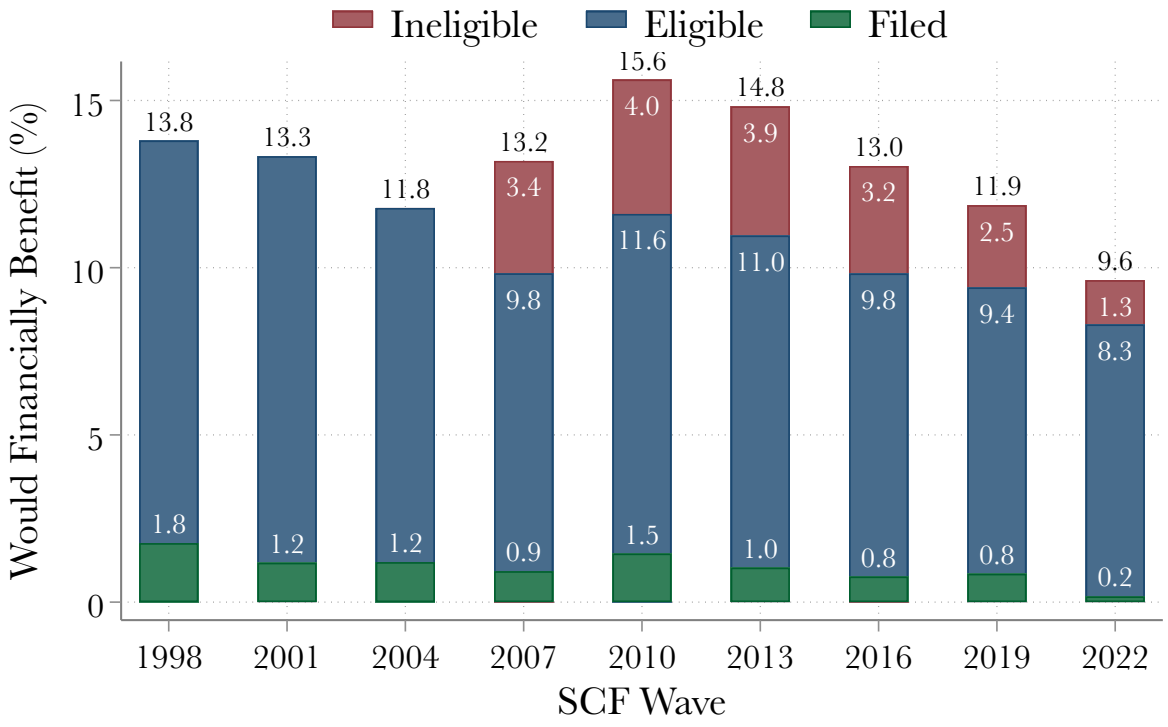
Notes: Table presents the asset exemptions provided by the federal bankruptcy code and the current dollar limits, effective as of April 1, 2022.

Table A.10. Financial Benefit Calculation Example

	Category (1)	**Equity in Assets** (2)	**Remaining Exemptions** (3)	**Explanation** (4)
1.	Homestead	Home: $10,000	Homestead: $17,900 Wildcard: $1,475 Unused Homestead: $13,950	Homestead is exempt and mortgage debt is not discharged.
2.	Motor Vehicles	Vehicle #1: $3,500 Vehicle #2: $1,200	Vehicle: $950 Wildcard: $275 Unused Homestead: $13,950	Vehicle exemption protects vehicle #1, and wildcard covers vehicle #2. Associated auto loans are not discharged.
3.	Investment Properties	None	Wildcard: $950 Unused Homestead: $13,950	
4.	Other Vehicles	Motorcycle: $2,500	Wildcard: $0 Unused Homestead: $12,400	Remaining wildcard and unused homestead exemptions protect motorcycle. Associated secured debt is not discharged.
5.	Businesses	None	Wildcard: $0 Unused Homestead: $12,400	
6.	Jewelry	Wedding Ring: $1,250 Watch: $800	Jewelry: $0 Wildcard: $0 Unused Homestead: $12,225	Ring covered by jewelry exemption, watch covered by remaining jewelry exemption and unused homestead exemption.
7.	Misc. Assets	Painting: $2,000	Wildcard: $0 Unused Homestead: $10,225	Unused homestead exemption covered painting.
8.	Life Insurance	Cash Value: $16,000	Life Insurance: $0 Wildcard: $0 Unused Homestead: $9,100	Life insurance covered by life insurance and unused homestead exemptions.
9.	Financial Assets	Checking Accounts: $8,000 Stocks $5,000	Wildcard: $0 Unused Homestead: $0	Unused homestead exemption covered all of checking accounts and $1,100 of stocks. Remaining $3,900 of stocks are non-exempt.

