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Payday Holiday: How Households Fare after Payday Credit Bans

Donald P. Morgan
Michael R. Strain

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This paper presents preliminary findings and is being distributed to economists and other interested readers solely to stimulate discussion and elicit comments. The views expressed in the paper are those of the authors and are not necessarily reflective of views at the Federal Reserve Bank of New York or the Federal Reserve System. Any errors or omissions are the responsibility of the authors.

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Abstract

Payday loans are widely condemned as a “predatory debt trap.” We test that claim by researching how households in Georgia and North Carolina have fared since those states banned payday loans in May 2004 and December 2005. Compared with households in states where payday lending is permitted, households in Georgia have bounced more checks, complained more to the Federal Trade Commission about lenders and debt collectors, and filed for Chapter 7 bankruptcy protection at a higher rate. North Carolina households have fared about the same. This negative correlation—reduced payday credit supply, increased credit problems—contradicts the debt trap critique of payday lending, but is consistent with the hypothesis that payday credit is preferable to substitutes such as the bounced-check “protection” sold by credit unions and banks or loans from pawnshops.

Key words: payday credit, consumer welfare, bounced check protection, informal bankruptcy

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The payday loan industry depicts itself as a financial crutch propping up struggling borrowers until their next paycheck. In truth, the loans are financial straitjackets that squeeze the working poor into a spiral of mounting debt (Atlanta (GA) Journal-Constitutional Editorial, 12/8/2003)

I. Introduction

In 1933 President Roosevelt closed all banks in the U.S. The “bank holiday” was a desperate effort to calm bank depositors and halt the runs that were draining money and credit from circulation.

In 2004 and 2005 the governments of Georgia and North Carolina permanently closed all the payday lenders operating in their state. Payday lenders are “fringe banks” (Caskey 1994): small, street-level stores selling \$300 loans for two weeks at a time to millions of mostly lower middle income urban households and members of the military. The credit is popular with customers, but despised by critics, hence the bans in Georgia and North Carolina. This paper investigates whether those “payday holidays” helped households in those states. Why might less credit help? Because payday loans, unlike loans from mainstream lenders, are considered “debt traps” (Center for Responsible Lending 2003).¹

The debt trap critique against payday lenders seems based on three facts: payday loans are expensive (“usurious”), payday lenders locate near their customers (“targeting”), and most payday customers are repeat (“trapped”) borrowers. After documenting that the typical customer borrows 8 to 12 times per year, the CRL (Center for Responsible Lending) concluded:

...borrowers are forced to pay high fees every two weeks just to keep an existing loan outstanding that they cannot afford to pay off. This ...”debt trap” locks borrowers into revolving high-priced short-term credit instead of ...reasonably priced longer-term credit (Ernst, Farris, and King 2003, p. 2)

¹ Jane Bryant Quinn (financial columnist in *Newsweek*) recently warned that “payday loans can be a debt trap” (October 8, 2007).

The CRL study went on to estimate that 5 million trapped American families were paying \$3.4 billion annually to “predatory” payday lenders.²

The debt trap critique has influenced lawmakers at every level to restrict payday credit or ban it outright. Oakland and San Francisco limit the number and location of payday stores. Oregon and Pennsylvania recently joined Georgia and North Carolina in banning payday loans. New York, New Jersey, and most New England states have never granted entry.³ By contrast, some western states (Washington, Idaho, Utah, and until recently New Mexico) have maintained relatively laissez-faire policies toward payday lending. That patchwork regulation means that millions of people use payday credit repeatedly in some states, while their counterparts in other states go without. However one sees payday credit—as helpful or harmful—the uneven regulations means millions of households are potentially being wronged.

We test the debt trap hypothesis by investigating whether Georgia and North Carolina households had fewer financial problems, relative to households in other states, after payday credit was banned. The study we depart from is Stegman and Faris (2003). They find that “pre-existing” debt problems-- bounced checks or contact by debt collectors--were the most significant predictors of payday credit demand by lower income households in North Carolina.⁴ We follow up by researching whether problems

² The CRL study did not distinguish repeat borrowing from *serial* borrowing (rolling the same loan over and over). The relative extent of serial and repeat borrowing is still not entirely clear.

³ At the federal level, the Military Personnel Financial Services Protection Act of 2006 effectively prohibits payday loans to soldiers and other military personnel.

⁴ Stegman and Farris (2001) conclude that payday lending encourages “chronic” borrowing, but stop short of recommending bans of payday lending lest borrowers resort to more expensive, “underground” credit. They relate a telling anecdote: in states that prohibit payday loans, loan “sharks” have been observed at check cashing stores, waiting to collect from borrowers who have just cashed their work paychecks. The

go down when payday credit gets banned. Is payday credit part of the problem, or part of the solution?

We study patterns of returned (bounced) checks at Federal Reserve check processing centers, complaints against lenders and debt collectors filed by households with the FTC (Federal Trade Commission), and federal bankruptcy filings. The monthly complaints data are new to this study; we obtained them from the FTC under the Freedom of Information Act. We use changes in complaints within a state to identify changes in household welfare (well-being), a distinct advantage compared to the ambiguous measures (interest rates and repeat borrowing) emphasized by critics of payday lending. How do we know when credit is *so* expensive or burdensome that households are better off without it? The real test is whether household welfare is higher with or without payday credit, and complaints are a measure of welfare.

Most of our findings contradict the debt trap hypothesis. Relative to other states, households in Georgia bounced more checks after the ban, complained more about lenders and debt collectors, and were more likely to file for bankruptcy under Chapter 7. The changes are substantial. On average, the Federal Reserve check processing center in Atlanta returned 1.2 million more checks per year after the ban. At \$30 per item, depositors paid an extra \$36 million per year in bounced check fees after the ban. Complaints against debt collectors by Georgians, the state with the highest rate of complaints to begin with, rose 64 percent compared to before the ban, relative to other states. Preliminary results for North Carolina are very similar. Ancillary tests suggest that the extra problems associated with payday credit bans are not just temporary

source of the anecdote noted that two week rate of interest charged by the shark outside his store was 20 percent. The typical rate for payday credit is 15 percent.

“withdrawal” effects; Hawaiians’ debt problems declined, and become less chronic, after Hawaii doubled the maximum legal “dose” of payday credit in 2003.

Our findings will come as no surprise to observers who have noticed that payday credit, as expensive as it is, is still cheaper than a close substitute: bounced check “protection” sold by credit unions and banks (Stegman 2007). Bounce protection spares check writers the embarrassment of having a check returned from a merchant, and any associated merchant fees, but the protection can be quite expensive. The Woodstock Institute survey of overdraft protection plans at eight large Chicago banks estimated the (implicit) APR for bounced check “protection” averaged 2400 percent (Westrich and Bush 2004).⁵ Sheila Bair (2005), now head of the Federal Deposit Insurance Corp., observed that the “enormous” fees earned on bounced protection programs discouraged credit unions and banks from offering payday loans. She warned that customers were “catching on” and turning to payday credit for their “cheaper product.”⁶

Our findings reinforce and extend other recent research on the consumer benefits payday credit. Morgan (2007) finds that households with risky income (and hence, high demand for credit) are less likely to miss debt payments if their state allows unlimited payday loans. That study looked at variation in credit supply between states; this study

⁵ The average fee in the Woodstock survey was \$29 per overdraft. Bouncing one \$150 check for two weeks (1/26 of a year) implies an $APR = (29/150) \times 26 = 503$ percent. Bounced checks like company: the APR for bouncing two \$75 checks $= (58/150) \times 26 = 1006$ percent. The APRs Woodstock calculated were higher (but probably more realistic) because they (1) factored in the daily overage fees levied by some banks and credit unions and (2) assumed five \$40 overage of \$200 over 14 days. Lehman (2005) calculates overdraft APRs of the same order using data from Washington Department of Financial Institutions.

⁶Bair, Sheila, Presentation at the Federal Reserve Bank of Chicago Bank Structure Conference, 2005, http://www.chicagofed.org/cedric/files/2005_pres_session1_bair.pdf, accessed June 9, 2007. Appelbaum (2006) reported that North Carolina banks began advertising their overdraft services more actively after payday lending was banned. Interestingly, payday lending boomed about the same time that bank consultants began marketing bounce check “protection” to credit unions and banks as revenue enhancers (Consumer Federation of America).

looks within states.⁷ Morse (2006) finds that California households weather floods, fires and other natural disasters with less suffering (foreclosures, illness, and death) if they happen to live closer to the types of places where payday lenders tend to congregate. Her findings show that payday credit can be profoundly beneficial, even lifesaving, in extraordinary events.⁸ Our findings show it helps avoid more quotidian disasters, like bouncing a mess of checks, or getting hassled at work by debt collectors.

Our findings may not be consistent with Skiba and Tobacman (2006). Using data from a single large payday lender in Texas, they find “suggestive but inconclusive evidence” (p. 1) that payday loan applicants who are denied loans are less likely than applicants granted loans to file for rescheduling of their debts under Chapter 13 of the bankruptcy Act. By contrast, filings under Chapter 7 were not affected. We too find lower Chapter 13 filings after payday loans are banned (denial at the state level) but we find higher Chapter 7 filings. Now recall that rescheduling under Chapter 13 is for filers with substantial assets to protect, while Chapter 7 (“no assets”) is for everyone else, including, as seems likely, most payday borrowers. Combined with our findings of more bounced checks and more problems with debt collectors, we take our results as evidence of a slipping down in the lives of would-be payday borrowers: fewer bother to

⁷ The CRL argues that Morgan (2007) mistakenly classified some states with active payday lending markets as non-payday states (e.g. North Carolina).

<http://www.responsiblelending.org/issues/payday/briefs/page.jsp?itemID=31489963>

They make a fair point. However, the forthcoming revised version of Morgan (2007) shows that his main results and conclusions are largely unchanged if those disputed states are omitted from the analysis. That invariance is not surprising as the identification in that study came by comparing states that allowed *unlimited* payday loans to states with limited (or no) payday credit. The disputed states did not allow unlimited payday loans, and in fact, many did not allow it at all.

⁸ Karlan and Zinman’s (2006) powerful credit experiment, set in South Africa, shows that marginal credit applicants that are granted (expensive) loans are less likely to go unemployed, poor, or hungry than are denied applicants.

reschedule debts under Chapter 13, more file for Chapter 7, and more simply default without filing for bankruptcy.⁹

Section II describes the payday credit market and the debt trap critique that led Georgia and North Carolina to close the market in those states. Section III illustrates how higher interest rates might push households from a sustainable debt path to an unsustainable path with accumulating debt and problems. Section IV introduces the debt problems we study and documents how national events have influenced their trends. Section V presents the main results: most problems increased in Georgia and North Carolina, relative to the national average, after those states banned payday credit. Ancillary tests show that Hawaiians' debt problems (complaints) declined and became less chronic after the payday loan limit was doubled. Section VI concludes.

