

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

COMMUNITY FINANCIAL SERVICES
ASSOCIATION OF AMERICA, LTD. *et al.*,

Plaintiffs,

v.

CONSUMER FINANCIAL PROTECTION
BUREAU *et al.*,

Defendants.

Civil Action No. 1:18-cv-295

ORAL ARGUMENT REQUESTED

**PLAINTIFFS' MOTION
FOR PRELIMINARY INJUNCTION**

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INTRODUCTION

Plaintiffs hereby move for a preliminary injunction of the Final Rule on Payday, Vehicle Title, and Certain High-Cost Installment Loans. 82 Fed. Reg. 54,472 (Nov. 17, 2017) (codified at 12 CFR pt. 1041).¹ This Court should preliminarily enjoin the CFPB's paternalistic final rule, which improperly seeks to "protect" consumers from their own voluntary and informed financial decisions. Because the rule prohibits more than 90% of payday loans currently made, Plaintiffs' members (who are in the business of making payday loans) will obviously be irreparably injured once the rule goes into effect in August 2019. Moreover, Plaintiffs' members have already suffered, and will continue to suffer, irreparable injury in the form of unrecoverable costs incurred to prepare for life under the rule. Fifth Circuit precedent makes clear that such necessary preparation expenditures constitute irreparable injury even where they occur years before a rule's compliance date. *See Texas v. EPA*, 829 F.3d 405, 433 (5th Cir. 2016).

Plaintiffs are also likely to succeed on the merits. The Bureau's single-director structure violates the constitutional separation of powers under the Fifth Circuit's recent decision in *Collins v. Mnuchin*, 896 F.3d 640 (5th Cir. 2018), which held that Congress impermissibly hobbled the President's ability to control the similarly structured Federal Housing Finance Agency. As a result, the rule was void when promulgated and must be set aside. The rule also violates both the APA and the statute under which it was enacted. Most significantly, the Bureau's unprecedented assault on payday lending is based on a flawed statutory interpretation that evaluates whether a consumer is "substantially injured" by a voluntary, fully informed commercial transaction without even considering the benefits the consumer receives from the

¹ The parties conferred about this motion. Defendants stated that they could not take a position on Plaintiffs' request for a preliminary injunction before reading the motion.

transaction and, even under that one-sided assessment, merely assumes without evidence the existence of substantial injury.

For these reasons, and because the balance of harms and the public interest likewise favor an injunction, the Court should grant the motion and preliminarily enjoin the rule. **Plaintiffs respectfully request that the Court act on this motion by November 1, 2018.**

BACKGROUND

A. Payday Loans Are a Crucial Source of Credit For Millions of Consumers

Payday loans are a form of short-term, small-dollar consumer-finance products provided by non-bank lenders to consumers who lack access to, or choose not to use, more traditional forms of credit. A typical payday-loan transaction involves a two-week or thirty-day loan for a few hundred dollars with a service charge of \$15 per \$100 borrowed. To obtain the loan, a borrower presents evidence of a bank account and employment or other income, and writes a check or authorizes an electronic withdrawal for the amount of the loan plus the service charge. The lender promises not to cash the check or make the withdrawal until the end of the loan term. At that time, the borrower may pay off the loan in cash or the lender may cash the check or make the withdrawal. Sometimes a borrower will extend the duration of his borrowing by paying an additional service charge to renew or roll over the loan for an additional term; multiple loans resulting from such reborrowing activity are known as loan sequences. Payday lending is a lawful business subject to extensive state regulation in thirty-five states.

The administrative record contains extensive evidence that payday loans provide crucial access to needed funds for millions of low- to middle-income consumers who need credit but are locked out of, or choose to forgo, traditional credit markets. In any given year, approximately twelve million American adults use payday loans. *See* Neil Bhutta et al., *Payday Loan Choices and Consequences*, at 4 (Vanderbilt L. Sch., Law & Economic Working Paper No. 12-30, 2013),

Exhibit D.² Because these consumers typically have lower income, lower credit scores, and fewer viable alternative sources of credit, payday loans “expand financial choices and allow individuals and households to better manage their cash flow in the face of volatile income and expenses.” Neil Bhutta, *Payday Loans and Consumer Financial Health*, 47 J. Banking & Fin. 230, 233 (2014), Exhibit E. This in turn enables these consumers to avoid more costly alternatives, such as pawnbrokers, illegal loan sharks, bank overdraft services, credit-card cash advances, late-payment fees, or defaults on other obligations.

A synthesis of the available evidence shows that (1) “[t]he primary reason why consumers use payday lenders is because they have an urgent need for credit and because no less-expensive option is available,” (2) “[e]liminating payday lending as an option for financially-stressed consumers would likely make them worse off and force them to use inferior and less-preferred types of credit, such as pawnshops, or to go without credit,” and (3) “[o]n average, access to payday loans appears to make it easier, not more difficult, for low-income borrowers to manage their finances.” Todd J. Zywicki, *The Case Against New Restrictions on Payday Lending*, at 9, 21 (Geo. Mason U., Mercatus Ctr., Working Paper No. 09-28, 2009), Exhibit F. It is therefore unsurprising that consumers overwhelmingly praise the utility of payday loans, and that the social-science literature demonstrates that overall consumer welfare is improved when payday loans and loan sequences are available as an option.

B. Congress Enacted the CFPA To Prevent Harmful Lending Practices

In 2010, Congress enacted the Consumer Financial Protection Act (“CFPA”), which established a new “independent” regulatory agency known as the Bureau of Consumer Financial

² All academic articles cited herein were submitted during the notice-and-comment period and are therefore part of the administrative record. Because the Bureau has not yet filed the administrative record, Plaintiffs are submitting the cited articles as exhibits to this motion.

Protection. 12 U.S.C. § 5491. The Act provides for a single “Director” to “serve as the head of the Bureau” for a term of five years, during which he may be removed by the President only “for cause.” *Id.* § 5491(b)–(c). The Director is authorized to set the agency’s budget without congressional approval at an “amount determined by the Director to be reasonably necessary to carry out the authorities of the Bureau,” subject to a cap of 12% of the Federal Reserve’s operating expenses. *Id.* § 5497(a).

Among its many other powers, the Bureau may “prescribe rules ... identifying as unlawful unfair, deceptive, or abusive acts or practices in connection with any transaction with a consumer for a consumer financial product or service, or the offering of a consumer financial product or service.” *Id.* § 5531(b). Such rules “may include requirements for the purpose of preventing such acts or practices.” *Id.* However, because Congress recognized that excessive regulation could do more harm than good, it directed the Bureau to “ensur[e] that all consumers have access to markets for consumer financial products,” and that “consumers are provided with timely and understandable information to make” their own “responsible decisions about financial transactions.” *Id.* § 5511(a)–(b); *see also id.* § 5512(b)(2)(A) (in prescribing rules, the Bureau “shall consider ... the potential reduction of access by consumers to consumer financial products”).

Congress also imposed three specific restrictions on the Bureau’s rulemaking power. *First*, the Bureau has “no authority ... to declare an act or practice ... to be unlawful on the grounds that such act or practice is unfair, unless the Bureau has a reasonable basis to conclude that—(A) the act or practice causes or is likely to cause substantial injury to consumers which is not reasonably avoidable by consumers; and (B) such substantial injury is not outweighed by countervailing benefits to consumers or to competition.” 12 U.S.C. § 5531(c)(1).

Second, the Bureau has “no authority ... to declare an act or practice abusive ... unless the act or practice—

- (1) materially interferes with the ability of a consumer to understand a term or condition of a consumer financial product or service; or
- (2) takes unreasonable advantage of—
 - (A) a lack of understanding on the part of the consumer of the material risks, costs, or conditions of the product or service;
 - (B) the inability of the consumer to protect the interests of the consumer in selecting or using a consumer financial product or service; or
 - (C) the reasonable reliance by the consumer on a covered person to act in the interests of the consumer.”

12 U.S.C. § 5531(d).

Third, the Bureau has no authority “to establish a usury limit applicable to an extension of credit offered or made by a covered person to a consumer, unless explicitly authorized by law.” *Id.* § 5517(o).

C. The Final Rule Bans Most Payday Loans and Cuts Off Access to Credit for Lower-Income Consumers

Despite the popularity and benefits of payday loans, the Bureau almost immediately targeted them for elimination based on their high interest rates. (The typical \$15 charge on a \$100 loan can be stated in terms of an annualized percentage rate (APR) of 390%. This charge reflects the heightened costs and risks of extending this form of credit.) In developing and promulgating the Final Rule, the Bureau acted with an unalterably closed mind toward the preordained result of shutting down the payday-lending industry. The Bureau’s agenda was driven not by any evidence or careful weighing of costs and benefits, but instead by its highly paternalistic view that payday loans are too expensive, and that lower-income customers cannot be trusted with the freedom to make their own financial decisions with respect to these loans.

In targeting payday loans, the Bureau took its marching orders from special-interest groups opposed to payday lending. *See, e.g.,* Anna Palmer, *Emails reveal consumer protection agency's cozy ties*, Politico (Nov. 19, 2015) [goo.gl/DRCiTV](https://www.politico.com/story/2015/11/19/consumer-protection-agency-payday-loans), Exhibit G. On June 2, 2016, the Bureau published a notice of proposed rulemaking heralding draconian new restrictions on the extension of payday loans, vehicle-title loans (*i.e.*, short-term, small-dollar loans secured by an interest in a vehicle), and installment loans with high interest rates. *See* 81 Fed. Reg. 47,864 (July 22, 2016). Although the Bureau accepted comments on the proposed rule during a four-month window ending in October 2016, the result was a foregone conclusion: the elimination of longstanding payday lending and similar practices relied on by millions of customers.

Shortly after the comment period closed, the country elected a new President who advocated a sharply different regulatory agenda than the previous administration. But as a result of the Bureau's unprecedented structure—with power concentrated in a single partisan director who was endowed with his own independent budget and entirely insulated from removal or control by the new President—the Bureau continued to pursue its predetermined policy course. Despite receiving more than 1.4 million comments overall—most of which were sharply critical of the proposed rule—the Bureau rushed the rule to completion less than one year after the close of the comment period.

The Final Rule was published in the Federal Register on November 17, 2017, and became effective on January 16, 2018. *See* 82 Fed. Reg. 54,472 (Nov. 17, 2017). It has a compliance date of August 19, 2019, *see id.*, which means that lenders will need to begin adhering to the rule's substantive requirements on that date.

Among other things, the Final Rule prohibits lenders from making payday and vehicle-title loans unless the borrower can satisfy a government-mandated test for “ability to repay.” Under this provision, the Bureau deems it “an unfair and abusive practice for a lender to make covered short-term loans . . . without reasonably determining that the consumers will have the ability to repay the loans” by the end of their original terms (typically two weeks or thirty days). 12 C.F.R. § 1041.4. Specifically, a lender is prohibited from issuing a covered loan unless it makes a “reasonable determination” that the consumer can make payments for all major financial obligations, make all payments under the loan (*i.e.*, principal, interest, and fees), and meet all basic living expenses during the term of the loan and for thirty days thereafter. *Id.* § 1041.5(b). Because reborrowing, according to the Bureau, is indicative of an inability to repay the original loan, the Bureau warned lenders that, outside of occasional situations, it would not consider ability-to-repay determinations for second or third loans in a sequence to be reasonable. 82 Fed. Reg. at 54,690; *see also* 12 C.F.R. pt. 1041, supp. I, ¶ 5(b)(2)(iii). The Final Rule also categorically prohibits lenders from making a covered short-term loan if it would be the fourth in a sequence. 12 C.F.R. § 1041.5(d)(2).³

By design, the “ability to repay” requirement prohibits the vast majority of payday loans, which are in demand *precisely because* borrowers need quick access to credit in order to meet

³ The Final Rule also provides a “conditional exemption” from the ability-to-pay requirements for loans no greater than \$500 that evenly amortize over three repayment periods. *See* 12 C.F.R. § 1041.6. (For instance, as part of a single loan sequence, a consumer who takes a first loan of \$300 may take a second loan of up to \$200 and a third loan of up to \$100.) To make a loan under this exemption, a lender is required to use a registered “information system” to confirm that the consumer has not had any outstanding covered loans within the past thirty days, and that the loan will not result in the consumer having more than six covered loans or being in debt for more than ninety days during a twelve-month period. 12 C.F.R. § 1041.6. The Bureau has stated that it does not expect any registered information systems to be available as of the Final Rule’s compliance date, making this alternative unavailable to lenders.

vital living expenses or to avoid calamitous default on other obligations, and cannot (and do not expect to be able to) afford to repay the loan and meet all other obligations within the loan term. Under the Final Rule, for example, a borrower may take out a two-week payday loan only if she will receive replacement income equivalent to the loan plus its fees by the end of the two-week period. Borrowers whose income and expenses fluctuate over longer periods of time—due to irregular income, temporary or seasonal employment, the satisfaction of outstanding debts, or other circumstances—are out of luck: payday loans may not lawfully be extended to them, even if they have the ability to responsibly manage their loans and other expenses until a later time.

The latter situation describes the majority of payday loans actually made. According to the Bureau's own estimates, only a third of payday borrowers will be able to satisfy the ability-to-repay requirements for the first loan in a sequence, and the rule's ability-to-repay requirements will reduce the total volume of storefront payday loans by approximately 92 to 93 percent. 82 Fed. Reg. at 54,826. Reborrowing—that is, rolling over or renewing a loan—will be virtually impossible, save for the “occasional situations in which a consumer may experience an income or expense shock while a loan is already outstanding.” 82 Fed. Reg. at 54,690.

By any estimate, the Final Rule will dramatically reduce the supply of credit by prohibiting most of the payday loans that are currently made. This in turn will make payday lending so unprofitable that it will virtually eliminate the entire payday-loan industry, killing off hundreds of small businesses, eliminating thousands of jobs, and denying access to the crucial financial flexibility that millions of payday borrowers rely on, including those who the Bureau concedes benefit from payday loans. As a result of this vast elimination of credit from the marketplace, many consumers will instead be forced to resort to far more costly alternatives. Moreover, lenders who are no longer permitted to offer this credit will suffer severe revenue

losses, making it impossible for them to stay in business and thereby eliminating even those payday loans that the Final Rule does not by its terms prohibit.

D. Procedural History

Plaintiffs are two non-profit trade associations who bring this lawsuit on behalf of their members, payday lenders and Texas-based credit access businesses who are directly regulated and injured by the Final Rule. They filed this lawsuit on April 9, 2018, seeking to set aside the Final Rule under the Constitution and the Administrative Procedure Act. On May 31, 2018, Plaintiffs and the government defendants filed a joint motion seeking a stay of the compliance date of the rule pursuant to 5 U.S.C. § 705 pending the outcome of this litigation, as well as a stay of the litigation pending the outcome of a future rulemaking proceeding by the Bureau to reconsider the Final Rule. This Court denied a stay of the compliance date (but nevertheless stayed the litigation), and subsequently denied Plaintiffs' unopposed motion for reconsideration.

ARGUMENT

The Bureau should be preliminarily enjoined from enforcing the Final Rule. A preliminary injunction is warranted when the plaintiff demonstrates (1) “a substantial likelihood of success on the merits”, (2) “irreparable injury” absent relief, (3) that “the threatened injury” to the plaintiff “outweighs” any harm an injunction will cause to the defendant, and (4) that an injunction will “not be adverse to the public interest.” *Productos Carnic, S.A. v. Cent. Am. Beef & Seafood Trading Co.*, 621 F.2d 683, 685–686 (5th Cir. 1980). When the last three factors strongly favor an injunction, a “substantial likelihood of success” “is not even necessary.” *Id.* Instead, “a showing of *some* likelihood of success on the merits will justify” an injunction. *Id.* (emphasis added).

Each of the factors is met here. Plaintiffs are substantially likely to succeed on the merits because the Final Rule is unconstitutional, exceeds the Bureau's statutory authority, and is the

result of arbitrary and capricious decision-making. *See* 5 U.S.C. § 706(2) (“The reviewing court shall . . . hold unlawful and set aside agency action” that is “(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; (B) contrary to constitutional right, power, privilege, or immunity; (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; . . .”). Moreover, it is beyond debate that Plaintiffs have shown at least “some likelihood” of success on the merits of their claims. A preliminary injunction is also warranted because it is necessary to protect Plaintiffs from irreparable harm, and because the balance of hardships and public-interest factors weigh strongly in favor of preserving the status quo until the dubious validity of the Final Rule can be fully adjudicated.

I. PLAINTIFFS ARE LIKELY TO SUCCEED ON THE MERITS BECAUSE THE FINAL RULE WAS PROMULGATED BY AN UNCONSTITUTIONALLY STRUCTURED AGENCY

The Final Rule must be vacated because it was promulgated by an unconstitutional agency that was deliberately structured to be insulated from both presidential control and congressional oversight. The Bureau’s sweeping authority over the national economy is concentrated in a single Director who is neither supervised nor directed by the President. The Director’s power is unchecked even by the need for congressional appropriations, as he has unilateral authority to set the Bureau’s budget at hundreds of millions of dollars per year without even mere *review* by the House and Senate Appropriations Committees. The result of this structure is an agency that lacks even the most rudimentary checks and balances that the Constitution requires. Because the Final Rule is the product of this unconstitutionally structured agency, it was *void ab initio* and must be vacated.

A. Article II of the Constitution vests “[t]he executive Power” in the “President of the United States,” who must “take Care that the Laws be faithfully executed.” U.S. Const., Art. II, § 1, cl. 1. Because the President is the sole executive official who is directly accountable to

the voters, he alone has ultimate responsibility for the conduct of the executive branch. Thus, while “the Constitution provides for executive officers to assist the [President] in discharging the duties of his trust,” it has always “been understood to empower the President to keep these officers accountable.” *Free Enter. Fund v. Pub. Co. Accounting Oversight Bd.*, 561 U.S. 477, 483 (2010) (internal quotation marks and citations omitted). The “key constitutional means” of ensuring accountability is the President’s power of “appointing, overseeing, and controlling” all of the subordinate officers in the Executive Branch. *Id.* at 501.

Although Congress may create executive agencies with a limited “degree of independence” from presidential control, “[i]f an independent agency is *too* insulated from Executive Branch oversight,” then it violates “the separation of powers.” *Collins*, 896 F.3d at 661. Accordingly, “Congress cannot enshroud an agency in layers of independence-promoting insulation to the point at which the President cannot adequately control the agency’s behavior.” *Id.* at 662.

In *Collins*, the Fifth Circuit held that the structure of the Federal Housing Finance Agency (“FHFA”) violated the separation of powers by hobbling the President’s ability to control the agency. The court identified five features of the agency’s structure that, taken together, “undermin[ed] the separation of powers” by preventing “meaningful executive oversight.” *Id.* at 666. Those five features are: (1) a “single-Director leadership structure,” (2) a “for-cause removal restriction,” (3) the “lack of a bipartisan leadership composition requirement,” (4) a “funding stream outside the normal appropriations process,” and (5) the inability of the President or his appointees to play anything more than a “purely advisory oversight role.” *Id.*

B. Here, the Bureau suffers from the same constitutional defects identified in *Collins*. The agency is deliberately designed to exercise wide-ranging executive power that is completely insulated from presidential control—and thus completely immune from any real accountability. On all five *Collins* factors, there is no distinction at all between the Bureau and the FHFA. As for the first four factors, the Bureau (1) does not have any bipartisan leadership structure, but rather (2) a single partisan director, who (3) can be removed only for cause, and (4) controls a massive budget that is drawn directly from the Federal Reserve each year independent of any congressional appropriations. *See* 12 U.S.C. § 5491(b), (c) (establishing a single Director as the “head” of the Bureau who can be removed only “for cause”); *id.* § 5497(a) (giving the Director exclusive authority to set the Bureau’s budget at up to 12% of the Federal Reserve System’s operating expenses (over half a billion dollars)).

As for the fifth factor, virtually all of the agency’s powers—including the sweeping rulemaking at issue here—are subject to nothing more than “purely advisory oversight.” *Collins*, 896 F.3d at 666. To be sure, in one exceedingly rare circumstance that was not implicated by the Final Rule, the Bureau’s rulemaking authority is theoretically subject to a “veto” if another government entity can muster a super-majority to do so. If the Bureau enacts a rule that puts “the safety and soundness of the United States banking system or the stability of the financial system of the United States at risk,” then the rule can be revoked by a timely two-thirds vote of the Financial Stability Oversight Council. *See* 12 U.S.C § 5513. But the Council’s limited veto power does not solve the Article II problem for several reasons.

First, the Council itself is not subject to the President’s control because several of its members are themselves independent agency heads who are insulated from presidential control. 12 U.S.C. § 5321(b) (detailing composition of agency’s members). Of the Council’s ten voting

members, the President would have to control at least seven votes in order to command the two-thirds majority necessary to veto a Bureau rule under § 5513(c)(3)(A). But at least five of the ten voting members are independent of the President's control:

- One is the Director of the Bureau itself, who is removable only “for cause.” 12 U.S.C. § 5491(c)(3).
- One is the Director of the FHFA, who at the time the Final Rule was issued was removable only “for cause.” 12 U.S.C. § 4512(b)(2).
- One is the Chairman of the Board of Governors of the Federal Reserve System, who may be removed only “for cause.” 12 U.S.C. § 242.
- One is the Chairman of the Securities and Exchange Commission (SEC), who “cannot . . . be removed by the President except under the [for-cause] standard.” *Free Enter.*, 561 U.S. at 487.
- One is “an *independent* member appointed by the President . . . having insurance expertise.” 12 U.S.C. § 5321(b)(1)(J) (emphasis added).

Accordingly, because the President cannot control the two-thirds majority of the Council necessary to veto any Bureau rule, the Council is not an effective mechanism by which the President can exert any control over the Bureau.

Second, even if the President could control the Council, its limited veto power would not apply to the Final Rule. The Council's veto power applies to the Bureau's rulemaking power only in the exceedingly rare case of a rule that would threaten “the safety and soundness of the United States banking system or the stability of the financial system of the United States.” 12 U.S.C § 5513(a). As Judge Kavanaugh has pointed out, this is “a standard unlikely to be met in practice in most cases.” *PHH Corp. v. Consumer Fin. Prot. Bureau*, 881 F.3d 75, 172 (D.C. Cir. 2018) (en banc) (Kavanaugh, J., dissenting); S. Rep. No. 111-176, at 166 (“there was no evidence provided during [committee] hearings that consumer protection regulation would put safety and soundness at risk”). And it is a standard that could not have been met in this case: Payday lenders are typically non-depository lenders who are not part of the banking system and,

in any event, the Final Rule's virtual elimination of short-term, small-dollar loans, while tremendously important to payday lenders and their customers, cannot conceivably pose a serious threat to the safety and soundness of the national financial system *as a whole*.

Third, the Council's potential "safety and soundness" veto would not enable the President (if he could control the Council) to exercise any meaningful oversight with respect to policy differences with the Bureau unrelated to safety and soundness of the banking and financial systems. In other words, the Council veto is "not a meaningful substitute check" because it leaves the Bureau completely free to "break the law or abuse its power as long as it does so ... in a regulation that does not threaten national financial ruin." *PHH*, 881 F.3d at 159 (Henderson, J., dissenting). Nobody is debating whether the Final Rule threatens the financial system. The policy questions that generated over a million comments during the rulemaking proceedings concern whether government bureaucrats or consumers themselves are best positioned to know whether payday loans are the best available alternatives in times of financial need. And on those issues, the new President and his appointees were completely powerless to exercise any oversight, through the Council or otherwise, over the holdover Director appointed by his predecessor.

Accordingly, the President had no direct or indirect control over whether the rule would be promulgated by the Bureau. That lack of control is unconstitutional because the Final Rule is precisely the type of major economic regulation for which Article II requires the executive branch to be accountable to the voters. The Final Rule imposes billions of dollars in costs and devastates the payday- and title-lending industries, harming millions of consumers and thousands of small businesses. Regardless of the Final Rule's merits, it was too momentous to be entrusted to an unaccountable bureaucracy beyond the control of the voters. Because the newly elected

President was powerless to stop the Bureau from issuing the rule, the “key constitutional means” of democratic accountability was destroyed. *Free Enter. Fund*, 561 U.S. at 501 (internal quotation marks omitted).

C. A rule promulgated by an unconstitutionally structured agency is *void ab initio* and must be vacated. This follows directly from the principle that a government body that is not “properly constituted” is not “empowered to exercise” the authority that is otherwise entrusted to it. *Nguyen v. United States*, 539 U.S. 69, 83 & n.17 (2003); *Ryder v. United States*, 515 U.S. 177, 182-83 (1995); *IBS, Inc. v. Copyright Royalty Bd.*, 684 F.3d 1332, 1340–42 (D.C. Cir. 2012) (vacating Copyright Board decision “[b]ecause the Board’s structure was unconstitutional at the time it issued its determination”).

In *NLRB v. Noel Canning*, 134 S. Ct. 2550 (2014), the Supreme Court affirmed a ruling that an NLRB decision must be vacated as “void ab initio,” because the agency “lacked authority to act” since the Board members who issued the decision were unconstitutionally appointed. *Noel Canning v. NLRB*, 705 F.3d 490, 493 (D.C. Cir. 2013). In the wake of *Noel Canning*, the Fifth Circuit likewise vacated other NLRB decisions taken during the same period. *See Dresser-Rand Co. v. NLRB*, 576 F. App’x 332, 333 (5th Cir. 2014) (explaining that “nearly every circuit has vacated and remanded the Board’s decisions during the applicable time period in light of the Supreme Court’s decision in *Noel Canning*”). The Supreme Court followed the same course in *Lucia v. SEC*, 138 S. Ct. 2044, 2055 (2018), which vacated an adjudication conducted by an officer who had not been properly appointed. The Court emphasized that courts in such cases must fashion meaningful remedies to “create incentives” for plaintiffs to challenge actions taken by agencies that are unconstitutionally structured. *Id.* at 2055 & n.5.

An act taken by an unconstitutionally structured agency must be vacated regardless of any speculation about whether the agency would have acted differently in the absence of the structural violation. *See, e.g., FEC v. NRA Political Victory Fund*, 6 F.3d 821, 826–27 (D.C. Cir. 1993). Here, however, vacatur is especially appropriate because the Final Rule clearly never would have been promulgated but for the Bureau’s unconstitutional structure. Although President Trump was elected in November 2016 and took office in January 2017, he was unable to wrest control of the Bureau from the Director who had been appointed by the previous President. As a result, the Bureau continued for almost a full year to pursue its own independent political agenda, issuing the Final Rule on November 17, 2017. *See* 82 Fed. Reg. 54,472. The Rule was thus promulgated in violation of the basic principle that it is the President, as elected by the people, who has both the power and the responsibility to guide the course of the Executive Branch on major decisions of economic policy. Had that fundamental constitutional requirement been observed here, the Final Rule never would have been promulgated.

II. PLAINTIFFS ARE LIKELY TO SUCCEED ON THE MERITS BECAUSE THE FINAL RULE EXCEEDS THE AGENCY’S STATUTORY AUTHORITY AND IS ARBITRARY AND CAPRICIOUS

Because the Bureau’s unconstitutional structure is reason enough to vacate the Final Rule, there is no need for the Court to go any further on the merits. But even if further analysis were necessary, Plaintiffs are still likely to succeed because the Bureau exceeded its statutory authority and indulged in arbitrary and capricious policymaking instead of the careful, evidence-based deliberation required by law. The Bureau distorted the statutory criteria for prohibiting “unfair” and “abusive” practices, applied those criteria irrationally and without substantial evidence, and flagrantly violated the statutory ban against usury limits by targeting loans based on their high interest rates.

A. The Prohibited Lending Practices Are Not “Unfair”

The CFPA expressly provides that the Bureau has “no authority” to declare a practice “unfair” unless it meets three criteria. The practice must be (1) “likely to cause substantial injury” that is (2) “not reasonably avoidable by consumers,” and (3) “not outweighed by countervailing benefits to consumers or to competition.” 12 U.S.C. § 5531(c)(1)(A)–(B). In promulgating the Final Rule, the Bureau serially violated each of these provisions in its single-minded pursuit of condemning traditional payday and title lending as unfair practices.⁴ The Bureau not only adopted a legally flawed interpretation of these three statutory requirements, but also applied them arbitrarily and capriciously, and without substantial evidence, in order to serve its desired end of obliterating the payday-lending industry rather than protecting consumer interests.

1. Extending payday loans without satisfying the Bureau’s “ability to repay” determination is not likely to cause substantial “injury” to consumers

The CFPA provides that the Bureau may not declare a practice to be “unfair” unless it is “likely to cause substantial injury” to consumers. 12 U.S.C. § 5531(c)(1)(A). Under the plain meaning of the statute, whether a loan causes an “injury” to a consumer depends not only on the *cost* that the consumer pays to obtain the loan, but also the *value* that the consumer receives in exchange. If the value of the loan to the consumer exceeds the cost, then the loan makes the consumer better off and does not cause him any “injury.” In the Final Rule, however, the Bureau assessed the likelihood of “injury” by focusing exclusively on the negative side of the

⁴ The precise practice the Bureau deemed unfair and abusive is the making of payday and title loans without first satisfying the Bureau’s draconian “ability to repay” test. That test is not commonly used in the industry and, as noted, will by the Bureau’s own estimates eliminate more than 90% of the loans currently made. When this brief refers to payday and title lending as the targeted and prohibited practices, it does so as shorthand for payday and title lending as currently and traditionally practiced, *i.e.*, without the Bureau’s “ability to repay” test.

transaction—the costs of the loan—without taking proper account of the value received by the consumer in exchange. Accordingly, the Final Rule must be set aside because it rests on an interpretation of the term “injury” that “the statute simply will not bear.” *Pittston Coal Grp. v. Sebben*, 488 U.S. 105, 113 (1988); *see also, e.g., MCI Telecomms. Corp. v. Am. Tel. & Tel. Co.*, 512 U.S. 218, 229 (1994) (“[A]n agency’s interpretation of a statute is not entitled to deference when it goes beyond the meaning that the statute can bear.”). And even if the Bureau’s one-sided analysis were statutorily authorized, the Final Rule would still need to be set aside because the Bureau lacked substantial evidence that the putative consequences of payday lending are substantially injurious to consumers. *See Safe Extensions, Inc. v. FAA*, 509 F.3d 593, 604 (D.C. Cir. 2007) (“agency’s decision ... must be supported by substantial evidence — otherwise it would be arbitrary and capricious”).

a. As the D.C. Circuit recognized when interpreting an analogous provision of the FTC Act, a commercial practice causes “substantial injury” to consumers when it “substantially worsen[s] their overall financial condition.” *Am. Fin. Servs. Ass’n v. FTC*, 767 F.2d 957, 974 (D.C. Cir. 1985). Indeed, in the context of a consumer-protection statute, any sensible definition of “injury” must take into account both sides of a commercial transaction. For example, it would make no sense to say that selling people cars causes them an “injury” by requiring them to pay thousands of dollars. Rather, the transaction does not “injure” them at all; it gives them the benefit of having a car in exchange for their payments. If the value of the car to the typical consumer is greater than the cost, the consumer is *made better off* by the transaction, and thus he is not “injured” despite the substantial cost he incurs. Or if the car is of *equal* value to the consumer as the cost, which is at least presumptively true since the consumer has decided to incur the cost of purchasing the car, then, again, the consumer cannot rationally be characterized

as “injured” due to the car’s cost. This is true whether the consumer buys the car for cash or on credit.

The CFPA requires the same common-sense analysis for covered loans. Like any consumer product, loans provide significant value to consumers; they do so by increasing consumers’ financial options and giving them access to credit they otherwise would not have. That is particularly true of the short-term loans covered by the Final Rule, which even the Bureau recognized are “typically used by consumers who . . . have little to no access to other credit products, and seek funds to meet recurring or one-time expenses.” 82 Fed. Reg. at 54,472. Thus, for example, if a consumer takes out a high-cost payday loan to pay for a life-saving surgery that she otherwise could not afford, or to avoid a devastating default on a separate obligation, or to avoid going to an illegal loan shark, then the loan is not “injurious” but rather *beneficial*, because it results in a better outcome for the borrower compared to available alternatives. That may be true even if the loan causes the borrower to risk “default, delinquency, and re-borrowing, as well as the negative collateral consequences of being forced to forgo major financial obligations or basic living expenses to cover [an] unaffordable loan payment.” 82 Fed. Reg. at 54,591. Such costs may take the place of *other* costs and consequences that would be even *worse* for the consumer if the loan were not available. Accordingly, if a covered loan results in a *more favorable outcome* for the consumer than the alternative, it clearly does not cause “substantial injury” to the consumer under § 5531(c).

In the Final Rule, the Bureau ignored this common-sense definition of “injury” and instead simply assumed that consumers are “injured” whenever they incur substantial costs as a result of obtaining a covered loan—*regardless* of whether the loan makes them better off than they otherwise would be. The irrationality of the Bureau’s interpretation is starkly illustrated by

its conclusion that a consumer can be “injured” by a loan even if “the benefits to that one consumer might outweigh the harm.” 82 Fed. Reg. 54,591. According to the Bureau, even when “the benefits of having immediate access to funds outweigh the harms resulting from being unable to repay the loan,” the Bureau “nonetheless” concludes that the loan inflicts an “injury” on the borrower. *Id.* This makes no sense. Under any reasonable definition, a loan that makes a consumer better off does not “injure” him. Instead, in order to be “injurious,” the loan must “substantially *worsen* [the consumer’s] overall financial condition.” *Am. Fin. Servs. Ass’n*, 767 F.2d at 974 (emphasis added). Accordingly, the Final Rule must be vacated because it depends on an interpretation of “injury” that “the statute simply will not bear.” *Pittston Coal Grp.*, 488 U.S. at 113.

The Bureau justified its counter-textual and counter-intuitive interpretation on the grounds that an “injury” to consumers can be *justified* if the “injury” is “outweighed by countervailing benefits to consumers or to competition.” 82 Fed. Reg. at 54,588 (quoting 12 U.S.C. § 5531(c)(1)(B)). But the Bureau’s reasoning simply assumes its conclusion and is contrary to the statutory text. *Before* asking the question under subsection (B) whether any “substantial injury” is “outweighed by countervailing benefits” to competition or to “consumers” *generally*, the statute requires a threshold showing under subsection (A) that consumers are actually likely to suffer an “injury” that needs to be justified by “countervailing” benefits. Thus, the statute mandates a threshold inquiry into the likelihood of “injury” under subsection (A), *i.e.*, whether a loan is likely to be more harmful or beneficial to the individual consumers. If the typical loan transaction is not more likely to be harmful than beneficial, then it cannot reasonably be considered “injurious.”

It is only *after* the threshold likelihood of “injury” is established that subsection (B) requires consideration of whether “countervailing” benefits nevertheless justify the injury. *Id.* The statute thus asks whether a truly injurious practice—where the harm to the individual consumer truly outweighs the benefit—can nevertheless be justified based on the *overall* market effects. *Cf. Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877 (2007) (recognizing that while the practice of vertical-price fixing may injure some consumers in individual transactions by causing higher prices, it can be justified by the overarching market benefit of causing firms to compete efficiently in ways other than cutting retail prices). That interpretation of “benefits to consumers” aligns that term with subsection (B)’s adjacent directive to consider benefits “to competition,” which can only be assessed marketwide. *See Yates v. United States*, 135 S. Ct. 1074, 1085 (2015) (“we rely on the principle of *noscitur a sociis*—a word is known by the company it keeps—to avoid ascribing to one word a meaning so broad that it is inconsistent with accompanying words” (internal quotation marks omitted)); *United States v. Williams*, 553 U.S. 285, 294 (2008) (“a word is given more precise content by the neighboring words with which it is associated”). And it is the only way to sensibly interpret the statute without adopting the Bureau’s unreasonable interpretation of the term “injury,” which deems consumers to be “injured” by loans that make them better off than they otherwise would be.

b. The Bureau’s conclusion that payday and title lending are likely to cause substantial injury also must be set aside as arbitrary and capricious because it lacks “substantial evidence” and rests on a clear error in judgment. *See Safe Extensions*, 509 F.3d at 604. The Bureau identified the following as injuries resulting from payday lending without an ability-to-repay determination: reborrowing, default on loans, delinquency, and the negative collateral consequences of being forced to forgo major financial obligations or basic living expenses to

cover an unaffordable loan payment. 82 Fed. Reg. at 54,591. But it simply assumed, without supporting evidence, that these consequences are substantially injurious and caused by payday lending. Moreover, because the Bureau relied on the collective impact of these consequences, 82 Fed. Reg. at 54,588–94, the Final Rule must be set aside if the Bureau’s analysis as to any one of them was improper. *See SEC v. Chenery Corp.*, 318 U.S. 80, 87 (1943) (“The grounds upon which an administrative order must be judged are those upon which the record discloses that its action was based.”).

First, the Bureau simply assumed that the collateral consequences it identified constitute substantial injury. The Bureau’s principal alleged concern is that some payday borrowers extend the length of their indebtedness by reborrowing at the end of the term of a first payday loan, and that a small minority reborrow frequently, ending up with a very long sequence of loans. 82 Fed. Reg. at 54,589. But the Bureau never explains *why* such reborrowing is harmful, let alone substantially so. Consumers who enter into thirty-year mortgages take on very long-term debt, but no reasonable person suggests that this fact alone demonstrates that thirty-year mortgages cause substantial harm to consumers. With respect to payday loan sequences, the length of consumer indebtedness shows only that some consumers are engaging in reborrowing or rollover activity. This tautology is insufficient to sustain the rule.

The arbitrary and capricious nature of the Bureau’s assumption that reborrowing a payday loan is necessarily harmful is easily demonstrated. Take, for example, a consumer with a monthly net income of \$3,000, outstanding loan payments of \$1,000 per month, rent of \$1,500 per month, and basic living expenses totaling \$500 per month. Because his net income equals the sum of his major financial expenses and basic living expenses, this consumer by the Bureau’s definition lacks the ability to repay a payday loan at the end of its term. The Final Rule thus

makes it an unfair practice to extend to this consumer a payday loan of \$600 to pay for necessary car repairs. That would be so even if, for example, the consumer correctly anticipates being able to repay the loan in full after four reborrowings because he by that point will have repaid his other outstanding debt in full, or will have received a holiday bonus from his employer or a seasonal opportunity to earn extra income by working additional hours. And it would be so no matter how rational the consumer's decision, and no matter how costly it would be to the consumer to forgo the payday loan in favor of some other solution to his financial shortfall, like non-payment of bills, costly default on his other debt obligations, or going without his car.

Though it assiduously tries to avoid saying so directly, it is obvious that the real reason the Bureau equates reborrowing with injury is that the Bureau believes that the effective interest rates typically charged for payday loans are too high (even though those rates fairly reflect lender costs and are not higher than those of comparable financial solutions). *See, e.g.*, 82 Fed. Reg. at 54,589 (criticizing “substantial fees for re-borrowing”). Of course, the Bureau cannot rely on this criticism directly because the CFPB bars it from regulating interest rates. *See* 12 U.S.C. § 5517(o); *infra* Part II.C. Regardless, there is nothing inherently harmful about paying a high rate of interest, whether for the first loan in a sequence or for subsequent loans that result from reborrowing. The fact that a consumer incurs expense—even substantial expense—when purchasing a product or service does not, in and of itself, establish substantial injury. To determine whether a consumer is injured, it is necessary to consider, among other things, the value of the benefits received by that consumer, including the avoidance of more costly and less affordable alternatives. The Bureau does none of this.

Second, instead of evaluating whether covered loans truly “cause” injury to consumers, the Bureau simply *assumed* such causation whenever borrowers engage in “re-borrowing” of

covered loans, or if they face “default,” “delinquency,” or if they are “forced to forgo major financial obligations or basic living expenses to cover [an] unaffordable loan payment.” 82 Fed. Reg. at 54,591. This assumption is irrational and unsupported by the evidence. As the Bureau itself recognized, most consumers who take advantage of covered loans are *already* facing dire financial circumstances, *id.* at 54,595, and thus they are *already* being forced to forgo basic living expenses while facing default, delinquency, and the acute need for credit. For most consumers, taking out a covered loan does not *cause* this type of financial distress, but is rather an (often successful) attempt to *mitigate* it. Accordingly, the proper question is not whether consumers who take out covered loans continue to face the problems identified by the Bureau, but whether these problems become *better* or *worse* as a result of the covered loans. Because the Bureau did not address that question, it “entirely failed to consider an important aspect of the problem” being regulated, and its finding must be set aside as arbitrary and capricious. *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

As a result of its head-in-the-sand approach, the Bureau did not even explore the possibility—much less rule out—that covered loans are far more likely to cause significant *benefits* rather than “substantial injury” to consumers. This failure is particularly egregious in light of significant evidence in the administrative record, ignored by the Bureau, which shows that covered loans provide significant benefits by allowing cash-strapped and credit-starved consumers to satisfy necessary expenses without resorting to more costly and less favorable alternatives. *See, e.g.,* Bart J. Wilson *et al.*, *An Experimental Analysis of the Demand for Payday Loans*, 10 B.E. J. Econ. Analysis & Policy, no. 1, art. 93, at 5–6, 19 (2010), Exhibit H (concluding that “the existence of payday loans, all else fixed, increase[d] the probability of financial survival by 31%.”); Zywicki, *The Case Against New Restrictions*, at 9, Exhibit F

(concluding that restricting “payday lending as an option for financially-stressed consumers would likely make them worse off and force them to use inferior and less-preferred types of credit, such as pawnshops, or to go without credit.”). In short, while it is quite true that many payday borrowers are confronting potentially serious financial injury, that is quite different than concluding that payday lending *caused* that financial injury or that payday lending is harmful *relative* to the other draconian options available to deal with that financial distress. The Final Rule illogically conflates these entirely different issues.

2. Any injury caused by the prohibited lending practices is “reasonably avoidable”

Even if the Bureau’s definition of “injury” were somehow correct, any such injury caused by covered loans is “reasonably avoidable” because consumers are able to make a free and informed choice about whether to take out a covered loan instead of resorting to other options.

a. As a matter of law, an injury is “reasonably avoidable” as long as consumers have a “free and informed choice” about whether to enter a transaction that may cause the injury. *FTC v. Neovi, Inc.*, 604 F.3d 1150, 1158 (9th Cir. 2010). The FTC Act contains a nearly identically worded provision, which the courts of appeals have unanimously interpreted as adopting the “free and informed choice” standard. *Id.*; *see also Orkin Exterminating Co., Inc. v. FTC*, 849 F.2d 1354, 1365 (11th Cir. 1988) (“free and informed consumer choice”); *Am. Fin. Servs. Ass’n*, 767 F.2d at 976 (same). To be sure, the mere fact that a consumer can decline to enter a transaction by itself is not always enough to make an injury “reasonably avoidable.” The terms of the transaction must be disclosed and reasonably understandable by the average consumer. But as long as the terms are disclosed and reasonably understandable, and there is no coercion or deception by the lender, then the consumer has a free and informed choice, and any harms that may result from the transaction are “reasonably avoidable.”