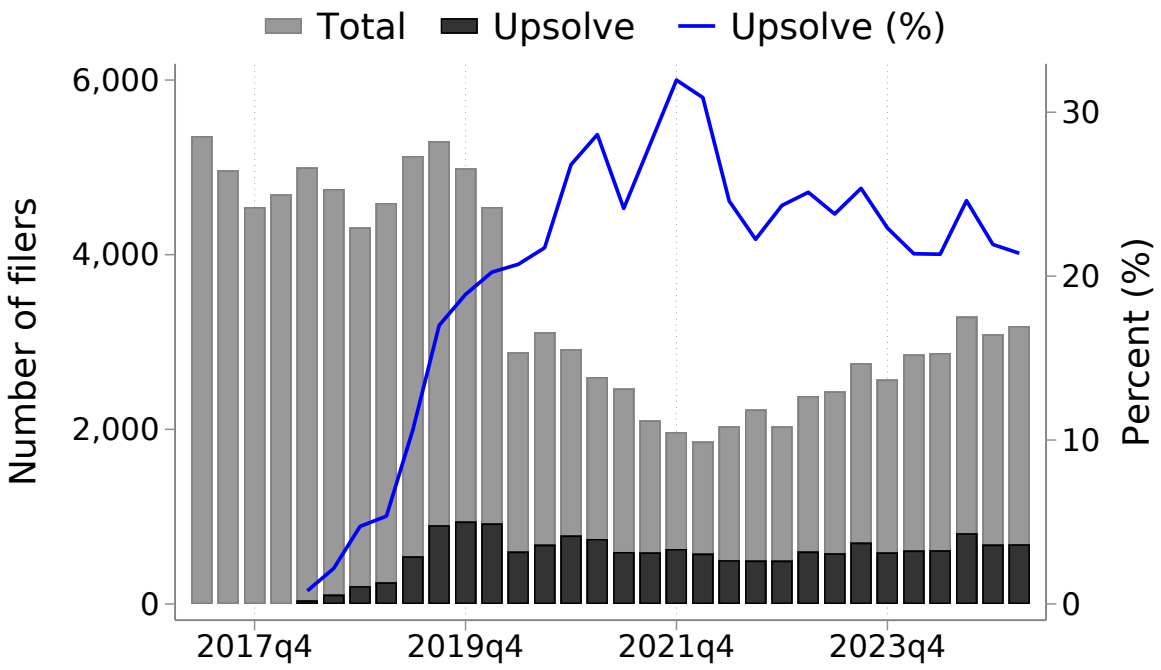
Notes: This table demonstrates a hypothetical example of how we apply bankruptcy exemptions in the SCF financial benefit calculation, as outlined in Appendix Section A. We use the 2022 federal exemptions outlined in Appendix Table A.9. The rows indicate the order in which we apply exemptions. Column (1) indicates the asset category, and column (2) lists the hypothetical individual's assets in each category and their equity in each asset. Columns (3) indicates the remaining applicable exemptions after each step, and column (4) provides an explanation. With each asset category, we first exempt the highest-value asset that fits within the combined value of the applicable exemption and the remaining wildcard and unused homestead exemptions. We repeat this process with remaining assets in the category, then move to the next category.

Figure A.1. SCF Financial Benefit Calculation



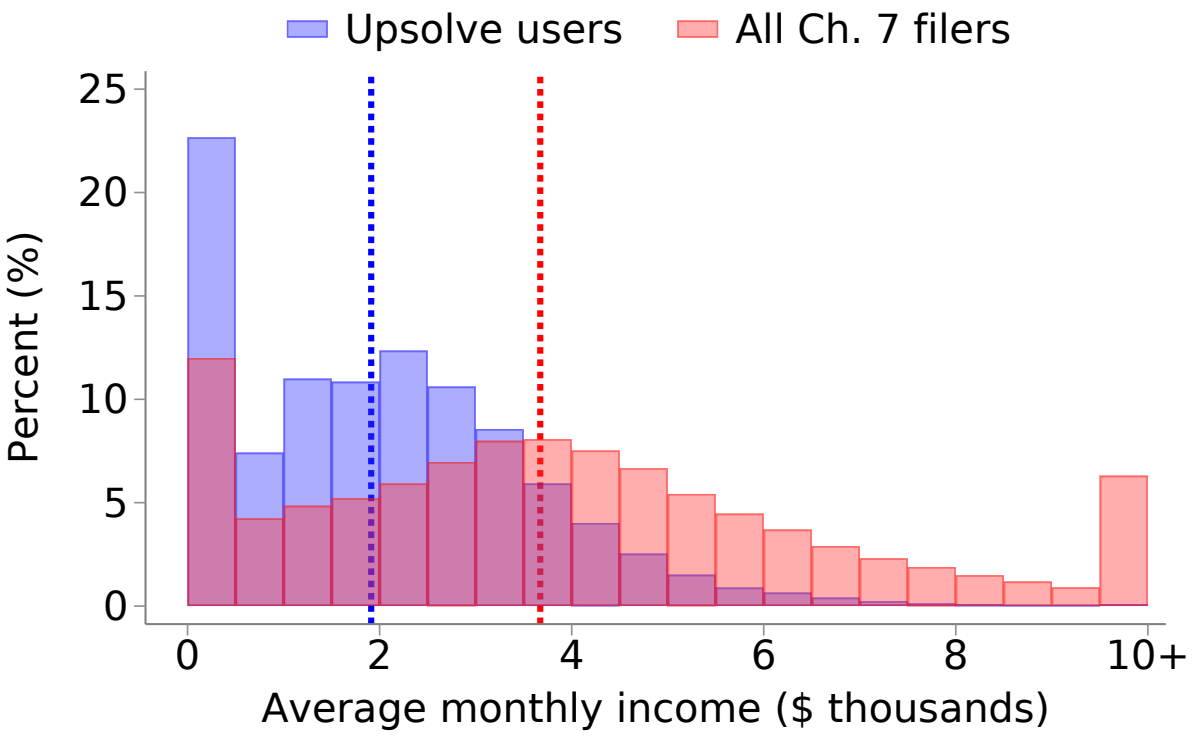
Notes: Figure shows the percentage of individuals who would benefit from filing for Chapter 7 bankruptcy across the 1998 through 2022 waves of the Survey of Consumer Finances (SCF) (Board of Governors of the Federal Reserve Board, 2023) The methodology for this calculation is outlined in Appendix A. Blue bars indicate households who would financially benefit and are eligible to file for Chapter 7 bankruptcy; red bars indicate households who would financially benefit but are ineligible. Green bars indicate households who filed within the past year.