II. Payday Credit and its Critics

Here we describe the payday credit market — the loan, the people who demand payday loans, and the firms that supply them — and critics' objection to the market.

The loan. The typical payday loan is \$300 for two weeks (Stegman 2007). The typical price is about \$45 (\$15/\$100), implying an annual percentage rate (APR) of 390 percent. Payday lenders require proof of employment (pay stubs) and a bank statement. Some lenders require only that, others may also check Equifax to see if the borrower has defaulted on previous payday loans. If approved, the borrower gives the lender a post-dated check for the loan amount plus interest, say \$345. Two weeks later the lenders

⁹ Credit constrained borrowers may also resort to selling assets, thus obviating filing for Chapter 13. Increased asset sales after the ban were reported to us by a large (one of the big five) payday lender that also operates pawnshops, and we also found lower auto repossession rates after Hawaii doubled the payday loan limit (repossession rates are not available for North Carolina and Georgia). Those results are available upon request. "A Slipping-Down Life," Anne Tyler's novel (1969, Random House) about diminished prospects, is set in North Carolina.

deposits the check and the credit is extinguished. If borrowers wish to roll over (extend) the loan, they pay the \$45 interest charge and write a new, post-dated check for \$345. The initial check is returned (uncashed) to the borrower.

Payday lending evolved from check cashing in the early 1990s (Caskey 1994). Once a customer had cashed a paycheck (or assistance check) repeatedly, lending against future checks was a natural step.¹⁰ Payday lenders are 2nd generation check cashers that learned to lend. That evolution suggests payday credit was not contrived specifically to trap borrowers, though it may have devolved.

Demand. At least ten million households borrow from a payday store every year (Skiba and Tobacman 2006). All payday borrowers, by definition, have jobs and bank accounts.¹¹ From a large survey of payday customers commissioned by the payday trade association we know the typical customer is about 40 years old and earns between \$30,000 and \$40,000 per year (Ellihhausen and Lawrence 2001). Only 20 percent have a college diploma, compared to 35 percent of all adults. Customers tend to be disproportionately female, and Black or Hispanic (Skiba and Tobacman 2006). Active-duty military personnel demand more payday credit than their civilian counterparts (Stegman 2007).

Payday customers are risky. The rate of bankruptcy among the customers Skiba and Tobacman (2006) studied was an “order of magnitude” (ten times) higher than the

¹⁰ Modern payday lending resembles “salary buying” of a century ago, where lenders buy someone’s next paycheck at discount (see Chessin citation in Stegman 2007). This may be gratuitous, but *all* credit is payday credit in the sense that repayment comes from future income (or profits).

¹¹ Second generation banked households studied by Stegman and Farris (2003) were less likely to demand payday credit than 1st generation banked households, suggesting borrowers graduate to more mainstream credit.

national average. Sixty percent of the customers surveyed by Elliehausen and Lawrence (2001) reported they had “maxed out” (borrowed to the limit on) their credit cards.

Most payday borrowers are repeat customers; if they borrow once, they are likely to borrow 8 to 12 times per year (Center of Responsible Lending (2003) and Skiba and Tobacman (2006)). The extent of *serial* borrowing (rolling the same loan over and over) versus repeat borrowing is not entirely clear.

Supply. The number of payday credit stores has grown from essentially zero in the mid-1990s to over 20,000 today. As with mainstream banks, the distribution of payday lending firms is bimodal: a handful of very large corporate firms operate thousands of payday stores in virtually every state that allows it, while hundreds of small firms operate just a few stores within a single city, state, or region. Several of the multi-state firms have publicly traded stock. Stegman (2007) documents the phenomenal expansion in the number of payday stores in states that permit them. In just five years, store numbers in Ohio and Oregon doubled, and in Arizona they tripled. Nationally, payday lenders are said to outnumber McDonald’s restaurants (Stegman 2007).¹²

While rapid entry suggests low entry costs and/or high expected returns, recent profitability studies find relatively normal returns. After analyzing firm level data provided by two large payday lending corporations, Flannery and Samolyk (2005) conclude that payday lending prices seem roughly commensurate with costs. Huckstep (2007) concludes similarly after examining costs and returns of publicly traded payday lending firms. Normal returns suggest entry and competition work to limit payday loan

¹² For relative numbers of payday lenders and McDonalds in each state see http://www.csun.edu/~sg4002/research/mcdonalds_by_state.htm

prices and profits. Using “found data” Morgan (2007) finds lower payday loan prices in cities with more payday stores per capita, consistent with the competition hypothesis.¹³

Against payday lending. Payday lenders’ many critics include consumer advocates, journalists, competitors, and increasingly, the government at all levels.¹⁴ Their main objections, again, are “targeting” (women, minorities, and soldiers), high prices, and repeat borrowing. Payday lenders are said to locate near their prey, then hook them on expensive credit they cannot payoff. Repeat borrowing is seen as proving the debt trap hypothesis: borrowers are tempted into borrowing \$300 for two weeks expecting to pay \$45, but wind up paying many times that amount as they borrow repeatedly.

The CRL (Center for Responsible Lending), a non-profit, non-partisan research institute headquartered in North Carolina, has been an especially influential of payday lending in particular and predatory lending in general. The CRL is affiliated with Self Help credit union.¹⁵ After finding the typical payday customer borrows 8 to 13 times per year, the CRL estimated that payday lenders extracted \$3.4 billion per year from “trapped” households (that borrowed more than 5 times per year). Those findings were cited by the Chairman of the NAACP (National Association for the Advancement of Colored People) in an editorial published by the Atlanta Journal Constitutional while the Georgia legislature was debating whether to ban payday lending:

¹³ In a study of Colorado payday lenders, DeYoung and Phillips (2006) also find lower prices in markets with more lenders per capita. On the other hand, they also find evidence that government price ceilings provide a focal point that enables collusion, and thus, inhibits competition.

¹⁴ Googling “Credit Unions Payday Lenders” produces many hits where credit union executives and consultants lament the harm done to their customers by payday lenders, *and* the loss of customers. For example: <http://www.npr.org/templates/story/story.php?storyId=15276522>

¹⁵ <http://www.responsiblelending.org/about/index.html>.

“the dirty secret of payday lending is that its business model is utterly dependent on extracting huge fees from those borrowers unable to pay the loan back.”
(Atlanta Journal Constitutional 3/4/2004, p.A14)

A follow-up study by the CRL projected that banning payday lending would save Georgia and North Carolina households \$147 million and \$153 million, respectively (King, Parrish, and Tanik 2006, table 5).

Georgia made payday lending a felony subject to class-action lawsuits and prosecution under racketeering in May 2004. Store counts provided to us by five large multi-state payday lending firms confirm that the ban caused payday credit supply to contract as intended (Chart 1): shortly after the felonizing, stores operated by the “big five” in Georgia fell from 125 to 0.¹⁶

North Carolina has gone back and forth with payday lenders (Hefner 2007). In 1997 the NC legislature exempted payday lenders from the state’s usury limits for a three year trial. Critics prevailed on the legislature to let the law expire in 2001. Many small stores closed, but the largest firms circumvented the usury limits by affiliating with a national or state chartered bank (the bank agency or “rent-a-charter” model). A cat-and-mouse game followed, with bank regulators trying to limit charter-renting and payday lenders trying to evade the limits. In December 2005, the NC Commissioner of Banks ruled that the bank agency model violated NC law, “...effectively end(ing) payday

¹⁶ Payday lenders defended themselves, of course, along with the occasional customer willing to testify on their behalf: “During her lunch hour Friday, (payday customer Audrey Richardson) went to Ruff’s (payday) business for \$300 to cover her car insurance bill until payday a week off, but she was turned away. “This could be devastating for people like me... this has bailed me out numerous times.” (Quoted by Rhonda Cook in “Payday Lenders Cry ‘Mayday’ as Laws Tighten,” Atlanta (GA) Journal-Constitution, March 6, 2004, E1). The Georgia House of Representatives passed the law against payday lending the same day they outlawed “bullying behavior” in schools.

http://www.legis.state.ga.us/legis/2003_04/house/house%20information/daily%20wraps/daily%2016.htm

lending in North Carolina” (Hefner 2007). The big five promptly closed 250 stores (Chart 1).¹⁷

Before we investigate whether those payday credit bans improved households’ financial health, we contemplate the debt trap critique that prompted the ban.

III. Debt Trap Concepts

“Trap: 1) A contrivance for catching and holding animals...
2) A stratagem for catching or tricking an unwary person...”¹⁸

Debt traps and predatory lending are not features of standard economic models of household borrowing. In standard models, households demand credit to sustain their consumption when their income temporarily falls or expenses temporarily rise. If credit is costly, households demand smaller quantities. Elastic demand ensures that households’ debt burden does not exceed their debt capacity. Absent shocks or subterfuge, rational households keep themselves free of debt traps and predators’ clutches.

Recent research departs the standard model by imagining lenders who trick households into borrowing at inimical terms. Della Vigna and Malmendier (2004) show how credit card lenders can get the better of procrastinating borrowers by using “teaser” rates or other price manipulation. Morgan (2007) imagines predators who can, at some cost, exaggerate the income prospects of gullible households, thereby driving up their loan demand. Especially gullible households may borrow up to the brink of default. It could be said that the prey in those models get trapped — they certainly get tricked.

¹⁷ Payday lenders agree to stop making new loans, to collect only the principal on existing loans, and to pay \$700,000 to non-profit organizations for relief.

<http://www.ncdoj.com/DocumentStreamerClient?directory=PressReleases/&file=paydaylenders3.06.pdf>

¹⁸ American Heritage Dictionary, 3rd ed. 1992, Houghton and Mifflin Co. Boston and New York.

Bond et al. (2006) show how even fully rational households can get trapped by better informed lenders.¹⁹

The stratagems in those theories seem more complicated than the debt trap critique levied against payday lenders.²⁰ Critics maintain that payday credit is prohibitively expensive, meaning repayment of the full \$345 required for the typical two week loan is beyond borrowers' reach; the best borrowers can do is extend the loan indefinitely.

That debt trap concept seems closer to the "poverty trap" model in Sachs (1983). His model shows how a nation gets mired in poverty if its debt burden becomes too great. Debt servicing slows capital accumulation, which slows income growth and reduces saving. Reduced saving feeds back to reduce capital still further, so a downward spiral ensues. Debt *relief*, a reduction in borrower costs (or debt amnesty) can reverse the spiral. A simpler *debt* trap version of that model illustrates the basic arithmetic of a debt trap, and show how a rise in the cost of credit (the advent of payday lending?) might push households that *were* in a sustainable financial condition into an unsustainable path with accumulating debt and compounding problems.²¹

¹⁹ While those predatory lending models vary, two principles are the same: (1) collateral excites predators' instincts (because it reduces the hazard of bankruptcy), and (2) competition limits the harm predators can inflict (since competitors can profit by undoing the harm). Morgan (2007) finds lower payday loan prices in cities with more payday loans per capita, consistent with the competition hypothesis.