In promulgating the Final Rule, the Bureau erroneously rejected the “free and informed choice” standard. It concluded instead that an injury is not reasonably avoidable “unless consumers have reason generally to anticipate the likelihood and severity of the injury, and the practical means to avoid it.” 82 Fed. Reg. at 54,596. That interpretation is at odds with the well-established meaning of “reasonably avoidable” adopted by multiple courts of appeals. It is also at odds with normal English usage. An injury is, by definition, “reasonably avoidable” if the consumer is provided with non-misleading information about the potential injury and freely chooses *not* to avoid the risk. The Bureau’s heightened requirements that a consumer must anticipate the “likelihood and severity” of injury are reflected nowhere in the text of the statute, which says nothing about “likelihood” or “severity,” but simply states that the injury must be “reasonably avoidable.” Thus, once again, the Final Rule must be vacated because it rests on an interpretation that “the statute simply will not bear.” *Pittston Coal Grp.*, 488 U.S. at 113.

Under the correct interpretation of the “reasonably avoidable injury” prong, the Bureau was required to consider whether consumers have a free and informed choice about whether to take out a covered loan. The Bureau has never contended that covered loans are somehow coercive or deceptive in a way that overrides consumers’ ability to make a free choice, or that consumers are not “informed” about the terms and conditions of the loans. Indeed, as discussed in more detail below, if the Bureau had been truly concerned that consumers do not understand any aspect of covered loans, it easily could have addressed that perceived problem through enhanced disclosure requirements, which would make consumers aware of the risks without depriving them of a crucial source of credit. *See infra* pp. 34–35. The fact that the Bureau did not pursue this solution confirms that the Final Rule is not designed to give consumers a

reasonable ability to avoid harm, but instead to simply deprive lower-income consumers of the freedom to make an informed choice about whether to take out a covered loans.

b. Even on its own terms, the Bureau’s finding on “reasonable avoidability” is arbitrary and capricious because it lacks any substantial evidence that the average consumer is unable to anticipate the consequences of taking out a covered loan. The Bureau’s stated concern is that consumers do not, at the time of taking out an initial loan, anticipate that they may engage in reborrowing. But the principal research study on which the Bureau relied shows that “most borrowers could predict to within one pay period when they would be free of debt” after taking out a covered loan. Ronald Mann, *Assessing the Optimism of Payday Loan Borrowers*, 21 Sup. Ct. Econ. Rev. 105, 118 (2014)), Exhibit I. Based on this study, the Bureau acknowledged that “most payday borrowers expected some repeated sequences of loans, most of them accurately predicted the length of the sequence that they would borrow, and they did not systematically err on the optimistic side.” 82 Fed. Reg. at 54,569. If anything that understates the point, as the Bureau acknowledged that two other studies showed that “94 to 96 percent” of borrowers reported that “they understood well or very well ‘how long it would take to completely repay’” a covered loan. *Id.* at 54,570. While the Bureau discounted those high percentage rates, it conceded that “a majority of all borrowers” can accurately predict how they will fare in repaying a covered loan. *Id.* at 54,569.

Nevertheless, the Bureau dismissed this evidence by stating that its “principal concern” was with an unquantified “subset of borrowers” who “find themselves in extended loan sequences” that they did not expect. 82 Fed. Reg. at 54,569. This conclusion put the Final Rule even more squarely at war with the statute’s text. It converts “reasonably avoidable” into “not actually anticipated by any cognizable minority of borrowers,” even though they were fully

apprised of the risk through non-misleading and truthful disclosures. Moreover, under the terms of the statute, the Bureau is required to assess whether the relevant injury is “reasonably avoidable” by “consumers” as a whole, not by some arbitrarily selected “subset” of consumers. But instead of assessing reasonable avoidability among consumers as a whole, the Bureau cherry-picked an unrepresentative sample of borrowers and focused exclusively on them in order to support its preconceived policy view. That is the very definition of arbitrary and capricious decision-making—shaping the data to fit the desired conclusion.

Needless to say, the mere existence of a “subset” of borrowers who engage in unexpected reborrowing does not rationally support the finding that the supposed “harm” of reborrowing is not “reasonably avoidable.” Instead, it proves only that some consumers *actually failed to avoid* this “harm,” even if the harms were reasonably avoidable. Within the subset of unexpected reborrowers, the Bureau did not investigate whether their expectations were “reasonable” in the first place, or whether they could have taken any “reasonable” measures to avoid reborrowing. Thus, the Bureau had no way of knowing whether the supposed harm was simply *not avoided*, despite being *reasonably avoidable*. That possibility cried out for investigation because the majority of borrowers overall *did* avoid unexpected reborrowing, which suggests that this supposed harm *was* reasonably avoidable. The Bureau’s inexplicable lack of attention to this possibility shows that it “entirely failed to consider an important aspect of the problem” under consideration. *See State Farm.*, 463 U.S. at 43.

3. Any injury that is not reasonably avoidable is “outweighed by countervailing benefits”

Even if covered loans cause “substantial injury to consumers which is not reasonably avoidable by consumers,” 12 U.S.C. § 5531(c)(1)(A), the Bureau lacks authority to declare them “unfair” unless “such substantial injury is not outweighed by countervailing benefits to

consumers or to competition,” *id.* § 5531(c)(1)(B). Once again, the Bureau flatly violated this requirement.

a. Under the plain text of the statute, the Bureau’s weighing of “injury” versus “benefits” may take into account only the injury that *both* results from covered loans *and* is not reasonably avoidable. Subsection (B) requires the weighing of benefits against the category of “such” injury that is described in subsection (A)—that is, “substantial injury” that is “not reasonably avoidable by consumers.” *Id.* § 5531(c)(1)(A)–(B); *see, e.g., King v. Burwell*, 135 S. Ct. 2480, 2489 (2015) (interpreting “such” to incorporate the “same” or previously stated thing). Thus, subsection (B) allows the Bureau to weigh only those substantial injuries that are *not reasonably avoidable* by consumers.

The Bureau failed to follow this unambiguous statutory requirement. In weighing substantial injury against countervailing benefits, it counted *all* injuries that purportedly arise from covered loans, without regard to whether such injuries are reasonably avoidable. *See* 82 Fed. Reg. at 54,602 (“weighing substantial injury in the aggregate, then weighing countervailing benefits in the aggregate, and then assessing which of the two predominates,” without discounting for any injury that is reasonably avoidable). Consequently, even if the Bureau’s definition of “injury” and “reasonable avoidability” were correct, its promulgation of the Rule still exceeds the Bureau’s statutory authority by virtue of its legally erroneous weighing of costs and benefits.

b. The Bureau’s weighing of costs and benefits also must be set aside as “arbitrary and capricious” because it lacks supporting evidence. The Final Rule asserts that the supposed injury to consumers who re-borrow and default on covered loans “dwarfs” any benefits to consumers and competition, but it does not provide any actual evidence to support that claim. *Id.*

at 54,600. Instead, it arbitrarily downplays the benefits provided by covered loans while assigning excessive weight to the injuries that they supposedly cause.

As for injury, the Bureau fails to establish any reasonable baseline to determine *how much* of the harm suffered by borrowers is truly “caused” by covered loans. As the Bureau concedes, covered loans are typically an option of “last resort,” *id.* at 54,595, such that most borrowers are *already* in dire financial straits *before* taking out a covered loan. But nonetheless, the Bureau’s analysis does not account for the baseline of financial harm that borrowers would suffer *regardless* of whether they take out covered loans. For example, the Bureau counts it as a harm “caused” by covered loans if a borrower suffers the “consequences of making unaffordable payments, including harms from forgoing major financial obligations or basic living expenses.” *Id.* at 54,602. But this ignores the reality that, in the absence of a covered loan, consumers may be facing other payment obligations that are equally or *more* “unaffordable,” and that a payday loan may help mitigate those problems without significantly worsening the consumer’s financial situation. The same is true of the supposed injuries caused by “delinquency” or “default,” as consumers often face those same harms with respect to other debt obligations *before* they turn to payday loans. Indeed, according to classical economic theory, a rational consumer facing such financial difficulty would choose payday loans only if they would *mitigate* the preexisting risks of delinquency and default—but the Bureau utterly failed to investigate whether the empirical evidence supports or disproves that theory.

As for benefits, the Bureau blithely asserts that for consumers facing financial strain, a payday loan is merely a “temporary reprieve” from financial difficulty. *Id.* at 54,605. But as discussed above, this “temporary reprieve” can mean a great deal to consumers with no alternative source of credit and who need quick access to funds to avoid more severe

consequences, such as default on other obligations or a denial of important services. *See supra* pp. 17–20, 23–24. Instead of grappling with this fact, the Bureau simply *assumes* that obtaining “temporary” relief from financial pressure is a trivial benefit, and that the increased financial flexibility provided by payday loans is not worth the price that consumers are willing to pay for it. That assumption is entirely unsupported by any evidence in the administrative record, but instead appears to rest on the Bureau’s rigid ideological view that consumers cannot be trusted to make their own financial decisions when it comes to short-term loans.

* * *

In short, the Bureau failed to satisfy *any* of the three criteria required to prohibit covered loans as an “unfair” consumer practice—much less *all three* criteria, as would be required to sustain the Bureau’s unfairness determination.

B. The Prohibited Lending Practices Are Not “Abusive”

Under the CFPB, a practice may be deemed “abusive” only if it takes “unreasonable advantage” of the consumer’s (1) “lack of understanding . . . of the material risks, costs, or conditions,” (2) his “inability . . . to protect [his] interests,” or (3) his “reasonable reliance” on the lender to “act in the best interests of the consumer.” 12 U.S.C. § 5531(d). In the Final Rule, the Bureau deemed covered loans to be abusive based on the first two of these provisions. But once again, the Bureau erroneously interpreted these provisions and then arbitrarily and capriciously applied them to achieve its desired policy result without regard to the underlying evidence.

1. Consumers do not lack “understanding” of covered loans

The CFPB allows a practice to be prohibited as “abusive” if it takes unreasonable advantage of “a lack of understanding on the part of the consumer of the material risks, costs, or conditions of the product or service.” 12 U.S.C. § 5531(d)(2)(A). This provision is designed to

ensure that consumer loan terms are fully disclosed and reasonably understood in order to facilitate a fair arms-length transaction between lenders and borrowers. By contrast, the Final Rule unreasonably interprets the concept of consumer “understanding” to turn on consumers’ ability to “accurately predict” future circumstances and behavior, including whether they will take out more loans in the future—an inquiry that is entirely different from whether the consumer “understands” the risks and costs of the loan. In addition, the Final Rule irrationally prohibits lending practices as “abusive” *regardless* of whether the consumer fully understands all of the terms, risks, conditions, and costs.

a. According to the Final Rule, consumers lack the requisite “understanding” of covered loans unless they are able to “predict accurately” how they will fare in repaying the loan, including how many covered loans they will take out in the future. 82 Fed. Reg. at 54,615. This interpretation is erroneous as a matter of law. Whether a consumer “understands” the risks and costs of a loan is entirely different from whether the consumer has the ability to “accurately predict” his *future* borrowing activity. The ability to make such accurate predictions about future behavior turns on a number of independent factors quite apart from the consumer’s understanding of the loan’s risks and costs. Accordingly, the Final Rule must be vacated because it rests on a legally erroneous interpretation of consumer “understanding.”

The Bureau recognized that “borrowers who take out a payday, title, or other covered short-term loan *typically understand* that they are incurring a debt which must be repaid within a prescribed period of time and that if they are unable to do so, they will either have to make other arrangements or suffer adverse consequences.” 82 Fed. Reg. at 54,615 (emphasis added). Indeed, the Bureau also recognized that “*many* consumers may be knowledgeable about covered short-term loans and use them effectively, including making accurate predictions about their

duration of borrowing.” *Id.* at 54,617 (emphasis added). But nevertheless, the Bureau determined that consumers lack “understanding” of the risks and costs of covered loans because “a substantial population of borrowers, and especially those who end up in extended loan sequences, are not able to *predict accurately* how likely they are to reborrow and thus how much they will end up paying over time.” *Id.* at 54,615 (emphasis added).

The Bureau’s interpretation is erroneous because it conflates consumer “understanding” of a loan’s risks and costs with the distinct concept of whether consumers have the ability to “predict accurately” whether they will take out other loans in the future. As a threshold matter, the “risks and costs” of taking out *one* loan cannot sensibly be interpreted to include the possibility of taking out *other loans* in the future. For reasons similar to those explained above, taking out a new loan is not properly described as a “risk” or a “cost,” because it may actually be *beneficial* rather than harmful to the consumer—*i.e.*, if it results in a better outcome for the consumer than any of the available alternatives.

The Bureau’s definition of consumer “understanding” also fails to distinguish between two different explanations of *why* consumers might end up in the unanticipated situation of “reborrowing” by taking out new loans. It is equally possible that (1) consumers may have truly failed to *understand* the risks and costs of borrowing, or (2) they understood and knowingly decided to accept those risks and costs, but nonetheless ended up with a worse outcome than they expected. After all, in any financial transaction involving significant risk, it will often be the case that a significant number of consumers will end up with a worse outcome than they anticipated, even if they fully understood all of the risks involved. This is the very nature of financial risk: People take a risk because they anticipate a positive outcome, but they end up with a negative outcome. This does not remotely indicate that the consumer failed to

“understand” the risk. Accordingly, the Final Rule must be vacated because it rests on an interpretation of consumer “understanding” that “the statute simply will not bear.” *Pittston Coal Grp.*, 488 U.S. at 113.

b. Even on the Bureau’s dubious definition of consumer “understanding,” the Final Rule is arbitrary and capricious because the evidence does not support the Bureau’s conclusion that consumers cannot accurately predict how many loans they will take out in the future. As noted above, *supra* p. 27, the Bureau itself conceded that “a majority of all borrowers” accurately predict how they will fare in repaying a covered loan. 82 Fed. Reg. at 54,569. Indeed, the evidence shows that “most payday borrowers expected some repeated sequences of loans, most of them accurately predicted the length of the sequence that they would borrow, and they did not systematically err on the optimistic side.” *Id.* The evidence is thus squarely at odds with the Bureau’s finding that consumers cannot accurately predict the consequences of taking out a covered loan.

The arbitrary and capricious nature of the Final Rule is confirmed by the fact that it outright *bans* what it deems “unaffordable” loans, instead of simply requiring “improved disclosures” to ensure that consumers “understand” the risks involved. 82 Fed. Reg. at 54,618. The Bureau gave three reasons for eschewing disclosure requirements in favor of an outright ban. First, “while enhanced disclosures would provide additional information to consumers, the loans would remain unaffordable for consumers, lenders would have no greater incentive to underwrite more rigorously, and lenders would remain dependent for revenue on extended loan sequences of repeat re-borrowing.” *Id.* at 54,625–26. Second, “disclosures would have only modest impacts on consumer borrowing patterns for short-term loans generally and negligible impacts on whether consumers re-borrow.” *Id.* at 54,626. And third, even if consumers are

given a “warning” that fully apprises them of the risks, the Bureau concluded that such a warning is “unlikely to cause them to modify” their behavior due to certain “behavioral factors,” including irrational “optimism.”

Notably, all of these factors are couched in terms of whether enhanced disclosure requirements would be effective in *stopping* consumers from taking out covered loans—not whether they would make consumers “understand” the risks involved. Indeed, the Bureau plainly believes that the alleged flaws in payday lending have *nothing to do* with whether consumers “understand” the “material risk” of the loans, since it admits that ensuring full understanding will not cognizably affect whether consumers use such loans. In short, the Bureau is not interested in whether consumers understand the relevant risk, because it does not believe lack of understanding causes consumers to use the loans. Consequently, the Bureau eschews efforts to improve “understanding” the risk since that is not its goal; it seeks, rather, to paternalistically prevent consumers who *fully* understand the risk from making a decision of which the Bureau disapproves. This has nothing to do with “abusiveness.” For similar reasons, the Rule also violates the statutory mandate for the Bureau to avoid heavy-handed prohibitions, and instead to ensure that consumers have “timely and understandable information” to enable them to make *their own* “responsible decisions about financial transactions.” 12 U.S.C. § 5511(b)(1) (emphasis added).

2. The prohibited lending practices do not “take unreasonable advantage” of consumers’ inability to protect their interests

The CFPB allows the Bureau to prohibit practices as “abusive” if they take “unreasonable advantage” of “the inability of the consumer to protect the interests of the consumer in selecting or using” a financial product or service. 12 U.S.C. § 5531(d)(2)(B). Here,

again, the Bureau misapplied the law and (even on its view of the law) made arbitrary and capricious decisions unsupported by substantial evidence.

a. The Final Rule erroneously interprets the statute to mean that lenders take unreasonable advantage by offering covered loans to consumers who are in “urgent need” and do not have any “better” financial options. 82 Fed. Reg. at 54,620. But contrary to the Bureau’s reasoning, offering someone a covered loan in this circumstance does not “take unreasonable advantage” of his inability to “protect his interests,” but rather provides him with *the best available means* to protect his interests. By outlawing this practice, the Final Rule harms consumers by *decreasing* their financial options and depriving them of a vital source of credit that would significantly benefit them. This is directly contrary to both the statutory text and the statutory purpose of protecting consumer interests.

The Final Rule is based on two separate interpretive errors. First, it erroneously conflates the lack of superior financial options with the “inability” of consumers to protect their interests. The Bureau admits that “borrowers of covered loans are not irrational and may generally understand their basic terms.” 82 Fed. Reg. 54,620. But nevertheless, the Bureau concludes that they are “unable to protect their interests” if they have an “urgent need for funds,” coupled with the “lack of awareness *or availability* of better alternatives” to a covered loan. *Id.* (emphasis added). This interpretation makes no sense. When a lender offers a loan that is “better” than any available alternative and satisfies an “urgent” consumer need, that hardly suggests that consumers suffer from an “inability” to “protect their interests” against the lender. To the contrary, consumers have the *ability* to satisfy their urgent need for funds through any number of more costly and less desirable options, but they wisely choose to better “protect their interests” by selecting a covered loan because it is the best option available to them.

Second, the Final Rule also misinterprets what it means to “take unreasonable advantage” of a consumer. By its plain meaning, the concept of “taking advantage” requires some form of consumer exploitation that makes consumers worse off than they otherwise would be.

Accordingly, if a lender offers a loan that is *the best option available* to the consumer, then the lender is not making the consumer worse off, not engaging in any exploitation, and not “taking unreasonable advantage.” The Bureau’s contrary reading perversely transforms the CFPB into the very *opposite* of a consumer “protection” statute, prohibiting loans that would—according to the Bureau’s own reasoning—indisputably *enhance* consumer welfare.

b. The Final Rule also must be set aside as arbitrary and capricious because the Bureau lacked any substantial evidence that consumers are unable to protect their interests or that lenders take unreasonable advantage of such inability. As noted above, the Bureau did not conduct or evaluate any controlled studies that provide any evidence of how similarly situated consumers fare based on whether or not they took out payday loans. *See supra* pp. 23–24. This not only makes it impossible to assess whether payday loans cause any “injury” to consumers, but also makes it impossible to discern whether consumers have the “ability” to protect their interests through other alternatives without relying on payday loans.

Instead of relying on any such evidence, the Bureau devised a Catch-22 that is transparently designed to support the Bureau’s preferred policy outcome: If payday loans are *not* the best option for consumers who are in urgent need of credit, then consumers must be protected against predatory lenders foisting these inferior loans on them. But if payday loans *are* the best option, then consumers are deemed unable to “protect their interests” against the lenders who are “taking unreasonable advantage” of them. Either way, the fix is in. The Bureau’s capricious methodology is designed to guarantee that such loans will be prohibited one way or another.

The Bureau also arbitrarily declared that payday loans take unreasonable advantage of consumers because they are “out of step” with the underwriting requirements and repayment options associated with “traditional” lenders. *Id.* at 54,622. But the mere fact that covered lenders eschew “traditional” underwriting practices and payment options does not remotely indicate any unreasonable advantage-taking. To the contrary, the entire point of payday loans is that they provide a unique financial solution for those who are locked out of, or choose to forgo, “traditional” credit markets. Thus, far from exploiting consumers, the non-traditional nature of payday loans is what allows them to offer expanded access to credit that consumers otherwise would not enjoy.

Finally, the Bureau perceives unreasonable advantage-taking in the way payday loans are “marketed to consumers.” *Id.* at 54,623. But once again, the appropriate solution to concerns about marketing would be a rule addressing deceptive marketing practices, not a rule restricting the availability of payday loans even for consumers who are entirely un-deceived. By outright *banning* payday loans that do not satisfy the Bureau’s “ability to repay” test, rather than addressing any abusive marketing deception, the Final Rule goes well beyond the Bureau’s authority to act “for the purpose of preventing [abusive] acts or practices.” 12 U.S.C. § 5531(b).

C. The Final Rule Violates The Statutory Prohibition Against Usury Limits

The Final Rule also violates the statutory prohibition against establishing a usury limit. 12 U.S.C. § 5517(o). In that provision, Congress set a clear boundary on the Bureau’s authority: “No provision of this title shall be construed as conferring authority on the Bureau to establish a usury limit applicable to an extension of credit offered or made by a covered person to a consumer.” *Id.* A “usury limit” is a restriction on the rate of interest that may be charged on an extension of credit. *See* Black’s Law Dictionary (10th ed. 2014) (“usury,” “usury law”). When a usury limit is in place, the interest rate on a loan determines its legal status. *See Watters v.*

Wachovia Bank, N.A., 550 U.S. 1, 11 (2007) (“usury laws govern the maximum rate of interest ... banks can charge on loans”). Two loans that are identical in their terms except that one lends at a rate above the limit and one lends at a rate below the limit are accorded different legal statuses: only the latter is lawful. *Id.* Congress’s declaration that the Bureau may not establish a usury limit thus means that the Bureau may not determine the legal status of a loan based on its interest rate.

The Final Rule runs afoul of this statutory restriction by improperly targeting high-interest loans. The Rule bars lenders from making “high-cost,” “unaffordable” loans and loan sequences, for which consumers pay “substantial fees” and “very high total costs of borrowing.” 82 Fed. Reg. at 54,473, 54,565, 54,589. By definition, the lower the interest rate, the less costly or more “affordable” the loan. Such “substantial fees” and “very high total costs of borrowing” are Bureau-speak for what the Bureau understandably hesitates to call by its proper name—the effective interest rate. Likewise, an ability-to-repay determination asks nothing more than whether a consumer can repay a loan in light of its effective interest rate. The Bureau is thus doing just what Congress prohibited—targeting loans because of their interest rates.

It is no answer that the Bureau has not directly targeted loan costs that have the superficial *label* of “interest rates.” The Bureau cannot evade the statutory bar against usury limits by “attempting to do indirectly what it could not do directly.” *Altamont Gas Transmission Co. v. FERC*, 92 F.3d 1239, 1248 (D.C. Cir. 1996); *see also, e.g., Chamber of Commerce of United States of Am. v. United States Dep’t of Labor*, 885 F.3d 360, 384 (5th Cir. 2018) (agencies are not allowed to make an “end run around” limits imposed by Congress). Yet that is just what is going on here. The Bureau is concerned about “high-cost” and “unaffordable” loans—that is, loans that have high costs that are the economic equivalent of high effective

interest rates relative to borrowers' ability to pay—and has devised a regulatory “end-run around the statutory scheme enacted by Congress.” *NRDC v. EPA*, 489 F.3d 1364, 1371 (D.C. Cir. 2007). This avoidance of the usury limit is just as impermissible as if the Bureau had banned loans above a certain rate of interest. *Id.* at 1372. The Bureau may not engage in such creative efforts to “sidestep what Congress has plainly prohibited.” *Id.*

D. The Final Rule's Account-Access Provisions Are Also Illegal

The Bureau also violated the statute and acted arbitrarily and capriciously in declaring it an unfair and abusive practice for a lender to make or attempt to make an authorized withdrawal from a borrower's bank account in connection with a payday loan after the lender's second consecutive attempt has failed due to a lack of sufficient funds, unless the lender obtains the consumer's new and specific authorization for further withdrawals. 12 C.F.R. 1041.7.

Borrowers typically provide advance authorizations when taking out a payday loan; the authorizations benefit lenders and borrowers by providing a relatively speedy, predictable, and low-cost means of loan repayment. *See* 82 Fed. Reg. at 54,730. The Bureau's concern is that banks charge overdraft fees (and sometimes close a customer's account) when withdrawal attempts are denied for insufficient funds.

The Bureau's analysis of this repayment practice suffers from many of the same flaws as the analysis offered in support of the ability-to-repay requirements, including its conflation of cost with injury and its paternalistic refusal to allow consumers to enter into voluntary transactions with fully disclosed terms. Although failed-payment fees for withdrawal attempts increase the cost of credit (through the fees themselves and possible account-related effects), they are not necessarily injuries. That determination requires an assessment of costs and benefits to consumers that the Bureau has forsaken. Likewise, consumers may reasonably avoid any injuries, and can protect their own interests, by not entering into the transaction in the first place,

by placing sufficient funds in their bank accounts to pay off their loans, by renewing or rolling over their loans, by negotiating repayment options with their lenders, or by invoking their rights under federal law to issue stop-payment orders or rescind authorized account access.

More fundamentally, the Bureau acted arbitrarily and capriciously in concluding that lenders are the cause of the purported injury. Payday lenders do not cause failed-payment fees or bank-account closures—the consumers’ banks do that. Payday lenders are not responsible for imposing or collecting the fees and do not coordinate in any way with consumers’ banks in this regard. In addition, payday lenders do not intend to subject their borrowers to these fees and of course do not know any of the details of fees related to accounts they do not own. If the Bureau is concerned about injuries caused by these fees, the answer is to regulate the conduct and practices of the banks imposing them.

III. AN INJUNCTION IS NEEDED TO PREVENT IRREPARABLE HARM

The Final Rule has already inflicted and will continue to inflict substantial harm on Plaintiffs’ members. These injuries are irreparable because, given the government’s immunity from suit, none of them will be compensable by money damages should the Final Rule be invalidated or repealed. *See Texas v. EPA*, 829 F.3d 405, 433–34 (5th Cir. 2016) (“complying with a regulation later held invalid almost *always* produces the irreparable harm of nonrecoverable compliance costs”).

Plaintiffs’ members will obviously suffer massive irreparable financial losses if required to comply with the Final Rule’s lending restrictions beginning in August 2019. The Bureau itself estimated that the rule’s ability-to-repay requirements will reduce the volume of storefront payday loans—and, consequently, lender revenues—by approximately 92 to 93 percent. 82 Fed.

Reg. at 54,826–27.⁵ As a result, once the compliance date arrives, “many current providers” are “expected” to shut down or otherwise “exit” the market. *Id.* at 54,817; *see also* Ex. A, Decl. of Judi Strong in Supp. Mot. Prelim. Inj. (“Strong Decl.”) ¶ 3; Ex. B, Decl. of John M. Flynn in Supp. Mot. Prelim. Inj. (“Flynn Decl.”) ¶ 5. Those that remain will suffer enormous losses in profitability. 82 Fed. Reg. at 54,817; *see also* Ex. C, Decl. of J. Patrick O’Shaughnessy in Supp. Mot. Prelim. Inj. (“O’Shaughnessy Decl.”) ¶ 3. None of these losses will be recoverable against the Bureau that caused them.

But Plaintiffs’ members will also suffer irreparable harm long before August 2019. Plaintiffs’ smaller members—many of whom do not expect to survive under the Rule—are already experiencing store closings, business disruptions, and resultant lost revenues. *See, e.g.*, Flynn Decl. ¶ 6 (describing store closing). For instance, some members are having difficulty retaining employees, who see the writing on the wall and for reasons of job security cannot wait until August 2019 to find new jobs. Strong Decl. ¶¶ 5–6; Flynn Decl. ¶ 8. This loss of employees has and will have cascading effects: it reduces members’ ability to collect on outstanding loans, resulting in revenue loss, *see* Strong Decl. ¶ 7; Flynn Decl. ¶ 9, and store closings, *see* Flynn Decl. ¶ 9. In addition, members are adopting more conservative lending practices, and thereby losing more revenue, so that loans receivables will not be outstanding (and thus lost) when the business closes. Strong Decl. ¶¶ 10–11. The owner of one member must decide by November 1, 2018, whether to accept an offer to purchase a building, which would result in the closing of another store. Flynn Decl. ¶ 7. The Rule also imposes opportunity costs;

⁵ The Bureau projected a smaller, though still enormous, 62 to 68 percent reduction in loan volume and lender revenue if lenders are able to make loans under the Rule’s conditional exemption, *id.* at 54,817, but the Bureau does not intend to make that option available by the compliance date. *See* CFPB Resp. Supp. Pls.’ Mot. Reconsider. at 16 n.7.

one member is forgoing investments to reopen a profitable store damaged in a fire, and thereby losing monthly revenue, because those investments will be wasted if the Rule goes into effect. Strong Decl. ¶ 8. Blocking enforcement of the Rule would prevent these irreparable harms from occurring.

Plaintiffs' larger members—those who expect to continue to operate under the Rule—likewise have already suffered and will continue to suffer irreparable injury. For instance, one large national lender has already spent more than \$4 million dollars, and will spend \$9 million more—two thirds of that in the final quarter of 2018—in order to implement costly company-wide changes to its information-technology systems, business practices and policies, and employee training. O'Shaughnessy Decl. ¶ 7. This timetable is necessary for the member to operate its business in compliance with the Rule as of the compliance date. *Id.* ¶¶ 4, 7. That lender also faces significant imminent expenditures to migrate its payday-loan customers to alternative loan products that are not subject to the Rule's ability-to-repay requirements. *Id.* ¶ 5. It also needs to advocate and prepare to advocate for changes in state law in those states that do not currently permit such alternative loan products. *Id.* ¶ 6. And it needs to take these steps in the fourth quarter of 2018 and the first quarter of 2019 so that the new laws are in place as of the compliance date. *Id.* The pendency of the Final Rule's compliance date is also imposing costs on members who, facing consolidation of their stores, must make important decisions about leases with substantial early-termination penalties. *See, e.g., id.* ¶ 8.

The Fifth Circuit has held that expenditures such as these constitute irreparable harm even where they occur far in advance of a rule's compliance date. In *Texas v. EPA*, for example, the court found irreparable injury, and granted a stay pending review, where power companies were spending money in 2016 to comply with EPA installation deadlines of 2019 and 2021. *See*

829 F.3d at 416. The Court recognized that, despite the deadlines being many years away, the required emissions controls “take several years to install” and “the regulated companies will have to begin installation almost immediately.” *Id.* at 433. Likewise, though the compliance deadline of the Final Rule is still about eleven months away, the evidence discussed above demonstrates that effects are being felt now, and that expensive, disruptive, and necessary business changes that will take time to implement are ongoing and escalating.

None of these harms are mitigated by the fact that the Bureau intends (several months from now) to initiate rulemaking to reconsider the Final Rule. The outcome of that rulemaking is uncertain and, in any event, repeal would not remedy the harms that are occurring now. Moreover, regulated lenders cannot be expected to simply forego preparation for the rule on the hope that the Bureau might repeal it, especially since the Bureau has represented to this Court that it does not expect its new rulemaking to be completed before the compliance deadline..

IV. THE BALANCE OF HARMS AND THE PUBLIC INTEREST FAVOR A PRELIMINARY INJUNCTION

The balance of harms and the public interest, which are the third and fourth preliminary-injunction factors, “merge when the Government is the opposing party.” *Nken v. Holder*, 556 U.S. 418, 435 (2009); *see also Texas v. United States*, 809 F.3d 134, 187 & n.204 (5th Cir. 2015). Here, both factors together weigh heavily in favor of a preliminary injunction. The Final Rule imposes radical and unprecedented changes to the payday-lending industry, whereas a preliminary injunction would merely maintain for a short while longer the status quo that has been in place for decades. As shown above, in the absence of a preliminary injunction, compliance efforts over the coming months will impose huge financial costs and operational burdens on Plaintiffs’ members, and some of Plaintiffs’ smaller members will wind down or close their businesses. By contrast, preserving the status quo until the validity of the Final Rule can be adjudicated will cost the Bureau

nothing. In fact, given its decision to reconsider the Final Rule, the Bureau will actually *benefit* from an injunction, which will ensure that the Bureau has sufficient time to conduct a thorough and careful reassessment of the rule.

For similar reasons, a preliminary injunction would also serve the public interest. As a general matter, “the public is served when the law is followed,” and thus the unlawful nature of the Final Rule weighs heavily in favor of an injunction. *Daniels Health Scis., L.L.C. v. Vascular Health Scis., L.L.C.*, 710 F.3d 579, 585 (5th Cir. 2013). At the very least, courts routinely recognize that where there are serious questions about the validity of government regulations, the public interest favors an injunction so that those questions can be resolved without needless and costly disruption to the status quo. *See, e.g., Texas*, 809 F.3d at 187 (5th Cir. 2015) (a preliminary injunction serves the public interest given “the difficulty of restoring the *status quo ante* if [the regulations] were to be implemented”); *Ruiz v. Estelle*, 650 F.2d 555, 569 (5th Cir. 1981) (“[T]he public interest is best served in this case by maintaining the status quo . . . until the merits are decided on appeal,” in order to avoid imposing unnecessary “personnel and monetary burdens.”); *Whole Woman’s Health v. Paxton*, 264 F. Supp. 3d 813, 825 (W.D. Tex. 2017) (“[I]t is in the public interest to preserve the *status quo* . . . without subjecting Plaintiffs or the public to any of the act’s potential harms.”). Moreover, a stay will ensure that borrowers whom the rule would otherwise deprive of needed sources of credit will continue to have access to payday loans until the rule’s legality is resolved.

CONCLUSION

For the foregoing reasons, this Court should grant Plaintiffs’ motion for preliminary injunction and enjoin enforcement of the Final Rule.

Dated: September 14, 2018

Respectfully submitted,

/s/ Laura Jane Durfee

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CERTIFICATE OF SERVICE

I hereby certify that on the 14th day of September 2018, I electronically filed the foregoing with the Clerk of Court using the CM/ECF system, which will send notification of such filing to all counsel of record.

/s/ Laura Jane Durfee
Laura Jane Durfee

EXHIBIT A

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

COMMUNITY FINANCIAL SERVICES
ASSOCIATION OF AMERICA, LTD. *et al.*,

Plaintiffs,

v.

CONSUMER FINANCIAL PROTECTION
BUREAU *et al.*,

Defendants.

Civil Action No. 1:18-cv-295

**DECLARATION OF JUDI STRONG IN SUPPORT OF
PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION**

I, Judi Strong, declare as follows:

1. I am the owner and president of Cash In A Dash LLC, a privately owned company that currently operates three payday lending stores in Eastern Kentucky. I make this declaration in support of Plaintiffs' Motion for a Preliminary Injunction based on my personal knowledge. I am over 18 years old and could testify to the facts set out herein if called upon to do so.

2. Cash In A Dash is a member of plaintiff Community Financial Services Association of America. As a payday lender, Cash In A Dash is subject to the ability-to-repay and other requirements set forth in the Final Rule on Payday, Vehicle Title, and Certain High-Cost Installment Loans ("Payday Rule"), which are set to go into effect on August 19, 2019.

3. The Payday Rule is a death blow to my small business and the payday-lending industry in general. The Rule will cut Cash In A Dash's business substantially by banning a

significant portion of the loans that the company would otherwise make. As a result, Cash In A Dash will not be able to operate profitably and will have to close its doors if the rule goes into effect. As a result, Cash In A Dash's six current employees (many who have been with the company for more than a decade) will lose their jobs, its customers will lose a valuable source of consumer financing, and its landlords and vendors will lose significant revenues.

4. Indeed, because Cash In A Dash does not expect to operate under the Rule, it has already closed one store, which resulted in a substantial loss of revenue and profits.

5. Because of the Payday Rule, Cash In A Dash is having difficulty retaining its employees. Employees are hard to find in most of the Eastern Kentucky areas in which Cash In A Dash operates. Once they heard about the Rule, employees did not think their jobs were safe working for the payday industry. In one particular store, I could not keep a worker for more than a year, as they were scared of the store closing. They wanted security of a job that is not going to end in the near future, even if that required taking a job at a call center or a factory located 40 miles away.

6. Because my employees need secure jobs and stability, they cannot wait until August 2019 to find new jobs. I expect my existing employees, knowing that the Payday Rule will go into effect in less than a year, will start to leave for new jobs in the very near future. And for the same reason, it will not be possible to hire replacement employees, especially those with backgrounds in consumer financial products.

7. This loss of employees will be devastating for Cash In A Dash's business in the near term. Without a full set of employees, it will not be possible for the company to collect on outstanding loans (approximately \$300,000). Cash In A Dash will likely lose substantial funds.

8. In 2015, a profitable store I owned had the misfortune of being damaged in a fire and needed to be closed temporarily for repairs. Cash In A Dash has kept the license required to operate the store by paying a license fee to the state. However, it does not make economic sense to invest in reopening the store if Cash In A Dash will go out of business in less than a year. As a result, Cash In A Dash has been unable to recover the profits that this store was earning before the fire.

9. Without an injunction preventing the rule from going into effect in August 2019, Cash In A Dash will need to start in the first quarter of 2019 cutting back on new loans and focusing on trying to recover its outstanding loans.

10. In addition, Cash In A Dash is already being forced to downsize its business in anticipation of closing down in August 2019. I have instructed my employees to be very conservative in making loans to new people and to people who do not have a good record of paying back their loans, because we do not want to have such loans outstanding when the business closes. This change in business practice is costing Cash In A Dash significant revenues on an ongoing basis.

11. Similarly, I have instructed my employees not to continue customer accounts that have had multiple NSF's (non-sufficient funds) on repayment attempts. Usually, these customers have very irregular income, and we are able to work with them by reducing their loan amount or continuing to lend to them. I cannot risk these loans still being outstanding by the time Cash In A Dash is forced to shut down. For this reason, too, Cash In A Dash is suffering and will continue to suffer substantial loss of income each month between now and August 2019, assuming it can even stay in business until then.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on September 11, 2018

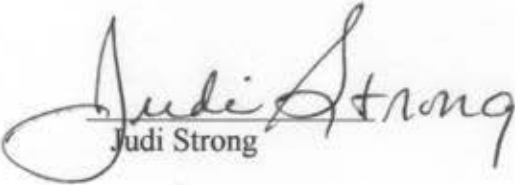

Judi Strong

EXHIBIT B

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

COMMUNITY FINANCIAL SERVICES
ASSOCIATION OF AMERICA, LTD. *et al.*,

Plaintiffs,

v.

CONSUMER FINANCIAL PROTECTION
BUREAU *et al.*,

Defendants.

Civil Action No. 1:18-cv-295

**DECLARATION OF JOHN M. FLYNN IN SUPPORT OF
PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION**

I, John M. Flynn, declare as follows:

1. I am an owner and the president of Cash Fast Loan Centers (“Cash Fast”), a consortium of privately owned companies that operate payday and title lending stores in Fort Mill, South Carolina. I make this declaration in support of Plaintiffs’ Motion for a Preliminary Injunction based on my personal knowledge. I am over 18 years old and could testify to the facts set out herein if called upon to do so.

2. Cash Fast is a member of plaintiff Community Financial Services Association of America. As a payday and title lender, Cash Fast is subject to the ability-to-repay and other requirements set forth in the Final Rule on Payday, Vehicle Title, and Certain High-Cost Installment Loans (“Payday Rule”), which are set to go into effect on August 19, 2019.

3. As described more fully below, even though this August 2019 date is nearly a year away, Cash Fast has already been severely impacted by the Payday Rule, and other adverse consequences are imminent.

4. Cash Fast currently employs nine full-time employees, several of whom have been with the company or in the consumer-lending industry for well over a decade. Cash Fast helps more than 1,500 people per month get access to the short-term credit they need.

5. Because the Payday Rule will prohibit almost all of the payday and title loans that Cash Fast makes, it will not be possible for Cash Fast to operate profitably under the rule, and the company will be forced out of business. Indeed, Cash Fast will likely be forced to close some or all of its locations long before August 2019.

6. Before the Payday Rule was promulgated, Cash Fast operated four storefront locations. On June 1, 2018, in anticipation of being unable to afford to comply with the Payday Rule, Cash Fast closed one of those locations. That location had been profitable in 2017, and employed one full-time and one part-time employee whose jobs are now lost.

7. Over the next few months, Cash Fast will need to make similar decisions concerning its other stores. A few weeks ago (in mid-August 2018), a real-estate development company offered to purchase a building I own (through another privately held company) that houses one of Cash Fast's locations. The buyer intend to redevelop the property, which would force the closure of the Cash Fast location once the sale is completed. This closure would cost the jobs of three full-time employees and one part-time employee, and would cost Cash Fast approximately \$220,000 in annual income. The buyers asked for a decision by November 1, 2018, although I may be able to negotiate a one- to two-month extension of that deadline. I will probably sell the property and close the Cash Fast location if the Payday Rule is not enjoined by

that time. If the Payday Rule is blocked, then I expect that I will not sell the property to the buyers, and Cash Fast will continue to operate that location.


8. Cash Fast's employees cannot wait until August 2019 to decide whether they will continue working for the company. As noted, Cash Fast will go out of business if the Payday Rule goes into effect on August 19, 2019. These employees—several of whom have decades of experience in the industry—can't risk not having a job on that date. They will start to leave Cash Fast for other jobs long before then, most likely beginning in late 2018 or early 2019.

9. This loss of employees will affect operations at Cash Fast's remaining locations. Employees at all stores assist in the collection of loans receivables. As of today, Cash Fast has over \$650,000.00 in loan receivables outstanding. With fewer experienced staff on the payroll to collect these, Cash Fast will surely lose a great deal of those receivables. Based on these factors, Cash Fast will likely have to shutter its remaining location and begin to wind down its business by attempting to collect all remaining receivables long before the Payday Rule's August 2019 compliance date, and probably by the first quarter of 2019.

10. In sum, although August 2019 may seem like a long time from now for some looking at this issue, for payday lenders with employees, receivables, customers, and vendors, relevant decisions about the future need to be made immediately, and cannot wait until August 2019.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on September 12, 2018.



John M. Flynn

EXHIBIT C

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

COMMUNITY FINANCIAL SERVICES
ASSOCIATION OF AMERICA, LTD. *et al.*,

Plaintiffs,

v.

CONSUMER FINANCIAL PROTECTION
BUREAU *et al.*,

Defendants.

Civil Action No. 1:18-cv-295

**DECLARATION OF J. PATRICK O'SHAUGHNESSY IN SUPPORT OF
PLAINTIFFS' MOTION FOR PRELIMINARY INJUNCTION**

I, J. Patrick O'Shaughnessy, declare as follows:

1. I am the Chief Executive Officer for Advance America, Cash Advance Centers, Inc. ("Advance America"), a member of plaintiff Community Financial Services Association of America. I make this declaration in support of Plaintiffs' Motion for a Preliminary Injunction based on my personal knowledge. I am over 18 years old and could testify to the facts set out herein if called upon to do so.