Figure A.2. Upsolve-Eligible Chapter 7 Filings Over Time



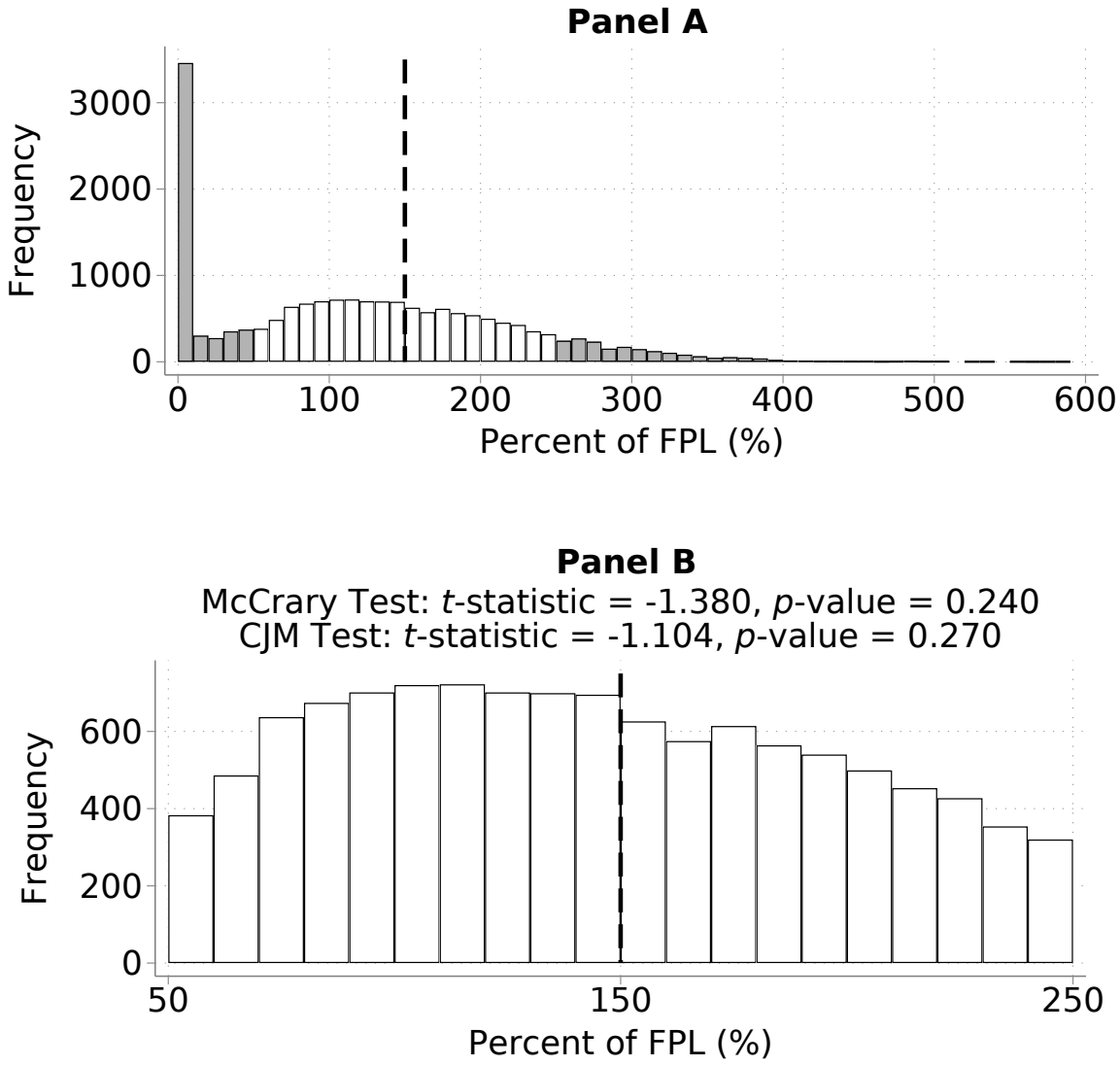
Notes: Figure shows the number of Upsolve bankruptcy filings and Upsolve-eligible filings in the Federal Judicial Center (FJC) database between 2017 Q2 and 2025 Q1 (Federal Judicial Center, 2024). The first recorded Upsolve filing is in 2018 Q2. We define Upsolve-eligible filings as non-joint Chapter 7 cases filed pro se by non-homeowners. The blue line presents the share of Upsolve-eligible filings attributed to Upsolve users, calculated by dividing the number of Upsolve filings by the number of Upsolve-eligible FJC filings.