²⁰ To our knowledge, not even critics of payday lending allege that payday lenders are opaque about their borrowing terms. By contrast, bounce protection providers have been criticized for (1) providing protection by default, (2) encouraging overdrafts, and (3) not converting fees to equivalent annual rates (Bush and Westrich 2004). Skiba and Tobacman (2006) discuss a more sophisticated debt trap hypothesis that has payday lenders preying on hyperbolic discounters (procrastinators) who cannot commit themselves to repay the credit. As far as we know, there is no evidence for that hypothesis.

²¹ Incorporating more flexible household behavior into our (admittedly) mechanical model would complicate the dynamics, without altering the basic result. Following Sachs (1982), we could allow debt problems (e.g., repossession of the borrowers' car) to lower productivity and slow income growth. Slower income growth reduces d^* further, so d accelerates. Allowing feedback between debt problems and income growth makes the debt trap easier to fall into and harder to escape.

Imagine a household whose income Y grows exponentially over time (t) at rate n : $Y(t) = Y_0 e^{nt}$. Households save a fixed fraction σ of their income: $S(t) = \sigma Y(t)$. The household owes $D(t)$. The stock of debt increases whenever interest on the debt exceeds savings: $\delta D(t)/\delta t = rD - \sigma Y(t)$. How much can the household afford to borrow?

Because income is growing, sustainable debt should be defined relative to income: $D/Y \equiv d$. Steady state debt-income ratio (d^*) is where debt and income grow apace: $\delta D/\delta t = \delta Y/\delta t \Rightarrow rD(t) - S(t) = nY(t) \Rightarrow d^* = (\sigma + n)/r$. The sustainable debt-income is increasing in income growth (n) and decreasing in the interest rate r ; the more debt cost, the less the household can afford. An exogenous increase in r will push households that were in sustainable financial condition onto a path of unsustainable debt accumulation and compounding problems. Critics may see advent of expensive payday credit as just such an interest rate shock.

The model tells us that the variable we would like to identify is the marginal cost of credit after payday credit gets banned. Short of knowing whether the alternatives offered by banks and credit unions are preferable, our strategy is to test whether households debt problems subside after the ban.²² If the substitutes are cheaper, or less entrapping, households should look financially better off after the ban.

IV. Financial Problems

We study three financial problems that seem endemic to payday borrowers: (1) returned checks, (2) complaints against lenders and debt collectors, and (3) bankruptcy. We think of bounced checks as a small setback that might cascade into problems with debt collectors, or even bankruptcy.

Returned Checks. Checks are returned (bounced) if the check amount exceeds funds in the payer's account. To the uninitiated, bouncing a check is embarrassing, expensive, and potentially criminal.²³ Check bouncing may be especially problematic for payday borrowers as they are prone to bounce checks (Stegman and Faris 2003).

We study the quarterly rate of returned checks at Federal Reserve check processing centers (cpc) from 1997:q1 to 2007:q1 (Chart 2).²⁴ The returned check rate is calculated two ways: 1) the number of returned checks per 100 checks processed, or 2) the dollar value of returned checks per \$100 worth of checks processed. The rate in number terms seems more relevant to (small dollar) payday credit users.

The rebound in returned check rates in 2004, after years of declines, reflects Check 21 (Check Clearing Act for the 21st Century), a new federal law that took effect October of that year. Check 21 lets depository institutions debit payers' accounts more quickly (using electronic presentment) without crediting payees' account more promptly.²⁵ Less "float" for check writers means more bounced checks.

More bounced checks means more demand for payday credit and/or "bounce protection" as ways to avoid bounced check.²⁶ Of course, households in Georgia and

²² The model also says our test should control for state economic conditions, because the impact of a change in interest rates (r) on steady state debt income (d^*) depends on income growth (n).

²³ For a comparison of states' criminal penalties for writing bad checks see <http://www.ckfraud.org/penalties.html>.

²⁴ The Federal Reserve processes (clears) checks for banks and a variety of other depository institutions, including credit unions. The 2004 Federal Reserve Payment Study estimates 36.7 billion checks were written in 2003 (<http://www.frbservices.org/Retail/pdf/2004PaymentResearchReport.pdf>.) The Federal Reserve processed 14 billion checks in 2003, about 38 percent of the total (Federal Reserve 2005 Check Restructuring Factsheet: <http://www.federalreserve.gov/boarddocs/press/other/2004/20040802/attachment2.pdf>).

²⁵ The maximum time banks can wait to credit payees' accounts is governed by the Expedited Funds Availability Act. That law requires the Federal Reserve Board to reduce maximum hold times in step with reductions in actual check-processing times. <http://www.federalreserve.gov/paymentsystems/truncation/default.htm>

²⁶ See <http://www.federalreserve.gov/pubs/bounce/> for a comparison of "courtesy overdraft protection" plans offered by banks and credit unions.

North Carolina had only one choice once payday credit was banned. If we observe higher bounced check rates afterwards, it tells us payday credit was the preferred choice (else depositors would protect themselves completely with bounce protection). Unlike with payday credit, fees under bounce protection can quickly accumulate as unwitting depositors get charged for *every* ATM withdrawal.²⁷ Thus, a rash of bounced checks might be the initial setback that leads to more severe problems.

Complaints against Lenders and Debt Collectors (Informal Bankruptcy).

Borrowers who default (quit paying debt) without officially filing for bankruptcy protection are subject to debt collection efforts by lenders and debt collectors, including wage garnishment, foreclosure, and asset repossession. Dawsey and Ausubel (2004) call default without bankruptcy protection “informal bankruptcy.” Our 2nd measure of debt problems--complaints against lenders and debt collectors — makes a good measure of informal bankruptcy.

The complaints are collected by the FTC (Federal Trade Commission), the agency charged with enforcing the Fair Debt Collection Practices Act of 1978, the federal law intended to civilize third party debt collectors. Among other things, the law prohibits abusive, deceptive, and unfair collection practices by debt collectors. The FTC maintains a toll free number (877—FTC-- HELP) for households to call and complain about debt collectors. Households can also complain online, or by mail.²⁸

Consumers filed 66,000 complaints against debt collectors in 2005. That is a small number *per capita*, but the FTC considers it a “small percentage” of all household

²⁷ If depositors refuse to pay overage fees, they may become unbanked. Chexsystems lets banks and credit unions track depositors’ willingness to pay overdraft fees. <http://www.chexsystemsolutions.com/>

²⁸ “Lenders” comprises banks, credit unions, finance companies, mortgage lenders, installment lending, health care provider lending, and other lenders. Separate tallies are not available.

that experienced problems with debt collectors (Commission 2006, p4). Here is the litany of complaints (percent of total complaints received in 2005):

- Exaggerating amount or legal status of debts (43%)
- Calling continuously, before 8 am, or after 9 pm (24.6%)
- Repeatedly calling family, friends, and neighbors (11%)
- Obscene language (12%)
- False threats of dire consequences (9.6%)
- Impermissible calls to employer (6.3%)
- Revealing debt to 3rd parties (4.5%)
- Threatened violence (0.4%).

We consider complaints the most revealing of the three debt problems we study, for several reasons. First, complaints measure *welfare*—households are sufficiently bothered to appeal to the government for protection.²⁹ Second, the data are monthly. Third, they are intuitive. Recalling the model above, suppose a sudden rise in interest rates causes a household to default. Dunning by lenders and third party collectors follow. Until the defaulter files for bankruptcy, collection efforts escalate: wages get garnished, assets get repossessed. The most aggrieved defaulters will complain, and the tally of their complaints will register the financial shock like a simple seismograph. We maintain that variations in per capita complaints *within* a state reflect changes in household problems, rather than changes in debt collectors’ practices. Collectors may become more or less aggressive over the business cycle, but that can be controlled for using state unemployment rates.³⁰

²⁹ “Abusive collection practices ... are known to cause substantial consumer injury” (Commission 2006, p.1).

³⁰ The level of complaints may not be a good indicator of the extent of problems, as noted above, but the change in complaints should reliably indicate whether household debt burdens have gotten heavier.

We acquired separate series on complaints against lenders and debt collectors between July 1997 and April 2007 for \$200. Both series are expressed per 100,000 persons (Chart 3). Complaints against debt collectors are several times higher than complaints against lenders, suggesting lenders outsource the rough trade to third party collectors. The widening gap between the series after 2002 probably reflects rising identify theft (Commission 2006).³¹ Across states, average complaints *per capita* were higher in Georgia than in any other state. Only Washington D.C. had more complaints per capita. Complaints in North Carolina were about average.

Bankruptcy. If bounced checks are the beginning of a financial crisis, and informal bankruptcy the middle, bankruptcy is the end, and like many unhappy endings, bankruptcy has multiple versions. Under Chapter 13 (rescheduling), filers keep all their assets and agree to repay debts out of future income according to a revised schedule. Under Chapter 7 (liquidation), filers hand over any non-exempt assets and keep their future income free and clear.³² Naturally, Chapter 7 is preferred by households with few assets or who live in states with high exemptions. Until the bankruptcy reform in 2005, roughly two-thirds of filings were under Chapter 7, and most of those were “no asset” cases.³³ Given their lower income status, we suspect payday customers who wind up bankrupt are more likely to file under Chapter 7 than under Chapter 13.

³¹ Credit card thieves charge up debts that rightful card owners are loath to pay, so dunning ensues. We control for the national trend in complaints (due to ID theft or other aggregate factors) using fixed year effects.

³² Exemptions are the opposite of collateral—they are dollar amounts of assets (home equity, autos, tools of trade, jewelry, etc.) that creditors cannot claim.

³³ “Most chapter 7 cases are ‘no-asset’ cases” <http://bankruptcy.lawyers.com/Chapter-7-Bankruptcy-Basics.html>

We study quarterly, state consumer bankruptcy filings per 10,000 persons by chapter between 1998:q2 and 2007:q1 (Chart 4).³⁴ The rise and fall in Chapter 7 filings in 2005 and 2006:q1 reflects the new bankruptcy law: Bankruptcy Abuse Prevention and Consumer Protection Act of 2005. BAPCPA restricts the “supply” of bankruptcy protection, for one, by requiring a means test to qualify for Chapter 7, so households rushed to file before the law took effect on October 17, 2005.³⁵ BAPCPA happened just two months before North Carolina banned payday loans.