2. Advance America is a leading cash advance company in the United States, with more than 2,000 stores in twenty-eight states. Advance America offers a variety of consumer-finance products, including payday loans, title loans, and installment loans, and is subject to the ability-to-repay and other requirements set forth in the Final Rule on Payday, Vehicle Title, and Certain High-Cost Installment Loans ("Payday Rule").

3. The Bureau has estimated that the Payday Rule will cause a substantial reduction in the volume of storefront payday loans and a corresponding decrease in lender revenues, and that most payday lenders will go out of business as a result. As a large company, we believe Advance America has the resources to survive under the Rule, but doing so will be very costly. The decreased loan volumes and increased operational costs mandated by the Rule will result in substantial lost income and consolidation of our stores.

4. Although the requirements of the Payday Rule have a compliance date of August 19, 2019, Advance America has already begun to devote necessary resources to ensure that it can operate in compliance with the rule as of that date. Because, as further described below, effectuating these changes to Advance America's business operations will take many months, Advance America cannot—if it wishes to be compliant beginning on August 19, 2019—defer these steps, but rather must begin them now. Advance America has already incurred a substantial amount of these costs; however, the majority are imminent.

5. For example, because many of Advance America's current and prospective customers will be ineligible for payday and title loans under the Payday Rule's ability-to-repay requirements, Advance America will soon need to migrate its customer base to alternative loan products in an effort to continue to meet their need for short-term credit. This migration will result in customer denials and potentially higher losses.

6. Under existing state law, these alternative loan products may not lawfully be offered in all states in which Advance America operates. Accordingly, Advance America intends to incur substantial costs beginning in the fourth quarter of 2018 in preparation for advocating, during the first quarter of the state legislative sessions in 2019, for changes in state

law that would permit such alternative loan products. This timetable is necessary for laws allowing those alternative loan products to be in place by the time of the Rule's compliance date.

7. Similarly, Advance America will need to implement costly company-wide changes to its information-technology systems, business practices and policies, and employee training in order to conduct its business in compliance with the Payday Rule, including the Rule's "conditional exemption" (if available) and the Rule's requirement that lenders obtain new and specific withdrawal authorizations after two failed authorized withdrawal attempts. To be in compliance starting August 19, 2019, Advance America has already spent more than \$4 million and intends to expend additional substantial funds and resources of more than \$9 million on systems starting in September. More than \$6 million of these intended costs are expected to be incurred in 2018.

8. The Payday Rule will force Advance America to consolidate its operations and reduce the number of stores Advance America operates. Advance America leases the commercial space for its stores. It typically enters into three-year leases that have substantial early-termination penalties. Over 700 leases have been or will be up for renewal in the period between January 1, 2018, and August 19, 2019. Due to regulatory uncertainty, Advance America has needed or will need to decide for each of these lease renewals whether to renew the lease for three years or to not renew the lease and close the center. The former decision increases the risk that Advance America will need to pay early-termination penalties for store closures if the Rule goes into effect, and the latter will cause the company to lose revenue opportunities should the rule be invalidated or repealed. Leases renewed from the fourth quarter of 2018 to August 19, 2019, would result in early termination penalties estimated to be more than \$5 million. Advance America anticipates that, if the Rule is not enjoined, it will soon begin

center consolidations resulting in payment of these early termination penalties. Moreover, the need to devote resources to making this cost-benefit assessment for each of several hundred lease renewals imposes significant burdens on the company.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on September 14, 2018.


J. Patrick O'Shaughnessy

EXHIBIT D

Payday Loan Choices and Consequences

Neil Bhutta
Federal Reserve Board

Paige Marta Skiba
Vanderbilt University

Jeremy Tobacman
University of Pennsylvania and
NBER

January 25, 2013

Abstract

High-cost consumer credit has proliferated in the past two decades, raising regulatory scrutiny. We match administrative data from a payday lender with nationally representative credit bureau files to examine the choices of payday loan applicants and assess whether payday loans help or harm borrowers. We find consumers apply for payday loans when they have limited access to mainstream credit. In addition, the weakness of payday applicants' credit histories is severe and longstanding. Based on regression discontinuity estimates, we show that the long-run effect of payday borrowing on credit scores and other measures of financial well-being is close to zero.

JEL Codes: D14 (Personal Finance), D12 (Consumer Economics: Empirical Analysis)

Introduction

In the wake of the recent financial crisis, consumer financial protection has received substantial attention from policy makers. The 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act established the Consumer Financial Protection Bureau (CFPB) to improve enforcement of federal consumer financial laws, while also expanding the scope for protective regulation. One notable new provision in Dodd-Frank is the prohibition on “abusive” acts and practices by financial firms, including taking “unreasonable advantage of — (A) a lack of understanding on the part of the consumer of the material risks, costs or conditions of the product or service; [or] (B) the inability of the consumer to protect the interests of the consumer in selecting or using a consumer financial product or service.”¹ This new prohibition represents a shift away from the neoclassical view of consumer financial protection, which assumes people can costlessly protect their own interests when costs and terms are clearly disclosed, toward a view that acknowledges the potential for financial firms, despite making disclosures, to exploit consumer biases and cognitive limitations.

It is possible that high-interest consumer credit like payday loans will be found to be abusive and restricted by the CFPB.² Payday lenders typically charge 10–20 percent interest for a one-to-two-week loan, implying an annualized percentage rate (APR) between 260 and 1040 percent. Given such terms, and the fact that borrowers often owe more than half of their next paycheck to the lender, some question whether payday loans are used rationally. Payday loans might exploit overoptimistic consumers who wrongly predict they will be able retire the debt quickly. If that is so, payday loans could exacerbate financial distress and reduce consumer welfare. In a recent public lecture, the new CFPB chief, Richard

¹ 12 USC §5531.

² Prior to Dodd-Frank, with the 2007 Talent-Nelson Amendment, Congress imposed price caps and prohibitions on certain lending practices, effectively banning payday lending to military personnel and their families. A Department of Defense (2006) report had concluded that “predatory” lenders, including payday lenders, target young and financially inexperienced borrowers, who are less likely to compare such loans to lower-cost alternatives.

Cordray, stated that “The Bureau will be giving payday lenders much more attention... [although the Bureau] recognize[s] the need for emergency credit ... it is important that these products actually help consumers, rather than harm them.”³

In this paper, we draw on a novel dataset to study the circumstances in which people turn to payday loans and the effect payday loans have on financial well-being. The data consist of payday loan application histories from a large payday lender merged at the individual level. We merged these data to a decade of quarterly credit record information. Payday borrowing is not generally reported to the major consumer credit bureaus, and thus it is not possible to study payday borrowing using mainstream credit record data alone. Merging these two datasets gives us an unprecedented, detailed and dynamic look at the financial circumstances of payday loan applicants.

Our first finding is that initial payday loan applications occur precisely when consumers’ access to liquidity from mainstream creditors is lowest. Although some individuals may make quite costly pecuniary mistakes by using payday loans instead of their credit cards (Agarwal et al. 2009; Carter et al. 2011), in our data this is rare. Instead, nearly 80 percent of payday applicants have no credit available on credit cards and 90 percent have less than \$300 of credit available on credit cards just before applying for a payday loan.^{4,5} In addition, measures of shopping for—and failing to obtain—cheaper, mainstream credit surge around the time initial payday loan applications occur, especially for those with few existing credit accounts. These findings suggest that payday loans are generally sought as a last resort, with such loans near the bottom of the “pecking order” hypothesized by Lusardi et al. (2011).

³ <http://www.consumerfinance.gov/pressreleases/consumer-financial-protection-bureau-examines-payday-lending/>

⁴ The median checking account balance payday applicants reported to the payday lender on their applications is just \$58, although about 15 percent had balances of at least \$500.

⁵ Recent survey research has indicated many payday borrowers confuse the fee quoted for payday loans (e.g., \$15 per \$100 borrowed on a two-week loan) with an APR, and thus may believe that payday loan costs are comparable to the costs of credit cards (Bertrand and Morse 2011; Levy and Tasoff 2012; Pew 2012).

Second, we investigate the long-term relationship between credit file characteristics and payday borrowing. With their short durations and high interest rates, payday loans are designed for managing temporary shocks. We find, however, extremely persistent weakness in credit record attributes among payday applicants. Payday applicants' average credit scores are 1.5 standard deviations below the general population average throughout the entire ten-year observation span. Payday applicants fall behind on payments and apply for new credit accounts much more frequently than the general population, long before and long after their initial payday loan application. This suggests payday loan users—12 million American adults in 2010 (Pew, 2012)—rarely accumulate precautionary savings to deal with shocks, perhaps because of difficulties committing to a budget.⁶ Similarly, Skiba and Tobacman (2008) find that payday loan borrowers' renewal and repayment behavior is consistent with naïve hyperbolic discounting, and Pew (2012) emphasizes that the majority of first-time borrowers use payday loans for everyday, recurring expenses rather than unexpected ones, consistent with the theory that payday borrowers have budgeting difficulties. By further relaxing credit constraints for those with commitment problems, payday loans could be welfare decreasing (Laibson 1997). That said, high-cost alternatives to payday loans play a similar role, and thus limits on payday borrowing *alone* may not improve welfare.⁷

To better understand the financial consequences of access to payday loans, we take advantage of a discontinuity in the payday loan approval process to estimate short- and long-run effects of getting a payday loan. Our regression discontinuity approach, following Skiba and Tobacman (2011), uses payday loan application scores (hereafter “Teletrack scores”) to econometrically compare

⁶ Lusardi et al. (2011) document that a large fraction of U.S. households are “financially fragile,” in the sense of being unable to come up with \$2,000 on short notice.

⁷ As Campbell et al. (2011b) note that banning payday loans would not address the underlying behavioral factors that give rise to demand for the product.

applicants who were barely approved to applicants who were barely rejected.⁸ The main outcome of interest is a traditional consumer credit score (similar to a FICO score), which conveniently summarizes creditworthiness and reflects one's success in managing financial obligations. Traditional scores are distinct from the Teletrack score, computed from different information for a different purpose. Moreover, unlike consumers' use of more traditional credit such as credit cards, use of and performance on payday loans does not directly affect traditional credit scores. Rather, payday loans can only affect one's credit score *indirectly*, insofar as they help or hinder one's ability to meet financial obligations in general. For example, if payday loans help people manage cash flow and smooth financial shocks, they may in fact sustain or improve overall creditworthiness. Alternatively, if payday loans are misused due to cognitive limitations or behavioral biases, they could dig people into a deeper financial hole and increase the chance of a downward financial spiral, damaging (or impeding recovery of) borrowers' creditworthiness.

This paper's most important result is that the path of traditional credit scores after initial payday loan applications differ very little between those barely accepted and those barely rejected for payday loans. The point estimates are precise zeros: effects of more than one-tenth of the gap between payday loan applicants and the average for all consumers are excluded from the 95-percent confidence interval. Payday applicants have very poor credit, and payday loan access appears irrelevant to its repair or further deterioration.

As mentioned before, the availability of high-cost substitutes for payday loans could be one reason we find no effect. Another possible explanation is that because payday loans are small, uncollateralized loans, their potential benefits and risks are limited.

A third possibility arises because we only observe payday borrowing at one lender. This biases our baseline estimates toward zero because rejected applicants may succeed in getting payday loans at another lender. We discuss this issue in

⁸ Teletrack is an alternative consumer credit reporting agency. Agarwal et al. (2009) provide more information on Teletrack scoring.

detail and take advantage of multiple data sources on the presence of other nearby payday lenders to address it formally. In most of these specifications, we continue to find precise zero estimates of the impact of payday loans.

Overall, we believe we are able to credibly reject economically substantive effects of payday loans on creditworthiness, and thus we provide important new evidence on the effects of payday loans. A second, complementary contribution of this paper is that our rich data yield a number of important insights about the financial circumstances under which people use payday loans.

One advantage of our approach is that we are able to study individual payday applicants, as opposed to studying groups of people who have access to payday loans based on their geographic location.¹⁰ Moreover, because we have panel data and know the precise timing of when people first apply for payday loans, we can control for pre-application differences to improve precision and strengthen identification. Finally, this paper is the first to study the credit scores of payday applicants as an outcome variable. These scores reflect many of the outcomes studied previously, such as foreclosure and bankruptcy, but allow detection of less extreme effects of payday loans and summarize the entire liability side of the household balance sheet. Thus, null results are meaningful. Our findings complement the previous research, which includes evidence that payday loans help (Zinman 2010, Morse 2011, Morgan et al. 2012) and harm (Carrell and Zinman 2008, Melzer 2011, Skiba and Tobacman 2011, Campbell et al. 2011a) consumers.¹¹

The rest of the paper is organized as follows. Section I provides some additional background on payday lending. Section II describes the data and matching procedures. Section III explores static and dynamic credit record information, to understand the factors that may drive the decision to apply and the

¹⁰ An exception is Skiba and Tobacman (2011), who use the same payday applicant data, but matched to public bankruptcy records. We carefully distinguish that paper's contributions and ours below.

¹¹ Bhutta (2012) identifies the effect of borrowing on payday loans from ZIP code variation and also finds payday loan access has no effect on credit scores.

differences between payday loan applicants and the general population. Section IV describes the regression discontinuity strategy, presents results from this analysis and discusses their interpretation and important caveats. In Section V we conclude.

I. Payday Lending

The payday loan industry has grown dramatically since its inception in the early 1990s. Stegman (2007) estimated that payday loan volume expanded fivefold to almost \$50 billion from the late 1990s to the mid-2000s, and today 12 million American households borrow on payday loans each year (Pew 2012).¹²

A payday loan is typically a one-to-two week loan of no more than \$1,000 that costs \$10–\$20 per \$100 borrowed. Payday loans are usually provided by specialized finance companies that may also provide check cashing services and pawn loans. To borrow on a payday loan, an applicant generally provides her most recent pay stub, which is used to verify employment and determine loan size caps. Most states cap the loan amount at half of take-home pay. An applicant must also show her most recent checking account statement, a valid government-issued ID and a utility or phone bill to verify her address. Information from these documents is sent electronically to the payday loan credit bureau, Teletrack, which computes a score that determines whether the loan is approved. (We provide additional details on this credit scoring process in Section IV). If approved, the borrower writes a post-dated check for the principal plus interest, which the lender cashes on or shortly after the loan's due date, which is typically the borrower's next payday. States generally regulate how long a borrower can have a payday loan debt outstanding. Most states require the loan to be at least 7 or 14 days and no more than 30–45 days long.¹³ However, borrowers can “roll over” or “renew” their loans

¹² Avery and Samolyk (2011), using a Current Population Survey supplement, find that about five percent of households in states that allow payday lending used payday loans at least one time in 2008.

¹³ Carter et al. (2012) provide additional details on the structure of loan lengths in this industry and study the impact of different loan lengths on payday borrower behavior.

by paying just the fees on that subsequent payday; this grants the borrower an additional pay period to repay the loan and additional interest. The majority of states that allow payday loans have now banned this practice, but these prohibitions can be difficult to enforce.¹⁴

The application process does not involve a traditional credit check, and payday borrowing activity is not reported to the national credit bureaus Equifax, Experian or TransUnion. This means that payday borrowing is not a factor that directly affects one's traditional credit score. Instead, access to payday loans can only affect one's score indirectly, insofar as such loans affect consumers' ability to meet their financial obligations in general.

If a payday borrower's collateralizing post-dated check bounces, the borrower is in default. A defaulting borrower may then face insufficient funds charges from her bank, as well as bounced check fees from the payday lender on top of the outstanding debt and interest charges, but otherwise payday loans are uncollateralized. Lenders often have internal collections departments that will attempt to collect the outstanding amount owed before selling the debt to collection agencies.

II. Data

We use two sources of administrative panel data. The first is payday loan data from an anonymous provider of financial services. The second consists of anonymous credit records maintained by Equifax. We discuss each of these data sources in greater detail below, and then describe our individual-level merging process.

II.A. Payday Loan Data

We obtained data on nearly 250,000 unique payday loan applicants from a provider of financial services that offers payday loans, with applications occurring

¹⁴ Carter (2012) provides detail regarding rollover bans, interest rate caps, and other state-level regulations.

between January 2001 and August 2004. Along with information on approved and denied applications themselves (principal amount, interest rate, outcome, start date, maturation date, etc.), many details about the individual applicants are available. These include an applicant's net take-home pay, her checking account balance and some demographic data (age, gender and race). Consistent with independent survey evidence on payday borrowers (e.g. Elliehausen and Lawrence 2001), women are slightly more prevalent than men in our sample, and minorities are substantially overrepresented. Median annualized individual income is about \$20,000, and the median balance documented on applicants' most recent checking account statement is just \$66 (in January 2002 dollars). The Teletrack score is also observed in the data for each applicant. Skiba and Tobacman (2011) provide additional details and summary statistics for these data.¹⁵

II.B. Federal Reserve Bank of New York Consumer Credit Panel

The Federal Reserve Bank of New York's Consumer Credit Panel (CCP) is a nationally representative, ongoing longitudinal dataset with detailed information on consumer debt and loan performance taken at a quarterly frequency beginning in 1999. The CCP "primary sample" consists of a five-percent subsample of all individual credit records maintained by Equifax and uses a methodology to ensure that the same individuals can be tracked over time. Each quarter, a random sample of people (typically younger people) is added to the sample so that it is representative of the universe of credit records each quarter.^{16,17}

The "full sample" CCP includes quarterly snapshots of the credit records of all individuals living at the same address as the primary sample members. In most cases, the same address implies the same housing unit, but in a nontrivial number

¹⁵ Skiba and Tobacman (2011) restrict to applicants from Texas in order to match with records from Texas bankruptcy courts.

¹⁶ For more information on the CCP, see Lee and van der Klaauw (2010).

¹⁷ It is important to note that all individuals in the data are anonymous: names, street addresses and Social Security numbers have been suppressed. Individuals are distinguished and can be linked over time through a unique, anonymous consumer identification number assigned by Equifax. As we discuss later, Equifax assisted with matching payday borrowers to the CCP so that the CCP data remain anonymous. The authors did not conduct the match themselves.

of cases, the same address may be associated with hundreds of individuals because, for example, the address is for a large apartment complex and apartment numbers distinguishing housing units are not available. Thus, the full sample is far bigger than the primary sample, numbering almost 40 million people each quarter compared to around 12 million individuals per quarter in the primary sample.

In addition to detailed credit account information provided by banks and financial institutions, the CCP also contains information reported by collection agencies on actions associated with credit accounts as well as non-credit-related bills (for example, phone or hospital bills) and information on inquiries made by consumers for new credit. Records also contain a limited number of individual characteristics, including the consumer's year of birth and the geographic code (down to the Census block) of the consumer's mailing address.

Finally, an Equifax credit risk score (similar to the FICO score) is available for most individuals each quarter. In any given quarter, some individuals are not scoreable due to their limited credit histories.¹⁸ This score summarizes the information in one's credit report and is based on a model that predicts the likelihood of becoming delinquent by 90 days or more over the next 24 months on a new account.¹⁹ The same model is applied to the data over time and thus scores are directly comparable during the entire period of observation. The credit score ranges from 280 to 850, with a higher score corresponding to lower relative risk.

As noted before, payday lenders do not report on borrowers' activity to the traditional credit bureaus such as Equifax, which means that the use and repayment of payday loans does not directly affect one's traditional credit score in the way a closed-end consumer loan from a bank would. Rather, payday loans can

¹⁸ Multiple traditional credit scores exist; they differ because of variation in credit scoring models (e.g., VantageScore versus FICO) and in the sets of credit record data used by the three different national credit bureaus. These various credit scores are typically very highly correlated.

See https://help.equifax.com/app/answers/detail/a_id/244/related/1 for more on the Equifax score.

¹⁹ Credit scoring models take into account numerous factors such as the number of delinquent accounts, the degree of delinquency, the amount of credit being used on credit card lines, the age of accounts on file and recent applications for credit (see https://help.equifax.com/app/answers/detail/a_id/136/noIntercept/1). Factors that are *not* included in the credit file or considered in credit score computations include income, assets and employment history.

have an indirect effect on one's credit score depending on how they affect consumers' ability to meet their other financial obligations.

II.C. Matching Payday Loan Applicants to Credit Record Data

The CCP has anonymous identification numbers (CCP-IDs) that allow individuals in the data to be linked over time. In order to merge the payday loan applicant data with the CCP data, Equifax transformed the personal identifying information available in the payday loan applicant data into CCP-IDs and then provided the payday loan applicant data, including these CCP-IDs and stripping all personal identifying information, to the Federal Reserve. These data could then be merged to the CCP using the CCP-IDs common to both datasets.²⁰

Table 1 provides summary information about the quality of the matching process. As shown in the top row, the payday loan applicant data consists of 248,523 unique payday loan applicants. Since the primary CCP sample is a five-percent random sample, and since nearly the entire adult population has a credit record (though not all have a credit score), we expected to match roughly 12,400 applicants to the CCP.²¹ We were able to match 12,151 individuals to the primary sample CCP data at some point in time and follow them for an average of 46 quarters (48 quarters maximum). 11,622 appear in the primary sample in the quarter just before the quarter of their first payday loan application, and 11,296 of those have an Equifax score (last row). Overall, the matching appears to have been

²⁰ Only select Federal Reserve research staff had access to the merged dataset. At the same time, the original payday loan applicant dataset with personal identifying information has not been made available to Federal Reserve staff; they are held solely by Professor Skiba (Equifax did not retain a copy). Thus, we have been able to credibly preserve the anonymity of the CCP data.

²¹ Payday borrowers should be captured in the general credit record data, as household survey research suggests that payday borrowers also apply for and use traditional forms of credit (credit cards, car loans, etc.) (Elliehausen and Lawrence 2001). In fact, even those without active credit accounts, but who have some type of public record such as a tax lien or a collection account, or have simply applied for mainstream credit, will be in the database. Finally, the fact that payday borrowers must have a source of income and a checking account to qualify for a payday loan suggests that there is a good chance that they would have participated in the mainstream credit market at some point and therefore should have a credit record.

successful and these match results imply that nearly all of the payday loan applicants had a credit record at the time they applied for their first payday loan.

We also matched payday loan applicants to the full sample CCP. Almost 60 percent of applicants were found in the full sample CCP data at some point during the 48 quarters, but most cannot be tracked over the entire timeframe. The large number of matches to the full sample seems to be related to the fact that payday borrowers predominantly rent rather than own their home, with many applicants living at addresses such as apartment complexes that have large numbers of residents.²² Nearly 42,000 applicants were matched to the CCP in the quarter just prior to their first payday application, and these applicants can be tracked for 26 quarters on average (Table 1, Column 2).

One sign that the match worked well is that borrower age at the time of first application, which is one of the only variables available in both datasets, is very highly correlated across the two datasets. The correlation coefficient between age in the two datasets among payday loan applicants matched to the full sample is 0.92, and the 10th, 50th and 90th percentiles are nearly identical. The 10th and 50th percentiles of borrower age are 23 and 35, respectively, in both datasets, and the 90th percentile is 53 in the CPP compared to 52 in the payday loan application data.

III. When Do People Apply for Payday Loans?

In this section we study the credit records of payday loan applicants at a point just before their initial payday loan application and the longer-term dynamics of their credit record information to gain insight into factors that may precipitate payday loan use.

III.A. Debt Burden, Credit Card Utilization and Search Activity Prior to Initial Payday Loan Applications

²² Skiba and Tobacman (2011) report that only about one-third of sample payday loan applicants own their home.

Table 2 reports various credit record statistics for the matched sample. Columns 1 through 4 describe the matched sample in the quarter prior to the initial payday loan application (the median quarter is 2002:Q4). Columns 5 through 8 display national statistics for a random sample of the population with a credit record, and Columns 9 through 12 show statistics for a random sample of the population conditional on having scores below 600.

At the time of their first application, prospective payday borrowers appear to be having major financial difficulties. Their average and median credit scores are below 520, whereas the average score in the general population is 680. Payday loan applicants tend to have nearly four open credit accounts compared to five for the general population, but, on average, applicants with at least one account are reported delinquent by at least 30 days on half of their accounts.

Applicants have an average of less than \$20,000 in outstanding debt compared to nearly \$50,000 for the general population. This difference is partially attributable to the low likelihood of payday applicants having a mortgage. The median level of debt for the payday applicants is close to \$6,000, while the median income reported on payday applications is over \$18,000 (income data are not shown in table). For the broader population, median debt is about \$9,000. Credit bureau data do not contain information on income, but Census estimates indicate that median personal income in 2002 for adults (18 years old and over) was about \$23,000.²³ Although it is difficult to draw definitive conclusions based on these numbers alone, debt-to-income ratios for the payday applicants at this one lender are broadly in line with those of the general population.

Only 59 percent of the payday applicants have a general-purpose credit card. Among those that have at least one card, the average (cumulative) credit limit is only about \$3,000, while the average balance is about \$2,900, implying little available credit remains. In total, over 78 percent of payday applicants (including those without a card) have zero credit available on credit cards and another 4 percent have less than \$50 available. Ninety percent have no more than \$300—the

²³ See http://www.census.gov/hhes/www/income/data/historical/people/2010/P15AR_2010.xls.

typical size of a payday loan—available on credit cards. Thus, while some payday applicants could be making a costly mistake by using payday loans, our data indicate very few could simply borrow on credit cards instead.

Are payday applicants trying to get additional credit on credit cards or other traditional sources that generally are much cheaper than payday loans? The answer to this question can help us further understand whether consumers are cognizant of alternatives and successfully search for the cheapest option. The CCP yields some insight on this question because it provides information on the number of credit inquiries over the past 12 months. Credit inquiries are instances where a lender requests an individual's credit report because that individual is applying for a new credit account.²⁴ As Table 2 shows (third row from the bottom), payday applicants had an average of over five credit inquiries during the 12 months leading up to their initial payday loan application—a level three times higher than that of the general population and even considerably higher than that of the general “subprime” population. Moreover, payday applicants were generally unsuccessful in getting credit, obtaining only 1.4 new accounts on average (penultimate row of Table 2). In other words, first-time payday applicants appear to be searching intensively, but unsuccessfully, for traditional (and presumably cheaper) credit.

III.B. Dynamic Credit Record Information

The previous subsection indicates heightened credit demand immediately preceding initial payday loan applications. We now use the panel aspect of the CCP to see whether credit demand surged in the quarters leading up to this point, perhaps due to a financial shock, precipitating payday loan applications.

²⁴ The specific type of credit sought is not available in the CCP. Multiple applications for the same type of credit within a 30-day period count as only one inquiry. Inquiries do not include instances when lenders pull credit reports without an individual's consent for marketing campaigns or portfolio risk management. Inquiries also do not include instances when a consumer requests his or her own credit report for monitoring purposes.

Figure 1 shows several CCP variables for payday loan applicants plotted over a 40-quarter window centered around the quarter of initial payday loan applications.²⁵ Overall, the figures indeed suggest increased credit demand and financial distress at the time people apply for payday loans relative to previous quarters, but at the same time indicate persistent, long-term financial problems among payday loan applicants.

The top left panel of Figure 1 shows that median total debt begins to climb steeply about two years before the initial application from about \$4,000 to about \$7,000 two quarters after application. Although not shown in Figure 1, this debt growth largely reflects increased use of auto loans. The top right graph indicates that credit card liquidity becomes exhausted, on average, just around the time of first payday loan applications. However, even five years earlier the average amount available was just \$300.

The middle left panel shows the path of credit inquiries. The darker line shows the average number of inquiries for all payday loan applicants, while the lighter line shows inquiries for the subset of applicants who have only one or zero traditional credit accounts in the period just before applying. The darker line indicates an upward trend in inquiries and then an acceleration right around the time of application. About one-third of payday applicants have no more than one account at $t-1$ and this group (the lighter line) shows a sharp increase in inquiries at the time of applying for payday loans, consistent with a sudden surge in credit demand (note that because the inquiry variable is backward-looking, the actual peak in inquiries likely occurred in the same quarter as the payday loan

²⁵ Since the payday data span from January 2001 to August 2004, with a median initial application date in December 2002, and the CCP data begin in January 1999, the typical person in the dataset has four years of leads. Appendix Figure 1 reports the numbers of observations versus event time. All the patterns we report in the paper are nearly identical if we restrict to people with minimum observed history lengths. (See the discussion of Appendix Figure 2 below.)

applications). At the same time, inquiries were relatively elevated even five years earlier, indicating a persistently intense search for credit.²⁶

The bottom left figure shows a rising likelihood of account delinquency leading up to payday loan applications, and then a jump in the quarters immediately following payday loan applications. Financial distress, as measured by this variable, peaks about five quarters after initial payday loan applications. A reasonable interpretation of this figure (combined with the others) is that payday loans were sought to help alleviate an intensification of adverse shocks. The delinquency jump just after application could be a consequence of, or may have been mitigated by, getting a payday loan; these possibilities will be assessed in the next section.

Finally, the bottom right panel of Figure 1 shows the average credit score of payday applicants over time. Credit scores conveniently summarize consumers' entire credit record and allow us to observe more easily how payday applicants compare over time relative to the rest of the population. Although the average score exhibits something of a *v*-shape around the time of application, overall the figure indicates that the average score is consistently below 550, which is well within the bottom quartile of the national score distribution.²⁷ In other words, payday applicants have persistently very low scores.²⁸ Notwithstanding noticeable changes around the time of payday loan application, persistently low scores reflect factors such as persistently high inquiry levels and delinquency rates.

To get a better sense of the persistence of low scores in Figure 2, we plot the path of scores for payday loan applicants who first applied in 2002:Q2 alongside

²⁶ The median calendar date 20 quarters prior to first application is 1999:Q2; the average number of inquiries for the general population in 1999:Q2 was 1.6 and for the population with scores under 600 was nearly 3, numbers that are nearly identical to the averages shown in Table 2 for 2002:Q4.

²⁷ The credit score distribution has been extremely stable, and an Equifax risk score of just over 600 has marked the 25th percentile since 1999 (see FRBNY 2011).

²⁸ Appendix Figure 3 shows how the distribution of Equifax risk scores evolves before and after the initial payday application. The 10th, 25th, 50th, 75th and 90th percentiles of the distribution follow paths that are almost exactly parallel, and the rates of decline in these quantiles prior to the application are almost exactly constant. Perhaps most importantly, 20 quarters before their initial payday application, more than 80 percent of applicants have Equifax risk scores below 600: the weakness in payday applicants' credit records exhibits remarkable persistence.

the path of scores for a nationally representative sample from the CCP, where each individual is weighted such that their weighted score distribution in 2002:Q2 matches the score distribution for applicants. This graph suggests that the average person with a score of about 500 in 2002Q—the same as the average score among payday applicants that quarter—dropped more sharply in prior quarters and recovered more robustly in subsequent quarters. After about four years, the average person’s score approaches 580, about 50 points above payday applicants’ scores. Although 580 still constitutes a subprime score, it would at least meet current eligibility requirements for a mortgage insured by the Federal Housing Administration (FHA).²⁹

The time path of scores for payday applicants therefore appears to be unusually stable at a low level. As noted in the introduction, this persistence could reflect difficulties sticking to a household budget, perhaps due to time inconsistent preferences. This conclusion would be consistent with findings from Skiba and Tobacman (2008), who study repayment and default behavior among this population of payday borrowers and find that the patterns are consistent with naïve hyperbolic discounting. Along the same lines, recent survey evidence finds that a majority of borrowers say they use payday loans to help pay for everyday, recurring expenses, as opposed to unexpected emergencies (Pew 2012).

IV. The Effect of Access to Payday Loans on Financial Well-Being

Previous research has found that access to payday loans can impact financial well-being and welfare. However, in some cases the findings have been positive and in others negative. We add evidence on this unsettled, policy-relevant question using our matched dataset and a regression discontinuity (RD) design that allows us to exploit individual variation in payday loan access.

IV.A. Empirical Strategy

²⁹ FHA mortgage loans, especially in recent years, are very common among those seeking to purchase homes (Avery et al. 2011).

This section briefly describes the regression discontinuity design employed in this paper to identify the effect of getting a payday loan on subsequent creditworthiness.³⁰ When an applicant enters a payday loan outlet, a credit score is calculated by a third-party firm, Teletrack, and scores above a fixed threshold almost always result in loan approval. The top panel of Figure 3 plots the approval rates against the normalized Teletrack score, with the score threshold rescaled to zero. The top panel (our first stage) shows a strong discontinuity, with the approval rate jumping from under 10 percent for those with scores just below the threshold to an approval rate of over 90 percent for those with Teletrack scores just above the threshold.³¹

In this paper, we exploit the discontinuity in approval rates to test whether payday loans might be financially helpful or harmful. Informally, since applicants just above and just below the approval threshold should be very similar otherwise, approval can be thought of as being randomly assigned in the neighborhood of the threshold, conditional on observed characteristics.

We will test for discontinuities in various credit record outcomes at the threshold where payday loan approval jumps. One key outcome is a traditional credit score (analogous to the FICO score), which summarizes a person's traditional credit record information, such as payment performance on credit cards, mortgages and auto loans. The bottom panel of Figure 3 illustrates the basic idea, plotting credit scores along the same x-axis as in the top panel of that figure. This figure indicates that roughly one year after applying, applicants just above the threshold (those likely to have been barely approved) have slightly lower scores than those just below the threshold (those likely to have been barely rejected).

One potential shortcoming of RD designs is that the selection variable (in our case the Teletrack score) may be subject to manipulation. In this setting, a few details of the process for evaluating loans increase our confidence in the validity of

³⁰ We follow Skiba and Tobacman (2011) closely. They discuss this econometric approach in more detail.

³¹ Skiba and Tobacman (2011) show detailed regression results for the first stage and plot the first stage for numerous subpopulations as well. See their Appendix.

the RD design. Specifically, during the application process, the lender’s employee electronically submits information about the applicant to Teletrack, and within minutes a yes/no notification indicating whether the application was approved or declined is returned to the employee. Neither applicants nor the employees are informed of applicants’ scores or what the passing credit score threshold is, and thus gaming is unlikely.³²

Using the Teletrack score discontinuity, we estimate the effect of payday loan approval on traditional credit scores and other credit record outcomes over various time horizons (τ) after the first payday loan application. In addition to graphical evidence, we also present results from two-stage least squares (2SLS) regressions. The second stage equation is:

$$y_i^\tau = \beta_0 + \beta_1 \text{Approved}_i + f(\text{TeletrackScore}_i) + \mathbf{x}'_i \boldsymbol{\beta} + \varepsilon_i \quad (1)$$

and we instrument for *Approved*—a dummy variable indicating whether first-time payday loan applicants were approved—with a dummy variable (*AboveThr*) indicating whether a borrower’s Teletrack score (*TeletrackScore*) was above the underwriting threshold. Thus the first-stage equation is:

$$\text{Approved}_i = \delta_0 + \delta_1 \text{AboveThr}_i + f(\text{TeletrackScore}_i) + \mathbf{x}'_i \boldsymbol{\beta} + \eta_i \quad (2)$$

The function $f(\text{TeletrackScore})$ is a function of the payday underwriting score and \mathbf{x} is a vector of demographic and background characteristics. In RD parlance, the Teletrack score is the “running” or selection variable, and our identification assumption is that dummy variable *AboveThr* is exogenous conditional on our controls for the running variable and other covariates. Equivalently, unobservable factors must not change discontinuously at the threshold.

³² Indeed, a histogram of applicant density (not shown) fails to provide evidence of a jump in density just above the Teletrack score approval threshold.

Analyses identified off discontinuities generally introduce a tradeoff as more data are included around the discontinuity (i.e., as the “bandwidth” increases). The additional data reduce sampling noise, but they potentially add bias as weight is placed on observations where unobservables may be correlated with the outcome. To mitigate these potential problems, we show that our results are robust to the choice of bandwidth. We are also able to control for pre-application values of credit scores to help ensure identification and improve precision.

IV.B. Main Results

Figure 4 shows long-term trends in the average credit score for payday loan applicants whose first application was likely to have been accepted (dark circles), versus those whose first application was likely to have been rejected (light diamonds). Using all applicants, regardless of the distance from their Teletrack score to the threshold (top left), the two trends move in a mostly parallel manner. Comparing applicants within narrower bandwidths around the threshold in the other panels of Figure 4, especially the bottom two panels, the two lines lie virtually on top of each other, indicating little difference prior to applying (supporting our identification assumption), and no effect in short or long-term credit scores as a result of getting a payday loan.

Table 3 provides 2SLS RD estimates of the effect of getting a payday loan on credit scores at various times after application, following the methodology presented in the previous section. We implement the RD using a linear function of the selection variable (the Teletrack score) that allows for differential slope on either side of the threshold, and we restrict the sample to applicants with Teletrack scores no more than 0.5 standard deviations from the threshold.³³

Columns 1 and 2 show estimates of the effect on credit scores one quarter after application. There is some indication in Panel A that credit scores decline slightly as a result of obtaining a payday loan. However, when we control for

³³ A linear specification seems appropriate given the pattern of the data shown in the bottom panel of Figure 3.

individuals' credit score in the quarter just prior to application in Panel B, the point estimates are much closer to zero and the standard errors also shrink somewhat.

The remainder of Table 3 shows there is little evidence of an effect on credit scores from obtaining a payday loan at various horizons after application and regardless of the sample or specification. In Panel B, the point estimates and 95-percent confidence intervals rule out substantive effects of payday loans on credit scores. The largest estimate, in Column 4, implies just a 4-point increase on average after 4 quarters and rules out effects larger than about 16 points. To help put these numbers in perspective, recall that Figure 2 indicates that after 4 quarters payday applicants' scores are already about 30 points lower than those of the average person with a score of 500 in 2002:Q2. Also recall Table 2, which shows that the score gap between payday loan applicants and the general population around the time of application was nearly 170 points and that the standard deviation of scores among payday applicants is 77 points.

The sample sizes in Panel B are smaller than those in Panel A because not all applicants observed in the CCP in a given quarter after application, $t+q$, are also observed at $t-1$, particularly those applicants not found in the primary sample CCP. Sample sizes in Panel B shrink relative to Panel A as q gets large. Panel C presents identical regressions to those in Panel B, but using only applicants that match to the primary sample CCP, who are much more like to be observed in both $t+q$ and $t-1$ since these are the individuals actively followed in the CCP. Indeed, sample sizes at $t+12$ are nearly the same as the sample sizes at $t+1$ for the primary sample. Although less precise due to smaller sample sizes relative to the full sample CCP, the point estimates and confidence intervals continue to be quite small in Panel C.

These quantitative results are compatible with the Skiba and Tobacman (2011) finding that payday loan access doubles Chapter 13 personal bankruptcy filings. That paper's huge relative effect is a small absolute effect, in the sense that the bankruptcy rate is increased from about two percentage points to about four

percentage points. Adverse effects of bankruptcy filings on credit scores are heterogeneous and difficult to quantify. In practice, when individuals file for bankruptcy, their credit scores will already have deteriorated substantially due to multiple severely delinquent accounts, and the bankruptcy filing itself may not push scores down much more.³⁴ Even if filings were to lower credit scores by 200 points on average, the Skiba and Tobacman bankruptcy effects could account for a reduction in average Equifax scores of $(0.04-0.02)*200 = 4$ points, which is close to this paper's benchmark point estimates and well within all our confidence intervals.

Despite this similarity, in our view the current paper's finding of a precise zero effect on credit scores is surprising. Bankruptcy is a rare and extreme outcome, while credit scores are highly sensitive summary measures of the entire liability side of the household balance sheet. Even if the population of payday applicants had little space to fall further in creditworthiness, payday loans might have differentially affected recovery of their credit scores.

In principle interesting effects might also be present on particular types of credit, and we are also able to examine effects on the full spectrum of factors that affect credit scores shown in Figure 1. For these other measures, as shown in Appendix Figure 5 and Appendix Table 1, we also generally find precise null effects of payday loans.

When we examine subpopulations, the sample shrinks and the precision of the null effect weakens. Nonetheless, the results reinforce the message that payday loans have little impact on credit scores. We present and discuss these additional tests for potential heterogeneous effects of payday loans in Section IV.D.

IV.C. Adjusting for Access to Competing Payday Lenders

³⁴ Brevoort and Cooper (2010) study credit score dynamics around another type of public filing, that of foreclosure. They show that scores decline sharply in the one-two years *prior* to the foreclosure period. We suspect similar dynamics surround bankruptcy filings.

One drawback of our data is that we observe payday loan applicants at just one lender. Thus, we do not observe whether these applicants got payday loans elsewhere prior to their first application with our payday lender, or if rejected applicants can easily turn around and get a payday loan from another lender. If rejected applicants can easily get loans by applying elsewhere or again at this lender, our identification strategy would produce estimates of the impact of payday loan access that are biased toward zero. We try to address this consideration in a few ways.

First, as shown in Skiba and Tobacman (2011), just-rejected applicants are far less likely than just-accepted applicants to apply for another loan at the observed payday lender. This fact suggests that applying for a payday loan is at least somewhat costly, and that rejection may discourage trying to use payday loans in the future. Moreover, rejection may provide information: rejected applicants may feel that they will not be accepted at other lenders since the same underwriting criteria may be used again.³⁵

Second, the ease of re-applying elsewhere should be directly related to the number of payday lenders in close proximity. Thus, bias should be mitigated for those applicants who live in areas with relatively few payday lenders. We test this proposition using Census data on the number of payday lenders within a five-mile radius of an applicant's home ZIP code, and data from *referenceUSA*³⁶ on the market share of the observed lender by ZIP code.

Figure 5 displays two figures similar to those shown in Figure 4, but restricts the sample to payday loan applicants living in particular ZIP codes (as reported on the payday loan application). The top panel restricts the sample to applicants living in ZIP codes that are below the median (among the ZIP codes that applicants reside in) in terms of the number of payday lender establishments

³⁵ Most payday lenders use scores from Teletrack for their underwriting decisions, but can incorporate different data and choose their own thresholds.

³⁶ <http://www.referenceusa.com>.

within a five-mile radius.³⁷ The bottom panel restricts the sample to applicants living in ZIP codes where the lender that provided our data has a market share of at least one-third.³⁸ Although the data are noisier because of the sample stratification, there continues to be little evidence that getting a payday loan substantively affects creditworthiness. Appendix Table 2 presents regression results where we interact measures of the availability of payday loans with being above the rejection threshold. Those results fail to provide evidence of any effect of payday loans on credit scores. The results using Census data on the number of lenders, in particular, continue to show fairly precise null effects.

Third, rejection on the observed application may be more likely to deter someone from trying to get another payday loan if this was his or her first experience with payday lenders. Although we cannot provide direct evidence on this, recall that Figure 1 indicates that scores tend to bottom out and that credit demand measured by credit inquiries and credit card utilization, peaks right around the time of the first application we observe. These facts suggest that this observed payday loan application is not occurring at a random time, but rather is occurring on average at a time of peak financial stress and for many of the borrowers could well be the first payday loan application at any company.