Figure A.3. Distribution of Income for Upsolve Users vs. All Chapter 7 Filers



Notes: Figure shows the distribution of average monthly income for Upsolve users (filers and non-filers) and all Chapter 7 filers in the Federal Judicial Center (FJC) database between September 2021 and March 2025. Income is deflated to August 2024 prices and is winsorized at $0 and $10,000. The bars of the histogram are $500 in width, and the blue and red dashed lines represent the median income for the Upsolve and FJC samples, respectively.

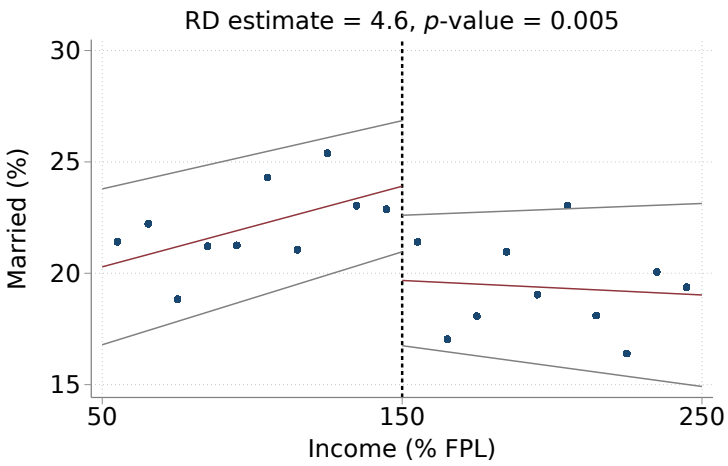
Figure A.4. McCrary and CJM Tests



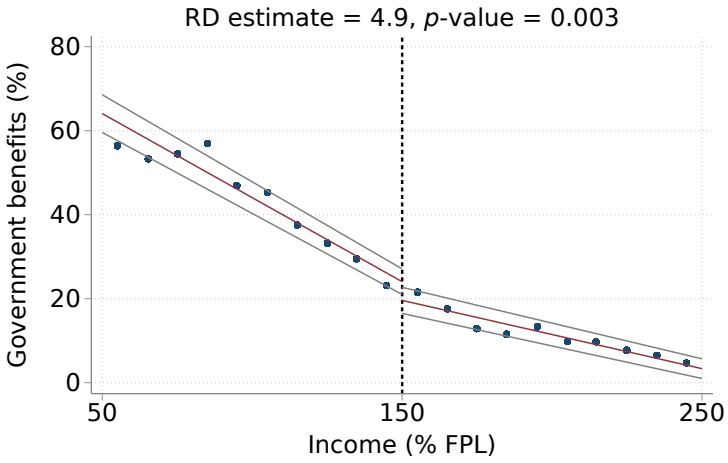
Notes: Panel A shows the distribution of applicant income, with the gray bars representing applicants outside of the 100 percentage-point bandwidth. Panel B shows the distribution of applicant income within this bandwidth and reports the t-statistics and p-values from the manipulation tests proposed by McCrary (2008) and Cattaneo et al. (2020).