Changes in Problems after Payday Credit Bans

Before we calculate precisely how each problem changed, we look at some pictures showing the trends in problems in each state *relative* to all other states. Returned check rates at the Atlanta and Charlotte check procession centers, particularly the rate per check, surged about the time Georgia and North Carolina banned payday loans (Chart 5a).³⁶ Were it not for the fluke drop at the Charlotte cpc shortly before the NC ban, returned checks there would be off the scale.³⁷ Complaints against lenders and debt collectors (informal bankruptcy) obviously increased in Georgia (Chart 5b). Complaints in North Carolina veered upward somewhat before the ban, but complaints appear

³⁴ The data before 2000 are from Dick and Lehnert (2007). The rest are from the American Bankruptcy Institute.

³⁵ Ashcraft, Dick, and Morgan (2007) analyze the impact of BAPCPA on borrowers and lenders.

³⁶ In 2004, the Atlanta cpc also processed checks for institutions Chattanooga, Tennessee. In personal correspondence, a project manager at the Atlanta cpc estimated that about 2/3 of checks processed at the Atlanta cpc in 2004 were drawn on financial institutions in Georgia. To the extent the Atlanta cpc processes checks drawn on financial institutions outside of Georgia, the impact of the payday ban in Georgia will be attenuated, e.g., the ban would have no effect on returned checks at the Boston cpc.

³⁷ The decline in returned checks rates at the Charlotte NC cpc in 2004 reflects that operations were transferred there from the Columbia SC cpc as part of the Federal Reserve’s consolidation effort. <http://www.federalreserve.gov/boarddocs/Press/other/2003/20030206/default.htm> In personal correspondence, a project manager at the Charlotte cpc estimated that about 50 percent of checks processed at that cpc were drawn on NC institutions. To the extent the Charlotte cpc processes checks from outside North Carolina, the effect of the North Carolina payday ban on returned checks at the Charlotte cpc will be attenuated.

consistently higher afterwards. Chapter 7 bankruptcy filing rates rose in Georgia and North Carolina after the ban while Chapter 13 filing rates fell (Chart 5c-5d).

Differences-in-Differences (diffs-in-diffs)

Table 1 reports how each problem in Georgia differed after the ban (diff 1). For comparison, we also report how debt problems in other states differed after same date (diff 2). The difference-in-difference (diff 1 – diff2) indicates whether problems in Georgia declined more than they did problems in other states. In experimental terms, Georgia is the subject, other states are the control, and the treatment is the withdrawal of payday credit.

Note that the control group comprises states that allow payday lending and states (approximately ten) that do not.³⁸ Since the treatment is the *withdrawal* of payday credit, the sign of the difference-in-difference does not depend on the status of payday lending in other states. To see that, consider two extreme cases. First suppose that all other states prohibited payday loans. Assuming the debt trap hypothesis to be true and all else to be equal, problems for Georgians and North Carolinians would be higher than average before the ban, but lower than average after. Now suppose all other states allow payday lending. Then problems for Georgians and North Carolinians would be average before the ban, but lower than average after. In either case, if the debt trap hypothesis is correct, the withdrawal of payday credit should show up as negative difference-in-difference.³⁹

³⁸ Although the set of states that allow payday lending makes a more obvious control, identifying those states is problematic because payday lenders may operate without enabling legislation (*via* the bank agency model).

³⁹ If the difference in problems per capita per period between permitting and prohibiting states is constant, the sign and the size of the difference-in-difference is invariant to definition of the control group. Denote the mean in Georgia before ban and after by M_{GB} and M_{GA} . Denote the mean for other states before that

Returned checks per 100 checks processed at the Atlanta cpc increased by 0.02 percent after the ban (diff1). Returned checks per 100 at all other cpc declined by 0.14 (diff2). The difference-in-difference (diff1 – diff2) is positive and significant at the 1 percent level. The diff-in-diff estimate of 0.16 implies a 13 percent increase in the returned check rate at the Atlanta cpc compared to before the ban. What does that mean in dollar terms? The Atlanta cpc processed 188 million checks per quarter on average before the ban. The diff-in-diff of 0.16 per 100 checks processed implies 300,800 (0.16x1.88 million) more bounced checks each quarter. If each returned check cost depositors \$30, depositors paid an extra \$9 million per quarter (\$36 million per year) in returned check fees after the ban.

Georgians had a lot more problems with lenders and debt collectors after the ban. The difference-in-difference for complaints against debt collectors was 0.7 per 100,000, a 64 percent increase compared to the pre-ban average. Complaints against lenders also went up, but not so much.⁴⁰

Bankruptcy filings went in opposite directions by Chapter. Chapter 7 filing rates increased. The diff-in-diff of 0.7 per 10000 persons represents an 8.5 percent increase in Chapter 7 filings relative to average before the ban. By contrast, Chapter 13 fell. The decline in Chapter 13 filings more than offset higher filings under Chapter 13, implying total filings fell. As noted, Chapter 13 is for filers with substantial assets to protect, and

date and after by M_{OB} and M_{OA} . The difference-in-difference is $M_{GA} - M_{GB} - [M_{OA} - M_{OB}]$. If the fraction of other states that permit payday lending is f , the difference for other state equals the weighted average of the means for states that *permit* payday lending and the mean for states that *prohibit* it:

$$M_{OA} - M_{OB} = fM_{O_perA} + (1-f)M_{O_proA} - \{f M_{O_perB} + (1-f)M_{O_proB}\}$$

Now suppose $M_{O_perA} = M_{O_proA} + P$ and $M_{O_perB} = M_{O_proB} + P$, where $P > 0$ as implied by the debt trap hypothesis. Substituting into the equation above implies

$$M_{OA} - M_{OB} = fM_{O_perA} + (1-f)(M_{O_perA} - P) - \{fM_{O_perB} + (1-f)(M_{O_perB} - P)\} = M_{O_perA} - M_{O_perB}$$

⁴⁰ Which lenders were the object of complaints by Georgians is something we can only wonder about (we do not have that information); presumably it was whichever lenders replaced payday lenders.

that does not seem to fit the profile of payday borrowers. We would expect bankrupt payday borrowers to wind up in “no asset” Chapter 7 bankruptcy.

In sum, what we saw in Georgia after the ban was more bounced checks, more problems with lenders debt collectors (informal bankruptcy), more bankruptcy under chapter 7, but lower bankruptcy under chapter 13. Here is how we interpret those facts. The contraction in payday credit supply caused former borrowers to bounce more checks, thus aggravating their already marginal circumstances. To stave off bankruptcy, distressed borrowers pawned or sold assets.⁴¹ For those who ultimately succumbed to their financial problems, the loss of assets made chapter 7 the natural choice. Others slipped into informal bankruptcy (defaulted without filing). Though sad to say, that slipping down, with less rescheduling of debts, but more “deadbeats” and “no asset” bankruptcies, seems to fit the picture a marginal payday customer pushed over the edge.

North Carolina banned payday credit in December 2005. With so few quarters elapsed, and a potentially confounding event (bankruptcy reform), we advise treating our North Carolina results as preliminary.⁴² That said, the difference-in-differences for North Carolina tell the same story (Table 2). Bounced check rates at the Charlotte (NC) processing center rose relative to other processing centers after the ban, although the increases were not significant. Total complaints against lenders and debt collectors rose by over a third relative to other states. Chapter 7 filing rates were higher in NC, relative to other states, while Chapter 13 filing rates were lower. The rise in Chapter 7 filings

⁴¹ In fact, increased asset sales after the ban were reported to us by a large (one of the big five) payday lender that also operates pawnshops. Thus, we interpret the “suggestive but inconclusive” increase in chapter 13 filing risk after receipt of payday loans found by Skiba and Tobacman (2006) as evidence that the extra credit obviated asset sales but not, alas, bankruptcy.

⁴² The bankruptcy reform would have to have a more pronounced effect in North Carolina to explain the relative increases in chapter 7 filing rates. Ashcraft, Dick, and Morgan (2007) find the rush to file before

exceeded the decline in Chapter 13 filings (unlike in Georgia), so total filings were higher after the ban in North Carolina. Overall, the results for North Carolina are mostly consistent with the results for Georgia, and mostly inconsistent with the debt trap hypothesis.

Regression Analysis

We confirmed the results above using multivariate regression equations that control for unemployment and other differences between states:

$$DEP\ VAR = a + a_s + a_t + bUR + cGA + dNC + ePOST-BAN_{GA} + fPOST-BAN_{NC} + gGAxPOST-BAN_{GA} + nNCxPOST-BAN_{NC} + \varepsilon_{st}.$$

DEP VAR (dependent variable) equals some debt problem in state s at time t (subscripts omitted). The a measures the mean of DEP VAR over all s and t . The a_s measures any fixed (mean) differences between states, in case DEP VAR is always higher (or lower) in some states. Likewise, a_t allows for fixed differences between time period (year and quarter or month) due to national or seasonal effects. Including fixed state and time effects (standard with panel data) amounts to “demeaning” the data, i.e., subtracting off the state and time period means from all the other variables in the regression. UR denotes the unemployment rate in state s at t . The ε (error) represents all the other forces that influence DEP VAR. All the other variables are indicator (0 or 1) variables.⁴³ The c and d coefficients measure the difference between the mean of DEP VAR for Georgia and all other states and the difference between the mean for all states

the new law was higher in high exemption states and lower average credit scores. North Carolina has a relatively low (\$10,000) exemption, suggesting a less pronounced effect.

⁴³ For example, GA equals one if $s = \text{Georgia}$, zero otherwise. $POST_BAN_GA$ equals one after May 2005, zero before.

before and after the ban. Likewise for e and f . We do not report those coefficients to keep the focus on g and n : those measure the difference-in-difference in problems between GA or NC and other states before the ban and after. The debt trap implies $g < 0$ and $n < 0$.

The results (Table 3) show that bankruptcy rates were positively related to unemployment, not surprisingly, but complaints against lenders and debt collectors (informal bankruptcy) were negatively related to unemployment. There could be two reasons for that negative correlation. Unemployed workers do not need protection from wage garnishment, for one. And perhaps debt collectors are less persistent with unemployed defaulters (whom they reach at home) because they believe unemployed defaulters who claim penury.

The other results confirm the diffs-in-diffs above. The Atlanta and Charlotte cpc returned more checks after the ban, though the latter was insignificant. Total complaints (against lenders and debt collectors) rose significantly after the ban. Chapter 7 filing rates were higher in Georgia after the ban, but Chapter 13 filings rates (and total filings) were lower. Chapter 7 *and* Chapter 13 filing rates rose in North Carolina.

More payday Credit, More Problems? Not in Hawaii

How do we know the problems associated with payday credit bans are not merely temporary “withdrawal” symptoms preceding a healthier, financial life lived without payday credit? For one, the extra problems were not temporary (Chart 5). As further evidence against the withdrawal/addiction hypothesis, we show that problems subside when larger “doses” of payday credit are allowed

In July 2003, Hawaii doubled the legal limit on payday loans to \$600 under law HB595.⁴⁴ Though not as dramatic as a ban, a higher loan limit gives predatory payday lenders another hook: in addition to overcharging, they can also overlend. If the increased problems following a payday credit ban are just withdrawal symptoms, injections of payday credit should eventually lead to greater problems, once the rush ends.