IV.D. Testing for Heterogeneous Effects

³⁷ Data on the number of payday lender establishments are estimated from the 2002 ZIP Code Business Patterns data published annually by the Census Bureau, which provide the number of establishments by ZIP code and six-digit NAICS code. NAICS codes 522291 (nondepositories providing unsecured consumer cash loans) and 522390 (check cashing services) capture payday lenders. See Bhutta (2012) for more details. The distance between two ZIP codes is calculated using the Haversine formula and ZIP code centroid locations from the Census. There are less than three payday establishments, on average, in a five-mile radius of applicant ZIP codes in the bottom half of the distribution compared to 30 for ZIPs in the top half. Nationwide, most ZIP codes do not have a single payday establishment within a five-mile radius. About five percent of matched applicants live in a ZIP code without a nearby payday establishment.

³⁸ Market share calculations are based on data from *referenceUSA* for Texas ZIP codes. See Skiba and Tobacman (2011) for more details.

The results above suggest that, on average, payday loans have little effect on creditworthiness. In this section we stratify the sample in various ways to test whether there is an effect for various subgroups of interest.

We first examine whether the effect of access to payday loans varies across the distribution of pre-application Equifax credit scores. Figure 6 shows the path of credit scores for those just above and just below the acceptance threshold conditional on being in the bottom quartile (first graph) or top quartile (second graph) of the distribution at $t-1$.³⁹ Bottom quartile applicants exhibit a large drop in their credit scores of nearly 100 points in the two years before application, and then their credit scores recover to about 500 after roughly 12 quarters, regardless of whether the applicants are approved for the payday loan.

The second graph shows almost exactly the opposite pattern. Top quartile applicants exhibit a rise in scores of about 60 points in the three years prior to application, and then scores drop by a similar amount after the payday loan application. Approved applicants in the top quartile have slightly larger drops than rejected applicants, but the difference is statistically insignificant (regressions not reported).

Overall, the two panels of Figure 6 reinforce the view that payday applicants have longstanding, persistent weakness in their credit files. Whatever the (unobserved) shocks that lead to substantial improvement into the top quartile or worsening into the bottom quartile of Equifax scores in the few years before a payday loan application, these one-standard-deviation changes are undone in the subsequent few years.⁴⁰ The medium-term mean reversion in Equifax scores, consistent with Figure 4 and Appendix Figure 3, is remarkably strong across the score distribution.

³⁹ Because we are stratifying on a $t-1$ variable and looking at patterns up to 20 quarters beyond the application date, we use only payday applicants matched to the primary sample. Applicants outside of the primary sample who are observed both at $t-1$ and well after the application quarter are relatively few.

⁴⁰ Curiously, top-quartile applicants have an asymmetric experience between their rate of improvement in scores before the payday application and the much faster rate of post-application decline.

Figure 7 shows the effect of payday loan access stratified separately by three different variables measured at the time of application: borrower age, credit inquiries and total debt. Borrower age may proxy for credit market experience, and those with less experience may be more prone to mistakes; inquiries may reflect a willingness to search or awareness about alternatives; and total debt may also serve as a proxy for credit market experience or awareness of alternatives. We split the sample at the median value of each of these variables and then compare the path of credit scores for barely approved versus barely rejected applicants within each subgroup.⁴¹

Overall, once again there is little evidence that payday loans make a difference for the path of scores after application. There is perhaps a minor divergence in scores among those with less than the median number of inquiries, but this divergence first appears prior to the payday loan application.

V. Conclusion

Since the financial crisis, there has been a renewed focus on consumer financial protection. One controversial product is the payday loan, and the 2010 Dodd-Frank Act, which created the CFPB, gives federal regulators new supervisory powers over payday lenders and new authority to regulate such products to the extent they are deemed “unfair, deceptive or abusive.”

In this paper, we use a novel dataset of payday loan applicants matched with ten years of their credit history to study the circumstances under which people use payday loans and the financial consequences of using these loans. One finding is that payday loans appear to be used as a last resort: payday loan applications occur when credit card lines are generally exhausted and when the search for credit becomes much more intense but is largely unsuccessful.

⁴¹ In Appendix Figure 6, we show that the distribution of credit scores seems unaffected by payday loans. Specifically, the path of the 25th and 75th percentiles of the applicant score distribution is the same for barely rejected and barely accepted applicants.

While liquidity needs immediately preceding application for payday loans appear extreme, our long-term panel data indicate that applicants actually face persistent shortfalls, with delinquency rates and credit application volumes far exceeding national averages over the entire ten-year observation period. Compared to the average person with the same credit score as our average payday applicant at the time of application, payday loan applicants' credit scores stagnate at very low levels. The reason for this persistence is difficult to know for sure, but one possibility is that applicants may have time inconsistent preferences and trouble sticking to a budget.

Finally, and most importantly, we use a regression discontinuity design to study the consequences of getting a payday loan. We find that the path of traditional credit scores following first-time payday loan applications does not differ between those just barely approved and those just barely rejected. The 95-percent confidence intervals for our point estimates exclude effects on credit scores larger than one-tenth of the average gap between payday loan applicants and the rest of the population. These results are unchanged when we address the most important source of possible bias, by focusing on loan applicants with limited access to other payday lenders.

We also find no evidence that payday loans affect other credit record outcomes, such as delinquencies, or that payday loans have an effect within various subgroups such as younger applicants. Together these findings suggest that regulatory changes in access to payday loans would have limited average effects (positive or negative) on financial well-being.

There are a variety of possible reasons for the null effects we find. High-cost alternatives to payday loans may be sought by rejected payday applicants and have similar net effects. To the extent that is true, regulators would be advised to treat the alternative financial services sector as a whole. Another possible explanation is simply that payday loans are small and uncollateralized, limiting their potential benefits and risks. However, most payday borrowers take out sequences of loans, incurring nontrivial cumulative finance charges. Third, effects might appear on

other indicators of well-being, or the null effects on average might reflect offsetting effects for different subpopulations. We do not find differentially impacted groups, however, and under either of these hypotheses one would expect to find average effects on at least some measures in the credit file. Finally, it might be the case—supported by the longstanding woes evident in their credit histories—that payday applicants are so financially constrained at the time they apply that large interventions would be necessary to appreciably affect their creditworthiness. Other outcome measures, like financial fragility and subjective well-being, might be more diagnostic for this population and should be pursued in future work.

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Appendix to “Payday Loan Choices and Consequences” for Online Publication

In this appendix, we include additional evidence on the robustness of our findings and the variation in Equifax score dynamics for various subsets of the payday loan applicant pool.

I. Equifax Risk Score Results

Appendix Figure 1 plots the average Equifax risk score for the primary sample and the full sample, for 20 quarters before and after the first payday loan application. Time zero corresponds to the quarter of a consumer’s first observed payday loan application. The numbers next to the data points are sample sizes for the full versus the primary sample. Because the primary sample is a true random draw and the full sample is not, we make a point to show these sample sizes to confirm that both samples give similar results. The similarity in results is likely due to the fact that the selection mechanism into the full sample is orthogonal to selection into the payday sample.

In general this paper’s figures display 20 quarters of history prior to the first payday application. Because the CCP data begin in 1999:Q1 and the payday data begin in January 2001, pre-application trends reflect (i) dynamics leading up to the application and (ii) compositional changes, as earlier first-time applicants are included at shorter leads. An alternative approach would have been to condition on those payday applicants who had some minimum amount of history available in the CCP. Appendix Figure 2 suggests that any potential compositional changes of our samples are unimportant. This figure compares the entire primary sample to the 6,248 members of the primary sample who appeared in the CCP at least 15 quarters

before their first payday loan applications. The figure displays nearly identical average Equifax score dynamics for the entire sample and for the restricted sample with 15+ quarter histories.

Appendix Figure 3 plots Equifax risk scores for the 20 quarters before and after the first payday loan application. Here we plot the 10th, 25th, 50th, 75th and 90th percentiles of the Equifax risk score for the full sample. Across all quantiles, Equifax scores decrease leading up to the first payday loan application. Scores rise somewhat over the following 20 quarters. Three features of this figure stand out. First, the trends at the various percentiles are nearly parallel. Second, deterioration before the payday loan and recovery after it are nearly linear at every percentile. Third, the dispersion in the score distribution is far larger than the average decline prior to the application. These attributes of the data are important: they imply that neither the Equifax score level or derivative cause the payday application.

Appendix Figure 4 shows the distribution of long-term average scores for payday applicants versus the general population. The full distribution reveals the striking difference in credit scores of payday loan applicants compared to the general population. Once again, as we show repeatedly here and in the main text, applicants' scores are persistently low over the long term.

Appendix Figure 5 reports five outcomes: 1) total debt, 2) available credit on credit cards, 3) number of credit inquiries in the last year, 4) number of new accounts opened in the last year and 5) the percent of accounts not current. Each figure plots these outcomes separately for those above (dark circles) and below (light squares) the Teletrack threshold. Again, we show the outcomes for 20 quarters before and after the first payday loan application. The one outcome that appears different for applicants above the Teletrack threshold is the mean available credit on credit cards. Note that all applicants had very little or negative such liquidity on average. But those who were approved to borrow on payday loans (i.e., they were above the threshold) had about \$100 more liquidity after the payday loan application. The average amount of available credit is strictly negative, implying borrowers were in fact beyond their credit card limits.

Appendix Figure 6 shows the regression discontinuity effect at the 25th and 75th percentile. Again we plot average Equifax risk scores and restrict to those within 0.25 standard deviations above and below the threshold. There do not appear to be significant differences in Equifax risk scores for the 20 quarters before and after applying for a payday loan for those above and below the Teletrack score threshold at either the 25th or 75th percentile of Equifax scores. Note that in Appendix Figures 5 and 6, the percentiles are recalculated at each point in event time. This contrasts with Figure 6 in the main text, which conditions on the quartile in the period just before the first payday application.

Appendix Table 1 shows regression estimates of the outcomes shown in Appendix Figure 5. We report instrumental variables regression estimates, as in Table 3 of the main text. The results correspond to estimating equations (1) and (2), also found in the main text. Because these outcomes exhibit greater variance relative to credit scores, we pool observations over the time span of five to eight quarters after an applicant's first payday loan application to improve precision. Pooling increases not just the number of observations per applicant, but also increases the number of applicants observed since different applicants are observed each quarter in the CCP due to the household sampling technique discussed in Section II of the main text. Standard errors are clustered at the applicant level.

As in our main regressions, controls include distance from threshold interacted with a dummy variable indicating whether the Teletrack score was above the passing threshold, log monthly pay, checking account balance, job tenure, age, months in current home, non-sufficient funds events, pay frequency, garnished wages, direct deposit, homeownership, sex and year and quarter dummy variables. The bandwidth used is specified in terms of standard deviations in the Teletrack score from the approval threshold.

The only coefficient that is significant at the five-percent level is the number of new accounts in the past twelve months at a bandwidth of 0.25 standard deviations around the threshold. With the exception of estimates for the effect on total debt, the standard errors—particularly those in Panel C where we control for

pre-application values of the outcome variables—are fairly precise. Note that for the first four outcomes we exclude the largest values (above the 95th or 99th percentile) to help improve precision.

Appendix Table 2 interacts measures of the density of nearby payday lenders with dummy for the applicant having a Teletrack score above the passing threshold, i.e., *AboveThr*). The ease of re-applying elsewhere should be related to the number of payday lenders in close proximity. Thus, bias toward zero should be mitigated for those applicants who live in areas with relatively few payday lenders. Panel A uses the number of payday lenders in the five-mile radius of the applicant's ZIP code using Census ZIP Business Patterns Data (see Bhutta 2012 for more details on this measure of payday lender storefronts). Panel B estimates the same regressions but using data from *referenceUSA* to calculate the market share of the payday lender providing our data. The coefficients on *AboveThr* provide estimates of the effect of approval when there are no payday lenders nearby (panel A) or our lender has 100 percent market share (panel B). The results in panel A in particular are small and reasonably precise.

Table 1. Payday Loan - Consumer Credit Panel (CCP) Data Match
Diagnostics

	N	Number of quarters in the panel (max is 48)
Payday applicants	248,523	-
Payday applicants who appear at least once in the full sample CCP	146,761	12.6
Payday applicants who appear in the full sample CCP during the quarter prior to the quarter of their first payday loan application	41,948	26.1
... and have a credit score	38,220	18.5
Payday applicants who appear at least once in the 5% primary sample CCP	12,151	45.6
Payday applicants who appear in the 5% primary sample during the quarter prior to the quarter of their first payday loan application	11,622	46.9
... and have a credit score	11,296	47.0

Notes: The administrative payday loan data were provided by a financial services firm and span 2001-2004. The CCP is the Federal Reserve Bank of New York's Consumer Credit Panel, a nationally representative, ongoing panel dataset with detailed quarterly information beginning in 1999. The primary sample consists of a five percent random subsample of all individual credit records maintained by Equifax. The full sample includes quarterly snapshots of the credit records of all individuals living at the same address as the primary sample members.

Table 2. Credit Record Summary Statistics from the CCP
Matched Payday Loan Applicants and the General Population

	Payday applicants matched to full CCP, variables measured as of the end of the quarter prior to the first payday loan application				National random sample of people with a credit record, as of end of 2002:Q4				National random sample of people with a credit record and score < 600, as of end of 2002:Q4			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	<u>mean</u>	<u>median</u>	<u>SD</u>	<u>N</u>	<u>mean</u>	<u>median</u>	<u>SD</u>	<u>N</u>	<u>mean</u>	<u>median</u>	<u>SD</u>	<u>N</u>
Credit score ¹	513	517	77	38,220	680	702	108	103,766	523	538	60	24,907
Number of open accounts	3.8	3	3.8	38,220	5.0	4	4.3	103,766	4.0	3	4.1	24,907
Share of accounts not current ²	0.53	0.5	0.39	33,084	0.13	0	0.29	93,912	0.50	0.5	0.39	21,236
Total debt (\$)	19,656	5,977	63,578	38,220	49,605	9,120	98,176	103,766	26,482	5,852	53,046	24,907
Has one or more credit cards ³	0.59	1	0.49	38,220	0.75	1	0.43	103,766	0.64	1	0.48	24,907
Total limit for cardholders (\$)	3,050	1,154	6,002	22,556	18,914	11,000	43,487	78,146	5,883	2,029	11,636	15,964
Total balance for cardholders (\$)	2,921	1,340	5,086	22,556	5,128	1,586	11,309	78,146	5,274	2,097	9,767	15,964
Has delinquent card account ⁴	0.69	1	0.46	22,556	0.16	0	0.37	78,146	0.66	1	0.47	15,964
Has car loan	0.39	0	0.49	38,220	0.28	0	0.45	103,766	0.30	0	0.46	24,907
Has delinquent car loan ⁴	0.35	0	0.48	15,002	0.09	0	0.28	28,813	0.31	0	0.46	7,434
Has mortgage ⁵	0.14	0	0.35	38,220	0.33	0	0.47	103,766	0.19	0	0.39	24,907
Has mortgage delinquency ⁴	0.37	0	0.48	5,460	0.05	0	0.22	34,309	0.33	0	0.47	4,790
Number inquiries past 12 months	5.2	4	4.6	38,220	1.7	1	2.4	103,766	3.0	2	3.3	24,907
Num new acnts past 12 months	1.4	1	2.1	38,123	1.1	1	1.5	103,606	1.0	0	1.5	24,755
Age (years) ⁶	37.4	36	11.7	37,573	46.9	45	16.8	93,129	38.9	37	13.2	23,032

Notes: (1) Equifax Risk Score 3.0, ranging from 280-850; (2) "not current" means at least 30 days behind; (3) does not include retail store cards; (4) delinquency rate calculated among those with at least one account of specified type; (5) includes both closed end and home equity lines of credit; (6) age calculated as calendar minus year of birth reported in CCP.

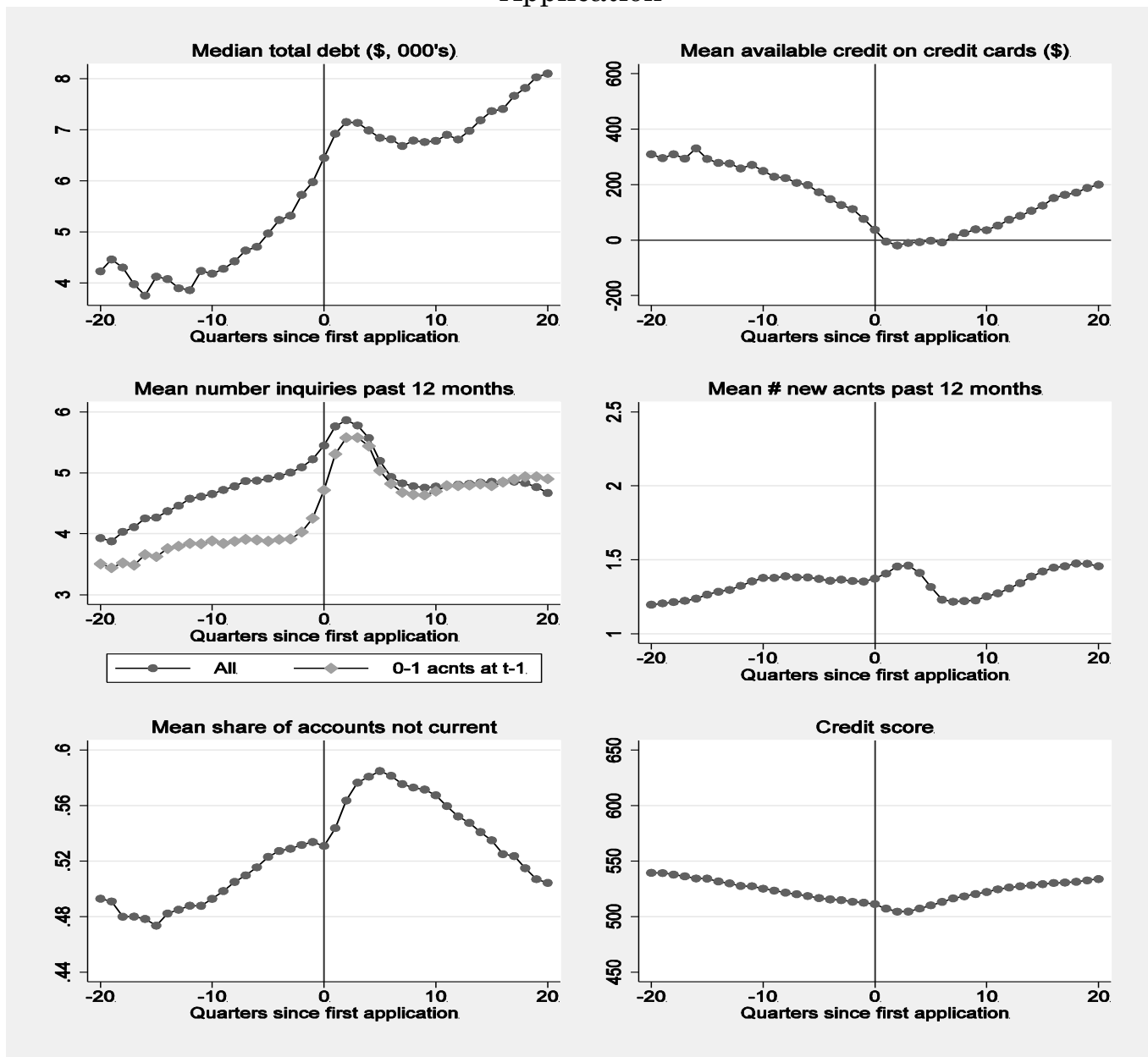
Table 3. Regression Discontinuity Estimates
The Effect of Payday Loan Access on Credit Scores

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1 quarter out		4 quarters out		8 quarters out		12 quarters out	
Bandwidth ¹	<u>0.5sd</u>	<u>0.25sd</u>	<u>0.5sd</u>	<u>0.25sd</u>	<u>0.5sd</u>	<u>0.25sd</u>	<u>0.5sd</u>	<u>0.25sd</u>
A. Applicants observed in full sample CCP, within specified bandwidth								
First Payday Loan	-9.48**	-13.19**	-2.76	1.77	-4.59	-3.48	-4.10	-3.88
Application Approved	(3.55)	(5.11)	(3.58)	(5.27)	(3.32)	(4.74)	(3.33)	(4.81)
N	10714	4029	10573	4002	10419	3937	10079	3780
B. Applicants observed in full sample CCP; controls for pre-application score								
First Payday Loan	-2.29	-2.07	-0.36	4.01	0.63	0.47	0.77	1.90
Application Approved	(2.81)	(4.13)	(3.83)	(5.72)	(4.01)	(5.87)	(4.36)	(6.36)
N	8547	3223	7065	2702	5918	2298	5216	2001
C. Applicants observed in primary sample CCP; controls for pre-application score								
First Payday Loan	-2.06	0.31	-3.07	6.11	0.05	8.46	2.21	6.11
Application Approved	(4.73)	(7.03)	(5.83)	(8.73)	(5.60)	(8.35)	(5.48)	(8.02)
N	2994	1156	2979	1151	2970	1147	2958	1139

Notes: * p < 0.05; ** p < 0.01. Instrumental variables regressions shown. Estimating equations are (1) and (2) in text. Robust standard errors in parentheses. Outcome variable in all regressions is the Equifax credit risk score. Controls include distance from threshold interacted with above threshold, log monthly pay, checking balance, job tenure, age, months in current home, NSF count, pay frequency, garnished wages, direct deposit, home owner, sex, year and quarter dummy variables.

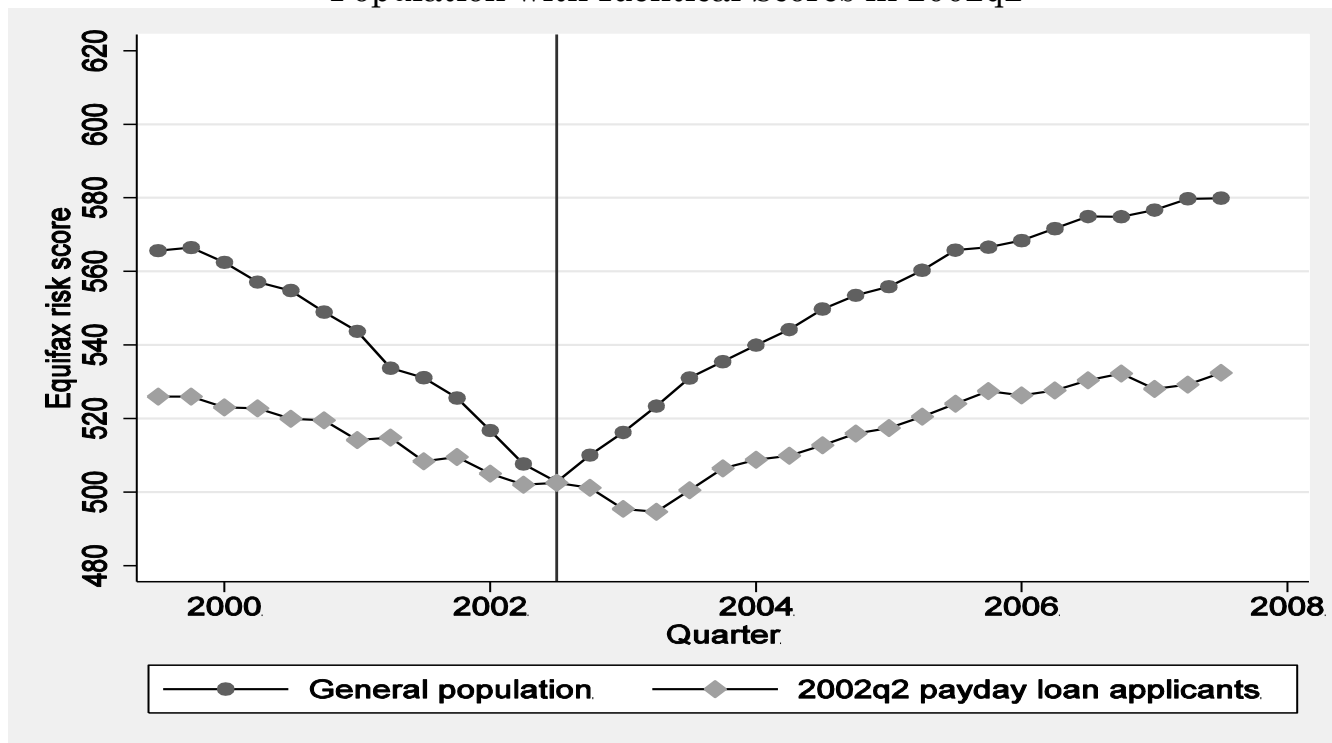
1. Bandwidth specified in terms of standard deviations of the Teletrack score from the approval threshold.

Figure 1. Credit Record Attributes Before and After First Payday Loan Application



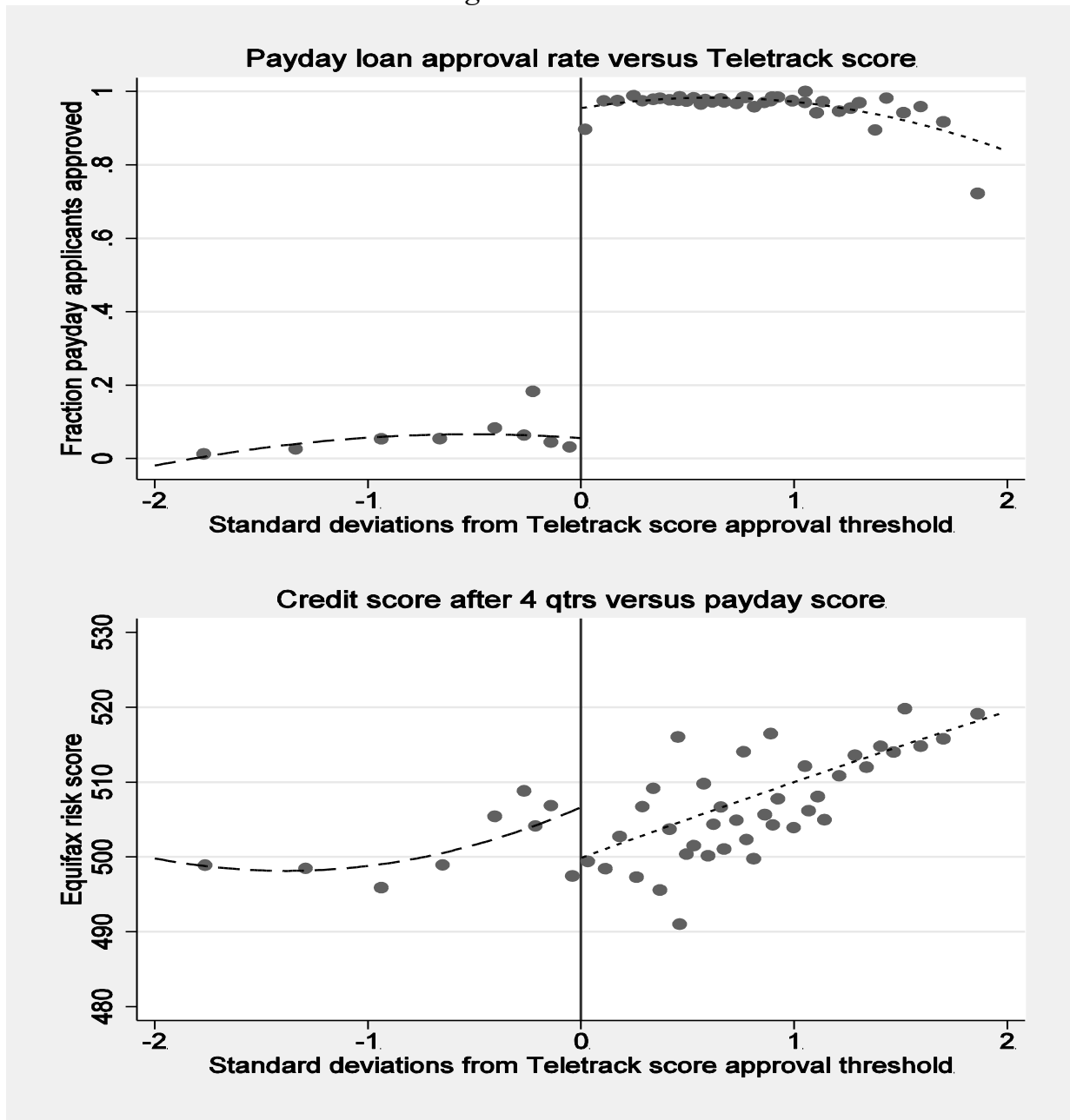
Notes: Figures based on data from the payday applicant data matched to full sample CCP. For the matched applicants, five quarterly CCP data series are plotted: mean total debt, mean credit card liquidity, mean number of credit inquiries in the previous year, mean number of new accounts in the previous year, and the mean share of delinquent accounts.

Figure 2. Credit Score Path of 2002q2 Payday Loan Applicants versus General Population with Identical Scores in 2002q2



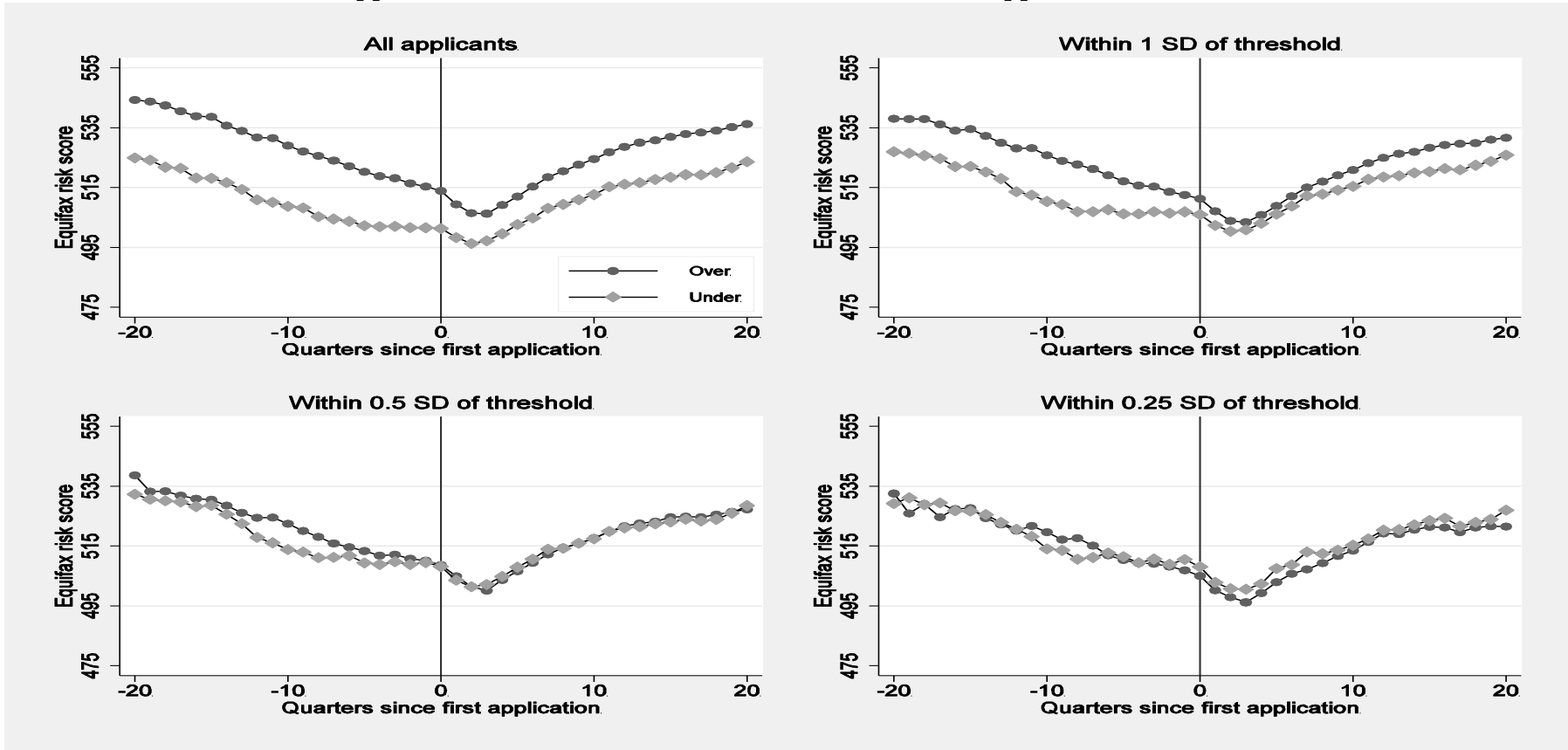
Notes: "General population" refers to a 1 percent random sample of consumers drawn from the primary sample CCP, with each individual weighted such that the credit score distribution in 2002q2 is identical to that of payday applicants in 2002q2 (who were merged to the full sample CCP). Each data point represents the average Equifax 3.0 credit score in each quarter.

Figure 3. Regression Discontinuity Design
 First Stage and Reduced Form



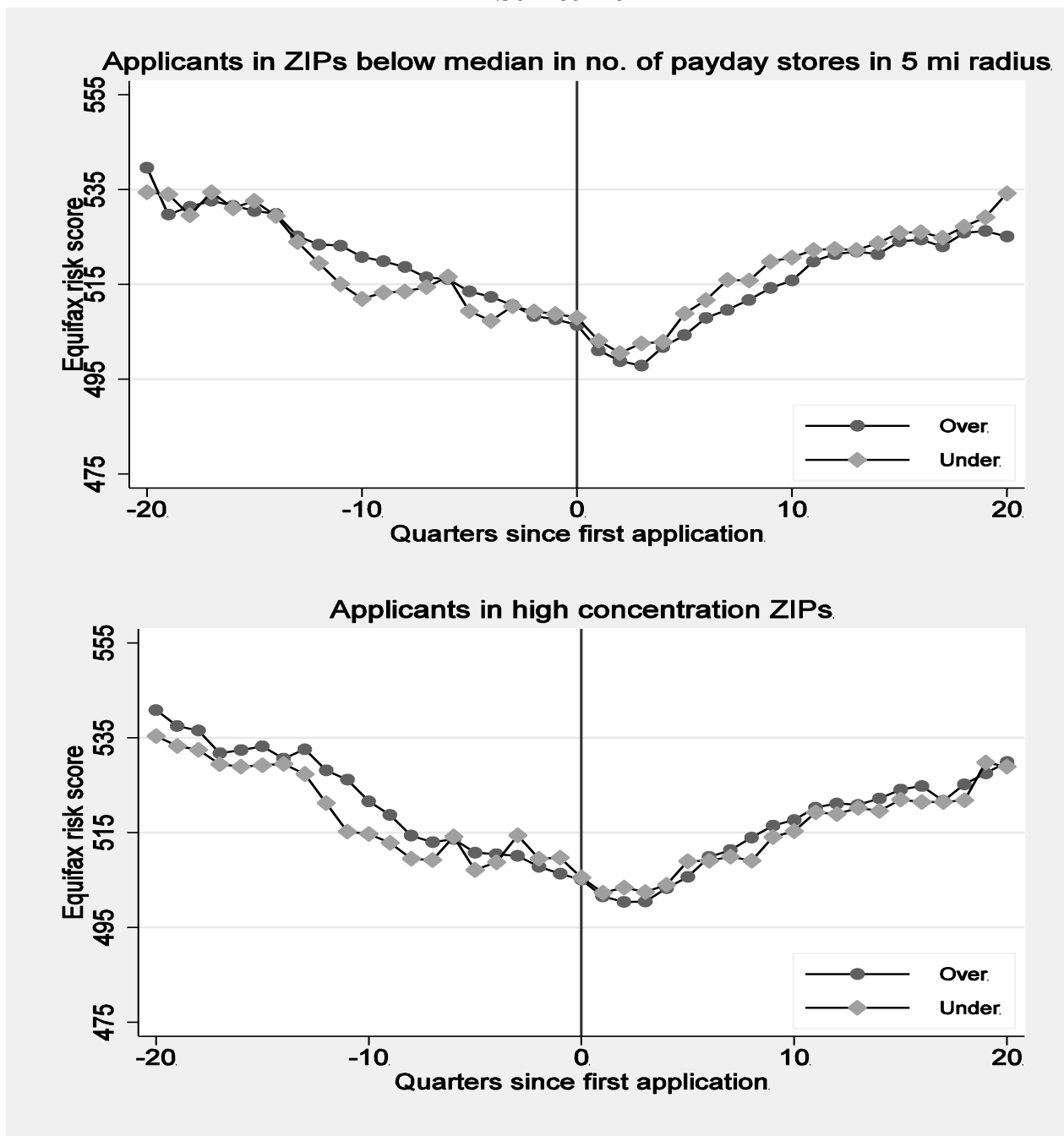
Notes: Each point represents one of 50 quantiles. Points shown are at the median of their quantiles on the x-axis and at the means of their quantiles on the y-axis. Both graphs include quartic fits of the underlying data on either side of the threshold.

Figure 4. Credit Score Dynamics Before and After First Payday Loan Application
 Applicants with Teletrack Scores Over and Under Approval Threshold



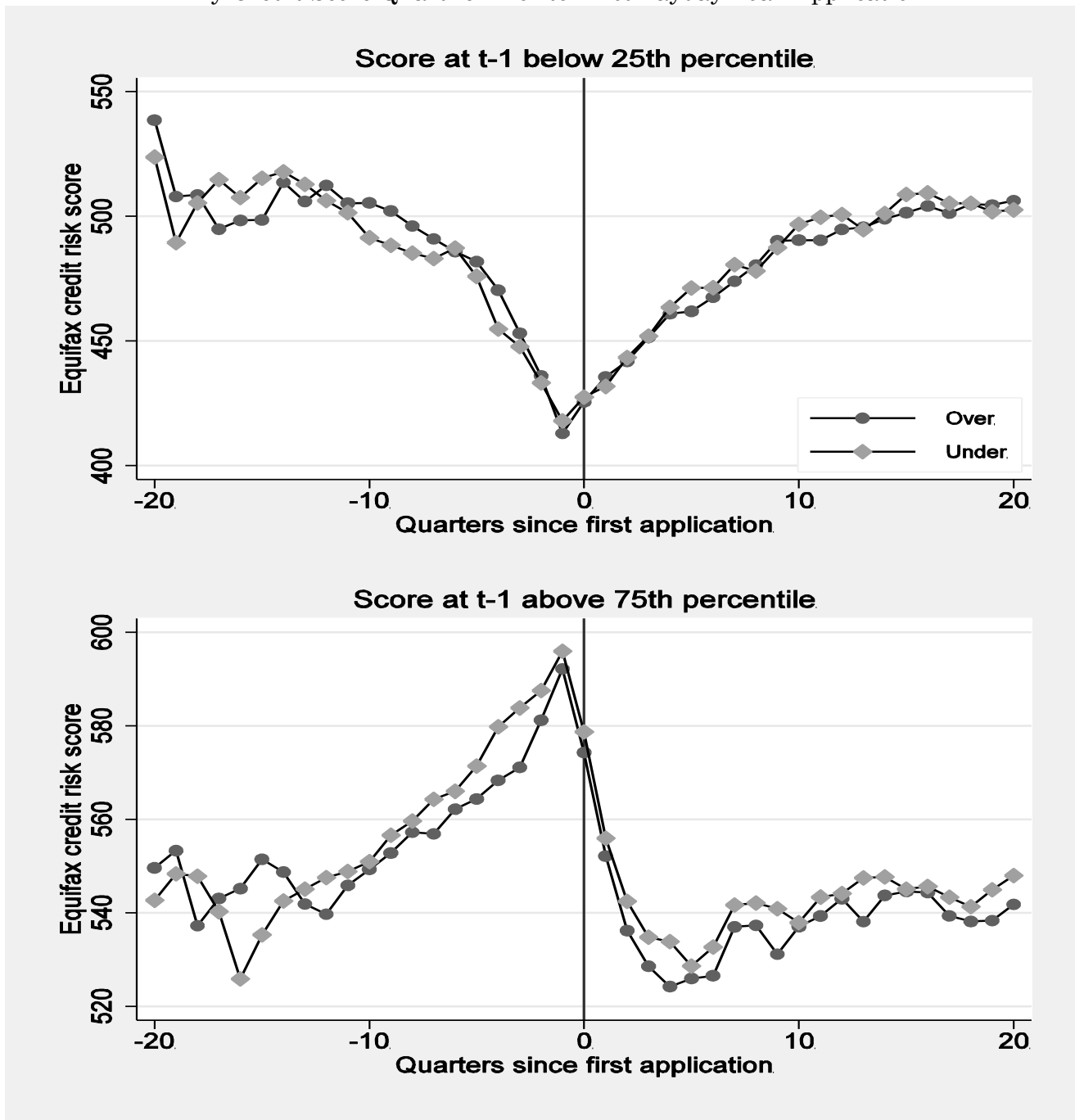
Notes: Figure is based on data from the payday loan applications matched to full sample CCP. Each data point represents the average Equifax 3.0 credit risk score at the end of a quarter relative to the quarter of first payday loan application.