Figure A.5. RD Plots for Discontinuous Covariates

Panel A. Marital status

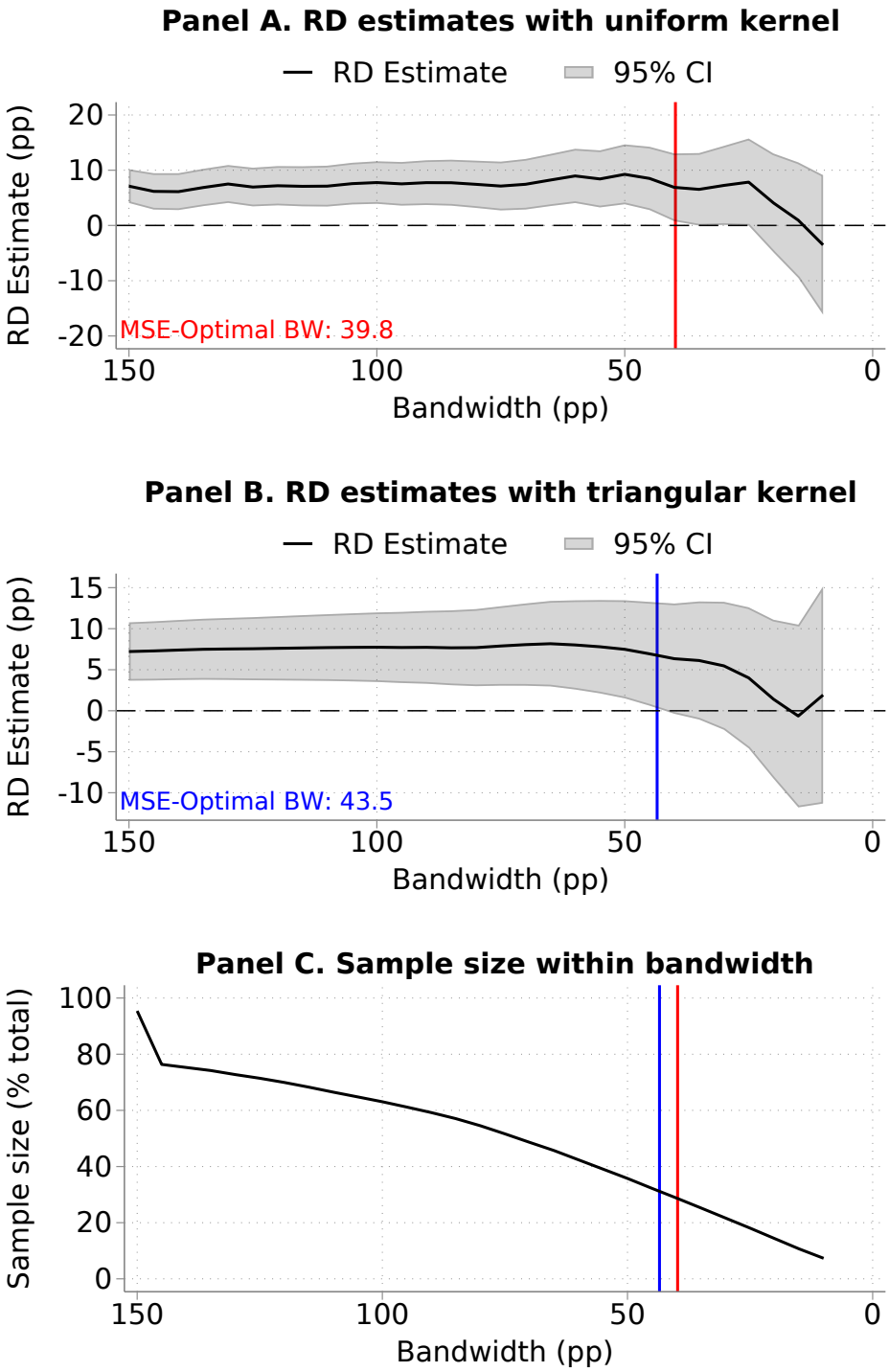


Panel B. Receives government benefits



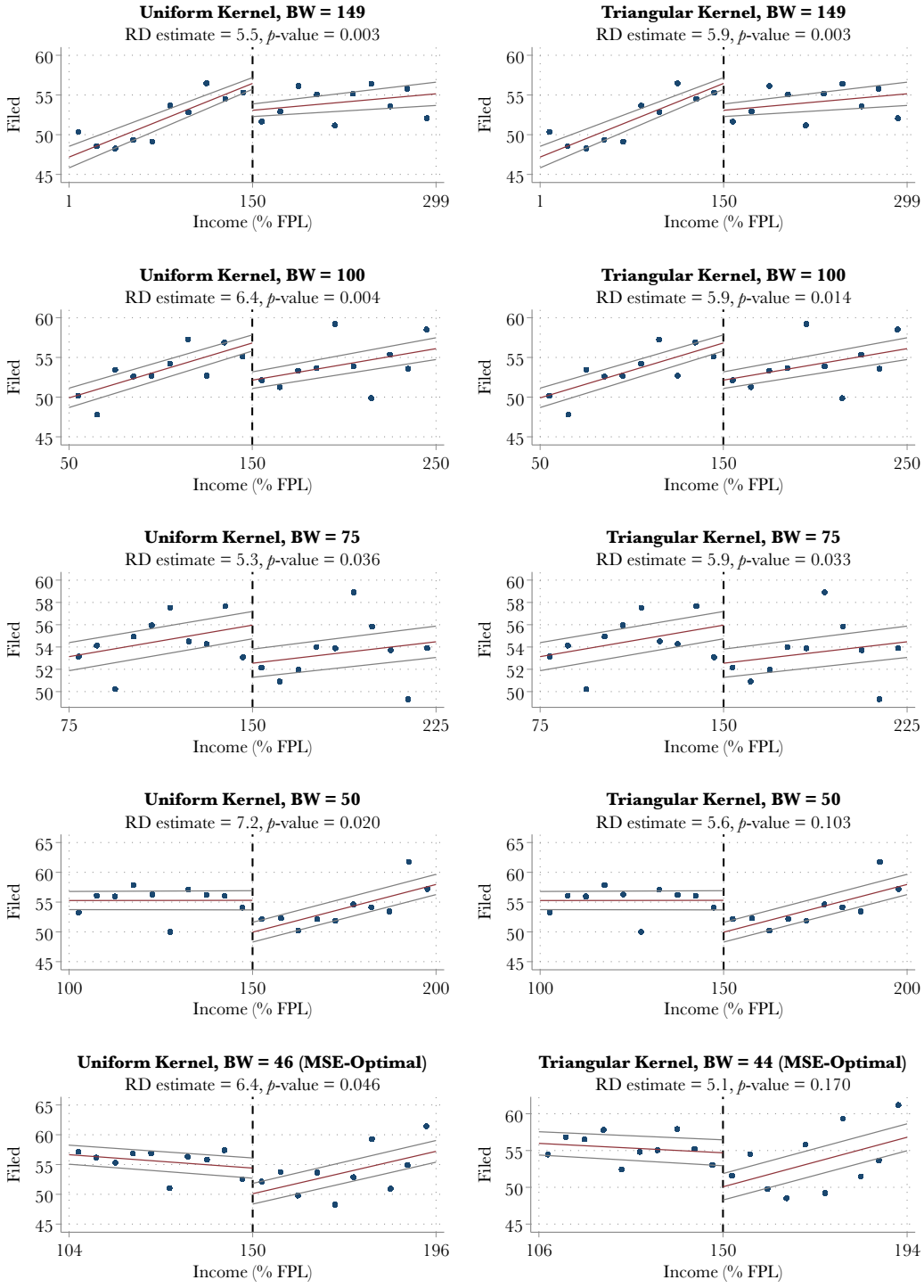
Notes: Figure presents RD plots for two covariates with significant discontinuities at the threshold: (1) whether the user is married and (2) whether the user receives income from government benefits. Each sub-figure presents the mean of each covariate for 20 quantile income bins. The RD estimates and p-values are estimated using the linear RD model from equations (1) and (2), using a 100-percentage point bandwidth and no controls.