Regressions results indicate just the opposite (Table 4).⁴⁵ Total complaints against lenders and debt collectors rose after Hawaii doubled the loan limit.⁴⁶ The diff-in-diff in total complaints (0.3) represents a 50 percent decline compared to average before the limit doubled. Bankruptcy filings under chapter 13 rose, but filings under Chapter 7 fell by more, so total filings falls. The diff-in-diff for total filings (2.6) represents a decline of 27 percent relative to average before the limit was raised.

Does Payday Credit Prolong Problems?

The results thus far suggest household credit problems go opposite the supply of payday credit: higher supply, lower problems. Here we test whether problems are more persistent when payday credit is more plentiful, as the debt trap hypothesis would suggest. The results are negative: problems appear less persistent when larger payday loans are available.

A simple dynamic model motivates the persistence tests. Suppose payday credit demand (PCD) this month depends on debt problems (DP) the month before: $PCD = aDP_t + s$, where s stands for all other factors affecting payday credit demand. We

⁴⁴ Source: National Council of State Legislatures, Enacted payday lending legislation http://www.ncsl.org/programs/banking/PaydayLend_2003.htm.

⁴⁵ Hawaii does not have a Federal Reserve check processing center.

maintain $a > 0$ based on the finding in Stegman and Faris (2003) that payday credit demand is positively related to past debt problems. Debt problems, in turn, depend on past debt problems and past payday credit usage: $DP = bDP_1 + cPCD_1 + e$. Eliminating PCD from those two equations gives $DP = bDP_1 + caDP_2 + cs + e$. If $c = 0$, payday credit is irrelevant and problems are short-lived. If $c > 0$, payday credit prolongs problems. If c is sufficiently large ($> 1 - b^2/a$), temporary problems become permanent disasters: the use of payday credit compounds problems until they overwhelm the borrower.⁴⁷ That seems close to the notion of a debt trap. By contrast, if $c < 0$, debt problems trail off sooner if payday credit is available; payday credit is part of the solution, not part of the problem.

We implement the test by regressing total complaints against lenders and debt collectors in Hawaii on six lags of itself, then comparing the implied dynamics before and after the doubling.⁴⁸ That strategy entails splitting the sample then estimating seven numbers (six coefficients and a constant) over each sub-sample, so our degrees of freedom are limited. We study only the monthly series (complaints) and only in Hawaii, where we have sufficient post-event data. This ancillary test is limited: were Hawaiians' problems more chronic once they had access to larger payday loans?

The results suggest just the opposite (Chart 6). Before the payday loan limit doubled, problems with (complaints against) debt collectors lasted about 7 months. After the doubling, such problems were over within the month.

⁴⁶ Complaints against lenders in Hawaii rose. We cannot say whether the extra complaints were against payday lenders but it is possible; once the loan limit doubled, payday lenders had more skin in the game.

⁴⁷ If $-b^2 < ac < 1 - b^2$, problems are chronic, but not explosive. Those conditions on c follow from (1) calculating steady state problems where p^* is constant over time and (2) inspecting how $p - p^*$ evolves.

⁴⁸ Simply estimating an AR(2) (2nd order auto-regression) and examining the DP_2 coefficient takes the particular model above too literally. In a model with more lags, c would be distributed elsewhere.

VI. Conclusion

Georgians and North Carolinians do not seem better off since their states outlawed payday credit: they have bounced more checks, complained more about lenders and debt collectors, and have filed for Chapter 7 (“no asset”) bankruptcy at a higher rate. The increase in bounced checks represents a potentially huge transfer from depositors to banks and credit unions. Banning payday loans did not save Georgian households \$154 million per year, as the CRL projected, it *cost* them millions per year in returned check fees.

The increased problems are not just “withdrawal” symptoms preceding a healthier financial life without payday credit. The problems do not appear temporary, for one, plus we find that Hawaiians had fewer and less chronic problems after the maximum legal “dose” of payday credit was doubled.

While our findings contradict the debt trap/addiction hypothesis against payday lending, they are consistent with alternative hypothesis that payday credit is cheaper than the bounce “protection” that earns millions for credit unions and banks.⁴⁹ Forcing households to replace costly credit with even costlier credit is bound to make them worse off.

⁴⁹ Consider this pitch by for bounce protection in creditunion.com: “Today’s economy has compelled many credit unions to pursue creative non-interest income solutions to address ailing bottom lines -- and overdraft payment services fit that need. For many credit unions, the situation has become critical” William Strunk, “Addressing Net Interest Income Erosion: A Matter of Survival.” http://www.creditunions.com/home/articles/template.asp?article_id=2282

Our findings raise obvious policy questions. Oregon and Pennsylvania recently banned payday credit. New York, New Jersey, and most New England states never let payday lenders enter. Should they reconsider? Progressives may call for something better than either payday credit and bounce protection. We are all for that, but banning payday loans is not the way to motivate competitors to lower prices or invent new products.

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Table 1: Household Financial Problems in Georgia and Other States, Pre-Ban and Post-Ban

Reported is mean (number of observations) before ban (5/2004) and after ban for Georgia and for all other states
 The final column (diff1- diff2) indicates whether the change in the mean in Georgia was larger or smaller than the change in the mean for other states, and whether the diff-in-diff was statistically significant.

	<i>Georgia</i>			<i>Other states</i>			
	Pre	Post	diff1	Pre	Post	diff2	diff1-diff2
<i>Bankruptcy per 10000</i>							
Chapter 7	8.16 (25)	8.02 (11)	-0.14	9.14 (1250)	8.32 (550)	-0.83	0.69 ***
Chapter 13	11.90 (25)	8.57 (11)	-3.33	3.02 (1250)	2.50 (550)	-0.52	-2.81 ***
Ch.7 + Ch.13	20.05 (25)	16.58 (11)	-3.47	12.17 (1250)	10.82 (550)	-1.35	-2.12 ***
<i>Complaints per 100000</i>							
Against lenders	0.28 (79)	0.39 (35)	0.11	0.21 (3179)	0.28 (1610)	0.07	0.05 ***
Against debt collectors	1.11 (81)	2.91 (35)	1.80	0.54 (3783)	1.61 (1715)	1.07	0.73 ***
Total Complaints	1.13 (79)	2.91 (35)	1.79	0.59 (3179)	1.64 (1610)	1.05	0.74 ***
<i>Returned checks[§]</i>							
Per 100 checks	1.13 (57)	1.14 (13)	0.02	1.33 (2561)	1.19 (359)	-0.14	0.16 ***
Per \$100	0.91 (53)	0.77 (13)	-0.14	1.30 (2373)	1.01 (359)	-0.29	0.15 ***

*** Significant at 1 percent

[§] Returned checks at Atlanta, GA check processing center versus all other check processing centers
 Authors' calculations. Data sources: Bankruptcy filings from American Bankruptcy Institute (2000-2007) and Dick and Lehnert (1998-2000). Bankruptcy filings scaled by Census population. Complaints from Federal Trade Commission. Returned Checks from Federal Reserve System

Table 2: Household Financial Problems in N. Carolina and Other States, Pre-Ban and Post-Ban

Reported is mean (number of observations) before ban (12/2005) and after ban for North Carolina and for all other states
 The final column (diff1- diff2) indicates whether the change in the mean in N. Carolina was larger or smaller than the change in the mean for other states, and whether the diff-in-diff was statistically significant.

	<i>North Carolina</i>			<i>Other states</i>			
	Pre	Post	diff1	Pre	Post	diff2	diff1-diff2
<i>Bankruptcy per 10000</i>							
Chapter 7	4.84 (31)	2.17 (5)	-2.66	9.89 (1550)	3.19 (250)	-6.70	4.04 ***
Chapter 13	5.11 (31)	2.69 (5)	-2.42	3.16 (1550)	1.92 (250)	-1.23	-1.19 ***
Ch.7 + Ch.13	9.94 (31)	4.86 (5)	-5.08	13.05 (1550)	5.12 (250)	-7.94	2.85 ***
<i>Complaints per 100000</i>							
Against lenders	0.19 (97)	0.23 (16)	0.04	0.23 (4051)	0.28 (739)	0.05	-0.02 *
Against debt collectors	0.73 (99)	1.92 (16)	1.20	0.76 (4715)	1.71 (784)	0.96	0.24 ***
Total Complaints	0.74 (97)	1.92 (16)	1.18	0.82 (4051)	1.75 (739)	0.92	0.26 ***
<i>Returned checks[§]</i>							
Per 100 checks	1.32 (64)	1.40 (6)	0.08	1.31 (2789)	1.28 (131)	-0.02	0.10
Per \$100	0.75 (60)	0.61 (6)	-0.14	1.27 (2601)	1.09 (131)	-0.18	0.04

*** Significant at 1 percent. * Significant at 10 percent

[§] Returned checks at Charlotte, NC check processing center versus all other check processing centers
 Authors' calculations. Data sources: Bankruptcy filings from American Bankruptcy Institute (2000-2007) and
 Dick and Lehnert (1998-2000). Bankruptcy filings scaled by Census population. Complaints from Federal
 Trade Commission. Returned Checks from Federal Reserve System.

Table 3: Do Payday Loan Bans Reduce Household Debt Problems?

Reported are regression coefficients (st. errors). GA = 1 for GA (zero for other state). POST-BAN_GA equals 1 after GA banned payday loans (May, 2005) (zero if not) Coefficient on GAxPOST-BAN_GA measures difference-in-difference in Dependent Variable after the ban relative to all other states. NCxPOST-BAN_NC interpreted equivalently. Standard errors are adjusted for clustering at state or check processing center level. Regressions include all dummy variables, and state, year, and quarterly or month fixed effects.