Figure 5. The Effect of Access to Payday Loans on Credit scores, by Market Structure



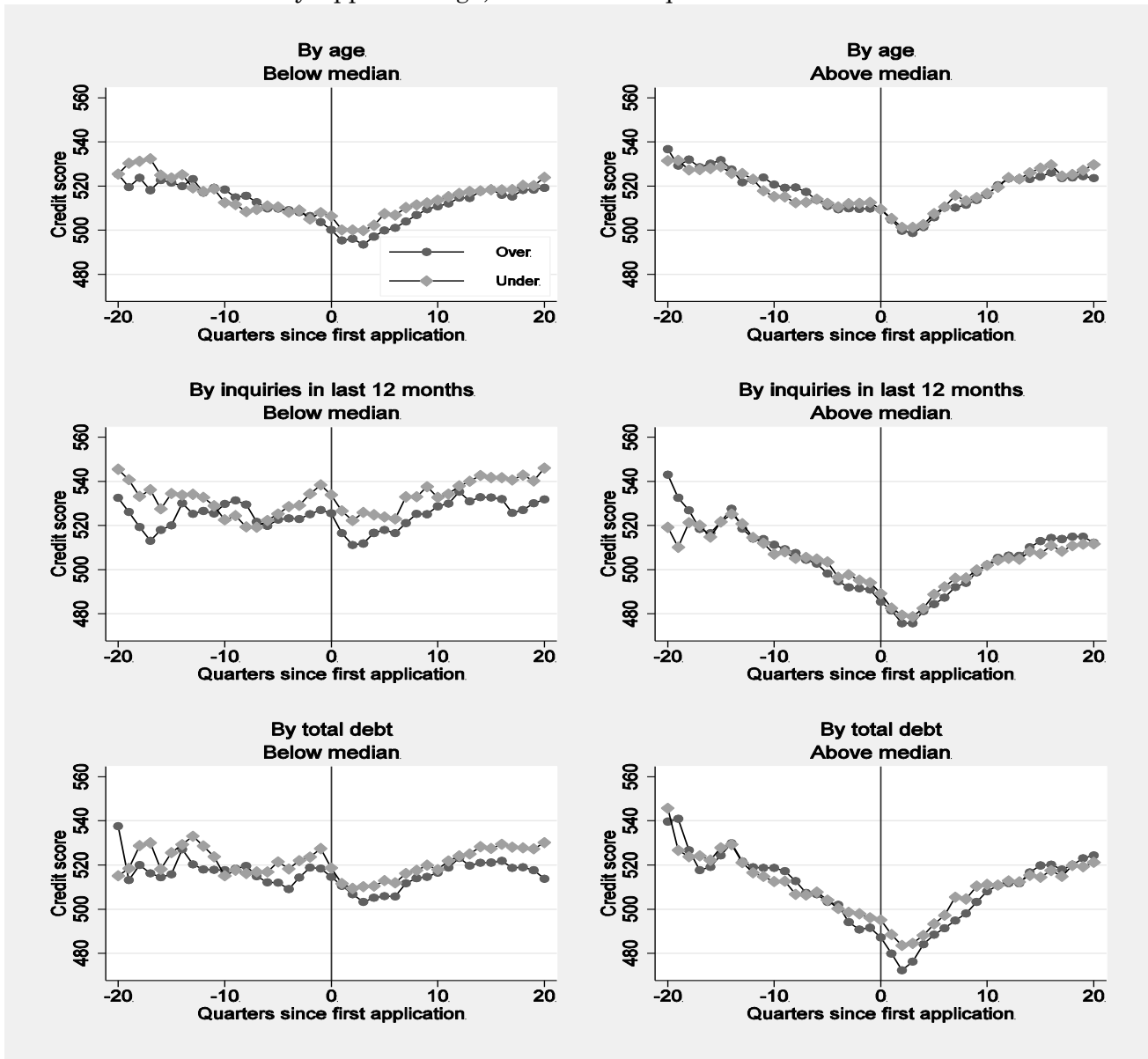
Notes: Figures based on data from the payday loan applications matched to full sample CCP, and includes only those applicants with Teletrack scores within 0.5 standard deviations of the approval threshold. The top figure restricts to first time payday loan applicants who live in ZIP codes with less than 3 payday lending outlets, on average, within a 5 mile radius in 2002 according to Census data (see text for more details). The bottom panel restricts to first time payday loan applicants who live in ZIP codes where the payday lender that provided the data has market share of at least one-third. Both restrictions mitigate bias toward zero that could occur if rejected applicants at this company borrow successfully on payday loans elsewhere. Both graphs restrict to applicants within 0.5 standard deviations of the Teletrack score cutoff.

Figure 6. The Effect of Access to Payday Loans on Credit Score Dynamics
By Credit Score Quartile Prior to First Payday Loan Application



Notes: Figures based on data from the payday loan applicants matched to the primary sample CCP. Each data point represents the average Equifax 3.0 credit risk score at the end of a quarter. The top (bottom) panel shows credit score dynamics for applicants with a credit score in the quarter just before payday loan application in the bottom (top) quartile of the $t-1$ score distribution. The sample for both graphs is restricted to those with a Teletrack score within 0.25 standard deviations of the approval threshold.

Figure 7. The Effect of Access to Payday Loans on Credit Scores
By Applicant Age, Number of Inquiries and Total Debt



Notes: Top two figures based on full sample CCP data matched to payday loan applicant records, with age of payday applicants coming from payday applicant records measured at the time of first application. Remaining figures based on primary sample CCP data matched to payday applicant records; median number of inquiries and median total debt are measured in the quarter prior to first payday loan application. Each data point represents the average Equifax 3.0 credit risk score at the end of a quarter. Sample for all graphs restricted to those with Teletrack score within 0.25 standard deviations of the approval threshold.

Appendix Table 1. Effect of Payday Loan Access on Credit Record Attributes

	Total debt (\$)²		Availability on credit cards (\$)³		Credit inquiries in past 12 months⁴		New accounts in past 12 months⁴		Share of accounts not current	
	0.5sd	0.25sd	0.5sd	0.25sd	0.5sd	0.25sd	0.5sd	0.25sd	0.5sd	0.25sd
Bandwidth¹										
A. Applicants matched to full sample CCP										
First Payday Loan	356.77	81.01	-2.53	-6.33	0.27	0.06	-0.03	-0.06	0.03	0.01
Application Approved	(558.95)	(822.60)	(21.69)	(30.80)	(0.17)	(0.26)	(0.07)	(0.10)	(0.02)	(0.02)
N	39876	14885	41133	15474	41647	15654	41375	15570	35114	13278
B. Applicants matched to full sample CCP and all outcomes not missing										
First Payday Loan	467.35	339.20	-1.26	-16.83	0.24	-0.05	-0.05	-0.11	0.02	0.02
Application Approved	(637.23)	(931.00)	(25.71)	(35.70)	(0.20)	(0.29)	(0.08)	(0.11)	(0.02)	(0.02)
N	31663	11842	31663	11842	31663	11842	31663	11842	31663	11842
C. Applicants matched to full sample CCP; controls for outcome at <i>t-1</i>										
First Payday Loan	-350.29	-367.76	6.85	12.52	-0.04	-0.23	-0.05	-0.15*	-0.01	-0.02
Application Approved	(618.93)	(964.20)	(12.81)	(18.56)	(0.11)	(0.15)	(0.04)	(0.06)	(0.01)	(0.02)
N	23341	8893	24537	9454	25012	9642	24816	9581	20327	7922

Notes: * $p < 0.05$; ** $p < 0.01$. Instrumental variables regression estimates shown. Estimating equations analogous to (1) and (2) in text. Observations 5-8 quarters after application are pooled, and standard errors clustered at the individual level in parentheses. Controls include distance from threshold interacted with above threshold, log monthly pay, checking balance, job tenure, age, months in current home, NSF count, pay frequency, garnished wages, direct deposit, homeowner, sex, year and quarter dummy variables.

1. Bandwidth specified in terms of standard deviations in the Teletrack score from the approval threshold; 2. trimmed at 95th percentile; 3. trimmed at 1st and 99th percentiles; 4. trimmed at 99th percentile.

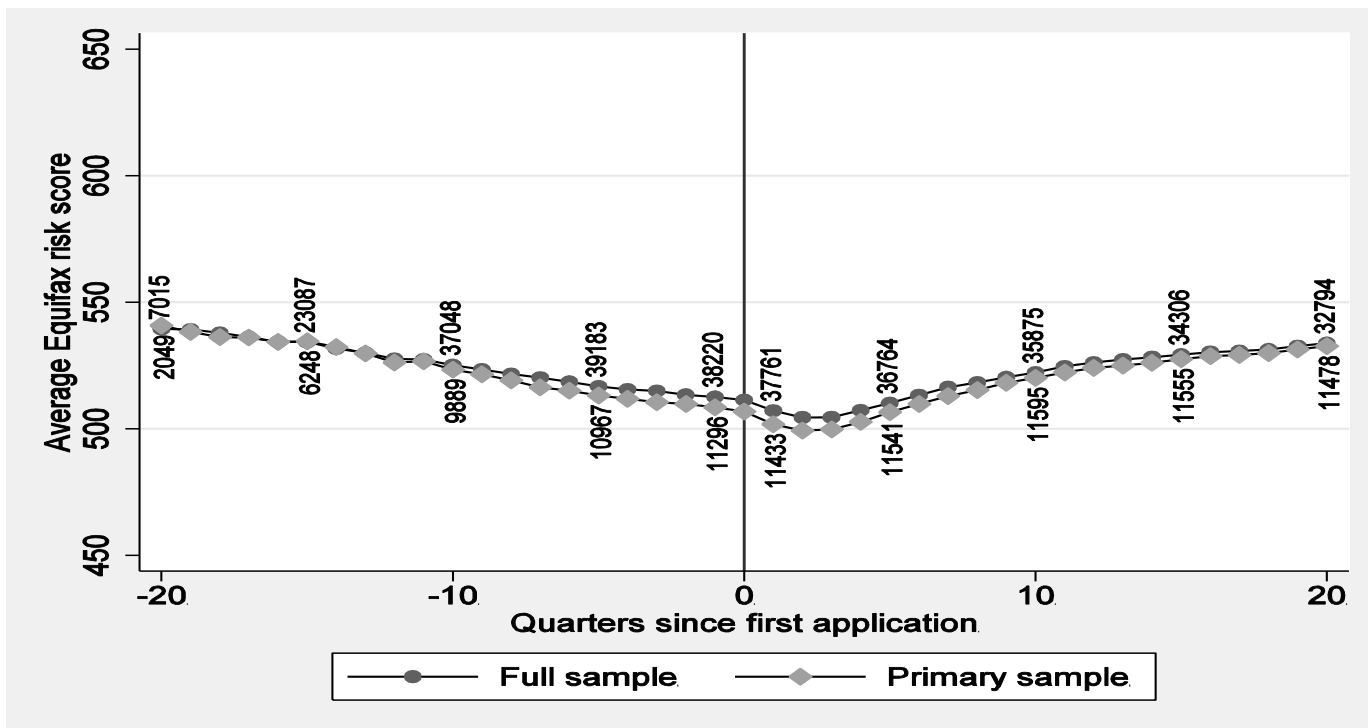
Appendix Table 2. Effect of Payday Loan Access on Credit Scores

A. Interaction with # PDL Establishments in 5 mile Radius								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1 quarter out		4 quarters out		8 quarters out		12 quarters out	
	0.5 SD	0.25 SD	0.5 SD	0.25 SD	0.5 SD	0.25 SD	0.5 SD	0.25 SD
Applicants matched to full sample CCP								
<i>AboveThr</i>	-1.33 (3.10)	-0.26 (4.41)	1.55 (4.15)	8.26 (6.09)	-1.10 (4.30)	-0.56 (6.14)	-2.50 (4.68)	-0.62 (6.36)
<i>AboveThr</i> x (# payday lender stores in 5 mi radius)	-0.04 (0.07)	-0.08 (0.09)	-0.08 (0.09)	-0.20 (0.14)	0.08 (0.09)	0.06 (0.13)	0.11 (0.10)	0.09 (0.13)
(# payday lender stores in 5 mi radius)	0.06 (0.06)	0.11 (0.07)	0.11 (0.07)	0.18 (0.10)	-0.00 (0.08)	0.06 (0.11)	-0.04 (0.09)	0.13 (0.11)
N	8433	3183	6973	2668	5840	2268	5150	1975
Applicants matched to primary sample CCP								
<i>AboveThr</i>	-3.22 (5.25)	1.55 (7.38)	-4.78 (6.37)	3.60 (9.53)	-7.63 (6.06)	-3.87 (8.77)	-4.17 (6.06)	-1.60 (8.34)
<i>AboveThr</i> x (# payday lender stores in 5 mi radius)	0.03 (0.12)	-0.08 (0.16)	0.05 (0.14)	0.05 (0.23)	0.34** (0.13)	0.52** (0.17)	0.26 (0.13)	0.39* (0.17)
(# payday lender stores in 5 mi radius)	0.02 (0.10)	0.15 (0.13)	0.02 (0.11)	-0.00 (0.16)	-0.25* (0.11)	-0.30* (0.15)	-0.21 (0.11)	-0.08 (0.14)
N	2950	1137	2936	1132	2927	1128	2916	1121

B. Interaction with Data Provider's Market Share								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1 quarter out		4 quarters out		8 quarters out		12 quarters out	
	0.5 SD	0.25 SD	0.5 SD	0.25 SD	0.5 SD	0.25 SD	0.5 SD	0.25 SD
Applicants matched to full sample CCP								
<i>AboveThr</i>	-10.44 (7.05)	4.50 (11.15)	11.29 (10.76)	18.70 (17.45)	1.94 (10.90)	8.40 (17.95)	-0.49 (12.36)	3.63 (20.12)
<i>AboveThr</i> x (1- zip code market share)	10.71 (7.26)	-5.67 (11.95)	-10.03 (11.15)	-19.99 (18.88)	-4.20 (11.31)	-13.46 (19.11)	-0.81 (12.87)	-6.15 (21.80)
(1-zip code market share)	-10.80 (5.67)	-2.27 (9.10)	6.30 (9.62)	9.33 (15.56)	3.17 (9.45)	14.15 (15.91)	3.62 (11.05)	25.82 (17.56)
N	4675	1703	3832	1433	3173	1200	2782	1027
Applicants matched to primary sample CCP								
<i>AboveThr</i>	-3.79 (13.26)	14.63 (20.72)	23.98 (18.96)	34.95 (30.51)	1.74 (14.13)	7.07 (23.35)	-8.25 (15.25)	-3.32 (27.60)
<i>AboveThr</i> x (1- zip code market share)	7.17 (13.95)	-11.82 (22.76)	-28.10 (19.67)	-38.26 (33.07)	-7.42 (14.67)	-6.20 (24.61)	3.85 (15.71)	1.05 (29.65)
(1-zip code market share)	-6.55 (10.86)	-4.25 (17.56)	19.80 (17.14)	23.10 (28.16)	1.78 (10.89)	-2.46 (19.42)	-1.36 (12.32)	7.88 (22.81)
N	1537	563	1532	562	1530	557	1525	554

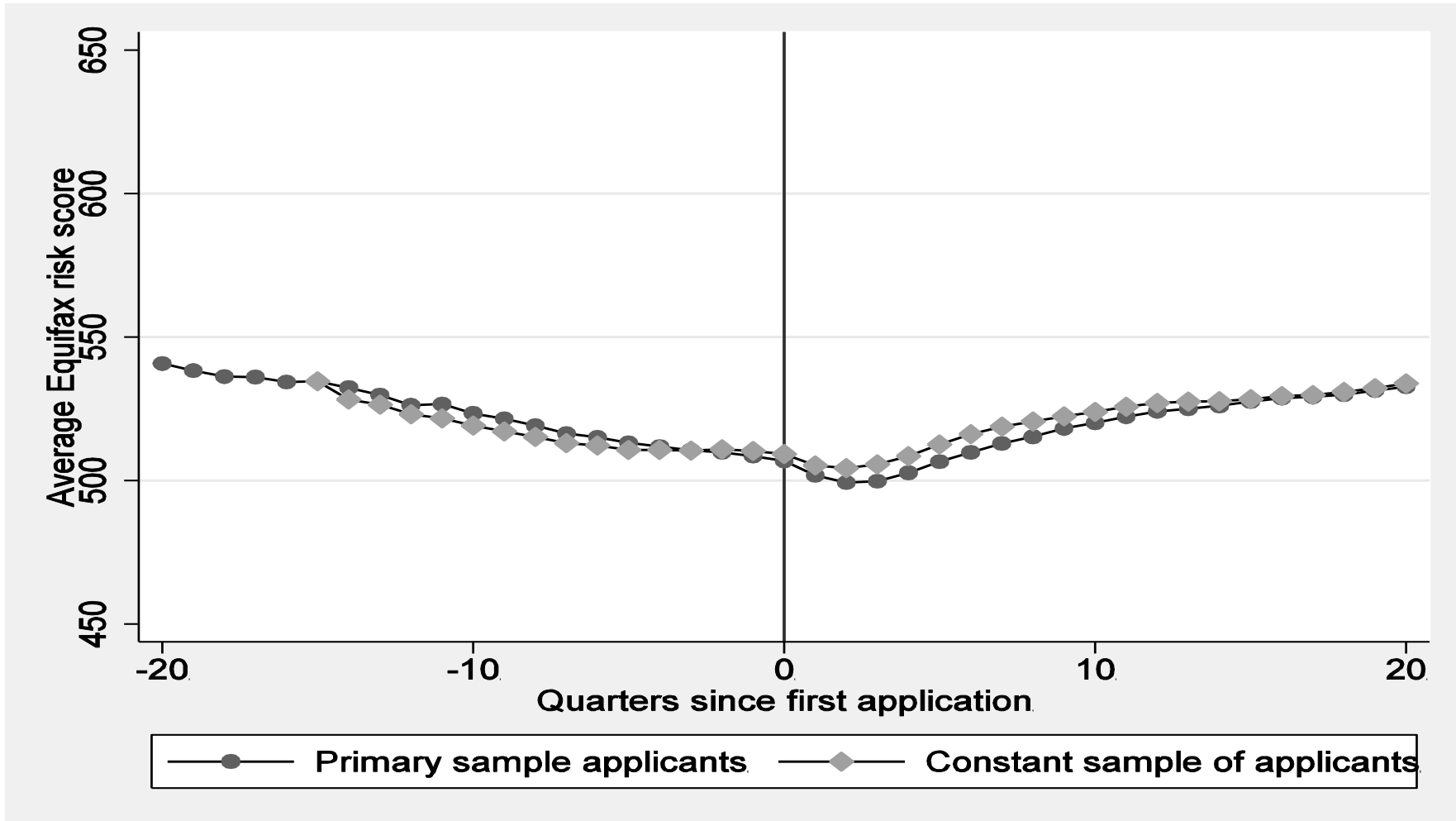
Notes: Robust standard errors in parentheses. * $p < 0.05$; ** $p < 0.01$. *AboveThr* is a dummy variable equal to 1 if the payday loan applicant's Teletrack score exceeded the passing threshold. Zip Code Business Patterns 2002 data from the Census used to estimate the number of payday lender stores in a five mile radius around the applicant's residential zip. Zip code market share estimates in panel B based on data from *referenceUSA*. All regressions control for credit score in the quarter just before application. Other controls include distance from threshold interacted with *AboveThr*, log monthly pay, checking balance, job tenure, age, months in current home, NSF count, pay frequency, garnished wages, direct deposit, homeowner, sex, year and quarter dummy variables.

Appendix Figure 1. Credit Score Data Details



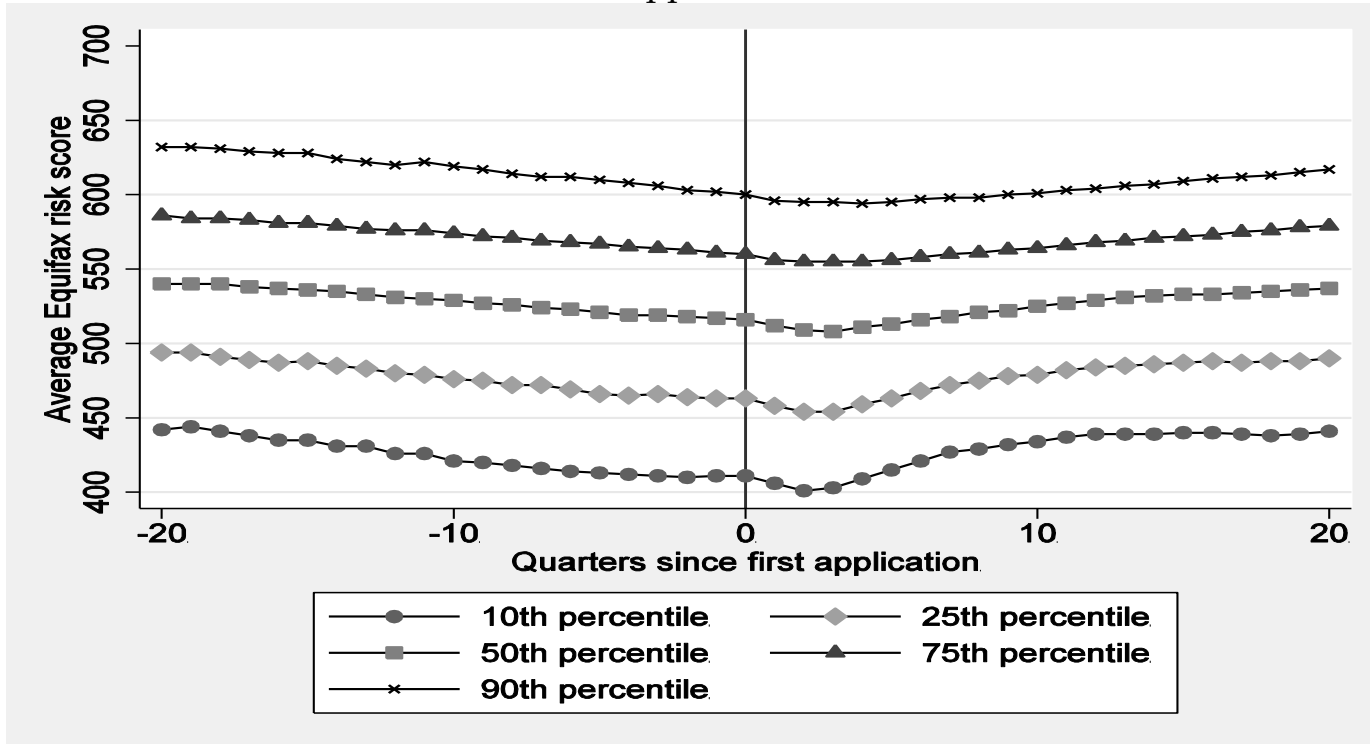
Notes: Figure plots credit scores of payday loan applicants separately for applicants matched to the primary sample CCP and applicants matched to the full sample CCP. Those matched to the primary sample are a subset of the group matched to the full sample (see main text for details). Each data point represents the average Equifax 3.0 credit score for applicants (accepted and rejected applicants) at the end of each quarter. Numbers alongside data points refer to the number of applicants the average credit score is based on.

Appendix Figure 2. Selection into the Sample is Minimal



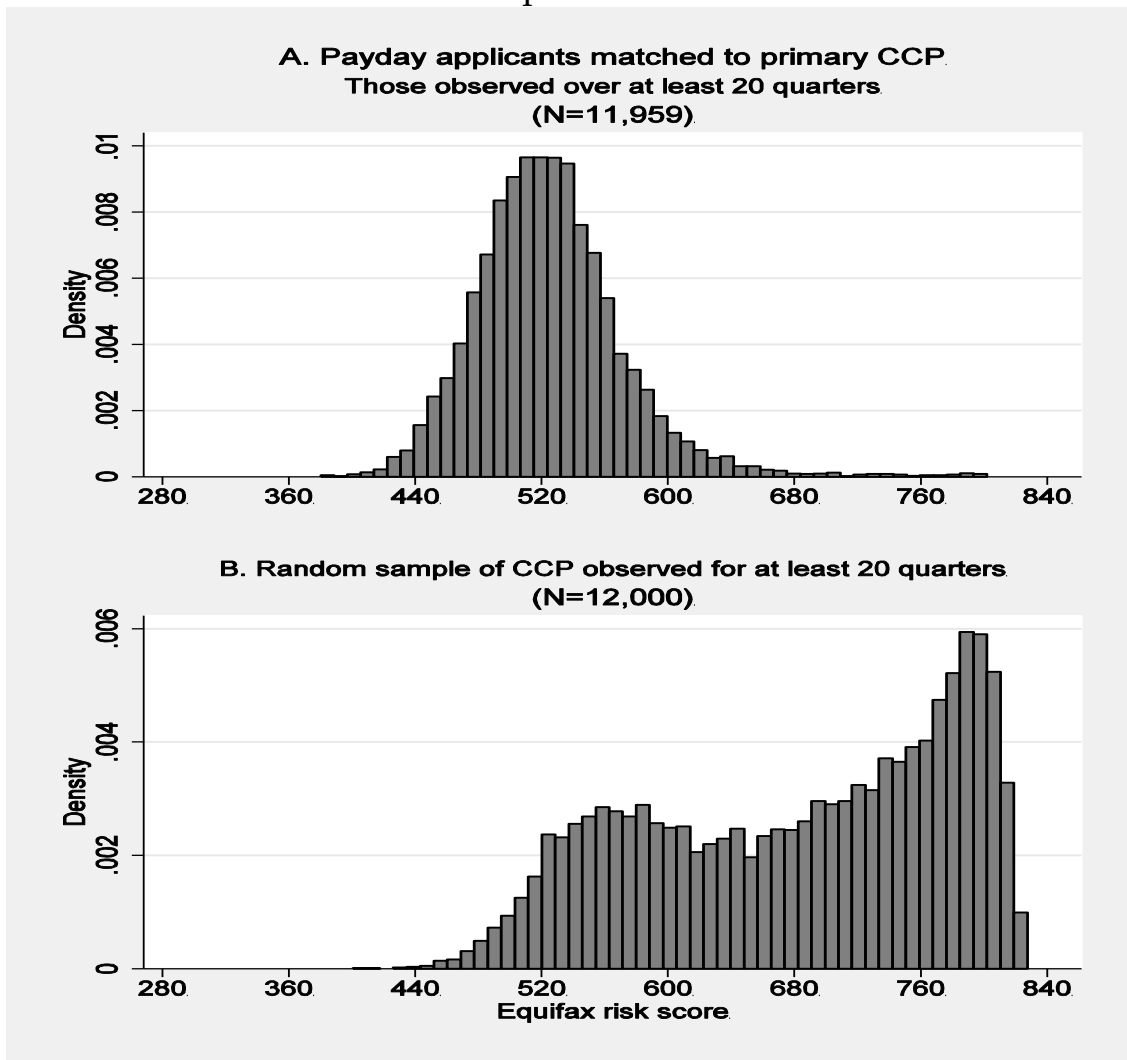
Notes: Figure is based on data from the payday loan applications matched to the primary sample CCP. The horizontal axis is event time in quarters before and after the first payday loan application. Circular data points are for event time between $[-20,+20]$ and include all observed credit scores in the primary matched sample, corresponding to the lighter circles in Appendix Figure 1. Diamond data points are for event time between $[-15,+20]$ and restrict at all times to the 6248 payday loan applicants observed in the primary sample CCP no later than $t-15$. These people applied for their first payday loans no earlier than October 1, 2002. The path of scores for two samples are nearly identical, further easing concerns about sample selection issues due to growth of the matched sample over time.

Appendix Figure 3. Credit Score Distribution Before and After First Payday Loan Application



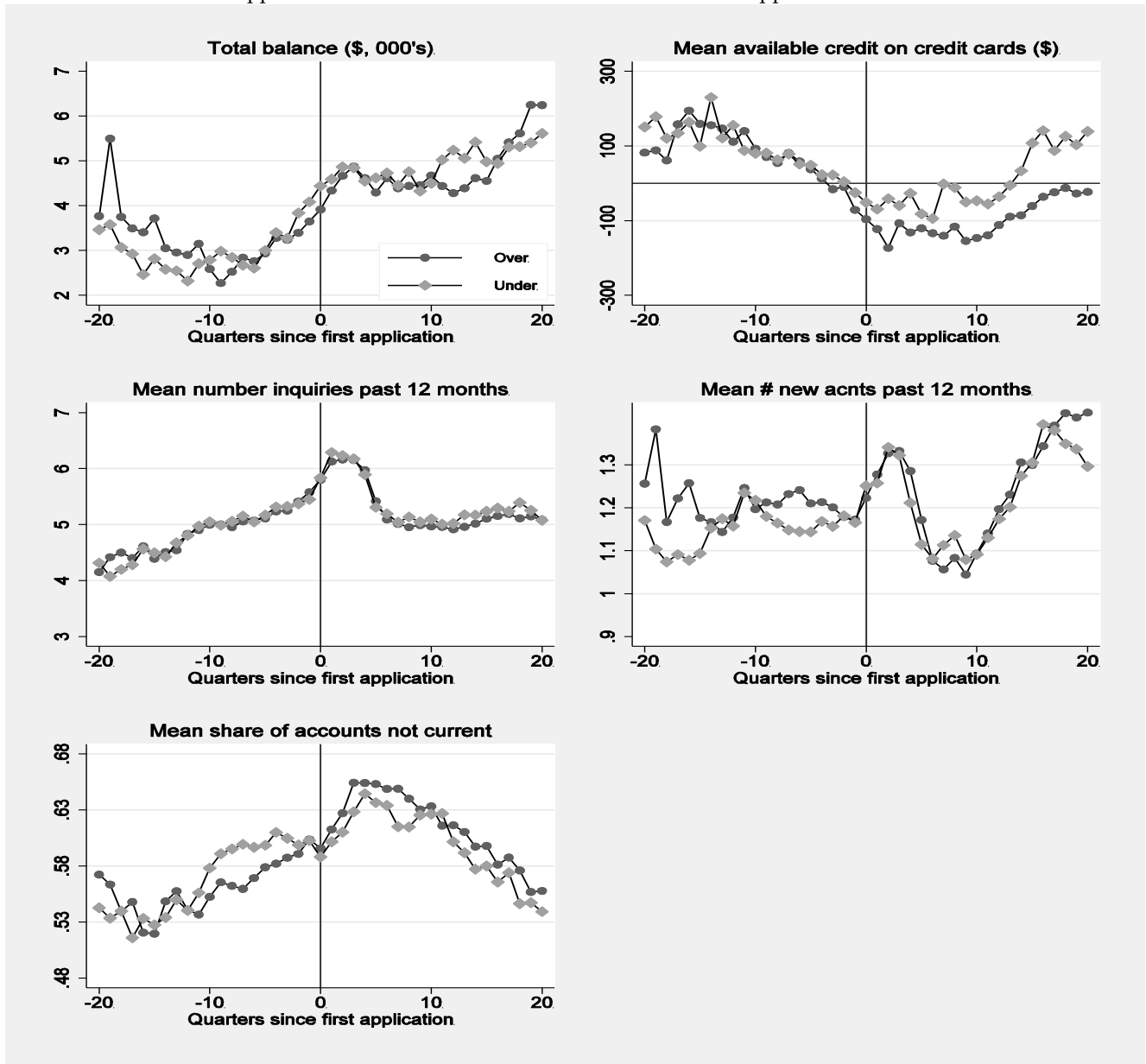
Notes: Calculations based on the payday loan applicants matched to full sample CCP. This figure plots quantiles of the Equifax risk score distribution. Time 0 corresponds to the quarter of a consumer's first observed payday loan application.

Appendix Figure 4. Payday Applicants versus General Population



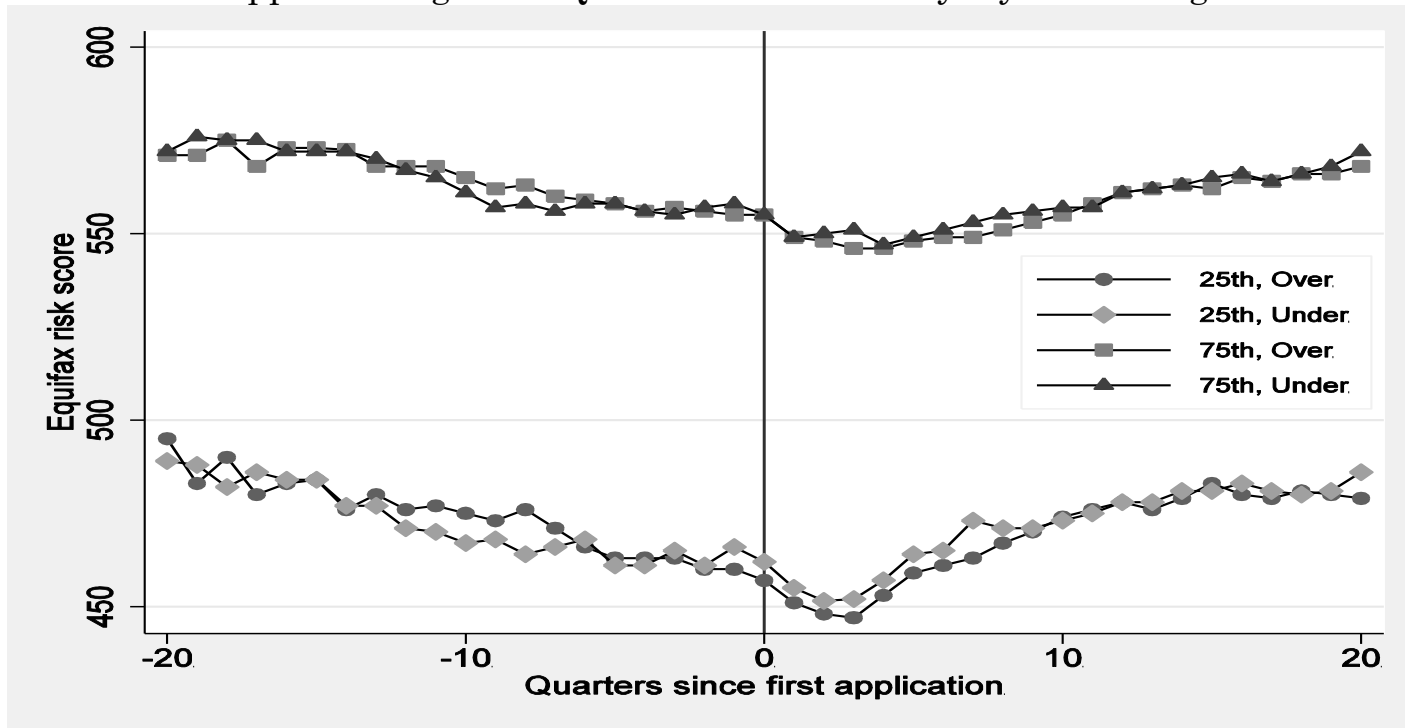
Notes: Panel A shows the distribution of Equifax 3.0 credit scores for payday applicants matched to the primary sample FRBNY/Equifax consumer credit panel. The sample is limited to those observed for at least 20 quarters between 1999q1 and 2010q4, and individuals' scores are time-averaged. Panel B displays the distribution of analogous scores for a random subsample of the primary sample FRBNY/Equifax consumer credit panel, observed for at least 20 quarters between 1999q1 and 2010q4, and time-averaged at the individual level.

Appendix Figure 5. Credit Record Attributes Before and After First Payday Loan Application
 Applicants with Teletrack Scores Over and Under Approval Threshold



Notes: Figures based on data from the payday loan applications matched to the full sample CCP. All graphs use a subsample of applicants within a bandwidth of 0.25 standard deviations from the Teletrack score approval threshold.

Appendix Figure 6. Quantile Effects of Payday Borrowing



Notes: Figure is based on data from the payday loan applications matched to full sample CCP, including only applicants within 0.25 standard deviations from the Teletrack score approval threshold. Data points in the upper (lower) portion of the graph show the 75th (25th) percentile of Equifax 3.0 credit scores relative to the quarter of first application for a payday loan.

EXHIBIT E



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ABSTRACT

The annualized interest rate for a payday loan often exceeds 10 times that of a typical credit card, yet this market grew immensely in the 1990s and 2000s, elevating concerns about the risk payday loans pose to consumers and whether payday lenders target minority neighborhoods. This paper employs individual credit record data, and Census data on payday lender store locations, to assess these concerns. Taking advantage of several state law changes since 2006 and, following previous work, within-state-year differences in access arising from proximity to states that allow payday loans, I find little to no effect of payday loans on credit scores, new delinquencies, or the likelihood of overdrawing credit lines. The analysis also indicates that neighborhood racial composition has little influence on payday lender store locations conditional on income, wealth and demographic characteristics.

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1. Introduction

For a two-week \$300 payday advance loan, payday lenders typically charge \$45 or more, a cost so high that many believe the loan could not possibly be in the best interest of the borrower. Nevertheless, some estimates indicate that payday loan volume grew more than fivefold to almost \$50 billion from the late 1990s to the mid 2000s (Stegman 2007). With the recent rise of the payday lending industry, questions abound about the characteristics and circumstances of payday loan borrowers, and the ultimate impact of such loans on their welfare. Interest in payday lending has grown among economists in particular because of the possibility that transactions in this market may reflect a market failure due to borrowers' cognitive biases or limitations, or demonstrate divergence in behavior from traditional models (hyperbolic discounting, for example).

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Concerns about payday loans have led a number of states to outlaw them. As of 2006, 11 states prohibited or severely restricted payday lending and by 2012 another six states and the District of Columbia did so. At the Federal level, in 2007 Congress and the Department of Defense moved to ban payday lending to members of the military based on the view that such lending traps service members in a cycle of debt and threatens military readiness.¹ And in 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act established the Consumer Financial Protection Bureau (CFPB) to help regulate the market for consumer financial products, including the payday loan market. The CFPB has new authority to write and enforce new federal regulations to the extent that they judge payday loans to be “unfair, deceptive or abusive,” and they recently stated that new consumer protections in the payday loan market may be forthcoming if the evidence warrants action (CFPB, 2013).

The academic literature thus far on the financial and welfare consequences of payday loans has been quite mixed. Some studies have found harmful effects of access to payday loans such as elevated rates of bankruptcy (Skiba and Tobacman, 2011), declines in job performance perhaps due to financial stress (Carrell and Zinman, 2013), increased difficulties paying bills (Melzer, 2011),

¹ See “Limitations on Terms of Consumer Credit Extended to Service Members and Dependents: Final Rule,” 72 *Federal Register* No. 169 (August 31, 2007), pp. 50580–50594 (<http://www.gpo.gov/fdsys/pkg/FR-2007-08-31/pdf/07-4264.pdf>).

and higher likelihoods of losing one's bank account (Campbell et al. 2011). In contrast, other studies find evidence that payday loans promote job retention and financial well-being (Zinman, 2010), help consumers smooth through expenditure shocks (Morse, 2011), and reduce consumer complaints against lenders, perhaps because payday loans help people manage cash flow and mitigate debt problems (Morgan et al., 2012). Two of these studies (Zinman, 2010; Morgan et al., 2012) also suggest that restricting access to payday loans leads people to turn to more expensive and less reliable sources of credit such as bank overdrafts and paying bills late.

I add to this literature by using individual-level credit record panel data, and exploiting geographic and temporal variation in access to payday loans arising from state lending laws, to study the effect of payday loans on financial health, measured by credit scores and score changes as well as other credit record variables such as credit delinquency.² Importantly, use of and performance on payday loans generally does not directly affect consumers' traditional credit scores (such as the FICO score) or their credit records because payday lenders rarely report to the national credit bureaus. Rather, payday loans can affect credit scores *indirectly* to the extent that such loans either improve or undermine consumers' ability to manage cash flow and meet their financial obligations in general. If payday loans tend to help borrowers smooth through expenditure or income shocks and help manage payments on other obligations (e.g. Morse, 2011; Morgan et al., 2012), or improve job retention (Zinman, 2010), then access to them would likely lead to higher credit scores. Alternatively, if consumers are enticed by payday loans to over-borrow, or if consumers underestimate the cost of such loans (Bertrand and Morse, 2011), payday loans may tend to exacerbate debt problems and lead to lower scores on average.³

As noted above and as Fig. 1 shows, by 2012 eighteen states, including the District of Columbia, prohibited or severely restricted payday lending, with seven of these bans being implemented between 2006 and 2012 (thus all law changes during my observation period were in the direction of prohibiting, rather than allowing). In addition to a standard state-level differences-in-differences identification strategy, I also follow Melzer's (2011) novel strategy of exploiting within-state variation in access to payday loans due to differences in the proximity of ZIP codes in states that prohibit payday lending to states that allow payday lending. This strategy compares, for example, outcomes of North Carolinians who live in ZIP codes in the middle of the state – far from any payday-allowing state – to North Carolinians who live in ZIPs near the border with South Carolina and can access payday loans by driving across the border. The advantage of this strategy is that it is robust to state-by-year shocks and thus more likely to be immune to identification problems stemming from potentially endogenous state law changes.⁴

² Credit scores are just one dimension of financial health; someone with a high credit score may nonetheless be in poor financial shape if, for instance, their retirement savings are too low. Still, it seems reasonable to infer that someone with a high credit score is in better shape financially than someone with a low credit score, all else equal, from the standpoint that a high credit score reflects debt being well-managed and a low likelihood of default.

³ As Bhutta et al. (2013) show, payday loan applicants tend to have low credit scores (in the low 500s) just before applying. Importantly, negative events such as new delinquencies still have a substantive effect on credit scores even when starting from a score in this range. In addition, payday loans may hamper score recovery even if they do not lead to declines in scores (i.e. cause scores to stagnate at a low level when they might otherwise recover in the absence of payday loans).

⁴ Although there are only seven law changes during my observation period, which places some limitations on power, Melzer's strategy provides additional sources of within-state identifying variation. For example, although Massachusetts had a ban on payday lending throughout my observation period, areas on the border with New Hampshire had access through 2008 and then lost access when New Hampshire banned payday loans.

Like several other papers in the literature, I do not directly observe payday loan use in the data, which presents a potential identification problem. Namely, to the extent that only a narrow segment of the population uses payday loans – both for supply- and demand-related reasons – intention-to-treat estimates using a broad population sample will be significantly attenuated relative to the treatment-on-the-treated estimate of interest. The large, yet detailed dataset I have allows me to address this issue in two ways. First, I run regressions using only a sample of individuals most likely to use payday loans, where identification of likely payday loan borrowers comes from a complementary research project that provides detailed credit record attributes for a sample of payday loan applicants just prior to application (Bhutta et al., forthcoming).

Second, I run the analysis on the subsample of individuals living in ZIP codes where payday lenders actually operate, or *would* operate were they not prohibited by state law. Using Census ZIP code business and demographic data, I empirically identify “payday ZIPs” as commercialized ZIP codes with large, but less affluent, populations. Restricting attention to such ZIP codes helps ensure that individuals in the sample would have access when payday lending is legal (imagine two identical borrowers with demand for a payday loan, but the first lives in a payday ZIP while the second happens to live further away from any commercial area with payday lenders; the first will have easier access and be more likely to take out a payday loan).

Notably, the analysis of payday lender locations fails to indicate that lenders target minority neighborhoods, conditional on economic characteristics of the population. This result is important in its own right because of concerns that payday lenders target minority neighborhoods, leading to a disparate impact among black and Hispanic families. For example, one leading consumer advocacy organization conducted a study on payday lending in California and concluded, “Payday loans are a debt trap—and in California, that trap ensnares more African Americans and Latinos by a staggering margin.”⁵

Surprisingly, this is the first paper to use readily available Census ZIP code business data to analyze the socioeconomic factors correlated with payday lender concentration.⁶ Another recent study by Morgan and Pan (2012) approaches the question of whether payday lenders target minorities from a different angle using household survey data, and also finds no relationship between the race or ethnicity and use of payday loans after controlling for observable socioeconomic characteristics.⁷

Finally, I also test whether access to payday loans interacts with shocks to the local economy. The period studied covers the Great Recession and thus large unemployment shocks at the county level are not uncommon in the data. This test is similar to one in Carrell and Zinman (2013) which finds that the negative effect of payday loans on military personnel performance is elevated in areas with higher unemployment. It is also similar in spirit to Morse (2011), who finds that access to payday loans substantially mitigates foreclosures after natural disasters.