Figure A.6. Robustness of RD Estimation to Bandwidth Selection and Kernel Weighting



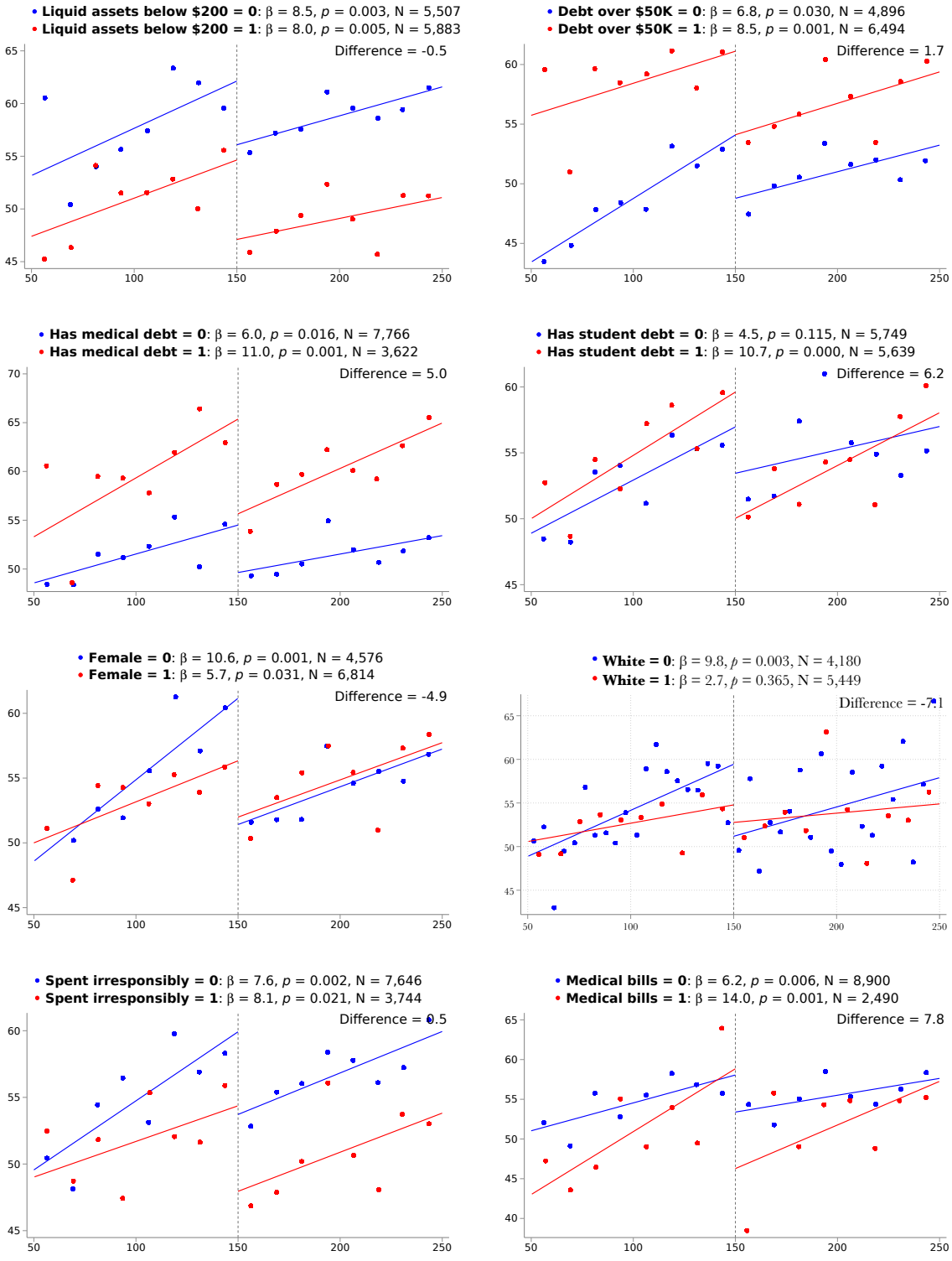
Notes: Figure shows the estimated effect of the fee waiver on filing, as estimated in the fuzzy RD model from equations (1) and (2), under different bandwidths and kernel weights. We vary the bandwidth from 10 to 150 percentage points. Panel A uses uniform kernel weights and Panel B uses triangular kernel weights. In these panels, the black line represents the RD estimate, the grey bands represent a 95% confidence interval, and the red and blue lines represent the MSE-optimal bandwidth based on the algorithm from Calonico et al. (2020). Panel C shows the share of the full sample within each bandwidth.