	Dependent variable:							
	Complaints per 100,000 against			Returned checks per		Bankruptcy filings per 1,000		
	<u>Lenders</u>	<u>Debt collectors</u>	<u>Total</u>	<u>100 checks</u>	<u>100 dollars</u>	<u>Ch. 7</u>	<u>Ch. 13</u>	<u>Total</u>
GAxPOST-BAN_GA	0.02 (0.00)**	0.74 (0.05)***	0.70 (0.05)***	0.18 (0.08)**	0.19 (0.08)**	0.44 (0.23)**	-3.00 (0.11)***	-2.56 (0.30)***
NCxPOST_BAN_NC	-0.03 (0.00)**	0.23 (0.05)***	0.20 (0.05)***	0.14 (0.10)	0.09 (0.09)	4.03 (0.29)***	-1.25 (0.17)***	2.78 (0.36)***
Unemployment Rate	0.00 (0.00)	-0.05 (0.03)*	-0.06 (0.03)**	0.02 (0.03)	0.04 (0.04)	0.43 (0.23)*	0.28 (0.08)***	0.71 (0.25)***
Observations	4903	5614	4903	2991	2799	1836	1836	1836
R-squared	0.58	0.82	0.83	0.49	0.5	0.8	0.95	0.85

*** significant at 1%. ** significant at 5%. *significant at 10%

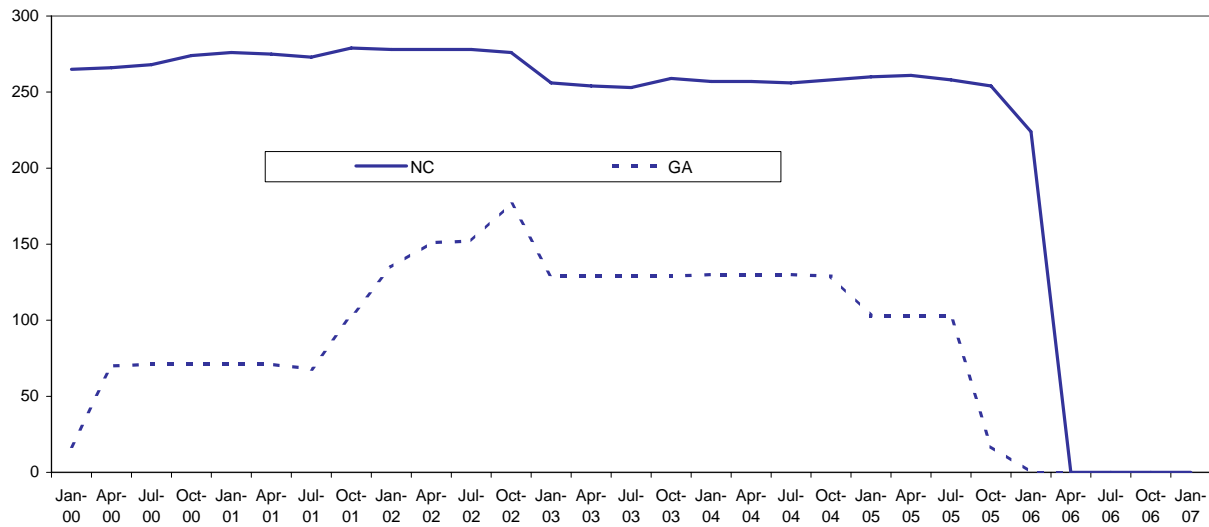
Table 4: Do Payday Loan Bans Reduce Household Debt Problems?

Reported are regression coefficient (standard errors). Coefficient on HlxPOST-DOUBLE measures difference-in-difference in Dependent Variable after Hawaii doubled payday loan limit in June, 2007. Regressions include all dummy variables and state, year, and quarter fixed effects. Standard errors adjusted for clustering at state level.

	Dependent variable:					
	Complaints per 100,000 against			Bankruptcy filings per 1,000		
	<u>Lenders</u>	<u>Debt collectors</u>	<u>Total</u>	<u>Ch. 7</u>	<u>Ch. 13</u>	<u>Total</u>
HlxPOST-DOUBLE	0.06 (0.02)***	-0.22 (0.09)**	-0.30 (0.09)***	-3.09 (0.42)***	0.46 (0.21)**	-2.63 (0.54)***
GAxPOST-BAN_GA	0.02 (0.01)***	0.74 (0.05)***	0.70 (0.05)***	0.46 (0.23)**	-3.00 (0.11)***	-2.55 (0.30)***
NCxPOST-BAN_NC	-0.03 (0.01)***	0.23 (0.05)***	0.20 (0.05)***	3.99 (0.30)***	-1.24 (0.17)***	2.75 (0.37)***
Unemployment Rate	0.00 (0.01)	-0.05 (0.03)	-0.07 (0.03)**	0.33 (0.20)*	0.29 (0.08)***	0.62 (0.24)**
Observations	4903	5614	4903	1836	1836	1836
R-squared	0.58	0.83	0.84	0.8	0.95	0.85

*** significant at 1%. ** significant at 5%. *significant at 10%

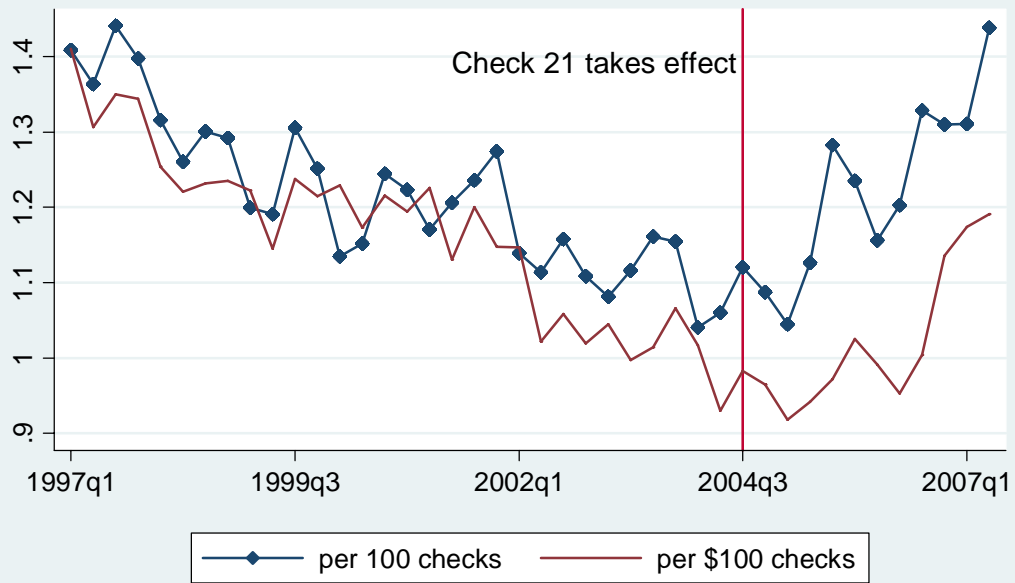
Chart 1
Number of stores operated by five big payday lenders
in Georgia and North Carolina



Store counts provided to authors by five large, multistate payday firms.

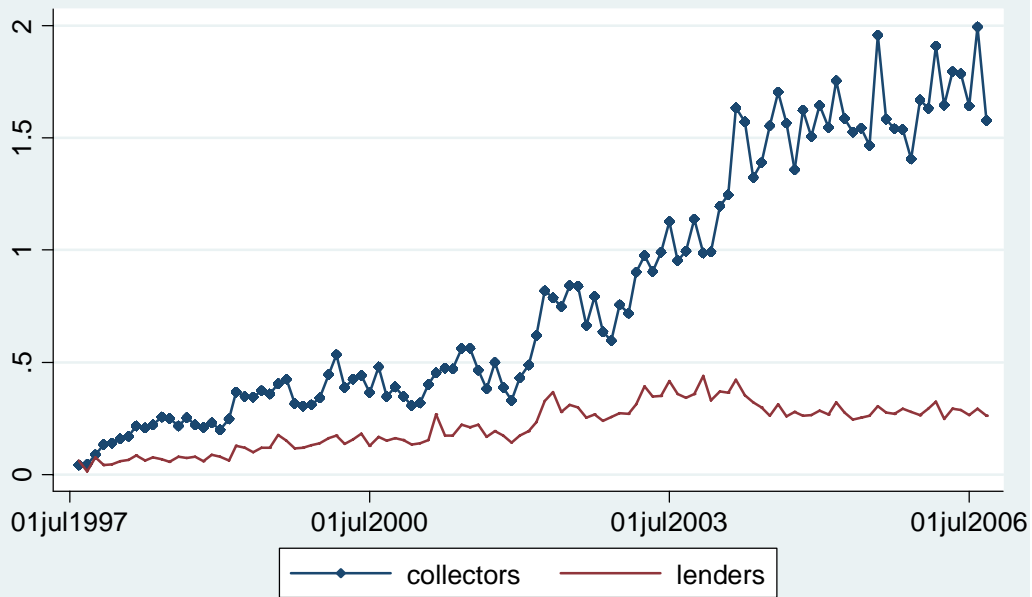
Chart 2

Returned Checks at Federal Reserve Processing Centers



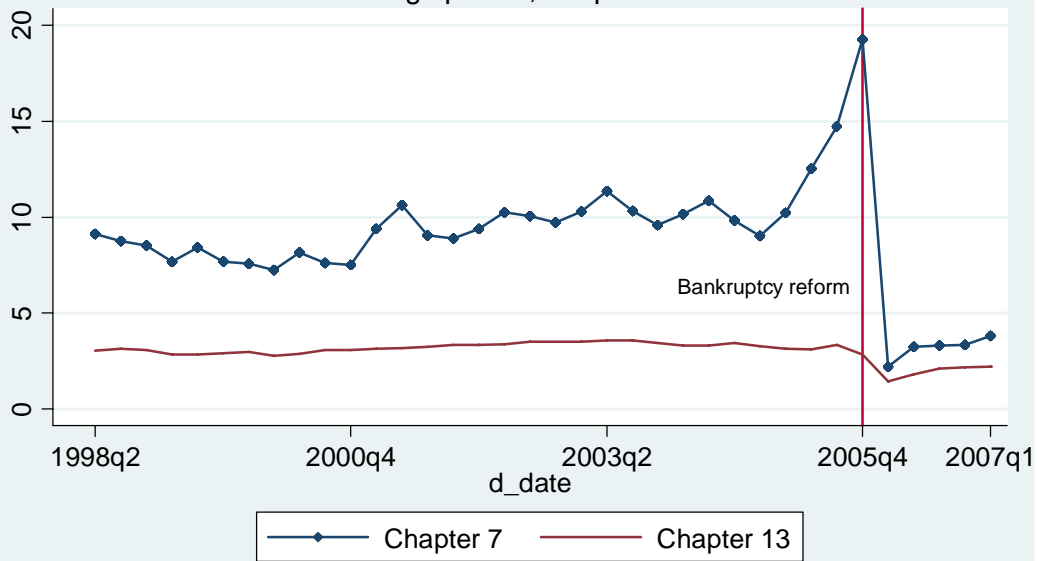
Authors' calculation.