Overall, I find little evidence that payday loans substantively affect credit scores, or the likelihood of large score declines, delinquency or having other debt-management problems as indicated by exceeding credit card limits. In virtually all the regressions I run – regardless of using the full sample or various subsamples,

⁵ See more at: <http://www.responsiblelending.org/media-center/press-releases/archives/payday-lending-strips-247-million-from-california-african-americans-and-latinos.html#sthash.2Q4smt6N.dpuf>.

⁶ Prager (2009) studies the determinants of payday lender concentration using data at the county level. Other studies that analyze location decisions at a more granular level – and have sometimes found evidence of targeting – tend to only have data for one city or county (e.g. Graves 2003).

⁷ See <http://libertystreeteconomics.newyorkfed.org/2012/02/do-payday-lenders-target-minorities.html>.

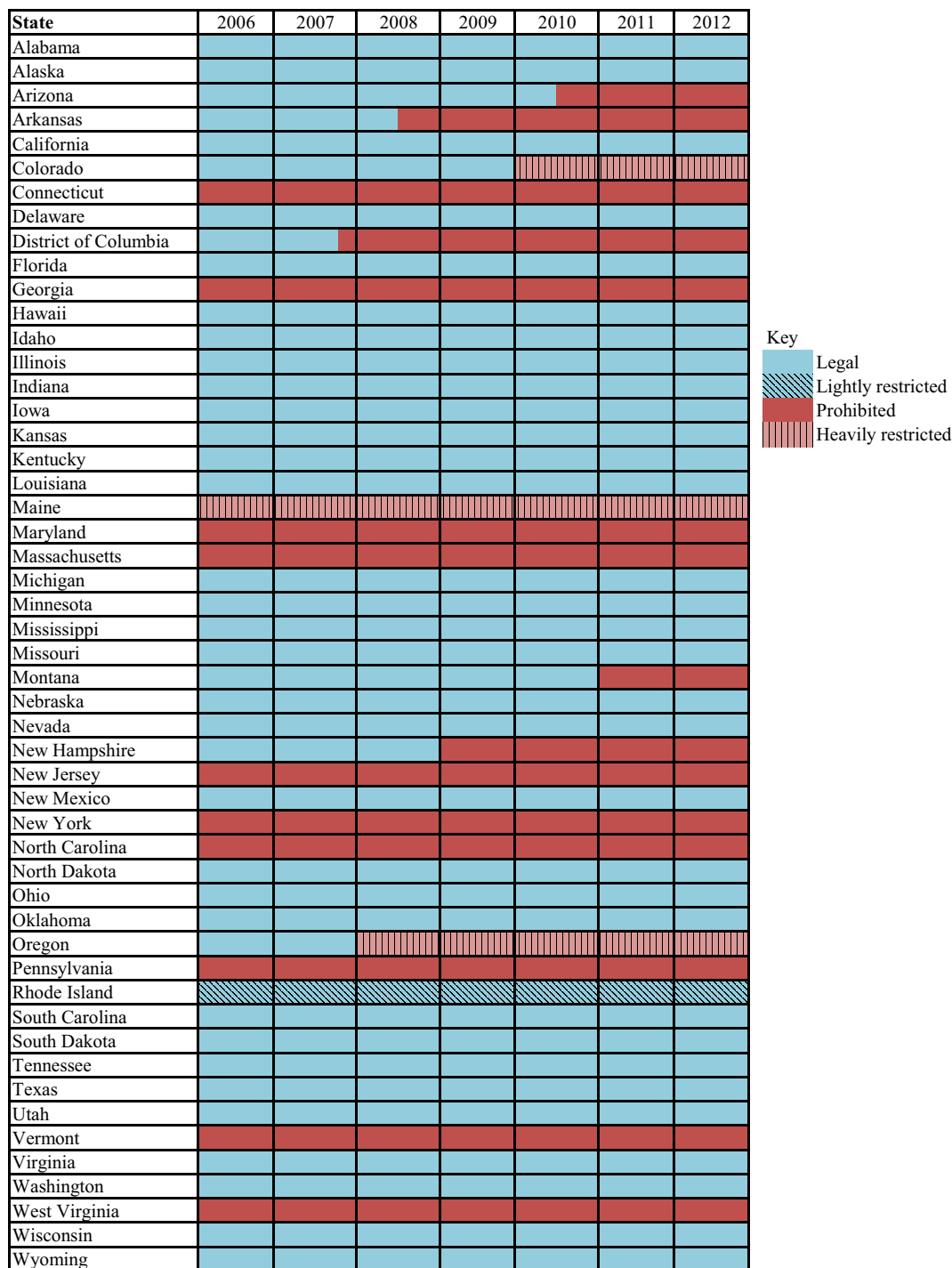


Fig. 1. State payday lending regulations over time.

and regardless of the identification strategy – the point estimates are close to zero and precise. Access to payday loans also does not significantly interact with county unemployment shocks in most specifications, but one caveat here is that this test is somewhat underpowered because I do not observe employment status at the individual level. These findings complement those in Bhutta et al. (forthcoming), which uses credit record data matched to payday loan applicant data from a large payday loan company, exploits a discontinuity in the payday loan approval process, and finds that getting a payday loan has no effect on credit scores or other credit record outcomes. While a full welfare

assessment of payday loans is not possible, the current paper hopefully helps inform the debate by providing new estimates of the effect of payday loans on several important indicators of financial well-being.

The next section discusses the payday borrowing process, the credit profile of people applying for payday loans, and state payday lending laws. Section 3 presents the empirical strategy for estimating how payday loans affect financial health. Section 4 focuses on the location of payday lenders and how state laws and neighborhood socioeconomic factors have influenced payday lender locations. Section 5 presents estimates of how payday loans affect

financial well-being and Section 6 discusses these results further in the context of past research. Finally, Section 7 concludes.

2. Background

2.1. Payday loans and financial health

A payday loan is a 1–4 week loan of less than \$1000 that costs about \$15–\$30 per \$100 borrowed, an annualized percentage rate of 360–780% for a two-week loan. Payday loans are usually provided by specialized finance companies that may also provide check cashing services, rather than more mainstream financial institutions such as federally-insured banks. To qualify for a payday loan, an applicant typically must show proof of residence, identification, employment and a valid checking account, and must have some minimum level of monthly earnings. If approved, applicants then provide the lender with a postdated check for the amount of the loan and fee (or provide authorization to debit their checking account). Finally, the application process does not involve a traditional credit check, and payday borrowing activity is not reported to the national credit bureaus Equifax, Experian and TransUnion. This means that payday borrowing is not a factor, like credit card borrowing, that directly affects one's credit score.⁸ Instead, access to payday loans can only affect one's credit score indirectly depending on how such loans affect consumers' ability to meet their financial obligations in general.

On the one hand, usury laws that prohibit payday lending may inefficiently constrain credit access, and lifting such bans would expand financial choices and allow individuals and households to better manage their cash flow in the face of volatile income and expenses. Although the fees can add up to large amounts, especially when loans are renewed multiple times, these loans are often promoted by the payday loan industry as being meant for liquidity-constrained individuals with a short-term emergency need for cash; for example, to help pay for a necessary car repair or for out-of-pocket medical costs (see Zinman, 2010). In the absence of such credit, these short term emergencies could become more costly than the ultimate cost of the loan if, for instance, they lead to job loss or more severe medical problems.

On the other hand, potential payday loan customers may have behavioral biases or limitations in analytical ability that make a ban on payday lending welfare enhancing. For example, over-optimism about their ability to pay off the loan in 1–4 weeks may entice people to use payday loans, when in fact they are likely to renew the loan several times (as lenders are aware), putting their financial well-being at risk. Administrative data on payday borrowers collected by Skiba and Tobacman (2008) indicate that many payday loan borrowers renew their loans several times, but it is not clear whether they expected, ex-ante, to renew so many times or not (see Bertrand and Morse (2011) and Mann (2013) for somewhat conflicting evidence). Even if borrowers expect to renew the loan several times, Bertrand and Morse (2011) provide survey evidence that payday borrowers tend to underestimate the fees stemming from multiple renewals. Finally, by expanding credit at the margin, payday loans could exacerbate perpetual liquidity problems and chronic dissaving due to time-inconsistent preferences of hyperbolic discounters and again negatively affect lifetime utility.⁹

⁸ For an in-depth discussion of credit score modeling, see Federal Reserve Board (2007).

⁹ See Laibson (1997) for more on hyperbolic discounting and the welfare effects of expanded credit access. Skiba and Tobacman (2008) examine payday borrowing behavior using data from a payday lender and conclude that borrowing and repayment patterns are most consistent with partially naïve quasi-hyperbolic discounting.

2.2. The credit profile of payday loan borrowers

A critical assumption in this paper is that payday loan borrowers actually have credit records and credit scores that could be influenced (indirectly) by payday loan use. Existing evidence shows that payday loan borrowers do indeed operate in the mainstream financial system, which is perhaps not too surprising given payday loan borrowers must be employed and have a checking account to qualify for the loan. For example, Elliehausen and Lawrence (2001) present survey evidence that payday borrowers also apply for and use traditional forms of credit (credit cards, car loans, etc.).

More recently, Bhutta et al. (forthcoming; hereafter BST) provide administrative evidence on the credit histories of payday loan applicants, matching applicant data from a large payday lender to applicants' credit records from Equifax. The data allow for a precise match, and the matching results imply that over 90% of payday loan applicants have credit records and credit scores. Additionally, about 87% have at least 1 open account at the time of applying for a payday loan, and the median debt balance across all applicants (including those without any accounts) is about \$6000, compared to about \$9000 for the general population. BST also find that about 60% of payday loan applicants have at least one credit card account (compared to 75% of the general population), but the cumulative credit limit across all card accounts is just \$3000 on average, compared to nearly \$19,000 for the general population.¹⁰

Two other characteristics of payday loan applicants that stand out are that they are relatively young, and appear to be searching intensively for more traditional forms of credit. BST document that payday loan applicants had, on average, over five credit inquiries (a proxy for credit applications at traditional lenders that report to Equifax) in the 12 months leading up to their application for a payday loan, compared to just one inquiry on average for the general population in the same 12 month period, and three inquiries on average for the general subprime population.

As noted earlier, I draw on this information from BST to form a restricted sample of consumers where the probability of using a payday loan, given access, is likely to be much higher than for the population at large. Restricting the sample will help provide a better sense of the potential size of the true effect of payday loans on financial well-being.

2.3. State laws and enforcement

Fig. 1 describes how state payday lending laws evolved from 2006 through 2012, based on information from a variety of resources.¹¹ Over this period, there was a considerable amount of state legislative action with respect to payday loans. In 2006, 11 states banned or severely restricted payday lending, and by 2012 that number grew to 18, including the District of Columbia. The most recent bans were in Arizona, Colorado and Montana.¹² No state went from prohibiting to allowing payday loans during the observation period.

¹⁰ Note that the time period of the matched data in BST is the early 2000s.

¹¹ Sources include a series of reports from the Consumer Federation of America, which can be accessed at <http://www.paydayloaninfo.org/research-a-reports>, The Pew Charitable Trusts (<http://www.pewstates.org/research/data-visualizations/state-payday-loan-regulation-and-usage-rates-85899405695>), the National Conference of State Legislatures (<http://www.ncsl.org/issues-research/banking/payday-lending-state-statutes.aspx>), Credit.com (<http://www.credit.com/credit-law/payday-loan-laws/>), and state government websites and local news articles about state legislative actions on payday lending.

¹² Colorado is considered to have effectively banned payday lending by stipulating a minimum loan term of six months, along with price caps, that prevent typical 2–4 week payday loans.

Anecdotal evidence suggests that enforcement of state laws has been weak in some cases, and loopholes have existed in the past allowing payday lenders to circumnavigate state laws. In particular, the Consumer Federation of America (2001) discusses the “rent-a-bank” model in detail, where payday lenders team up with a commercial bank and use the bank’s ability under federal law to charge a higher interest rate than state law allows. However, by 2006 federal banking regulators effectively ended this practice (Mann and Hawkins, 2007), and state laws appear to be strictly enforced in recent years. Indeed, as I discuss in more detail in Section 4.3, Figs. 2 and 3 provide evidence from Census data that state laws bind. In addition, recent research by Avery and Samolyk (2011) using a 2009 data supplement to the Current Population Survey indicates that people in the states with outright or effective bans are highly unlikely to get payday loans. Importantly, their results also imply that the internet generally does not suffice as a mechanism to provide payday loans in states that restrict payday lending, which Pew (2012) concludes as well in separate research. Consistent with those findings, the websites of the largest payday lending companies appear to prohibit applications from people residing in states that restrict such loans.

3. Empirical strategy

3.1. Main specifications

The primary goal of this paper is to estimate the effect of payday loans on financial well-being. To that end, I exploit within-state variation in access to payday loans arising from changes in state laws, as well as variation in access across ZIP codes within payday-prohibiting states, as in Melzer (2011). The first specification I present is a standard, state-level difference-in-difference regression:

$$y_{icst} = \alpha + \beta_1(PD_Access_{st}) + \beta_2(PD_Access_{st} \cdot unempshock_{ct}) + \beta_3(unempshock_{ct}) + \beta_4(HPIgrowth_{ct}) + \mathbf{x}'_i\delta + \gamma_s + \mu_t + \varepsilon_{icst} \quad (1)$$

The dependent variable is a measure of financial well-being from the credit record data (discussed later) for individual i , in county c , state s and year t . Payday loan access (PD_Access) is an indicator equal to one for individuals in a state-year cell where payday loans are legal. To generate a standard difference-in-difference estimate that excludes identifying variation in access of the type used by Melzer, I exclude individuals in ZIP codes where access ever

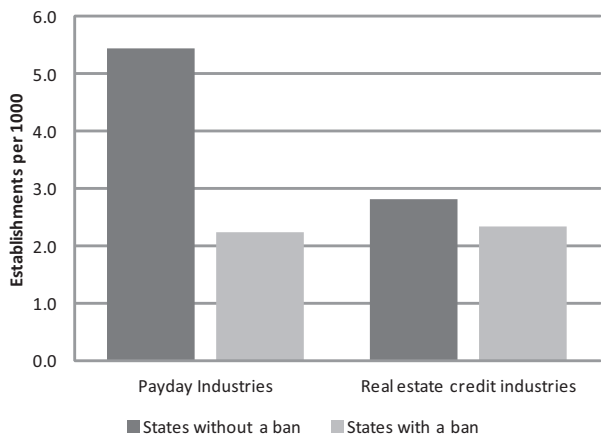


Fig. 2. Concentration of payday lending industry establishments versus other credit industry establishments, by state legal status of payday loans in 2008.

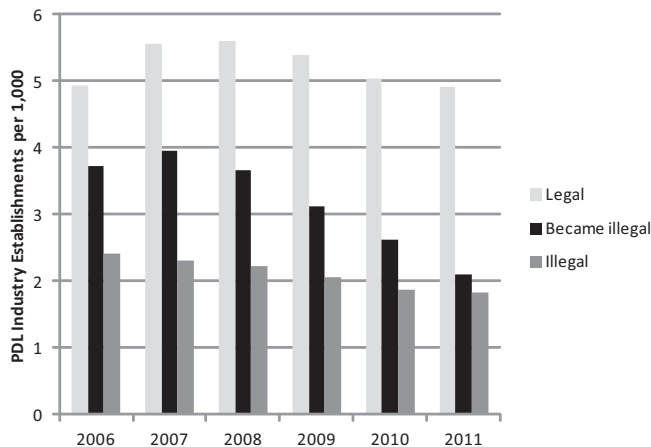


Fig. 3. Concentration of payday loan industry establishments over time, by legal status of payday loans.

differed from the rest of the state due to proximity to a state that allows payday loans (for example, ZIP codes in Massachusetts near the border with New Hampshire).¹³

I also interact payday loan access with county unemployment shocks, measured as the difference between the unemployment rate in year t and the average unemployment rate for the county from 2000 to 2006 (and I re-center this variable to have a mean of zero so that the coefficient on PD_Access is the same as in a regression without the interaction). Although someone who loses his job may not be able to get a payday loan because they no longer have a regular paycheck (although a regular unemployment check may suffice), a spouse or other member of the household may still be able to access payday loans. A household suffering from an income shock may turn to payday loans to help smooth consumption, expecting that the lost income will soon be replaced by a new job. However, borrowers may systematically overestimate the likelihood of replacing their income, and payday loans could then make a tough financial situation even worse. Alternatively, borrowers could use the proceeds of a payday loan to help make minimum payments on other financial obligations to avoid becoming delinquent on accounts that get reported to credit bureaus.

The specification also includes controls for house price appreciation at the county level over the previous two years in order to help control for the extent of the housing bust, and a vector \mathbf{x} of socioeconomic characteristics.¹⁴ Finally, Eq. (1) includes time fixed effects (interacted with region of the country) and state fixed effects and thus the effect of access to payday loans will be identified from within-state variation.

The second specification uses the identification strategy of Melzer (2011), which exploits the idea that within states where payday lending is prohibited, those living near another state where payday lending is permitted may travel across the border to obtain a payday loan. The regression equation looks similar to Eq. (1), but includes state-by-year fixed effects:

$$y_{izcst} = \alpha + \beta_1(PD_Access_{zt}) + \beta_2(PD_Access_{zt} \cdot unempshock_{ct}) + \beta_3(unempshock_{ct}) + \beta_4(border_{zt}) + \beta_5(HPIgrowth_{ct}) + \mathbf{x}'_i\delta + \eta_{st} + \varepsilon_{izcst} \quad (2)$$

¹³ I also try a specification simply excluding all border ZIP codes. These results are available in an online Appendix.

¹⁴ Although \mathbf{x} has a subscript i , I am mostly limited to using census tract proxies for individual characteristics. Census tracts are considerably smaller geographic areas than ZIP codes and are designed to be relatively homogenous with respect to socioeconomic characteristics.

To estimate (2) I add back into the sample individuals in border ZIP codes that I excluded to estimate Eq. (1), and now PD_Access varies across ZIP codes (z) and time. Both cross-sectional variation in payday loan access (residents in border ZIP codes in a given state-by-year cell may have access while interior ZIP codes do not) and temporal variation in access (those who have access through a border state can lose access when that bordering state implements a ban) help identify β_1 in this specification.

Obviously, a key identifying assumption is that people actually cross state borders to get payday loans. Anecdotal evidence suggests this occurs, and Melzer (2011) provides evidence that payday lenders open shops along borders with payday-prohibiting states, presumably because people will travel across the border to get payday loans. In Section 4.4, I provide similar evidence.

Finally, I present a third set of estimates where I re-estimate Eq. (1) but include all border ZIP codes. Thus, the effect of access is identified from all three sources of within-state variation simultaneously.

3.2. Regressions using a restricted sample

As a starting point, Eqs. (1) and (2) are estimated using an unrestricted sample representing all consumers living in a metropolitan area. However, because only a narrow segment of the population typically uses payday loans, estimates of β_1 and β_2 will be substantially smaller than the treatment-on-the-treated estimates of the effect of payday loan borrowing that are ultimately of interest.¹⁵ In other words, because borrowing on payday loans is not directly observed in the data, and because the probability of payday loan use is small, the reduced form estimates from Eqs. (1) and (2) will be attenuated relative to the estimates of interest.

To address this issue, I also estimate Eqs. (1) and (2) using a restricted sample of consumers where the probability of borrowing on payday loans given access is likely to be much higher. I restrict the sample along two dimensions.¹⁶ The first dimension relates to individual characteristics that have been shown in BST to be closely related to payday loan use, as will be discussed in more detail in Section 5.1. The second dimension relates to where individuals live, and whether their residential ZIP code location is the type of area that actually attracts payday lenders – for example ZIP codes with a high enough concentration of people with potential demand for payday loans in order to operate profitably.¹⁷

3.3. Identifying “payday ZIPs”

In order to identify ZIP codes that are attractive to payday lenders, I run a negative binomial regression of the count of payday stores in a given ZIP code, z , in 2008 on two scale variables (ZIP code population and ZIP code total number of establishments) and a variety of ZIP code socioeconomic characteristics¹⁸:

$$E(PDstores_z) = \exp\{\alpha_0 + \alpha_1 \ln(pop_z) + \alpha_2 \ln(estab_z) + \mathbf{x}_z\beta\} \quad (3)$$

¹⁵ For example, Avery and Samolyk (2011) find that less than 5% of households report having used payday loans at least once during 2008. Of course, it has been found that households tend to severely underreport borrowing by up to 50% (e.g. Zinman, 2009). As such, the true fraction of households using payday loans may be upwards of 10%.

¹⁶ In an Appendix available online, I explore additional sample stratifications such as on neighborhood income.

¹⁷ This restriction may be less important for estimates of Eq. (2) since they are identified from people who must travel to another state to get payday loans anyway. On the other hand, payday lenders might only operate in places along the border if there are ZIP codes just across the border that would have attracted payday lenders had state law not prohibited them.

¹⁸ Negative binomial regression is a more general version of Poisson regression that allows the variance to exceed the mean.

Eq. (3) is estimated using only those ZIP codes in states that allowed payday lending throughout the 2006–2012 period, and then I generate predictions of the number of payday loan stores across ZIP codes in all states using the estimated coefficients (that is, both in-sample and out-of-sample predictions). Finally, I construct expected payday stores per capita ($PDpercap$) for every ZIP code as:

$$PDpercap_z = \frac{PDstores_z}{population_z} \quad (4)$$

and define “payday ZIPs” as those ZIP codes with $PDpercap_z$ in the top one-third of ZIP codes.

4. Where do payday lenders operate? Evidence from Census data

4.1. ZIP code socioeconomic and payday lender location data

I employ two primary sources of data to estimate Eq. (3) and obtain estimates of neighborhood payday store concentration. The first are Census ZIP Code Business Patterns (ZCBP) data, and the second are ZIP code socioeconomic characteristics from the 2000 Census. The ZCBP data have been published annually since 1994, and measure the number of establishments, number of employees and total payroll by ZIP and detailed industry code.¹⁹ Two North American Industrial Classification System (NAICS) codes in particular capture payday lending establishments:

- (1) *Nondepository consumer lending* (522291): establishments primarily engaged in making unsecured cash loans to consumers.
- (2) *Other activities related to credit intermediation* (522390): establishments primarily engaged in facilitating credit intermediation (except mortgage and loan brokerage; and financial transactions processing, reserve, and clearinghouse activities), including check cashing services and money order issuance services.

In 2008, there were about 14,500 establishments in industry 522291 and just over 20,000 establishments in industry 522390 across the entire U.S. The total number of payday establishments based on the ZCBP may be on the high side (for instance, Stegman (2007) cites industry figures estimating a total of around 25,000 storefronts) because not all check-cashing outlets, especially those in states that prohibit payday lending, necessarily offer payday loans. Also, these six-digit NAICS industries can include other types of businesses besides payday lenders and check-cashers to the extent that they still fit within the industry definition.

Although the ZCBP data provide a noisy measure of payday lending stores in a given ZIP code, my interest lies in the geographic variation of stores rather than in their total number, and therefore the ZCBP should serve the analysis well. Indeed, state-level variation in the number of establishments per person follows expected patterns. For instance, several southern states (Mississippi, South Carolina and Louisiana) have the highest number of payday establishments per person, which is very similar to Prager’s (2009) finding.

Table 1 provides summary statistics from the ZCBP and the 2000 Census data used for the analysis in this section. The sample includes ZIP codes in metropolitan areas of states allowing payday lending throughout the 2006–2012 period (excluding Alaska and Hawaii), with at least one establishment employee, at least 1000

¹⁹ Note that these data exclude information on non-employer firms. For more information on the ZCBP data, see <http://www.census.gov/econ/cbp/index.html>.

Table 1

Descriptive statistics for ZIP codes in states allowing payday lending from 2006 to 2012.

	Mean	Std. Dev.	10th Percentile	50th Percentile	90th Percentile	N
<i>ZIP code business patterns data</i>						
Number of payday establishments ^a	2.4	4.0	0	1	7	8666
Total number of establishments ^b	409	454	27	243	1028	8666
Annual payroll per employee (\$, 000s) ^c	25	11	16	23	36	8666
<i>Census 2000 ZIP code characteristics</i>						
Population	17,242	15,718	1898	12,786	39,006	8666
Median family income	52,362	19,151	32,303	49,298	75,206	8666
Median house value (\$, 000s)	127	96	57	101	215	8663
Homeownership rate	0.71	0.18	0.47	0.76	0.89	8666
Prop 25 + years w/ at least a B.A.	0.22	0.15	0.08	0.18	0.44	8666
Share of adults under 40 years old	0.42	0.10	0.32	0.41	0.53	8666
Single-mother share of families	0.097	0.060	0.044	0.081	0.168	8666
Asian share of population	0.026	0.055	0.001	0.008	0.065	8666
Black share of population	0.10	0.18	0.002	0.026	0.32	8666
Hispanic share of population	0.11	0.18	0.007	0.030	0.33	8666

^a Number of establishments as of March 2008 in industries with NAICS code 522291 or 522390.^b As of 2000.^c As of 2000, calculated as aggregate ZIP code payroll divided by aggregate ZIP code number of employees for establishments in that ZIP code.

residents, and no more than 50% of the population residing in group quarters. The sample is comprised of 8666 ZIP codes, with an average population of just over 17,000 per ZIP code.

On average, these ZIP codes contain about 400 establishments across all industries, and about 2.4 establishments in the payday lending industries. The median ZIP code, however, contains just one payday industry establishment. The other variables listed help describe the income, wealth and demographic characteristics of the ZIP codes, which may influence the demand for payday loans. Median family income ranges from about \$32,000 at the 10th percentile to over \$75,000 at the 90th percentile. Median home value and the homeownership rate also vary considerably across ZIP codes, as does educational attainment. Finally, as Caskey (2005) notes, previous survey research indicates that payday loan customers tend to be young and also tend to be female. I therefore include the share of adults under the age of 40 and the single-mother share of families as additional predictors of the number of payday lending establishments.

4.2. Socioeconomic determinants of neighborhood payday lender concentration

Table 2a displays negative binomial (similar to Poisson regression) estimates of Eq. (3). As discussed in the introduction, while these results will be used in the next section to help identify the effect of payday loans on financial health, they are of interest in their own right because of concerns about predatory lending and the concentration of payday lenders in minority neighborhoods. With that in mind, I estimate two models, the first leaving out race and ethnic composition variables and the second including them. Each specification allows for a nonlinear relationship between the number of payday industry establishments and median family income, and includes state fixed effects. Standard errors are clustered at the state level.

The second column of Table 2a shows that just one of the three race/ethnicity variables is statistically significant (on Asian share of the population, not on black or Hispanic share). Although the likelihood ratio test statistic rejects the hypothesis that all three minority coefficients are zero, Table 2b shows that the magnitudes of these coefficients are smaller than almost all of the other variables in the model.²⁰ For example, a one standard deviation increase

Table 2a

ZIP-code-level negative binomial regression estimates of the relationship between the number of payday establishments and socio-economic characteristics.

	(1)	(2)
<i>Outcome variable: # PDstores_z</i>		
ln(Population)	0.3752** (0.0361)	0.3540** (0.0373)
ln(Total number of establishments)	1.0996** (0.0604)	1.1050** (0.0626)
Median family income (\$0000s)	1.2151** (0.2814)	1.3417** (0.2169)
(Median family income) ²	-0.2224** (0.0525)	-0.2387** (0.0428)
(Median family income) ³	0.0175** (0.0041)	0.0184** (0.0035)
(Median family income) ⁴	-0.0005** (0.0001)	-0.0005** (0.0001)
ln(Annual payroll per employee)	-0.3639** (0.0380)	-0.3835** (0.0362)
ln(Median home value)	-0.5155** (0.0714)	-0.5534** (0.0720)
Owner-occupancy rate	-0.2914 (0.2292)	-0.3015 (0.2383)
Prop 25 + years w/at least a B.A.	-1.4976** (0.2712)	-1.4541** (0.2705)
Share of adults under 40 years old	0.9469** (0.2251)	0.8077** (0.2389)
Single-mother share of families	1.1592* (0.4881)	1.3026** (0.4847)
Asian share of population		0.3600 (0.1629)
Black share of population		0.0891 (0.1400)
Hispanic share of population		0.2816 (0.1655)
Constant	-7.6807** (0.5248)	-7.5767** (0.5366)
log-likelihood	-12154.14	-12148.22
N	8663	8663

Standard errors clustered at the state level. Both models include state-level fixed effects.

* $p < 0.05$.** $p < 0.01$.

in the Black population share (an increase of 18 percentage points) is associated with an increase in the number of payday stores of just 1.6%, and the 95% confidence interval rejects estimates larger than 7%. For the Hispanic population share, the estimated impact is just 5%, although the 95% confidence interval includes magnitudes up

²⁰ The squared correlation between predicted and actual number of payday loan stores (a pseudo-R-squared) is 62% in both models, so the racial composition variables do not add any explanatory power based on this measure.

Table 2b

Estimated impact of a one standard deviation in explanatory variable on number of payday establishments, all else constant, based on estimated coefficients from Table 2a (column 2).

Explanatory variable	Impact (%)
ln(Population)	48.5
ln(Total number of establishments)	350.4
Median family income ^a	20.6
ln(Annual payroll per employee)	–12.2
ln(Median home value)	–26.2
Owner-occupancy rate	–5.2
Prop 25 + years w/at least a B.A.	–19.5
Share of adults under 40 years old	8.0
Single-mother share of families	8.2
Asian share of population	2.0
Black share of population	1.6
Hispanic share of population	5.2

^a Effect was calculated using a one standard deviation increase (\$20,000) from \$40,000 (25th percentile of median family income).

to 12%.²¹ In contrast, home values, educational attainment and median family income have much larger estimated impacts. Payroll per worker (the wages of local employees, not necessarily residents of the ZIP code) also appears to have a strong relationship with the number of payday lenders. Interestingly, a rise in median family income from \$40,000 to \$60,000 appears to have a positive effect on the number of payday establishments, but that effect is of course conditional on local wages, home values, educational attainment and the other variables in the model. These other income and wealth measures (including educational attainment) have strong negative effects on payday lender presence.

Finally, to identify high-concentration ZIP codes or “payday ZIPs”, I generate predicted values and plug them into Eq. (4). To obtain the predicted values, I use a more concise regression model with only the scale, income and wealth variables (including educational attainment), and omit state fixed effects so that I can generate out-of-sample predictions for ZIP codes in states that prohibit payday lending.

Analysis of the in-sample predictions suggests that the model does a good job of predicting the number of ZIP code payday stores. The correlation between predicted and actual values is 0.73, and the distribution of the predicted values closely resembles that of the actual values. The 10th, 50th and 90th percentiles of the predicted distribution are 0.06, 1.09 and 6.9, respectively, compared to 0, 1 and 7 for the distribution of actual values.

4.3. Are payday lending laws binding?

The ZCBP data suggest that state payday lending restrictions have had bite in recent years. Fig. 2 indicates that the state-level concentration of payday lending stores is considerably higher in states that permit payday lending, whereas the concentration of establishments in another nondepository consumer credit industry (522292 – real estate credit) is much more similar across the two groups of states. (As noted above, because the industry codes used to identify payday lenders include non-payday-lending establishments, the concentration of establishments in these industries is not expected to be zero in payday-prohibiting states.)

Furthermore, Fig. 3 indicates that the concentration of payday lending stores declined by about 50% from 2006 through 2011 in

the states that passed laws prohibiting payday lending during this period (black bars). In 2007, the concentration of payday lending stores in these states was almost double the concentration in states where payday lending was prohibited throughout the period. But by 2011, the concentrations in these two groups of states were nearly identical. To be sure, there was a slight down trend in concentration in states that allowed payday lending throughout the period, but this trend was not nearly as pronounced as for the states that implemented bans or significant restrictions.

4.4. Do people cross state borders to get payday loans?

One key assumption for estimating Eq. (2) is that people who live near a state that allows payday lending actually travel across borders to get a payday loans. As Melzer (2011) discusses, considerable anecdotal evidence suggests traveling across the border to access payday lenders is fairly commonplace.²² In addition, Melzer (2011) provides empirical evidence of increased payday store concentration in ZIP codes of states that allow payday lending and border states that prohibiting payday lending. Table 3 shows results of a similar analysis using the ZCBP data, which covers all states rather than just the ten states for which Melzer compiled payday lender location data. I run negative binomial regressions similar to (3), but include dummy variables for whether the ZIP code is within 25 miles of a ZIP code in a payday prohibiting state, and a general border dummy variable:

$$E(PDstores_z) = \exp\{\alpha_0 + \alpha_1 \ln(pop_z) + \alpha_2 \ln(estab_z) + \mathbf{x}'_z \beta + \delta(near\ prohibiting\ state_z) + \lambda(border_z) + \theta(rural_z)\} \quad (5)$$

I also include both rural and urban ZIP codes (of payday-allowing states) in the regression sample since payday lenders might also increase their presence in rural ZIP codes on borders, and I include a rural indicator variable in the regression.

The first column of Table 3 shows a statistically significant 12% increase in the number of payday stores in ZIP codes within 25 miles of a ZIP code in a payday prohibiting state relative to other ZIP codes in the same state. The second column regression employs a quadratic in distance to other states, rather than the border dummy variable, and the point estimate is slightly larger (almost 15%). The final column presents an estimate using only ZIP codes that are near a state border (that is why the sample size drops significantly). This specification identifies δ more stringently; the estimate indicates that ZIP codes near prohibiting states have 18% more payday lending stores, on average, relative to other border ZIP codes in the same state that are near other payday-allowing states. Notably, this estimate is quite similar in magnitude to Melzer's, and provides supportive evidence for the notion that people cross borders to obtain payday loans.

5. Do payday loans affect financial health?

5.1. Consumer credit record data and outcome measures

The credit record data used in this paper come from the Federal Reserve Bank of New York Consumer Credit Panel/Equifax (CCP), a nationally representative longitudinal database with detailed information at a quarterly frequency on consumer debt and loan performance derived from consumer credit records maintained by Equifax, one of the nation's three major credit bureaus.²³ The

²¹ I also tried more flexible specifications of the control variables (binned into quintiles), but the coefficients on the race population share variables were essentially unchanged. Excluding the demographic and income controls, the impact estimates for Black and Hispanic population shares are considerably larger at 12% and 16%, respectively.

²² Additionally, for example, at the time of writing this paper Pennsylvania lawmakers were considering a law to allow payday lending in the state motivated in part by reports that Pennsylvania residents were getting payday loans anyway by traveling to other states.

²³ Lee and Van der Klaauw (2010) provide a detailed discussion of these data.

Table 3

Negative binomial estimates of the effect of being near a payday prohibiting state on the number of ZIP code payday lending establishments.

	(1)	(2)	(3)
<i>Outcome variable: # PDstores_z</i>			
ZIP code within 25 miles of payday prohibiting state	0.1239* (0.0618)	0.1486** (0.0554)	0.1879* (0.0853)
ZIP code within 25 miles of another state	0.0352 (0.0438)		
Distance (in miles) to another state		−0.0003 (0.0012)	
Squared distance to another state		0.0000 (0.0000)	
ln(L)	−17,342	−17,342	−4310
N	20,327	20,327	5744

Notes: Standard errors in parentheses clustered at the state level. Sample for the first two regressions are all ZIP codes in payday-allowing states; the third regression includes only those ZIP codes within 25 miles of a ZIP code in another state. All regressions include state fixed effects, an indicator for urban/rural status of the ZIP code, and the set of controls used for the regression shown in column 2 of Table 2a.

* $p < 0.05$.

** $p < 0.01$.

CCP can be used to compute both nationally representative estimates at the end of a given quarter as well as to track changes in debt use and loan performance for a given individual over time.²⁴

The CCP includes each person's year of birth, and the ZIP and census tract codes of their mailing address each quarter. With these geographic codes, I am able to merge the ZIP-level predictions on payday lender concentration and census tract level socio-economic characteristics from the 2000 Census to use as controls (in lieu of individual demographic data beyond age). Finally, in addition to detailed credit account information, the CCP also provides a credit score for most individuals, updated each quarter.²⁵ The Equifax credit score, like other credit scores, essentially summarizes the information in one's credit report and is based on a model that predicts the likelihood of becoming 90 days or more delinquent over the next 24 months. Credit scoring models include numerous factors such as the frequency and degree of delinquent accounts, the amount of credit being utilized, and recent applications for credit. Factors that are *not* considered include income and employment history as such information is not available in credit reports. The credit score ranges from 280 to 850, with a higher score corresponding to lower relative risk.

I drew three independent cross-sections of the data for 2007, 2009 and 2012, and in each cross section individuals are observed at both the beginning and end of the year.²⁶ Table 4 provides summary statistics for the four outcomes examined in the regressions: credit score at the end of the year, the probability of a score drop of 25 points or more over the course of the year, the probability of a new delinquency by the end of the year, and the probability of hitting one's credit limit on credit cards (general purpose and retail cards) by the end of the year conditional on utilizing less than 75% at the start of the year.²⁷ Panel A shows statistics for the full sample of consumers. The average credit score is almost 700, while the probability of

²⁴ All individuals in the database are anonymous: names, street addresses and social security numbers have been suppressed. Individuals are distinguished and can be linked over time through a unique, anonymous consumer identification number assigned by Equifax.

²⁵ Some individuals at a point in time are not "scoreable" because of a limited credit history. The Equifax credit score is similar to the well-known FICO risk score. For more details, see https://help.equifax.com/app/answers/detail/a_id/244/related/1.

²⁶ I start with 2007 as opposed to 2006 because it comes after the FDIC guidance on the "rent-a-bank" model. Each cross section is an independent 25% of the full CCP.

²⁷ FICO considers score changes of less than 20 points as indicative of stability. See for instance <http://bankinganalyticsblog.fico.com/2010/07/how-much-do-fico-scores-change-over-time.html>.

experiencing a score decline of 25 points or more is nearly 17%. The likelihood of a new delinquency is about 9%.²⁸ Finally, the probability of reaching or exceeding one's credit card limit is just 2.4%.²⁹

Panel B restricts the sample to those living in "payday ZIPs" (see Section 3). This restriction cuts the sample roughly in half, but the credit record statics are quite similar to the full sample. In other words, people living in the urban areas where payday lenders most likely to be highly concentrated are, on average, quite similar to the broad population in terms of their credit record characteristics. Finally, Panel C restricts the sample further to borrowers likely to have high demand for payday loans. Based on information from BST, the sample includes relatively young borrowers age 25–49, with no more than a \$5000 cumulative credit limit on credit cards at the start of the year, and who inquired about credit at least twice in the prior year.³⁰ Notably, the sample size drops by almost 90%, which seems appropriate given estimates that only about 5–10% of the population uses payday loans in a given year. This group has considerably lower credit scores than the general population, and are more likely to experience a score drop in excess of 25 points. The probability of a new delinquency is more than double what it is for the general population, and the probability of maxing out their credit card lines is substantially higher as well. The regressions will test whether access to payday loans improves or worsens these outcomes.

Table 5 shows the distribution of ZIP codes and payday ZIPs across payday allowing and prohibiting states over time in 2007, 2009 and 2012. Between 2007 and 2009, about 800 ZIP codes move from the allowed group to the prohibited group, an increase of about 20%. As noted earlier, I define payday ZIPs as ZIP codes with a predicted payday lender concentration in the top one-third of all ZIP codes. Thus, of the 13,613 ZIP codes initially in the sample, one-third or 4535 are payday ZIPs, and in 2007, 3408 of these ZIPs were in payday allowing states and 1127 were in payday prohibiting states.³¹ By 2012, the number of payday ZIPs in prohibiting states increased by about 24% to 1399.

The last row of Table 5 shows the number of payday ZIPs in prohibiting states within 25 miles of a payday allowing state. There were 250 such ZIP codes in 2007, rising to just 272 by 2012. The steadiness of this number masks the fact that some ZIP codes fall out of this group over time (for example ZIP codes in Massachusetts near the border with New Hampshire lost access in 2009 when New Hampshire implemented a ban), and others enter (for example border ZIP codes in Arkansas that maintained access to payday loans through Tennessee despite the state's ban).

5.2. The effect of payday loans on credit scores

Table 6 presents estimates of the effect of payday loans on credit scores. The first column presents standard state-level difference-in-difference estimates of Eq. (1). The second column presents

²⁸ The CCP does not have account level information, but rather provides information on all accounts rolled up to the credit category level for ten different types of credit (e.g. credit cards, auto loans, etc.), such as the number of open accounts and the number of accounts in good standing. I identify individuals with a new delinquency as those who have at least one non-current account at the end of the year in a credit category in which they had at least one open account in that category at beginning of the year with all open accounts in the category in good standing.

²⁹ Sample sizes are smaller in the 3rd and 4th columns because of the additional restrictions placed when defining these variables (e.g. having at least one open and clean account at the start of the year).

³⁰ Credit inquiries refer to specific instances when a lender requests a credit report for an individual because that individual was seeking a new credit account. Inquiries do not include instances when lenders pull credit reports without an individual's consent in order to conduct targeted marketing campaigns or for routine risk management procedures. Inquiries also do not include instances when a consumer requests his or her own credit report for monitoring purposes.

³¹ Since the District of Columbia (DC) allowed payday loans for most of 2007, DC is considered an allowing state for 2007.

Table 4
Credit record data summary statistics.

	Score ^a	25 point or more score drop	New delinquency ^b	Max out credit lines ^c
<i>A. Full sample</i>				
Mean	697.1	0.166	0.090	0.024
Std. dev.	110.3	0.372	0.286	0.153
N	4,871,323	4,871,323	4,487,660	3,637,112
<i>B. Individuals living in payday ZIPs^d</i>				
Mean	688.6	0.168	0.095	0.026
Std. dev.	112.1	0.374	0.293	0.159
N	2,389,485	2,389,485	2,173,154	1,724,136
<i>C. Individuals living in payday ZIPs and likely to have high propensity to use payday loans^e</i>				
Mean	572.6	0.248	0.230	0.105
Std. dev.	91.3	0.432	0.421	0.307
N	281,943	281,943	222,004	102,751

Notes: Statistics for pooled 2007, 2009 and 2012 cross sections from the FRBNY CCP/Equifax; in each cross section, individuals are observed at both the beginning and end of year.

^a Equifax risk score measured at end of year.

^b Was 30 days or more late on at least one account by the end of the year in at least one credit category, with at least one open account in that category at the beginning of the year and all accounts in that category current at the beginning of the year.

^c Borrowers who reach or exceed credit limit on either general purpose credit cards or retail store cards by the end of year, conditional on utilizing no more than 75% of their limits at the beginning of the year.

^d "Payday ZIPs" refer to ZIP codes with a high predicted concentration of payday lenders (see text in Section 3 for more).

^e Consumers living in payday ZIPs age 25–49, with no more than \$5000 cumulative credit limit on credit cards at the start of the year, and had at least 2 inquiries in the prior year; traits chosen based on findings from Bhutta et al. (forthcoming).

Table 5
Number of ZIP codes in payday allowing and prohibiting states.