Figure A.7. Robustness of RD Estimation to Bandwidth Selection and Kernel Weighting



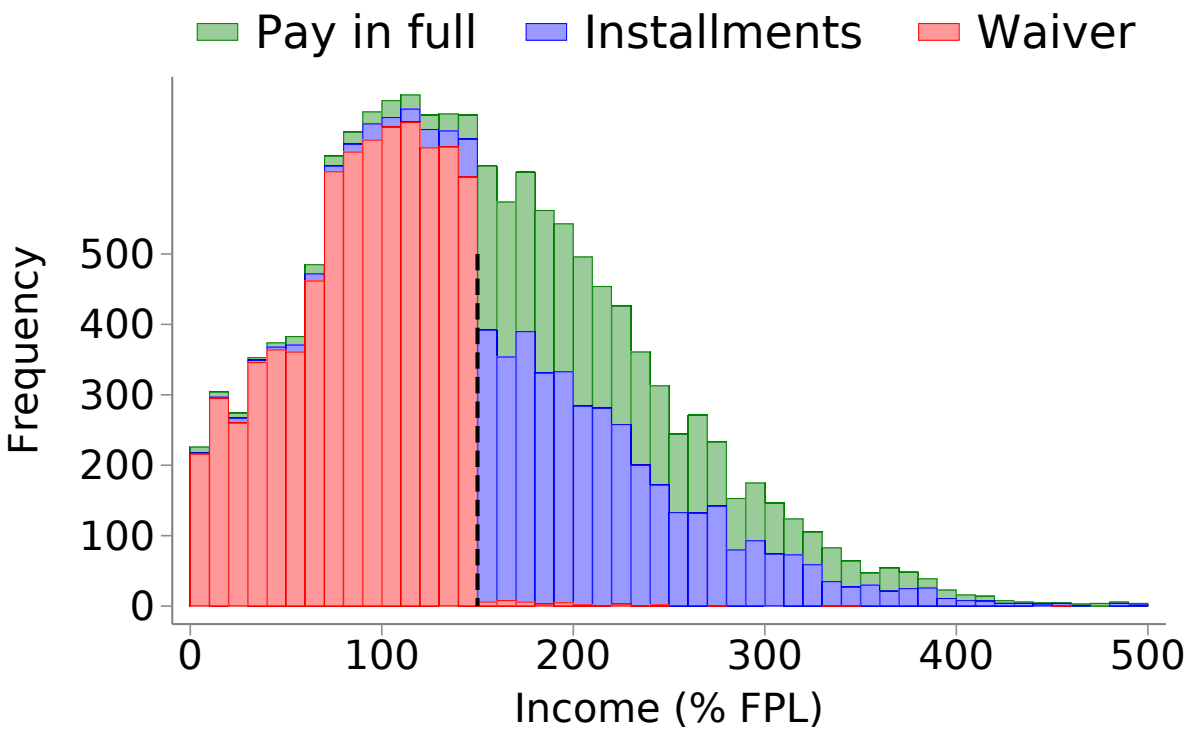
Notes: Figure shows the second-stage effect on filing for bankruptcy under different bandwidths and kernel weights. The bandwidth and kernel weighting approach is specified in the top of each plot. The bottom two plots show the MSE-optimal bandwidths (46.2 and 44.4 percentage points for the uniform and triangular specifications, respectively). Each RD plot controls for state and year-month fixed effects, questionnaire completion time, demographics, debt, assets, and reasons for considering bankruptcy (outlined in Section 4). The RD estimate and corresponding p-value is included in the top right of each plot. Dots show the mean application and filing rates for 20 quantile income bins. Solid lines are fitted values from first-order polynomials, and gray lines represent 95% confidence intervals.