Chart 3 Complaints against lenders and debt collectors
complaints per 100,000 persons, average for all states



Source: Authors' calculation. Data from Federal Trade Commission

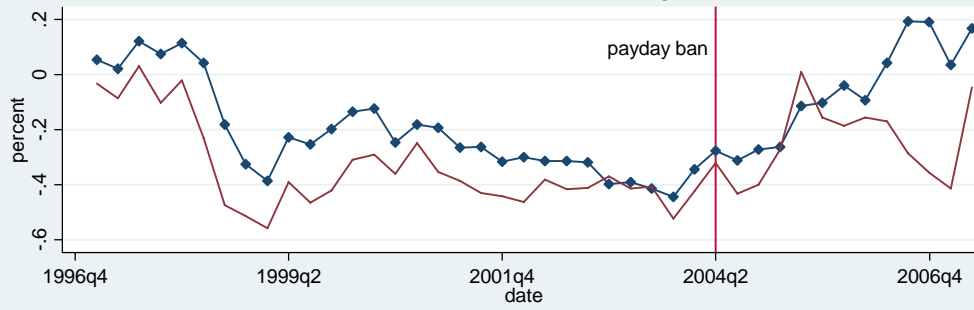
Chart 4: National Bankruptcy Filing Rate, by Chapter
filings per 10,000 persons



Sources: pre-2000 (Dick and Lehnert 2007); post-2000 (American Bankruptcy Ins.)

Chart 5a: Returned Checks and Payday Credit Bans

Atlanta cpc less national average



Charlotte cpc less national average

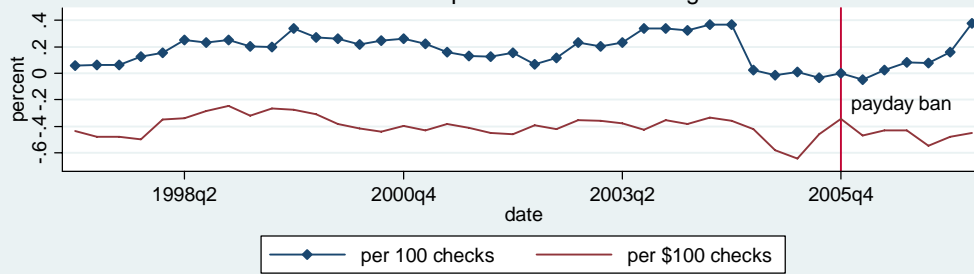


Chart 5b: Complaints against Lenders and Debt Collectors

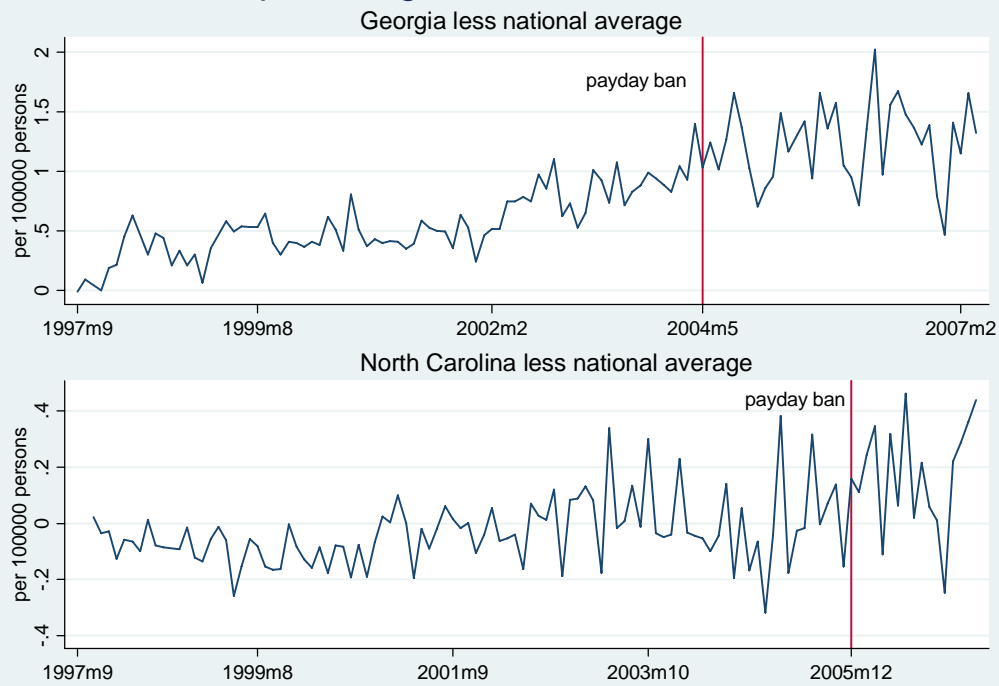


Chart 5c: Georgia Bankruptcy Filings less National Mean
filings per 10,000 persons, by chapter

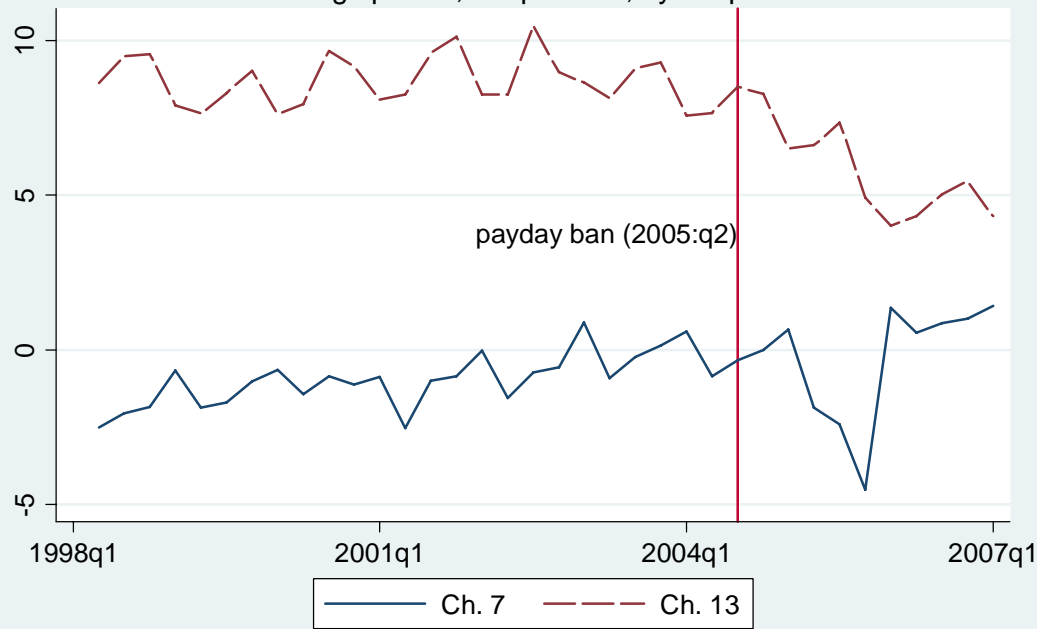


Chart 5d: N. Carolina Bankruptcy Filing less National Mean
filings per 10,000 persons, by chapter

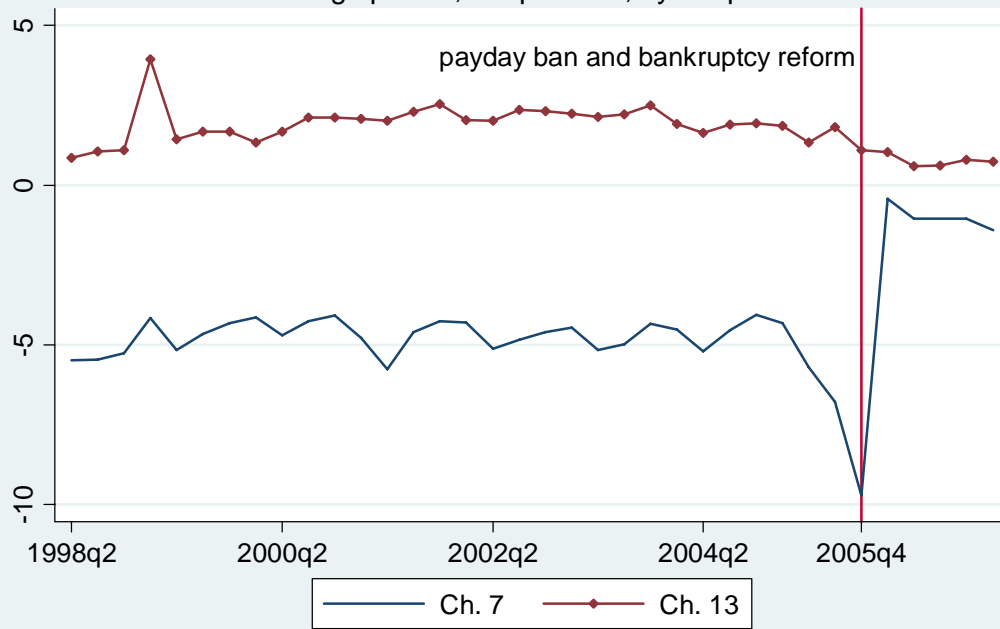
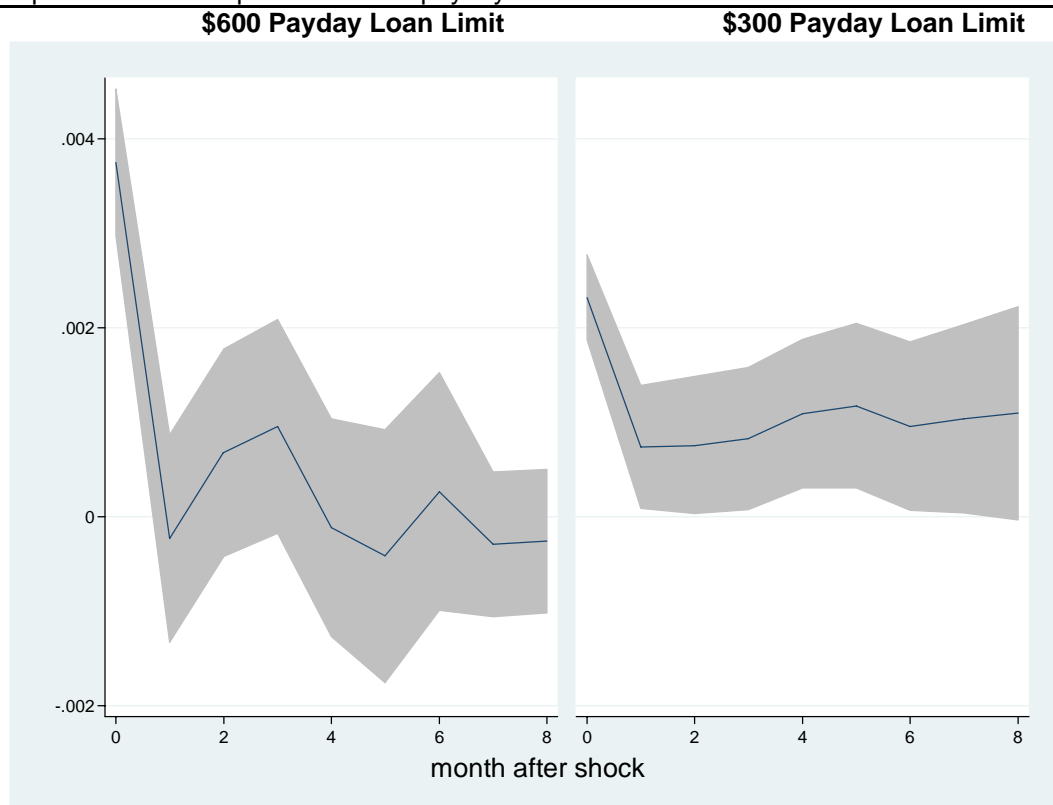


Chart 6: Were Hawaiians' Problems More Chronic After Payday Limit Doubled?