	2007		2009		2012	
	PDL allowed	PDL prohibited	PDL allowed	PDL prohibited	PDL allowed	PDL Prohibited
Number of ZIP codes meeting initial sample selection criteria ^a	9467	4146	9092	4521	8666	4947
"Payday ZIPs" ^b	3,408	1,127	3,292	1,243	3,136	1,399
Share	36%	27%	36%	27%	36%	28%
"Payday ZIPs" within 25 miles of a payday-allowing state	n/a	250	n/a	270	n/a	272

^a See Section 4.1 of text for description of sample selection criteria.

^b See Section 3.3 of text for description of how payday ZIPs are predicted.

within state-by-year estimates following Melzer (2011). As described in Section 3.1, the number of observations is smaller in the first column because of the exclusion of individuals in "treated" border ZIP codes. The last column re-estimates Eq. (1) without excluding individuals in "treated" border ZIP codes, and thus provides an estimate that is essentially a weighted average of the first two columns. (Note that the control variables have been suppressed to conserve space; coefficient estimates for the control variables, along with other estimates from alternative specifications and sample stratifications can be found in an online Appendix).

Panel A provides estimates using a largely unrestricted sample of consumers. The first two estimates of the effect of access to payday loans are both small, and the signs are in opposite directions (as noted earlier, *Unemployment Shock* has been defined to have a mean of zero such that the coefficient on *Access* is the same as it would be in a regression without the interaction term). The combined estimate in the third column is essentially a precise zero: access to payday loans has a negative effect on credit scores of less than 0.4 points (the average credit score, as shown in Table 4, is nearly 700 points with a standard deviation of 110 points), and the standard error is just 1.6 points.

Panel B restricts the sample to individuals living in payday ZIPs – observationally equivalent ZIP codes across states that have been empirically predicted to be the types of places where payday lenders locate. The coefficients on access to payday loans are essentially unchanged relative to Panel A.

Panel C further limits the sample to people likely to have a high propensity to use payday loans as defined earlier in

Section 5.1. This is the panel where I expect to see the largest coefficients if payday loans do indeed affect credit scores. All three coefficient estimates on *Access* are positive, but still quite small. In the third column, the point estimate indicates an effect of just over two points, and the 95% confidence interval rules out positive effects in excess of about five points, which is basically inconsequential.³²

Among the coefficients on the interaction with unemployment shocks, only one of the estimates (Panel B, column 2) is statistically significant. In Panel C, the interaction estimates in the first two columns go in opposite directions. The overall estimate in column 3 is negative, indicating that access to payday loans exacerbates the negative effect of unemployment shocks, but it is not statistically significant. The coefficient on *Unemployment Shock* is statistically significant, but rather small, which probably reflects the fact that county unemployment is a rather noisy proxy for individuals' employment status and thus this test may be too underpowered.

5.3. The effect of payday loans on score drops, delinquency and credit line management

Tables 7–9 are structured identically to Table 6. Table 7 presents estimates of the effect of payday loans on the incidence of credit score declines in excess of 25 points. Again, the point

³² In the online Appendix, I also present estimates restricting the sample to high propensity individuals in all ZIP codes, not just payday ZIP codes.

Table 6
Estimates of the effect of payday loans on credit scores.

Outcome variable: Equifax Risk Score	(1) ^a	(2)	(3)
A. Full sample^b			
Access to PDL's Indicator ^c	2.4745 (2.4385)	-1.2008 (1.6169)	-0.3896 (1.5655)
(County Unempl Shock) × (Access to PDL's)	-0.2291 (0.2663)	0.5499 (0.4806)	-0.0376 (0.2953)
County unemployment shock (mean = 0)	-1.9002** (0.3350)	-2.6675** (0.5976)	-1.9140** (0.3804)
R-squared	0.234	0.235	0.234
N	4,517,779	4,871,323	4,871,323
B. Sample: individuals living in payday ZIPs^d			
Access to PDL's Indicator ^c	1.6805 (2.1886)	-1.0623 (1.8747)	-0.3991 (1.7073)
(County Unempl Shock) × (Access to PDL's)	0.0548 (0.3145)	1.2087* (0.5591)	0.2526 (0.3373)
County Unemployment Shock (mean = 0)	-2.1025** (0.3865)	-3.1638** (0.6290)	-2.1710** (0.3953)
R-squared	0.236	0.236	0.236
N	2,245,672	2,389,485	2,389,485
C. Sample: individuals living in payday zips with high propensity to use payday loans^d			
Access to PDL's Indicator ^c	2.8779 (2.6743)	1.9452 (1.3839)	2.1561 (1.2834)
(County Unempl Shock) × (Access to PDL's)	-0.3089 (0.3520)	0.1150 (0.5036)	-0.2478 (0.3170)
County unemployment shock (mean = 0)	-1.8234** (0.3718)	-2.4510** (0.5596)	-1.8948** (0.3634)
R-squared	0.052	0.053	0.052
N	264,986	281,943	281,943
Year FE	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Region × Year FE	Yes		Yes
State × Year FE		Yes	

Notes: Standard errors clustered at state level in parentheses. All regressions control for age, county house price growth, and census tract characteristics including median family income, median house price, homeownership rate, educational attainment, racial composition, and family structure.

^a Specification (1) excludes individuals living in border ZIP codes where access to payday loans differs from the rest of the state due to close proximity to a payday-allowing state.

^b Full sample excludes individuals living in rural areas, and in ZIP codes with fewer than 1,000 people, no business establishments or with more than 50% of the population in group quarters.

^c Access to payday loans is an indicator variable equal to one for individuals living in states that allow payday lending (in that year) or in ZIP codes bordering states that allow payday loans. The *county unemployment shock* variable is re-centered to have a mean of zero, and thus the estimated coefficient on *access* is the same as in a regression excluding the interaction term.

^d See definitions in notes to Table 4.

* $p < 0.05$.

** $p < 0.01$.

estimates on *Access* are all close to zero and insignificant. In Panel C, the third column estimate indicates an effect of payday loan access on the likelihood of a large score drop of less than 0.1 percentage point on an average rate of nearly 25%, with a standard error of just 0.55 percentage points.

However, the interaction term in Panel C is statistically significant in all three specifications, indicating that access to payday loans might help mitigate the effect of unemployment shocks. However, this interpretation is complicated by the fact that the coefficient on the main unemployment shock variable is relatively modest in size (insignificant in column 1, and smaller than the interaction term in column 3). It is also worth noting, as shown in the expanded set of tables in the Appendix, that the interaction term is not significant in regressions using a more restrictive subsample of people with four or more inquiries in the past year (as opposed to two or more), or in regressions with alternative subsamples (high propensity consumers in any ZIP code, and consumers living in low income neighborhoods). Taken together, I do not see strong evidence that payday loans affect financial well-being.

Table 7
Estimates of the effect of payday loans on score drops of 25 points or more.

Outcome variable: 1(Δ score \leq -25 points)	(1) ^a	(2)	(3)
A. Full sample^b			
Access to PDL's indicator ^c	-0.0060 (0.0041)	0.0025 (0.0024)	0.0006 (0.0025)
(County Unempl Shock) × (Access to PDL's)	0.0006 (0.0006)	-0.0003 (0.0008)	0.0002 (0.0006)
County unemployment shock (mean = 0)	0.0015* (0.0006)	0.0028** (0.0009)	0.0017* (0.0006)
R-squared	0.014	0.014	0.014
N	4,517,779	4,871,323	4,871,323
B. Sample: individuals living in payday ZIPs^d			
Access to PDL's Indicator ^c	-0.0070 (0.0042)	0.0028 (0.0026)	0.0006 (0.0028)
(County Unempl Shock) × (Access to PDL's)	0.0002 (0.0007)	-0.0015 (0.0011)	-0.0005 (0.0008)
County unemployment shock (mean = 0)	0.0014 (0.0008)	0.0034** (0.0011)	0.0019* (0.0008)
R-squared	0.014	0.014	0.014
N	2,245,672	2,389,485	2,389,485
C. Sample: individuals Living in Payday ZIPs with High Propensity to Use Payday Loans^d			
Access to PDL's indicator ^c	-0.0113 (0.0079)	0.0040 (0.0058)	0.0008 (0.0055)
(County Unempl Shock) × (Access to PDL's)	-0.0017* (0.0008)	-0.0045* (0.0020)	-0.0028* (0.0011)
County unemployment shock (mean = 0)	0.0005 (0.0009)	0.0071** (0.0020)	0.0020* (0.0010)
R-squared	0.005	0.005	0.005
N	264,986	281,943	281,943
Year FE	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Region × Year FE	Yes		Yes
State × Year FE		Yes	

Notes: Standard errors clustered at state level in parentheses. Outcome variable is an indicator variable for a drop in the Equifax Risk Score of 25 points or more during the year. All regressions control for age, county house price growth, and census tract characteristics including median family income, median house price, homeownership rate, educational attainment, racial composition, and family structure. For notes (a), (b), (c) and (d) see Table 6.

* $p < 0.05$.

** $p < 0.01$.

Tables 8 and 9 present estimates of the effect of access to payday loans on new delinquencies and the likelihood of hitting or exceeding one's credit card limits ("credit line management"), respectively. In these tables, once again there is virtually no evidence that payday loans have a substantive effect on credit record outcomes. In Panel C of Table 8, the estimated coefficients on *Access* are all in the direction of payday loans mitigating delinquency, but all are less than one percentage point, and the standard errors basically rule out effects larger than two percentage points. In Table 9, the sign of the estimated coefficients on *Access* varies across the specifications and panels, and the magnitudes again are very close zero in general.

6. Discussion

Unlike previous research that finds both substantive positive and negative effects of payday loans on financial well-being, the empirical results in this paper suggest little connection. Differences in identification strategies could play some role in generating different results. For example, Skiba and Tobacman (2011) use data

Table 8
Estimates of the effect of payday loans on delinquency.

Outcome variable: 1(new delinquency)	(1) ^a	(2)	(3)
A. Full sample^b			
Access to PDL's indicator ^c	-0.0065 (0.0035)	-0.0007 (0.0025)	-0.0016 (0.0024)
(County Unempl Shock) × (Access to PDL's)	0.0013 [*] (0.0006)	-0.0007 (0.0009)	0.0007 (0.0006)
County unemployment shock (mean = 0)	0.0031 ^{**} (0.0005)	0.0049 ^{**} (0.0010)	0.0034 ^{**} (0.0006)
R-squared	0.029	0.029	0.029
N	4,160,618	4,487,660	4,487,660
B. Sample: individuals living in payday ZIPs^d			
Access to PDL's indicator ^c	-0.0052 (0.0043)	-0.0003 (0.0028)	-0.0012 (0.0027)
(County Unempl Shock) × (Access to PDL's)	0.0010 (0.0006)	-0.0016 (0.0012)	0.0003 (0.0007)
County unemployment shock (mean = 0)	0.0032 ^{**} (0.0006)	0.0055 ^{**} (0.0012)	0.0036 ^{**} (0.0007)
R-squared	0.028	0.029	0.028
N	2,043,021	2,173,154	2,173,154
C. Sample: individuals living in payday zips with high propensity to use payday loans^d			
Access to PDL's indicator ^c	-0.0006 (0.0098)	-0.0084 (0.0058)	-0.0073 (0.0061)
(County Unempl Shock) × (Access to PDL's)	0.0009 (0.0012)	-0.0034 (0.0018)	0.0000 (0.0011)
County unemployment shock (mean = 0)	0.0041 ^{**} (0.0012)	0.0103 ^{**} (0.0021)	0.0051 ^{**} (0.0012)
R-squared	0.010	0.010	0.010
N	208,905	222,004	222,004
Year FE	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Region × Year FE	Yes		Yes
State × Year FE		Yes	

Notes: Standard errors clustered at state level in parentheses. Outcome variable is an indicator for having at least one new delinquency at the end of the year, where new delinquency is defined as being 30 days or more late on at least one account in at least one credit category, conditional on having at least one open account in that category at the beginning of the year and all accounts in that category current at the beginning of the year. All regressions control for age, county house price growth, and census tract characteristics including median family income, median house price, homeownership rate, educational attainment, racial composition, and family structure. For notes (a), (b), (c) and (d) see Table 6.

^{*} $p < 0.05$.

^{**} $p < 0.01$.

from a payday lender on a large set of applicants, exploit a discontinuity in the approval process, and find that payday loans increase the likelihood of (chapter 13) bankruptcy. But, as they point out, the estimated effect pertains to individuals near the discontinuity (those nearly rejected for a payday loan) and may have limited external validity. Morse (2011) also studies a particular situation, finding that access to payday loans mitigates the effect of natural disasters on foreclosures. These results may reflect the beneficial effects of access for a group that does not typically use payday loans. And Carrell and Zinman (2013) provide evidence that payday loans might cause mental or financial stress, but they focus only on members of the military. In contrast, the estimates in the current paper may better reflect the effect of payday loans on credit record outcomes among the average credit constrained individual.

One advantage of using credit scores is that they are sensitive to all types of credit record events, including events less severe than bankruptcy or foreclosure. Thus, finding a null effect is meaningful, and suggests that payday loans, on average, are financially neither

Table 9
Estimates of the effect of payday loans on credit line management.

Outcome variable: 1(maxed out credit card lines)	(1) ^a	(2)	(3)
A. Full sample^a			
Access to PDL's indicator ^c	-0.0039 [*] (0.0015)	0.0001 (0.0007)	-0.0006 (0.0009)
(County Unempl Shock) × (Access to PDL's)	0.0001 (0.0002)	-0.0004 (0.0002)	-0.0001 (0.0002)
County unemployment shock (mean = 0)	0.0006 [*] (0.0002)	0.0014 ^{**} (0.0003)	0.0007 ^{**} (0.0002)
R-squared	0.014	0.014	0.014
N	3,369,687	3,637,112	3,637,112
B. Sample: individuals living in payday ZIPs^d			
Access to PDL's indicator ^c	-0.0041 [*] (0.0015)	0.0007 (0.0008)	-0.0002 (0.0010)
(County Unempl Shock) × (Access to PDL's)	0.0002 (0.0003)	-0.0004 (0.0003)	-0.0000 (0.0002)
County unemployment shock (mean = 0)	0.0006 [*] (0.0003)	0.0015 ^{**} (0.0004)	0.0007 [*] (0.0003)
R-squared	0.014	0.014	0.014
N	1,620,910	1,724,136	1,724,136
C. Sample: individuals living in payday ZIPs with high propensity to use payday loans^d			
Access to PDL's indicator ^c	0.0111 (0.0096)	-0.0005 (0.0075)	0.0020 (0.0063)
(County Unempl Shock) × (Access to PDL's)	0.0025 (0.0023)	0.0010 (0.0014)	0.0018 (0.0020)
County unemployment shock (mean = 0)	-0.0012 (0.0020)	0.0005 (0.0018)	-0.0008 (0.0019)
R-squared	0.007	0.008	0.007
N	96,540	102,751	102,751
Year FE	Yes	Yes	Yes
State FE	Yes	Yes	Yes
Region × Year FE	Yes		Yes
State × Year FE		Yes	

Notes: Standard errors clustered at state level in parentheses. Outcome variable is an indicator for reaching or exceeding the total credit limit across all general purpose credit cards or all retail store cards by the end of the year, conditional on utilizing no more than 75% of their limits at the beginning of the year. All regressions control for age, county house price growth, and census tract characteristics including median family income, median house price, homeownership rate, educational attainment, racial composition, and family structure. For notes (a), (b), (c) and (d) see Table 6.

^{*} $p < 0.05$.

^{**} $p < 0.01$.

destabilizing nor greatly beneficial relative to a world without payday loans.³³ On the one hand, this could be because alternatives to payday loans yield roughly similar positive or negative outcomes. For example, in the absence of payday loans consumers may instead bounce checks, as Zinman (2010) and Morgan et al. (2012) find, which might be similarly destabilizing. On the other hand, it could simply be that both the potential risks and benefits of payday loans are quite limited because they are small and unsecured.

Finally, one of my specifications follows the identification strategy in Melzer (2011), who finds that households with access to payday loans report having substantially greater difficulty paying their mortgage, rent or other bills relative to similar households without access. Perhaps one way to reconcile the null results in this paper with Melzer's results is that the self-reported outcomes he studies may be picking up psychological strain associated with

³³ The null effects I find might contrast more directly with Morgan et al. (2012), who find that access to payday loans reduces complaints against lenders which could be interpreted as evidence that payday loans help consumers better manage their other obligations and thereby avoid dunning.

paying off a costly payday loan, but such stress does not progress into actual derogatory items on credit records. In addition, I study a different time period and more states where payday lending is prohibited; these differences could also play a role in generating different results.

7. Conclusion

Strong growth in the payday loan market since the late 1990s has spurred a debate about the risks and benefits of payday loans. Academic research on this question has been inconclusive. Given the potentially more active regulatory environment following the 2010 Dodd-Frank Act and establishment of the CFPB, additional research is needed to better understand the payday loan market and its effects on consumers' financial well-being.

In this paper, I draw on nationally representative panel data comprised of individual credit records, as well as Census data on the location of payday loan shops at the ZIP code level, to test whether payday loans affects consumers' financial health, using credit scores and score changes, as well as other credit record variables, as measures of financial health. In order to identify the effect of payday loans, I take advantage of geographic and temporal variation in access arising from differences in state lending laws. In addition to a standard difference-in-difference identification strategy, I also follow Melzer's (2011) novel strategy of exploiting within-state variation in access to payday loans due to differences in the proximity of ZIP codes in states that prohibit payday lending to states that allow payday lending.

Overall, I find little to no effect of access to payday loans on credit scores and other credit record outcomes. The results contrast with much of the previous research that finds payday loans could have large effects on financial well-being, but could reflect differences in the time period studied, outcomes analyzed, or empirical strategies that identify the effect of payday loans off of different marginal borrowers. The results here are more in line with those in Bhutta et al. (2013), which uses credit record data matched to payday loan applicant data from a large payday loan company, exploits a discontinuity in the payday loan approval process, and finds that getting a payday loan has no effect on credit scores or other credit record outcomes.

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Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <http://dx.doi.org/10.1016/j.jbankfin.2014.04.024>.

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WORKING PAPER

THE CASE AGAINST NEW RESTRICTIONS ON PAYDAY LENDING

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of the Mercatus Center at George Mason University.

The Case Against New Restrictions on Payday Lending

Todd J. Zywicki¹

In the wake of the financial crisis, Congress and federal regulators have moved aggressively to impose new regulations on a variety of consumer credit products. To date, Congress has focused on mortgages (the primary cause of the crisis) and credit cards, which have seen record-high default rates in recent months.

But Congress is also considering new regulations on non-traditional lending products, such as payday lending—although there is no evidence that such products were related in any way to the financial crisis. The principal legislation is H.R. 1214 (the Payday Loan Reform Act of 2009), which, if enacted, would limit the charge for a single-payment loan to an effective 391 percent annual rate (\$15 per \$100) for a two-week loan. H.R. 1214 also purports to limit borrowers to one loan at a time from a single lender, prohibit rollovers, and limit borrowers to one extended repayment plan every six months. Economic theory and empirical evidence strongly suggest that these paternalistic regulations would make consumers worse off, stifle competition, and do little to protect consumers from concerns of overindebtedness and high-cost lending.

Payday lending, known in earlier eras as “salary lending” or “wage-assignment lending,” has been around in one form or another for over a century, serving as a valuable source of short-term, small-amount lending to wage earners with steady employment but a critical need for short-term emergency funds. Since their inception, regulators have expressed concern about the apparent high cost of short-term, small loans and have tried to regulate their terms as well as those of other forms of consumer credit. As a result,

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much is known about the effect of regulation on borrowers and consumer lending markets, and particularly the lower- and middle-income borrowers who are the ostensible users of these loans.

Economic research strongly supports two basic conclusions about payday lending: First, those who use payday lending do so because they have to, not because they want to. They use payday lending to deal with short-term exigencies and a lack of access to payday loans would likely cause them substantial cost and personal difficulty, such as bounced checks, disconnected utilities, or lack of funds for emergencies such as medical expenses or car repairs. Those who use payday loans have limited alternative sources of credit, such as pawn shops, bank overdraft protection, credit card cash advances (where available), and informal lenders. Although expensive, payday loans are less expensive than available alternatives. Misguided paternalistic regulation that deprives consumers of access to payday loans would likely force many of them to turn to even more expensive lenders or to do without emergency funds. Although payday loans may lead some consumers to be trapped in a “debt trap” of repeated revolving debt, this concern is not unique to payday lending. Moreover, evidence indicates that those who are led into a debt trap by payday lending are far fewer in number than those who are benefited by access to payday loans.

Second, efforts by legislators to regulate the terms of small consumer loans (such as by imposing price caps on fees or limitations on repeated use “rollovers”) almost invariably produce negative unintended consequences that vastly exceed any social benefits gained from the legislation. Moreover, prior studies of price caps on lending have found that that low-income and minority borrowers are most negatively affected by

the regulations and the adjustments that they produce. Volumes of economic theory and empirical analysis indicate that further restrictions on payday lending likely would prove counterproductive and harmful to the very people such restrictions would be intended to help.

The Economics of Usury Regulation

Substantive regulation has one intended consequence and several unintended consequences. The intended consequence of price caps on interest rates (often referred to as “usury” regulations) is obvious: Usury regulations limit the interest rate of loans actually made to borrowers. If, for example, a legislature caps interest rates at some fixed percentage, legitimate lenders will not charge interest rates above that rate. But there are also several unintended consequences of usury regulations that can be extremely harmful to consumer welfare. The unintended consequences of usury regulations can be summarized under three basic headings: term re-pricing, product substitution, and credit rationing.

Term re-pricing² describes the process by which lenders offset limits of what they can charge on regulated terms by increasing the price of other terms of the loan or related loan products. Term re-pricing is common for many types of consumer credit, but may be less so for payday lending. As discussed in greater detail below, payday loans are very simple and very transparent loans with a small number of terms, especially when compared to especially complex products such as mortgages or credit cards. As a result, payday loans have relatively few terms that can be adjusted in order to make payday lending profitable for the lender. Payday lenders might respond to price caps by increasing the minimum required amount of the loan, so as to amortize the costs of issuing the loan over a higher loan amount.³ Promoting term re-pricing by increasing the average size of the loan can force borrowers to borrow larger amounts than they prefer or can reasonably manage, thereby reducing the usefulness of the loan and, perversely,

² Term re-pricing is sometimes referred to as “evasion,” as they are an effort to “evade” the distorting effects of usury restrictions on credit supply by adjusting unregulated price or other terms of the bargain. See Michael Staten, *The Impact of Credit Price and Term Regulations on Credit Supply*, Harvard University Joint Center for Housing Studies UCC 08-8 (Feb. 2008). For instance, during the period of high interest rates in the 1970s and early 1980s, bank credit card issuers imposed annual fees on credit cards in order to make up for the capping on interest rates below the market level. See Todd J. Zywicki, *The Economics of Credit Cards*, 3 CHAPMAN L. REV. 79, 152 (2000). In days past when most consumer credit was installment credit issued by department stores and other retailers, those retailers could offset their inability to charge market interest rates for store credit by marking up the cost of the goods they sold and thereby burying the cost of the credit losses in an increased cost of goods and services. The practice of charging up-front “points” on home mortgages originated as a mechanism to evade usury ceilings on mortgage interest rates. Lenders may also tie access to credit to the purchase of other goods and services whose price is not regulated. See A. Charlene Sullivan, EVIDENCE OF THE EFFECT OF RESTRICTIVE LOAN RATE CEILINGS ON PRICES OF CONSUMER FINANCIAL SERVICES (Credit Research Ctr. Working Paper No. 36, 1980), They may also raise the price for related services that they provide or reduce the availability of other benefits or services, such as providing fewer free services or shorter operating hours. RICHARD L. PETERSON & GREGORY A. FALLS, IMPACT OF A TEN PERCENT USURY CEILING: EMPIRICAL EVIDENCE (Credit Research Ctr. Working Paper No. 40, 1981) The final result will be to limit any intended benefits of the regulation by circumventing the intended effects of the price controls but to make consumers worse off as a group by encouraging a new pricing system that is less efficient and less transparent than that which would otherwise prevail. Furthermore, by making prices less transparent and more heterogeneous, price controls interfere with competition by making it more difficult for consumers to compare prices and other terms among lenders.

³ See Mark H. Haller & John V. Alviti, *Loansharking in American Cities: Historical Analysis of a Marginal Enterprise*, 21 AM. J. LEGAL HIST. 125, 140 (1977) (noting that interest rate caps on small lending operations in the 1930s led to an increase in minimum loan size and an exiting of the market by legal lenders).

promoting over-indebtedness.⁴ Many states, however, already strictly limit the maximum size of payday loans; thus that option may be unavailable. As a result of the practical and regulatory difficulties of re-pricing terms, product substitution and rationing of formal credit are probably more likely unintended consequences.

Product substitution arises when certain types of substantive regulations (such as interest-rate caps) make it impossible to price a particular consumer loan product in a manner that makes it economically feasible for the lender and borrower to enter into a transaction, but when other lending products are available instead. For instance, price caps on payday lending may make it impossible for a lender to price its risk sufficiently for a borrower to obtain a payday loan, but the borrower instead might be able to obtain a pawn loan. If term re-pricing and product substitution are sufficiently flexible, the end result of the regulatory scheme may be simply to change the mix or composition of credit held by consumers, but not the overall amount of debt.⁵

Finally, regulation may result in rationing of credit to particular borrowers if it is impossible for them to obtain any formal credit on affordable terms. Such rationing could force borrowers to turn to the informal sector (friends and family or illegal loan sharks) or to do without credit. Deprivation of access to credit could cause substantial economic and personal harm if it forces the consumer to go without the means to meet necessary expenses such as medical care, car repairs, living expenses, rent, or work-related

⁴ See ANNE ELLISON & ROBERT FORSTER, *THE IMPACT OF INTEREST RATE CEILINGS: THE EVIDENCE FROM INTERNATIONAL EXPERIENCE AND THE IMPLICATIONS FOR REGULATION AND CONSUMER PROTECTION IN THE CREDIT MARKET IN AUSTRALIA* 38 (2008) (noting that in countries with strict interest rate regulations, “Lenders not only reject borrowers who fail the credit score required for any given lending model, they also set lending minimums at a level at which set up and administration costs are not disproportionate to the sum advanced, with this varying according to the pricing model concerned. Typically however, such levels are set significantly above where high risk low income borrowers would want to borrow. The effect of this policy is either to exclude such borrowers from the credit mainstream or to lead them to borrow more than they might otherwise.”).

⁵ See Richard L. Peterson, *Usury Law and Consumer Credit: A Note*, 38 J. FINANCE 1299 (1983).

expenses such as transportation or appropriate work clothing. Put simply, foreclosing viable options for credit because they are thought to be too expensive does not make the need for credit go away—if a low-income person needs \$500 for a car repair in order to get to work, eliminating payday lending as an option does not eliminate the need for the car repair. It simply forces the borrower to find funds elsewhere or live without the car, which could adversely affect job performance.

The overall impact of usury regulations is to force lenders and borrowers to change the terms, types, and amounts of consumer credit offered when compared to what they would agree to under a voluntary contract. Economists have almost uniformly concluded that forcing these changes in lending and borrowing behavior is harmful to consumer welfare. If, for instance, a consumer truly preferred to borrow from a pawn shop rather than a payday lender, then she would have chosen to patronize the pawn shop in the first place. Regulations that encourage substitution from one type of high-cost credit to another, or encourage a more confusing and opaque price scheme, are unlikely to make consumer better off. Once lenders make adjustments and offsetting behaviors in response to substantive regulations, it is quickly understood that the benefits to be gained by interest-rate caps are small and the costs from the unintended consequences are extremely large. Consumers are left with fewer choices, higher borrowing costs, and less flexibility.

The Growth of The Payday Lending Industry

Payday lending is part of a general category of consumer credit that is often referred to as non-traditional or fringe lending products. Non-traditional consumer

lending products are utilized primarily by younger or lower-income consumers, often with spotty or limited credit or work histories or who otherwise have limited credit choices. Almost by definition, borrowers who make use of non-traditional lending products are those who, for one reason or another, are unable to obtain access to standard mass-marketed lending products like prime mortgages, home equity loans, and credit cards. Like traditional types of lending, such as mortgages or credit cards, non-traditional lending can be misused. But also like traditional credit products, non-traditional credit products serve an important function for most of those who use them. Those who use payday loans frequently have limited options and must choose among an array of options that are relatively unattractive to upper-middle-class borrowers, but payday loans may be relatively attractive compared to the alternatives for those consumers who use them.

Although the name “payday lending” is of relatively recent vintage, the concept of short-term, small-dollar loans to wage-earners is over a century old. Previously known as “salary lenders” or “wage-assignment” lenders, forerunners to payday lending arose in big cities as early as the 1880s as an alternative to pawn shops and “chattel lenders.”⁶ The reasons given by borrowers for needing salary loans presage the reasons why consumers use payday lending today: to deal with unexpected family illness, pay the costs of moving or rent, or the need for funds for vacation or Christmas.⁷ The estimated APR for salary loans was in the neighborhood of 1,000 percent (and the smaller the loan, the higher the interest rate because of the need to defray the fixed costs of lending).⁸

⁶ Haller & Alviti, *supra* note 3, at 127-29. Chattel lenders lent money secured by the borrower’s furniture or other similar personal possessions.

⁷ Haller & Alviti, *supra* note 3, at 128.

⁸ Haller & Alviti, *supra* note 3, at 132.

The payday-loan industry grew rapidly during the past two decades, from under 200 offices in the early 1990s⁹ to over 22,800 offices at the end of 2005.¹⁰ As payday lending has grown, states have moved aggressively to regulate, or even abolish, payday-loan operations in their states.¹¹ The federal government has also passed laws to discourage payday lending to members of the military. Still, despite the intense regulatory attention on payday lending in recent years, only about two percent of the population (9 to 14 million people) use payday lenders in any given year; and the aggregate outstanding principal balance of all payday loans at any given time is about two billion dollars. Payday lending is representative of the general range of non-traditional lending products offered in the economy, credit that is used by a relatively small but identifiable subset of the population.

Compared to mainstream products such as mortgages, auto loans, or credit cards, payday loans are a relatively expensive form of credit. In a typical payday loan, a borrower takes \$300 today with a promise to repay \$350 in two weeks, signing over a post-dated check.¹² The \$50 finance charge works out to be an APR of 435 percent using a standard measure of APR. It should be noted that the use of APR—the “annual percentage rate”—is a bit of a peculiar measure for such a short-term loan. Still, the seemingly high price of payday loans leads many to wonder why consumers use this product, especially those who do so regularly.

Who Uses Payday Loans?

⁹ John P. Caskey, *Payday Lending*, 12 FINANCIAL COUNSELING AND PLANNING 1-14 (2001).

¹⁰ Katherine A. Samolyk, *Payday Lending: Evolution, Issues, and Evidence*, in HOUSEHOLD CREDIT USAGE (Sumit Agarwal & Brent W. Ambrose eds., 2007).

¹¹ Michael A. Stegman, *Payday Lending*, 21 J. ECON. PERSPECTIVES 169 (2007).

¹² As a result, almost all payday loan customers have a bank account and are employed.

Payday-loan customers are low to middle-income, relatively young, and much less likely to own a home than the average American family.¹³ Forty percent of payday-loan customers earn between \$25,000-50,000 per year, and 56 percent between \$25,000-75,000. On average, payday-loan customers have marginally lower incomes than those who revolve balances on credit cards (in one study, over half of those who revolve balances on credit cards earn \$50,000 or above) but tend to have higher incomes than those who borrow from finance companies and substantially higher incomes than those who use pawn shops (64.9 percent of whom earn under \$25,000 per year and 83 percent total who earn under \$50,000 per year).¹⁴ Similar patterns are observed for age: Payday-loan customers tend to be older than pawnshop borrowers and younger than those who revolve credit card balances.

The primary reason why consumers use payday lenders is because they have an urgent need for credit and because no less-expensive option is available. Eliminating payday lending as an option for financially-stressed consumers would likely make them worse off and force them to use inferior and less-preferred types of credit, such as pawnshops, or to go without credit. Those who use payday loans do so because they face limited options in meeting pressing financial needs: Eliminating payday lending would narrow their limited options still further and would be unlikely to make them better off.

Use of payday loans is almost always precipitated by an unexpected expense that the borrower could not postpone, such as a utility bill, fear of a bounced check, or health expense. In one survey of payday-loan borrowers, 86 percent of respondents reported that they “strongly” (70.8 percent) or “somewhat” agreed (15.7 percent) that their use of a

¹³ Michael S. Barr, *Banking the Poor*, 21 YALE J. ON REG. 121, 153 (2004).

¹⁴ Edward C. Lawrence and Gregory Elliehausen, *A Comparative Analysis of Payday Loan Customers*, 26(2) CONTEMPORARY ECONOMIC POLICY 299, 305 (2008).

payday lender was to cope with an unexpected expense.¹⁵ At the time of their most recent payday loan, over 80 percent of payday-loan customers reported that they lacked sufficient funds to deal with the expense.¹⁶ In a study conducted in 2007, 43 percent of payday-loan customers confessed that, in the previous 12 months, they had at least once written a check that overdrew their checking account (in 2001, 68 percent of respondents had done so).¹⁷ Almost 21 percent of payday-loan customers were 60 or more days past due on a consumer credit account during the previous twelve months. Elliehausen found that, in a survey of payday-loan borrowers in 2007, 55 percent stated that during the preceding five years they had had a credit request denied or limited and 59 percent had considered applying for credit but did not because they expected to be denied.¹⁸ Over 16 percent had filed for bankruptcy in the past five years—four times the rate of all consumers.

Elliehausen found that only a minority of payday borrowers fit the stereotype as impulsive borrowers.¹⁹ Jonathan Zinman similarly found that payday-loan customers primarily use their funds for “bills, emergencies, food and groceries, and other debt service.”²⁰ Thirty-one percent of borrowers reported using the funds for emergency expenses, such as car repairs or medical expenses.²¹ Only 6 percent said that they used the funds for “shopping or entertainment.”

¹⁵ GREGORY ELLIEHAUSEN, AN ANALYSIS OF CONSUMERS’ USE OF PAYDAY LOANS 35 (Financial Services Research Program Monograph No. 41, Jan. 2009).

¹⁶ Lawrence & Elliehausen, *supra* note 14, at 309.

¹⁷ Elliehausen, *supra* note 15, at 43.

¹⁸ Elliehausen, *supra* note 15, at 33.

¹⁹ Elliehausen, *supra* note 15, at 35.

²⁰ Jonathan Zinman, *Restricting Consumer Credit Access: Household Survey Evidence on Effects around the Oregon Rate Cap 9* (working paper, Dec. 2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1335438.

²¹ Zinman, *supra* note 20.

Payday-loan customers also are generally aware of the cost of payday loans. According to Elliehausen, only two percent of payday-loan customers reported that they did not know the finance charge for their most recent new payday loan; 94.5 percent reported finance charges consistent with prevailing market prices.²² Those who used payday loans most often were also most likely to know the reported APR on their loan.²³ Whatever concerns have been expressed about payday loans, lack of transparency is not one: Payday-loan pricing is simple and easily understood.²⁴

Why Borrowers Use Payday Loans

Payday-loan customers thus seem well aware of the price that they are paying, yet they continue to use payday loans. Why? Because, despite the high cost of payday loans, such loans are usually less expensive than the financial alternatives for a cash-strapped borrower.

Many payday-loan customers have recently bounced a check and lack sufficient funds at the time of the payday advance to meet their expenses, suggesting a likelihood of bouncing another check. Research by Federal Reserve economists Donald Morgan and Michael Strain found that when Georgia and North Carolina outlawed payday lending, the incidence of bounced checks, consumer complaints about debt collectors, and chapter 7 bankruptcy filings rose.²⁵ Direct fees imposed for checks returned for insufficient funds can be quite significant; for example, a bounced check may lead to fees imposed by both

²² Elliehausen, *supra* note 15, at 36-37.

²³ Elliehausen, *supra* note 15, at 38.

²⁴ As one news story characterized payday lending terms, “[N]o surprises, no hidden fees.” Douglas McGray, *Check Cashers, Redeemed*, N. Y. TIMES MAGAZINE (Nov. 9, 2008).

²⁵ Donald R. Morgan and Michael R. Strain, *Payday Holiday: How Households Fare after Payday Credit Bans* (Fed. Res. Bank of NY Staff Report no. 309) (Feb. 2008).

the payee as well as the financial institution that may exceed \$50 total per transaction, an implied APR far higher than for payday loans.²⁶ Moreover, these fees are cumulative—bouncing several checks can result in the imposition of substantial fees each time. Dishonored checks also impose indirect costs. If a check is for payment of insurance, the policy will be terminated; and if for utilities (such as telephone or electricity), the bounced check may lead to termination of service, penalties, and a substantial security deposit to reconnect service. Bounced checks may also result in termination of a bank account and even a risk of criminal prosecution.²⁷ In all, these various costs may exceed hundreds of dollars, a far higher rate than for payday lenders. Bouncing a check is also very damaging to one's credit score, making subsequent access to credit even more difficult.

Many financial institutions offer overdraft protection to guard against bounced checks. For a fixed fee, the bank will honor a check written on an account with insufficient funds. But the APR on these overdraft loans can easily exceed the cost of a payday loan. DeYoung and Phillips estimate that if a bank charges a \$20 fee to cover a \$100 overdraft, and the customer brings the account back to a positive balance after two weeks, the APR would be 520 percent for just one check.²⁸ According to a study by the Federal Deposit Insurance Corporation, the average APR on a two-week checking account overdraft is 1,067 percent.

²⁶ Michael W. Lynch, *Legal Loan Sharking or Essential Service? The Great "Payday Loan" Controversy*, REASON (2002); Michael S. Barr, *Banking the Poor*, 21 YALE J. ON REG. 121, 155 (2004).

²⁷ According to one news story, at most banks "if you've bounced too many checks you're banned for five to seven years." McGray, *supra* note 24.

²⁸ Robert DeYoung & Ronnie J. Phillips, *Payday Loan Pricing*, Federal Res. Bank of Kansas City Research Working Paper, RWP 09-07 at p. 6 (Feb. 2009).

Overdraft protection serves as a substitute for payday lending to guard against bounced checks. Economist Jonathan Zinman found that when Oregon imposed a cap on the finance charge that could be assessed on payday loans, there was a dramatic drop in the number of licensed payday lenders, a short-run deterioration in the overall financial condition of Oregon households, and some evidence that the ban led to an increase in late bill payments and a substitution to greater use of overdraft protection by consumers.²⁹

Only half of payday-loan customers have general-purpose bank credit cards. Consumers who do have credit cards generally look to revolving credit card debt as their first source of credit.³⁰ Those who revolve credit card balances tend to be older, higher-income, and more likely to own a home than payday-loan customers. More importantly, of those payday-loan borrowers who do have credit cards, many were at or near their credit limits and would have incurred over-the-limit and late fees from using them to meet the expense. Over 60 percent of payday-loan customers who own bank cards had refrained from using them within the year before their latest payday loan because they would have exceeded their credit limit, thereby incurring substantial penalties that again would be imposed cumulatively.³¹ Those who use payday loans also were more likely to have paid late fees on their credit cards than others.³² Moreover, most payday-loan customers have only one or two credit cards, usually with low credit limits; thus they are unable to add accounts sequentially in order to increase their available credit as those

²⁹ Zinman, *supra* note 20. The imposition of new regulations on payday lending operations in Virginia in 2008 has led to an estimated 84 percent reduction in the volume of payday loans and a dramatic reduction in the number of licensed payday lending outlets, from 832 to 526. See Dena Potter, *Payday Lender Laws Slash Loan Numbers*, WASHINGTON TIMES (June 21, 2009), available in <http://www.washingtontimes.com/news/2009/jun/21/payday-lender-laws-slash-loan-numbers/>.

³⁰ Lawrence & Elliehausen, *supra* note 14, at 305.

³¹ Lawrence & Elliehausen, *supra* note 14, at 310.

³² Michael S. Barr, et al., *Consumer Indebtedness in the Alternative Financial Services Market*, U. Mich. Law, Working Paper, April 2007.

with multiple cards and higher credit limits can.³³ As with bounced-check fees and overdraft protection, payday-loan customers appear to have correctly recognized that, despite the apparent high cost of payday loans, such loans are still less expensive than available alternatives, which would be to incur even more expensive over-the-limit and late fees on credit cards.³⁴

On the other hand, foreclosing payday lending might force some borrowers to substitute to greater use of credit card cash advances or revolving credit. A recent study of U.S. consumers found that in states with strict usury ceilings, unbanked consumers tended to substitute to pawn shops, while those with access to mainstream credit markets made greater use of retail and revolving credit.³⁵ But those forced to substitute to greater use of revolving credit likely end up paying even higher costs for credit and run into greater financial difficulty.³⁶ Both credit card delinquencies and delinquency-related revenues are higher in states with interest-rate ceilings that squeeze payday lending out of the market. These credit-constrained borrowers find themselves pushed toward credit-line maximization and difficulty in meeting payments, thereby triggering repeated over-the-limit, late fees, and other behavior-based fees. As credit card lenders have increasingly moved toward risk-based pricing through greater use of such fees, interest-rate restrictions have increased the frequency and amount of these fees, dramatically impacting these borrowers. Interest-rate caps thus force a particular group of consumers to use credit cards more often and in a less efficient manner than they would prefer, exposing them to repeated delinquency and to very high fees. Those who turn to repeated

³³ Lawrence & Elliehausen, *supra* note 14, at 309.

³⁴ Lawrence & Elliehausen, *supra* note 14, at 309, Table 3 Panel B.

³⁵ Ellison & Forster, *supra* note 4, at 40.

³⁶ Ellison & Forster, *supra* note 4, at 55.

use of credit card cash advances to make ends meet fare even worse, showing a much higher rate of missed payments on mainstream credit loans than those who use payday loans.³⁷ A 2008 study of Australian low-income consumers found that those who use credit card cash advances also had higher levels of indebtedness on average than payday borrowers, assuming that they can get access to credit cards at all.³⁸

The most plausible alternatives for payday-loan customers, therefore, are various other forms of non-traditional lending, such as pawn shops and finance companies. The behavior of payday-loan customers indicates that they prefer payday loans to these alternatives. Consumers deprived of payday loans by overly strict price ceilings are frequently diverted to pawn shops.³⁹ Pawn shops are especially unappealing: Their cost is comparable to payday loans, but they require the borrower to part with personal property to use as collateral for the loan.⁴⁰ Default rates are high.⁴¹ In addition, because the value of the loan is limited by the value of the personal goods pawned, pawn loans tend to be quite small (\$76 on average).⁴² Because of their small size and high transaction costs,

³⁷ Ellison & Forster, *supra* note 4, at 62.

³⁸ Ellison & Forster, *supra* note 4, at 78.