Figure A.8. Heterogeneous Treatment Effects



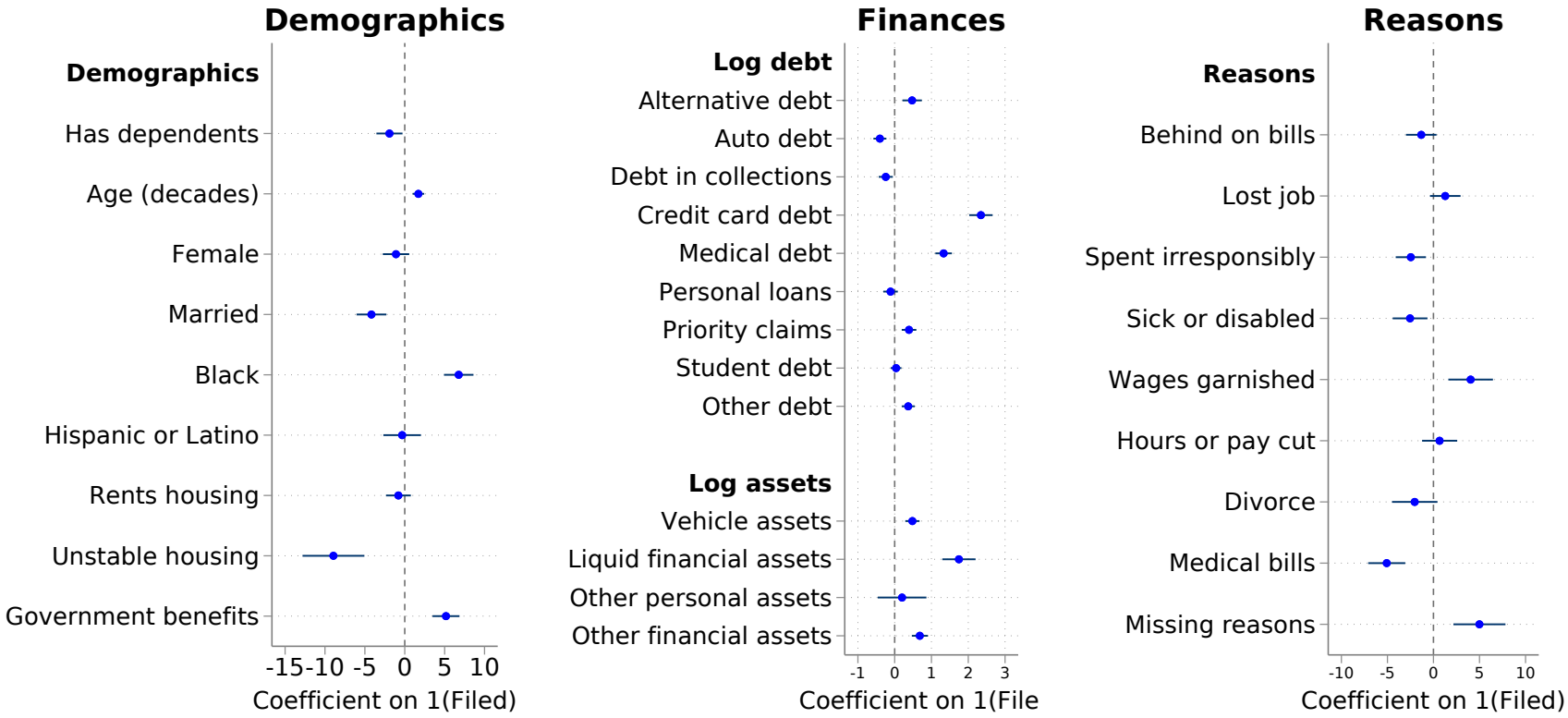
Notes: Figure plots the fuzzy RD model outlined in equations (1) and (2) for sub-groups based on binary characteristics defined prior to treatment. Uses a 100 percentage-point bandwidth, includes state and year-month fixed effects, and controls for questionnaire completion time. The RD estimates and corresponding p-values are presented in the legend next to each group label, and the difference in RD estimates is shown in the top right of the plot. Dots show the mean filing rate for 20 quantile income bins. Solid lines are fitted values from the first-order polynomials with a uniform kernel.

Figure A.9. Distribution of Applicant Income



Notes: Figure presents the distribution of income as a percent of the FPL, highlighting users who applied for a fee waiver, applied to pay the fee in installments, or opted to paid the fee in full. Excludes 21 users with income above 500% of the FPL.

Figure A.10. Multivariate Regression of Filing Status on Controls



Notes: Figure plots estimated coefficients from a multivariate regression of Upsolve users' filing decision on demographics, the log of each debt and asset category, indicators for users' primary reasons for considering bankruptcy, income (percent of FPL), questionnaire completion time, and state and year-month fixed effects. We exclude the coefficients on income, questionnaire completion time, and fixed effects from the coefficient plots. "Alternative loans" includes payday loans, cash advances, lease-to-own debt, and buy-now-pay-later (BNPL) debt. The bands around each coefficient represent 95% confidence intervals.