Plotted is response of complaints against debt collectors to random (standard deviation) change in complaints at time zero and 95 percent confidence band. Response derived from regressions of complaints on six lags of complaints over two sub-periods: 7/1997-6/2003 (\$300 limit) and 7/2003-4/2007 (\$600 limit). Complaints were less persistent after payday loan limit doubled.



Reply to comments by the CRL (Center for Responsible Lending) on “Payday Holiday: How Households Fare after Payday Loan Bans.”

Donald P. Morgan and Michael R. Strain¹ December 13, 2007

We thank the Center for Responsible Lending for their comments on our paper (<http://www.responsiblelending.org/pdfs/crl-morgan-critique-12-10.pdf>). Working papers are intended to stimulate discussion, and our working paper has accomplished that. We respectfully reply to their key comments below.

CRL:

1. Overall, when the authors compare the “credit problems” for households in Georgia and North Carolina to the national average for households in the United States, they fail to note that the national averages include, during the time period reviewed, at least ten states (with one-quarter of the U.S. population) that—like North Carolina and Georgia—do not authorize payday lending. This confusion of “payday versus non-payday” states was also exhibited in previous research by Morgan.¹

REPLY: Because the treatment we study is the *withdrawal* of payday credit, the sign (positive or negative) of the difference-in-differences that we estimate (that is, the change in problems in NC or GA minus the change in other states) does not depend on the status of payday lending in other states.² To see that, consider two extreme cases. First suppose all other states prohibit payday loans. Assuming the debt trap hypothesis to be true and all else equal, problems in GA and NC would be above average for other states before the ban, but below average after. Now suppose all other states permit payday lending. Then problems in GA and NC would be average before the ban, but below average after. In either case, if the debt trap hypothesis is correct, the withdrawal of payday credit should show up as a decline in problems in GA or NC compared to other states, that is, a negative difference-in-difference.³ We found just the opposite.

¹ Our views do not necessarily reflect those of the Federal Reserve Bank of New York or the Federal Reserve System or Cornell University. ² As a practical matter, identifying the states with payday lending from states without is problematic because payday lenders have operated in states without explicit authorizing legislation (*via* the bank agency model). The CRL made that point clear in their discussion of Morgan (2007). Morgan and Strain (2007) used all other states as the control group precisely because we were *not* confused. ³ If the difference in problems per capita per period between permitting and prohibiting states is constant, the sign and the *size* of the difference-in-difference are invariant to the definition of the control group. We prove that here. Denote the mean of some problems in Georgia before and after the ban by M_{GB} and M_{GA} . Denote the mean for other states before after the date of the ban by M_{OB} and M_{OA} . The difference-in-difference in problem (the change in the mean in Georgia minus the change in the mean in other states) is

$$M_{GA} - M_{GB} - [M_{OA} - M_{OB}].$$

If the fraction of other states that permit payday lending is f , the difference for other states equals the weighted average of the means for states that *permit* payday lending and the mean for states that *prohibit* it:

$$MO_A - MO_B = fMO_{perA} + (1-f)MO_{proA} - \{fMO_{perB} + (1-f)MO_{proB}\}$$

CRL:

2. In analyzing returned checks, the authors use data from the Federal Reserve's *regional* check processing centers (CPCs) as proxies for *state* credit markets. However, the regional CPCs in Atlanta and Charlotte handle checks for other states besides Georgia or North Carolina, including states that allow payday lending. For example, more than half of the checks processed at the Charlotte center come from states which allow payday loans. Similarly, during the aftermath of Hurricane Katrina, checks from households in Louisiana (which also allows payday lending) began to be processed in the Atlanta center. Because the CPC data includes returned checks for states that authorize payday lending, it is incorrect to use this data as representative of "non-authorizing" states like Georgia and North Carolina.

REPLY: Morgan and Strain (2007) acknowledged that the Atlanta CPC handles checks from Tennessee and that the Charlotte CPC handles checks from Columbia. Indeed, we were the source of the "more than half" figure the CRL mentions above. As we explained, the larger the fraction of checks drawn on institutions outside of NC (say), the smaller the estimated impact of the payday ban on returned checks at the Charlotte CPC. To take an absurd example, how much would we expect the payday ban in NC to affect the returned check rate at the San Francisco check processing center? Having to use "regional" CPC data makes our estimates of the impact of the bans on returned checks in Georgia and North Carolina less precise (i.e., increases the standard errors of the estimates). Indeed, the fact that the out-of-state fraction is larger at the Charlotte CPC (than at the Atlanta CPC) may explain why the large effect we found in Charlotte was not statistically significant.⁴

If the difference in problems per capita per period between permitting and prohibiting states is some constant $P > 0$, then $MO_{perA} = MO_{proA} + P$ and $MO_{perB} = MO_{proB} + P$. Substituting those equations into the equation above and collecting like terms implies

$$\begin{aligned} MO_A - MO_B &= fMO_{perA} + (1-f)(MO_{perA} - P) - \{fMO_{perB} + (1-f)(MO_{perB} - P)\} \\ &= MO_{perA} - MO_{perB}. \end{aligned}$$

Thus, as claimed, the difference-difference between GA and all other states equals the difference-indifference between GA and only others states that permit payday lending

$$M_{GA} - M_{GB} - [MO_A - MO_B] = M_{GA} - M_{GB} - [MO_{perA} - MO_{perB}].$$

If the debt problems caused by payday lending (under the debt trap hypothesis) compound over time, the sign of the difference-in-difference will probably depend on whether the control group comprises sets of states. We have not sorted out.

About 2/3 of checks processed at the Atlanta CPC are estimated (by Atlanta CPC staff) to be drawn on Georgia financial institutions.

CRL:

Finally, the authors erroneously assume that bounced checks are the *only* substitute for a payday loan: "Of course, households in Georgia and North Carolina had only one choice once payday credit was banned. If we observe higher bounced checks afterwards, it tells us payday credit was the preferred choice..." But a recent study by the University of North Carolina Center for Community Capital found that former payday borrowers use a host of options to cover financial shortfalls, such as working out delayed payments with creditors; borrowing from family, friends, or employers; dipping into savings; or delaying a purchase for a short period of time.²

REPLY: It is reassuring to know that former payday borrowers can count on the kindness of creditors, friends, family, and employers, or just dip into savings (then why are they borrowing?), or postpone purchases. However, the question is whether those options are preferable to payday credit. If they were, then why didn't borrowers use them before the ban? More to the point, if the other options were as good or better than payday credit, bounced checks rates, complaint rates, and bankruptcy rates would have been unchanged or lower (relative to other states) after the ban. Instead, those problems increased.

CRL:

Moreover, the authors admit that the rate of FTC complaints from households in North Carolina is *not* higher than complaint rates in other states.

REPLY: We show that per capita complaints in NC rose (relative to other states) after the ban; complaints by North Carolinians (to the FTC) about debt collectors were below average before the ban, but above average after.

CRL:

the jurisdiction with the highest complaint rate was the District of Columbia. Yet during the time period for this research, the District of Columbia had some of the loosest restrictions on payday loans of any state. This appears to refute the authors' attempt to develop a cause-effect relationship between the absence of payday lending and FTC complaints.

REPLY: The high complaint rate in D.C. does not contradict our argument. *Demand* for payday credit is driven by "pre-existing" debt problems, namely bounced checks and contact by debt collectors (Stegman and Faris 2003).⁵ Morgan and Strain (2007)

⁵ Stegman and Faris, "Payday Lending: A Business Model that Encourages Chronic Borrowing," *Economic Development Quarterly*, 17 (1), 8-32.

investigates whether reducing the *supply* of payday credit (by banning it) cause problems to go down. We find the opposite.⁶

CRL:

The data does show a steady *national* increase in FTC complaints for some time but especially since 2001. Many experts have attributed this to rise of identity theft; this is confirmed by the FTC as over 40 percent of all complaints involve challenging the actual validity of the debt. We are not aware of even a potentially plausible relationship between payday lending and ID theft.

REPLY: Morgan and Strain (2007) noted that ID theft was the most likely reason behind the national upward trend in complaints against debt collectors. We did not suggest that ID theft was related to payday lending, nor do any of our findings require a relationship between them.

CRL:

4. In analyzing variances in bankruptcy rates among states, the authors fail to account for several factors which greatly influence a person's chances of filing for bankruptcy protection. These factors include health insurance coverage, mortgage foreclosures, divorce rates, demographic factors such as income, and broader economic factors. Yet the *only* factor which the authors control for is unemployment rates.

REPLY: We agree that unemployment is not the only cause of bankruptcy, but the question is whether omitting income or some other variable cause us to overestimate the impact of the ban on bankruptcy rates in Georgia and North. We doubt it.⁷ We allowed average bankruptcy rates for each state to vary due to fixed differences in, say, insurance coverage or divorce rates. Thus, the omitted variable, call it Z, would have to vary *just* so to unravel the negative link we found between payday credit supply and bankruptcy (and other problems): Z would need to change in Georgia relative to other states in May 2004,

⁶ Failure to distinguish between supply and demand often leads to fallacious conclusions, e.g., sick people are found at (demand) hospitals, so doctors must supply sickness instead of cures.

Omitted variable bias is a perennial concern when the data under study were produced on the street, so to say, instead of in a laboratory setting with perfectly controlled conditions. The experiments run by Professors Dean Karlan (Yale) and Jonathon Zinman (Dartmouth) approximate laboratory conditions, and their results support our findings: access to credit, even expensive credit, does not make poor people worse off, it makes them better less likely to go hungry or unemployed. See http://www.dartmouth.edu/~jzinman/Papers/Karlan&Zinman_ExpandingCreditAccess_nov07.pdf The forthcoming revised version of Morgan and Stain (2007) controls for state income along with unemployment rates. Bankruptcy rates do fall when income rises, as CRL predicted in their comment, but our main results do not change if we hold income constant (actually, some results get stronger). The revised version includes new findings: bankruptcy rates and bounced check rates at the Boston check processing center decreased, in relative terms, after New Hampshire and Rhode Island liberalized their laws against payday lending.

then it would have to change in North Carolina relative to other states in December 2005, then it would have to change again in Hawaii relative to other states relative in July 2001. Z would truly have to zigzag to undo our findings.