³⁹ Paige Marta Skiba & Jeremy Tobacman, *Do Payday Loans Cause Bankruptcy?* (working paper, Sept. 8, 2008), available in <http://ssrn.com/abstract=1266215>; Ellison & Forster, *supra* note 4, at 40. Morgan quotes a CEO of a major pawnshop chain who states that the rise of payday lending has hurt his company. Donald P. Morgan, *Defining and Detecting Predatory Lending*, Fed. Res. Bank of New York Staff Report no. 273, at 5-6 (Jan. 2007). Pawnshop owners in Ohio expected an increase in business of “20 to 25 percent” if Ohio passed a proposed law that would dramatically reduce payday lending. See Adrian Burns, *Pawnshops May Win if Payday Lenders Lose* (May 16, 2008).

⁴⁰ JOHN P. CASKEY, FRINGE BANKING: CHECK-CASHING OUTLETS, PAWN SHOPS AND THE POOR 36 (1994). Skiba and Tobacman find that pawn loans have a ninety-day term, with a monthly interest rate of 20 percent on loans from \$1-\$150 and 15 percent on loans above \$150. Paige Marta Skiba & Jeremy Tobacman, *Measuring the Individual-Level Effects of Access to Credit: Evidence from Payday Loans*, Working Paper (July 3, 2007).

⁴¹ Skiba & Tobacman, *supra* note 39 (finding that 58 percent of first time-pawns default and only 37 percent are redeemed).

⁴² Skiba & Tobacman, *Measuring*, *supra* note 39; see also Robert W. Johnson & Dixie P. Johnson, *Pawnbroking in the U.S.: A Profile of Customers* 16 (Credit Research Ctr., Monograph No. 34, 1998) (average loan of \$70 with typical range from \$35-\$260); CASKEY, *supra* note 40, at 44 (finding average payday loan of \$50-\$70). The average payday loan, by contrast, is \$300. Skiba & Tobacman, *Measuring*, *supra* note 40.

pawn shop loans are of limited usefulness in managing financial difficulties, and those who rely on pawnbrokers for loans have a higher incidence of delinquency and higher frequency of missed payments on mainstream credit than those who use payday loans.⁴³ Even more revealing of consumer preferences is that pawn shop borrowers typically have been turned down for a payday loan and turn to pawnshops only as a last resort.⁴⁴ Those who borrow from pawnshops tend to have extremely limited credit options, primarily friends or check-cashers.⁴⁵

Another alternative source of credit for payday-loan customers is the informal sector of friends and family.⁴⁶ A recent survey of households in low- and moderate-income areas of Los Angeles, Chicago, and Washington found that 53 percent of respondents said they would rely on friends or family to borrow \$500 for three months.⁴⁷ Angela Littwin's survey of credit use by low-income women found that 93 percent had actually borrowed money from friends and family in the past; and many had lent money to friends and family as well.⁴⁸ Ten percent of her subjects have borrowed *only* from friends and family.⁴⁹ Elliehausen found that 28 percent of payday-loan customers said that they would have tried to borrow from friends and family if payday loans were not available.⁵⁰ But friends and family may not be able or willing to lend when needed or in the amounts needed—a reality reinforced by the fact that most social networks are

⁴³ Ellison & Forster, *supra* note 4, at 62.

⁴⁴ Skiba & Tobacman, *Do Payday Loans*, *supra* note 39.

⁴⁵ See PETERSON & FALLS, *supra* note 2; see also Robert W. Johnson & Dixie P. Johnson, *Pawnbroking in the U.S.: A Profile of Customers* 47 (Credit Research Ctr., Monograph No. 34, 1998).

⁴⁶ LENDOL CALDER, FINANCING THE AMERICAN DREAM 60-64 (1999).

⁴⁷ ELLEN SIEDMAN, MOEZ HABABOU, AND JENNIFER KRAMER, A FINANCIAL SERVICES SURVEY OF LOW- AND MODERATE-INCOME HOUSEHOLDS (2005).

⁴⁸ Angela Littwin, *Beyond Usury: A Study of Credit Card Use and Preference Among Low-Income Consumers*, at 8.

⁴⁹ Angela Littwin, *Comparing Credit Cards: An Empirical Examination of Borrowing Preferences Among Low-Income Consumers* 36 (working paper); available in <http://ssrn.com/abstract=1014460>.

⁵⁰ Elliehausen, *supra* note 15, at 39.

limited in scope; most of the friends and family of low-income individuals frequently also have low incomes and thus have limited funds to lend. Many people do not have friends or family to whom they can turn for emergency funds, such as immigrants, orphans, or transients.⁵¹ Perhaps more significantly, people find borrowing from friends and family personally embarrassing and potentially damaging to personal relationships. Informal borrowing may also be less useful than standard credit in managing one's finances because personal acquaintances may be willing to lend only for expenses considered particularly meritorious (such as medical emergencies) and not for other expenses.⁵²

A final potential source of credit is illegal loan sharks. In the United States, illegal loan sharking originally arose as an outgrowth of small loan laws that capped the fees and interest rates for small consumer loans at a level that was unprofitable, causing legitimate lenders to raise their minimum loan amounts or to exit the market.⁵³ Organized crime syndicates looking for new economic enterprises following the repeal of Prohibition entered the market in the 1930s and by the 1950s and 1960s controlled much of the small-loan market in many major American cities.⁵⁴

A recent comparison of France, Germany, and the United Kingdom indicates that stricter regulation of consumer credit, and thus reduced access by higher-risk borrowers to legal credit, is correlated with higher rates of illegal lending activity.⁵⁵ In Germany, where credit regulations are among the strictest in Europe, 60 percent of low-income

⁵¹ POLICIS, ECONOMIC AND SOCIAL RISKS OF CONSUMER CREDIT MARKET REGULATION 79 (2006).

⁵² ECONOMIC AND SOCIAL RISKS, *supra* note 51.

⁵³ Haller & Alviti, *supra* note 3, at 140.

⁵⁴ Haller & Alviti, *supra* note 3, at 143.

⁵⁵ See POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51; POLICIS, THE EFFECT OF INTEREST RATE CONTROLS IN OTHER COUNTRIES (2004).

Germans have had credit applications refused, and almost 10 percent have resorted to illegal lenders. In Italy, anecdotal reports indicate that one result of the turmoil in consumer credit markets during the past year has been an increase in lending by illegal loan sharks to consumers and small businesses.⁵⁶

In 2006, Japan severely tightened its rate ceiling on consumer loans (as in the United States, many consumer loans were also small business loans), resulting in a two-thirds drop in the acceptance of consumer loan applications in the two years following the enactment of the law.⁵⁷ During that period there has been a dramatic growth in illegal loan sharking in Japan, primarily run by organized crime (“Yamaken” lenders).⁵⁸ Research indicates that use of illegal lenders “has risen rapidly among borrowers who have become shut out of the market as the result of the changes in the regulatory environment.”⁵⁹ Japanese consumers who admit to having contacted a loan shark during a twelve-month period were twice as numerous among those who were unable to borrow as much as they wanted from a legitimate consumer finance lender (26 percent) as among those who were able to obtain the amount that they wanted (13 percent). Those declined by legitimate lenders were also more likely to contact loan sharks (27 percent) and even more likely among those who had been asked to provide guarantors or collateral for a loan (42 percent).

Credit market exclusion reaches more borrowers in countries with strict interest-rate controls (such as Germany and Japan), and loan-shark borrowers tend to have higher

⁵⁶ Mary Jordan, *As Italy's Banks Tighten Lending, Desperate Firms Call on the Mafia*, WASHINGTON POST p. A01 (March 1, 2009).

⁵⁷ POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 47.

⁵⁸ POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 47-49.

⁵⁹ POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 48 (citing Hiroshi Domoto, *Behavioral Analysis of Consumer Loan Users*, REGIONAL BANKS MONTHLY REPORT (Oct. 2007)).

incomes than where credit restrictions are not as tight.⁶⁰ The overwhelming reason that borrowers report resorting to illegal lenders is that they could not borrow from anywhere else (over 80 percent).⁶¹ Self-employed small-businesses people tend to be especially vulnerable to credit market exclusion and loan sharking. As might be expected, lending by illegal lenders is much higher in cost than for legitimate lenders, and collections by illegal lenders rest on threats, intimidation, violence, and forms of exploitation (such as provision of sexual favors when unable to pay).⁶² In Japan, there have been high-profile reports of borrowers driven to suicide by the pressures of illegal lenders' collection efforts.⁶³

The flexibility of consumer credit markets in the United States has substantially reduced the importance of illegal loan-shark lending. Nevertheless, some borrowers are still excluded from consumer lending markets, even for non-traditional products. This exclusion has given rise to a rapidly growing Internet payday lending market, in part because of state regulations that have threatened the economic viability of bricks-and-mortar payday lending.⁶⁴ Internet lending provides a gray-market alternative of questionable legality, claiming authority to operate outside the jurisdiction of borrowers' state laws or claiming sovereign immunity by operating through Indian tribes.⁶⁵ Internet payday loans may cost more and be more prone to open-ended rollovers than loans from

⁶⁰ POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 49.

⁶¹ POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 50.

⁶² POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 51-52.

⁶³ POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 51.

⁶⁴ See David Burtzlaff, *Present and Future of the Payday Advance Industry*, Presentation to Community Financial services Association of America (March 5, 2009).

⁶⁵ See *Quik Payday Inc. v. Stork*, 549 F.3d 1302 (10th Cir. 2008); *Suthers v. Cash Advance and Preferred Cash Loans*, 205 P.3d 389 (Colo. Ct. App. 2008); *Ameriloan v. Superior Court*, 169 Cal. App. 4th 81, 86 Cal. Rptr. 3d 572 (2008).

more traditional lenders.⁶⁶ The electronic nature of the transaction also raises heightened issues of privacy and security as compared to traditional payday lending.

Some commentators have also claimed that the elimination of payday lending may cause consumers to make increased use of auto-title lending, where consumers provide their car title (or the functional equivalent, such as a copy of their keys) to secure a loan, typically for about half of the value of the car.⁶⁷ One consumer rights activist argued that the recent severe regulatory restrictions on payday lending in Virginia resulted in a substitution to increased auto-title lending.⁶⁸ On the other hand, Zinman found no significant substitution to auto-title lending in Oregon after its ban on payday lending.⁶⁹ Although there is little research on the demographics of consumers who use auto-title loans or the substitution between payday and auto-title lending, intuition suggests that, although auto-title lending resembles pawnbroking, auto-title customers might have higher incomes and higher wealth than payday-loan customers, as evidenced by their sufficient income and wealth to own and maintain an operating vehicle. It is plausible that auto-title lending may be a preferred type of consumer credit product compared to payday lending; thus an elimination of payday loans may not result in a large substitution to auto-title lending. On the other hand, eliminating auto-title lending could increase payday loans, as it would likely force those consumers who have been using auto-title loans to move a rung down the consumer credit ladder.

⁶⁶ Jean Ann Fox & Anna Petrini, *Internet Payday Lending: How High-priced Lenders Use the Internet to Mire Borrowers in Debt and Evade State Consumer Protections* (Consumer Federation of America, Nov. 30, 2004).

⁶⁷ Potter, *supra* note 29.

⁶⁸ Jay Speer, executive director of the Virginia Poverty Law Center, claims that the dramatic reduction in payday lending in Virginia that followed a tightening of the state's payday lending regulations led to an increase in auto title lending: "The good news is that there are less payday loans. The bad news is that they just shifted to car-title lending." Potter, *supra* note 29.

⁶⁹ Zinman, *supra* note 20.

Some payday-lending customers may find themselves in a “debt trap,” rolling over loans repeatedly or borrowing from one lender to pay off another, thereby worsening, rather than alleviating, financial distress. But research indicates that these borrowers are a minority of payday-loan customers.⁷⁰ On average, access to payday loans appears to make it *easier*, not more difficult, for low-income borrowers to manage their finances—in other words, the number of borrowers made better off by access to payday loans exceeds the number who might potentially be made worse off.⁷¹ While some scholars have found a limited correlation between use of payday loans and some kinds of bankruptcy filings,⁷² others have found no correlation,⁷³ and still others find that eliminating payday lending actually increases bankruptcy filings.⁷⁴ Bankruptcy filings rose dramatically in Japan following its imposition of strict interest-rate controls, reversing a period of decline.⁷⁵

At the same time, interest-rate restrictions do little to reduce problems of over-indebtedness among low-income households, as term re-pricing and product substitution simply shift consumers to different products. In fact, a report by *Policis* concludes that interest-rate ceilings may exacerbate over-indebtedness problems, as regulation promotes an increase in loan size and loan maturity in order to cover the administrative costs of making the loan. Increased loan size tends to increase overall indebtedness, and an

⁷⁰ In one study only 3.2 percent of payday loan customers expressed the view that payday loans made it difficult for them to get out of debt. Elliehausen, *supra* note 15, at 42.

⁷¹ Morgan, *Defining and Detecting*, *supra* note 44.

⁷² Skiba & Tobacman, *Do Payday Loans*, *supra* note 41 (finding that use of payday loans may increase likelihood of filing Chapter 13 bankruptcy); Bart J. Wilson, David W. Findlay, James W. Meehan, Jr., Charissa P. Wellford, and Karl Schurter, *An Experimental Analysis of the Demand for Payday Loans* (working paper, April 1, 2008), available in <http://ssrn.com/abstract=1083796>.

⁷³ Petru S. Stoianovici & Michael T. Maloney, *Restrictions on Credit: A Public Policy Analysis of Payday Lending* (working paper, Oct. 2008), available in <http://ssrn.com/abstract=1291278>.

⁷⁴ Morgan & Strain, *Payday Holiday*, *supra* note 25.

⁷⁵ POLICIS, *ECONOMIC AND SOCIAL RISKS*, *supra* note 51, at 73.

increased use of longer-term installment debt locks borrowers into less-flexible debt arrangements, increasing their vulnerability to income and expense shocks.⁷⁶ As noted, foreclosing some types of products may cause a shift to other products (such as revolving credit and credit card cash advances) that are laden with behavior-based fees that more marginal borrowers are most likely to trigger and which might result in even higher effective costs than payday lending. A study of Australian low-income households found that borrowers who took cash advances on credit cards were almost twice as likely to become insolvent as other low-income credit users.⁷⁷ Thus, eliminating payday loans might paternalistically protect some consumers from unwise and impulsive decisions but would likely harm the larger number of consumers who would lose a valuable option for managing their finances.

A survey of payday-loan customers in Australia found that twice as many respondents thought that lack of access to payday loans would make it more likely that they would get into financial trouble than who thought that they would be less likely to get into trouble.⁷⁸ Twice as many also said that they would have more trouble affording essentials if they did not borrow from payday lenders as believed that it would be easier to afford essentials. Significantly more payday-loan users claimed that payday loans made it easier, rather than more difficult, to pay current bills or meet expenses, and 60 percent of those with no other credit options thought that they would have more difficulty paying bills without access to payday lending.

Moreover, as recent events have made clear, the risk that consumers will misuse credit to become recklessly over-indebted is not unique to payday lending or other non-

⁷⁶ POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 74, 78.

⁷⁷ POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 78.

⁷⁸ POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 28.

traditional lending products, but can also include mortgages, credit cards, student loans, and auto loans. Yet no one proposes to abolish mortgages or student loans because of the risk that some consumers will misuse them or lenders may overreach. While there may be some cases where payday loans pushed a borrower into bankruptcy, there are many other cases where payday loans enabled a borrower to cope with an unexpected financial disruption that otherwise might have precipitated bankruptcy, and still other cases where a borrower was headed toward bankruptcy. In fact, given the small dollar amounts at stake, payday lending is much less likely to prove fatal to a household's balance sheet than other obligations, such as an excessive mortgage or other debts.⁷⁹

The concern over further constricting available lending options is especially pronounced in the current dysfunctional credit market environment. Banks and other lenders are drastically reducing consumer lending, just at the moment when consumers are especially in need of credit to deal with employment interruptions and unexpected expenses. Anecdotal reports indicate that as a result of this reduction of access to credit, and especially a dramatic reduction in the availability of credit-card credit, middle-class consumers and small businesses increasingly are turning to non-traditional lenders, such as payday loans and pawnshops.⁸⁰ Banning payday lending in these uncertain times

⁷⁹ Elliehausen has observed that 40 percent of bankruptcy filers who list payday loans on their bankruptcy schedules have only one payday loan and the average amount of those payday loans was \$350, which was 1.3 percent of the bankrupt's unsecured debt and the cost of servicing the debt was only about 2.4 percent of the bankrupt's average net monthly income. Elliehausen, *supra* note 15, at 58. Many of those with more payday loans or higher levels of payday loan debt would likely have filed bankruptcy anyway, thus payday loans simply delayed the bankruptcy filing or coincided with the slide into bankruptcy, thus payday loans did not trigger the bankruptcy filing.

⁸⁰ Gary Fields, *People Pulling Up to Pawnshops Today Are Driving Cadillacs and BMWs*, WALL ST. J. (Dec. 30, 2008); Jeff Swiatek, *More Middle-Class Families are Learning that Payday Loans Add Up*, INDIANAPOLIS STAR (Feb. 3, 2009) ("Payday loans, typically a way working-class people get cash in a pinch, are increasingly being sought by middle-income families living without a cash cushion. Lenders and others say the short-term loans are being taken out by people who used to get needed cash from a bank, a credit union or a credit card. With the recent credit crunch and recession, high-interest payday loans have

would whipsaw these middle-class consumers, driving them still further down the “lending ladder” to pawnshops or other products.

Consumer Satisfaction with Payday Loans

Consumers generally report high levels of satisfaction with their satisfaction with payday lenders. Elliehausen finds that 87 percent of borrowers report being “very” (54.7 percent), or “somewhat” (33.7 percent), “satisfied” with their most recent payday loan. Only 10 percent, by contrast, were somewhat or very dissatisfied.⁸¹ This high satisfaction with payday lending may seem surprising in light of the seemingly high costs paid by payday-loan customers.

This confluence of high costs and general satisfaction with the product seems to be a product of several factors. First, as noted, pricing of payday loans is highly transparent: Consumers understand the cost they are paying and contrast the clear prices of payday loans with other banking and credit products (such as credit cards and overdraft protection) which have more complex pricing schemes. Payday-loan customers frequently report that they had had negative experiences with banks or credit cards in the past when they were surprised by bounced-check or over-the-limit fees and thus prefer the transparency and predictability of payday-lending terms. They may not like the costs, but they seem to feel that they are being treated fairly. They also know with a high degree of certainty the precise consequences of default if they do not pay, in contrast to many

become an alternative.”). Layaway, which had been completely replaced by credit cards, has returned to department stores as well.

⁸¹ Of those who were dissatisfied, most thought the costs were excessive. Only about 16 percent said that their dissatisfaction stemmed from the feeling that payday loans made it “too difficult to get out of debt.” Elliehausen, *supra* note 15, at 42.

other types of consumer credit, such as credit cards.⁸² Second, payday-loan customers understand—often from hard experience—the limited range of choices and are realistic about the costs of payday lending when compared to the high expense and inconvenience of their alternatives. Finally, there seems to be a high degree of non-price competition in payday-lending services. Many payday-lending consumers have had relatively negative experiences with traditional financial institutions—bounced checks, harassment for unpaid bills, and the general demoralizing experience of a less-educated, less-sophisticated consumer interacting with a banking and financial system that is perceived as being unwelcoming and unhelpful to lower-income consumers with financial struggles. Customers appreciate that payday-loan outlets are friendly, helpful, customer-service oriented, and treat them more respectfully than traditional lending institutions.⁸³ Banks may not be as responsive to providing cash quickly. For instance, a bank may require waiting several days for a check to clear before advancing cash against it, whereas payday lenders will extend cash immediately. Payday lenders are also speedier than banks and more willing to work with customers to approve them, as well as offering a variety of services valued by low-income borrowers that traditional banks do not. This respectful and customer-friendly attitude appears to be highly valued by moderate-income consumers. Of those surveyed in a study who expressed satisfaction with their most recent payday loan, the most common reasons expressed for their satisfaction were that it was an “easy convenient process/little paperwork” (41.3 percent), they were able to obtain “needed money quickly” (36.5 percent), and a “courteous/professional/friendly

⁸² POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 91.

⁸³ McGray quotes one payday lending customer, for instance, who states of the payday lending company, “They treat me with respect, they’re really nice.” McGray, *supra* note 24.

staff” (23.9 percent).⁸⁴ Price control regulations would invariably lead payday lenders to scale back the provision of these non-price product attributes valued by consumers.⁸⁵

Scholars have found that access to payday loans even can serve an important role in improving consumer welfare and quality of life. Adair Morse finds that access to payday lending improves the ability of households to respond to natural disasters, as reflected in a reduction in the number of home foreclosures and larcenies below what would be expected following a natural disaster.⁸⁶ Economists Dean Karlan and Jonathan Zinman found in a study of South African consumers that access to high-cost credit (comparable to payday lending) provided significant benefits for borrowers across a wide range of economic and “well-being” outcomes, such as higher-quality diet, improved physical well-being, and more stable employment.⁸⁷ Although not an ideal type of credit, for these consumers payday loans are better than no credit at all, making it possible for them to smooth out financial disruptions. Finally, and significantly, research in Europe finds that 90 percent of low-income households report feeling anxious that they cannot count on getting cash credit in a crisis, and almost a quarter feel overly dependent on their families for funds in a crisis.⁸⁸ In addition, 60 percent suffer frustration from not being able to buy things that they could afford if they could spread the cost of purchase; 40 percent report having to forego major items that they need but cannot afford.

Overall, economic theory, empirical evidence, and surveys of payday-loan customers all suggest that payday lending serves a beneficial role for many consumers by

⁸⁴ Elliehausen, *supra* note 15, at 41.

⁸⁵ See Zywicki, *supra* note 2 (noting that in the 1970s in states with strict usury regulations, department stores were less likely to offer amenities such as free gift wrapping; and banks’ hours were shorter).

⁸⁶ Adair Morse, *Payday Lenders: Heroes or Villains?* Working Paper (Jan. 2009).

⁸⁷ Dean Karlan & Jonathan Zinman, *Expanding Credit Access: Using Randomized Supply Decisions to Estimate the Impacts* (working paper, June 25, 2007).

⁸⁸ POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 28.

providing short-term emergency credit at lower cost and less inconvenience than available alternatives. While some users of payday loans may end up in a “debt trap,” those who do so are a minority, and eliminating payday lending would probably hurt the many more people who use payday lending to meet short-term exigencies than it would help through paternalistic restrictions. Eliminating payday lending would force many consumers to shift to less-preferred (and more expensive) forms of borrowing, such as overdraft protection, pawnshops, Internet payday lenders, or worse. Others would find themselves without credit, resulting in bounced checks and an inability to service necessities such as utility bills and car repairs. Given the limited choices available to needy consumers to meet short-term borrowing exigencies, it is unlikely that further restricting their limited options will improve their situation.

Is There A Market Failure in the Payday Loan Industry?

Despite apparent satisfaction and welfare-improvement for consumers, payday lending is still criticized as being unduly expensive, suggesting a market failure that permits payday lenders to exploit consumers. In economic terms, it is suggested that there are economic “rents” or “profits” embedded in payday-loan operations that allow lenders to charge higher prices than they could in a more competitive market and thereby to transfer wealth from consumers to lenders. If this were true, it might be argued that if regulators could somehow ascertain the hypothetical price that might prevail in a competitive market, price regulation would not actually restrict payday-loan operations but simply eliminate a wealth transfer from consumers to lenders. Empirical evidence tends to rebut these concerns.

It is highly unlikely that there is a systematic market failure in the payday-lending market. The market is highly competitive: The number of payday-loan outlets has grown dramatically during the past decade, and payday lenders appear to compete aggressively for customers. Barriers to entry are low.

Standard economic theory predicts that where competition is strong and barriers to entry are low, competition tends to dissipate any economic profits in the industry and to improve consumer welfare.⁸⁹ Empirical evidence supports this inference in the payday-loan industry. Where competition is stronger, payday-lending costs are lower.⁹⁰ Regulation that reduces the number of payday lenders, therefore, would likely result in higher prices for consumers.

Interest-rate ceilings, on the other hand, may have the counterproductive effect of reducing competition and encouraging implicit collusion among lenders. Scholars have postulated that interest rate caps have been found to provide a “focal point” for pricing consumer loans, leading loan prices to drift toward fixing on the statutorily mandated maximum. Economists have found a focal-point effect with respect to interest rates on both payday loans⁹¹ as well as credit cards.⁹² Studies repeatedly find that interest rates are set by the forces of supply and demand, not regulation.⁹³

Moreover, despite the cost of payday loans, there is no indication that payday lenders are earning economic profits from their activities once risk and cost are taken into

⁸⁹ Philip Bond, David K. Musto, & Bilge Yilmaz, *Predatory Lending in a Rational World*, Federal Reserve Bank of Philadelphia Working Paper 06-2 (Nov. 2006).

⁹⁰ Morgan, *Defining and Detecting*, *supra* note 44; DeYoung & Phillips, *supra* note 28.

⁹¹ DeYoung, *supra* note 28.

⁹² Christopher R. Knittel & Victor Stango, *Price Ceilings as Focal Points for Tacit Collusion: Evidence from Credit Cards*, 93 AM. ECON. REV. 1703 (2003).

⁹³ See POLICIS, ECONOMIC AND SOCIAL RISKS, *supra* note 51, at 32; Staten, *supra* note 2.

account.⁹⁴ Payday loans are small in amount, unsecured, and risky, especially for lenders to new borrowers. Providing many small loans to consumers at low cost has been a perennial problem through history.⁹⁵ Default rates are high as compared with other forms of credit. Payday loans, like most consumer loans, are also very costly to originate and service—many of the costs of lending are fixed costs that vary little with the loan size, whether \$300 or \$300,000. These expenses include rent, employee time, collection costs, paperwork, credit checks, and other expenses. Thus, the underlying fixed costs of payday loans are high relative to the small loan size: a short-term, unsecured loan, to risky borrowers, made by highly personal interactions by employees and customers. These high costs and risk largely explain the high price of payday lending.⁹⁶ Given the low barriers to entry in the payday lending market and the competitive nature of the market, it would be surprising if economic profits could be sustained.

Conclusion: The Costs of Substantive Price Regulation Exceed the Benefits

For almost as long as there has been consumer credit, regulators have tried to limit the prices that can be charged for those loans. Price regulation, however, has three unintended consequences: (1) term re-pricing, (2) product substitution, and (3) rationing. Examining all of these unintended consequences, economists and regulators have concluded that once all of the offsetting behaviors have been taken into account, the costs of price caps and other substantive regulation exceed the benefits. The offsetting behaviors taken by lenders and borrowers in response to price-control efforts tend to

⁹⁴ See Paige Skiba & Jeremy Tobacman, *The Profitability of Payday Loans*, Working Paper (Dec. 7, 2006).

⁹⁵ CALDER, *supra* note 46; CASKEY, *supra* note 40.

⁹⁶ Mark Flannery and Katherine Samolyk, *Payday Lending: Do the Costs Justify the Price?* (working paper, June 23, 2005).

make pricing less transparent and more heterogeneous, thereby making it more difficult for consumers to compare among different offers and thereby also stifling competition. Product substitution forces consumers who need credit to use less-preferred forms of credit, such as forcing them to use pawnshops instead of payday lenders. Finally, some consumers will have credit to them rationed and will be unable obtain credit at all, or may be forced to turn to informal or even illegal lenders.

Those who use payday lending do so primarily because they have to, not because they want to. They use payday lending to deal with short-term exigencies that would hurt them even more, such as high costs for bounced checks, overdraft fees, disconnected utilities, or for necessary expenditures such as medical expenses or car repairs. Some payday-loan customers may use payday loans irresponsibly, becoming trapped in a cycle of debt. But this group is the minority of borrowers. The overwhelming bulk of the evidence indicates that payday lenders provide a valuable service for many low-income consumers. Payday-loan customers have limited credit options: Consumers who use payday lending are not likely to be made better off by misguided paternalistic regulations that narrow their options still further.

Prior studies of the impact of usury restrictions have found that low-income and minority borrowers are those most negatively affected by the regulations and the adjustments that those regulations produce.⁹⁷ As one study summed up the impact, once all of the various adjustments are made in response to interest-rate ceilings, “substantial numbers of some consumer groups will be less satisfied with the new credit terms. It is ironic that customers who are most likely to be dissatisfied are those who are traditionally

⁹⁷ ROBERT W. JOHNSON & A. CHARLENE SULLIVAN, RESTRICTIVE EFFECTS OF RATE CEILINGS ON CONSUMER CHOICE: THE MASSACHUSETTS EXPERIENCE (Credit Research Ctr. Working Paper No. 35, 1980).

considered to be the primary beneficiaries of such legislation—those in the lower socioeconomic groups.”⁹⁸ Further restrictions on payday lending would likely prove counterproductive and harmful to the very people they are intended to help.

⁹⁸Orville C. Walker, Jr. & Richard F. Sauter, *Consumer Preferences for Alternative Retail Credit Terms: A Conceptual Test of the Effects of Consumer Legislation*, 11 J. MKTG. RESEARCH 70, 78 (1974); see also Richard F. Sauter & Orville C Walker, Jr., *Retailers Reactions to Interest Limitation Laws—Additional Evidence*, 36 J. MKTG. 58 (1972), John J. Wheatley & Guy G. Gordon, *Regulating the Price of Consumer Credit*, 35 J. MKTG. 21 (1971).

EXHIBIT G

MONEY**Emails reveal consumer protection agency's cozy ties**

The Consumer Financial Protection Bureau worked hand-in-hand with a consumer nonprofit as it drafted payday lending regs.

By **ANNA PALMER** | 11/19/2015 05:17 AM EST



AP Photo

When the Consumer Financial Protection Bureau put out its proposal to overhaul payday lending rules in March, the move was cheered by consumer advocates as a much-needed crackdown on an industry that preys on the poor.

But the final product wasn't a surprise to at least one nonprofit group.

While Elizabeth Warren and other progressives decry the influence of big banks and lobbyists in writing legislation, in this instance, the agency created by Warren to protect consumers from abusive lending leaned heavily on consumer activists as it drafted regulations for the \$46 billion payday loan industry. The Center for Responsible Lending spent hours consulting with senior Obama administration officials, giving input on how to implement the rule that would restrict the vast majority of short-term loans with interest rates often higher than 400 percent. The group regularly sent over policy papers, traded emails and met multiple times with top officials responsible for drafting the rule.

At the same time, the group's financial services business, Self Help Credit Union, was pushing CFPB to support its own small-dollar loan product with a much lower interest rate as an alternative to payday loans.

Companies and trade associations regularly spend tens of millions of dollars to lobby Congress and the executive branch to push their agenda, but the Center for Responsible Lending efforts to overhaul payday lending rules is a revealing example of how nonprofits and consumer groups also work back channels in Washington to influence the outcome of laws and regulations.

The proposal is of particular significance because it is expected to be a model for how the nascent consumer agency drafts rules. A "notice of proposed rulemaking" from CFPB is expected in the coming months.



Sen. Graham pushes sweeping war authorization measure

By BURGESS EVERETT

The agency has long been under fire from industry and conservative groups, including in an ad that aired during the Republican debate last week. CFPB's collaboration with the Center for Responsible Lending on payday lending rules could fuel attacks that the agency has an anti-business bias.

For more than a year before CFPB put out its proposed rule to crack down on payday lenders, the Center for Responsible Lending and other advocacy groups, such as the National Consumer Law Center, worked with the agency to help craft the proposal, according to emails and documents released by CFPB to comply with a recent Freedom of Information Act request filed by the payday lending industry trade group Community Financial Services Association.

The emails between CRL and CFPB staffers document regular meetings and close collaboration. In November 2013, as it was researching regulations, CFPB requested data from the nonprofit on payday lenders “to help focus these efforts.” The next month, a staffer for the Center for Responsible Lending requested a copy of the agency’s overdraft analysis “so that CRL could make sure ours was as parallel as possible.”

That spring, David Silberman, associate director for research, markets and regulations at the CFPB, requested an outline on payday lending from CRL President Mike Calhoun. Calhoun replied, “Feel free to improve it!”

Their familiarity grew over the months. “It’s been almost three weeks. Starting to have withdrawal pains,” Silberman wrote in April 2014 as he asked to set up another meeting.

At the same time, Self Help Credit Union, which is affiliated with CRL, was talking with CFPB officials about a new product it dubbed the “just right” loan. The credit union, which reported \$25.8 million in profit last year and has 22 branches, exchanged emails in fall 2014 and later held a conference call that December with CFBP staffers to discuss the payday lending alternative. CRL and Self Help are separate 501(c)(3) organizations, but have a legal affiliation.

CFPB spokesman Sam Gilford said agency officials engage with people on all sides of an issue.

"That outreach includes discussions with consumer advocates, industry trade groups, individual financial institutions, academics, state, tribal and local governments, and others," Gilford said in a statement. "The request by CFSA was for the Bureau’s correspondence with a specific consumer organization and its affiliates, so the documents do not provide context regarding similar dialogue with other stakeholders. Nor do they reflect the broad range of ongoing engagement that we have with all of our stakeholders."

“That outreach includes discussions with consumer advocates, industry trade groups, individual financial institutions, academics, state, tribal and local governments, and others,” Gilford said in a statement. “The request by CFSA was for the Bureau’s correspondence with a specific consumer organization and its affiliates, so the documents do not provide context regarding similar dialogue with other stakeholders. Nor do they reflect the broad range of ongoing engagement that we have with all of our stakeholders.”

He also said in the statement: “Perhaps the only real takeaway from these documents is that we respect the work that consumer advocates do and we value their insight into the challenges facing consumers in today’s financial marketplace.”

CFSA officials met at least three times with CFPB Director Richard Cordray since 2012, according to his public calendar. J. Patrick O'Shaughnessy, head of payday lender Advance America, is currently serving a three-year term on the CFPB's Consumer Advisory Board. And Edward D'Alessio, executive director of the Financial Service Centers of America, and D. Lynn DeVault, board member of Check into Cash and CFSA, participated in the CFPB field hearing in March on payday lending. The Center for Responsible Lending's head Mike Calhoun was also a panelist at the hearing.

CRL's Gary Kalman said the nonprofit has been working on trying to change payday-lending rules for more than a decade and that it has a unique perspective to offer.

"I think it is fairly typical for agencies to reach out and to talk to a variety of stakeholders to make sure that they get all the information they need to make a rule," Kalman said.

And, while CRL supports portions of the rule that would require lenders to undertake an "ability to pay test," it also opposes language in the rule that would give certain lenders legal immunity.

Warren wants to hike taxes on big business to raise revenue

By COLIN WILHELM

CRL's Kalman said the group wasn't pushing for any particular product as it interacted with the CFPB.

"We haven't gone in and said, 'You should look at this product and this is what it should be,'" Kalman said. "What we've argued for is much looser than the Self Help product," referring to the requirements for loans.

CRL's influence at the consumer agency went beyond meetings and proposals. One of its executives, Leslie Parrish left CRL in 2013 to join the CFPB as program manager for payday and small-dollar loans. After two years in the job, she returned to the nonprofit. Janneke Ratcliffe, assistant director of financial education at the CFPB, also worked for Self Help Credit Union.

Payday lenders certainly aren't underrepresented in Washington. The industry spent roughly \$3 million on lobbying last year and is on track to spend a similar amount in 2015. The American Action Network paid for the ad during the Republican debate on Fox Business Network last week demonizing the agency. A number of left-leaning groups recently pressed

CFSA, the payday lending trade association, to stop using a study to defend its business practices over questions about its findings being manipulated.

While CFPB has also held many meetings with industry representatives, several payday lending officials said their interactions with the agency have been very different.

Dennis Shaul, head of the trade association representing payday lenders in Washington, said, "what I found most surprising is the degree of familiarity between the personalities.

"Regulators ideally have some distance from all of those who might intervene on behalf of a point of view," said CFSA's Shaul.

Advance America's Jamie Fulmer agreed, saying it "put in very stark terms the closeness of the relationships" and the email traffic also "highlights the coordinated research."

"It's a different relationship and it appears like they aren't taking the industry's perspective with the same level of interest as the advocacy groups," Fulmer said. "I imagine some of that is not surprising, but I think it is troubling."

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EXHIBIT H

An Experimental Analysis of the Demand for Payday Loans

Bart J. Wilson, David W. Findlay, James W. Meehan, Jr., Charissa P. Wellford, and Karl Schurter*

April 28, 2010

Abstract

The payday loan industry is one of the fastest growing segments of the consumer financial services market in the United States. The purpose of our study is to design an environment similar to the one that payday loan customers face. We then conduct a laboratory experiment to examine what effect, if any, the existence of payday loans has on individuals' abilities to manage and to survive financial setbacks. Our primary objective is to examine whether access to payday loans improves or worsens the likelihood of financial survival in our experiment. We also test the degree to which people's use of payday loans affects their ability to survive financially. We find that payday loans help the subjects to absorb expenditure shocks and, therefore, survive financially. However, subjects whose demand for payday loans exceeds a certain threshold level are at a greater risk than a corresponding subject in the treatment in which payday loans do not exist.

JEL Classifications: D14 (Personal Finance), C9 (Design of Experiments)

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I. INTRODUCTION

The payday loan industry is one of the fastest growing segments of the consumer financial services market in the United States. It sprung up in the early 1990's when commercial check cashing stores began offering customers the option of taking out a short-term loan to help them meet unplanned expenses until their next payday. Payday loans are short-term loans of \$100 to \$500 that typically must be paid back within two weeks or by the borrower's next payday. The fees for these loans vary from \$10 to \$25 per \$100 borrowed. Although the loan is unsecured, the borrower must be employed, provide personal identification, and have a checking account. While some payday lenders conduct cursory credit checks using services provided by, for example, Teletrack, payday loans are generally provided without any formal credit check. One of the appeals of these loans, as documented in a number of studies (see, for example, Elliehausen and Lawrence (2001)), is the speed with which individuals can obtain these loans.¹ While relatively easy to obtain, payday loans are expensive when compared to the interest rates charged on other consumer loans.

The typical payday loan customer is relatively young with a high school education but little or no college education. They have little money in their checking account and few, if any, alternative sources of credit because they are at (or have exceeded) their credit limit, or previously have been turned down for more conventional consumer loans. Payday loan customers' most frequently cited reason for using the loans is to meet unplanned expenses. Rapid growth of the payday loan industry suggests that this industry evolved to fill a gap in the consumer credit market not being served by more traditional lending institutions.

Two aspects of payday loans draw significant attention in the policy arena: (1) interest rates charged for these loans; and (2) the potential effect of these loans on the "cycle of debt" faced by some consumers.² Interest rates on the majority of payday loans exceed 300% on an annual percentage rate (APR) basis, causing some to claim that payday lending is predatory. For example, Stegman and Faris (2003, p. 20) note that "if repeated, chronic borrowing is as commonplace as it appears, then the triple-digit APRs charged by most payday lenders may go beyond what is fair and become abusive and predatory." Because of these high interest rates, some critics suggest that interest rate ceilings should be implemented or propose that the industry be banned altogether. There is also

¹ One of us took out a payday loan in less than 25 minutes.

² For a more detailed discussion of these and other criticisms of the payday loan industry, see www.responsiblelending.org. The Center for Responsible Lending, as stated on this website, serves as "a resource for predatory lending opponents."

evidence suggesting that a number of consumers rely frequently on these loans and, therefore, potentially become caught in what critics call a “cycle of debt.” In these situations, borrowers can find themselves paying fees for a loan that exceed the initial loan amount.

Despite these and other criticisms, supporters of the industry contend that payday lenders are simply providing credit to individuals who otherwise would not be able to obtain it in the more formal financial sector. Supporters further argue that the credit obtained in this industry allows individuals to weather short-term financial disruptions caused by, for example, unexpected expenditures. Additionally, a comparison of the costs of payday loans with, for example, the costs of bounced checks indicates that payday loans may not be the most expensive choice individuals face.³

The objective of our study is to design an environment similar to the one that payday loan customers face and conduct a laboratory experiment to examine what effect, if any, the existence of payday loans has on individuals’ abilities to manage and to survive financial setbacks. In our experiment, we control a number of features that allow us to examine the effect of payday loans in different treatments. Each participant faces the same payday loan fee, the same distribution of anticipated monthly expenditures, and the same distribution of unanticipated shocks. The supply of payday loans is also exogenously imposed so as to focus solely on the demand-side of the equation.

In contrast to field studies that cannot directly measure the welfare of individuals, all individuals start off on the exact same footing and thus we can directly measure how well different sets of subjects manage their induced financial circumstances. By randomly assigning participants to different treatment conditions, our results allow us to comment on how payday loans affect an individual’s ability to adjust financially to unexpected expenditures.⁴ Our analysis also allows us to comment on the extent to which individuals’ consumption decisions result in a demand for payday loans that potentially creates and/or compounds financial difficulties.

³ In the May 2005 issue of *Consumer Reports*, a comparison of the implicit APR on bounced checks, overdraft protection, and several other forms of overdraft protection were compared. Depending on the total cost assumed, the APR for overdraft protection ranged from 608% to 791% and the APR for bounced check fees ranged from 487% to 730%.

⁴ There is no random assignment of people to conditions with and without payday loans in field studies.

The paper is organized as follows: the next section, Section II briefly summarizes the literature on payday loans. Section III describes the experimental design and procedures. Then in the next section we present hypotheses and the semi-parametric model to evaluate them. Section V discusses our results, and the final section summarizes our conclusions.⁵

II. PREVIOUS RESEARCH

Among the earliest research, Caskey (1994) describes the features of fringe banking and describes those who use fringe banks to obtain financial services.⁶ A growing number of studies examine in more detail various aspects of the industry. Several papers focus on the determinants of the location decision of payday lenders (Graves (2003), Burkey and Simkins (2004), Graves and Peterson (2005), Prager (2009), and Damar (2009)). The results of several of these papers are consistent with claims that payday lenders may fill a void created by the departure of more traditional lending institutions. These results would also partly explain the rapid growth in the demand for payday loans. Several other studies focus on the cost and revenue structure of payday lenders, on payday loan pricing behavior, on the profitability of payday lenders, and on payday lender and borrower behavior (Stegman and Faris (2003), Flannery and Samolyk (2005), Skiba and Tobacman (2007), DeYoung and Phillips (2009), Agarwal, Skiba, and Tobacman (2009), and Bertrand and Morse (2009a, 2009b)). The remainder of the most recent research on payday lending focuses on why individuals might use payday loans and on the effects of payday lending on a variety of economic outcomes.

The evidence concerning whether access to high interest rate loans has a beneficial or adverse effect on economic outcomes is mixed. A number of studies have found that payday lending has a harmful effect on individuals or causes an increase in adverse economic outcomes (Carrell and Zinman (2008), Campbell,

⁵ Appendix A provides the instructions for the experiment. Another appendix, available upon request, includes a discussion of three subjects in one of the treatments as examples of how payday loans aided, harmed, or could have aided subjects.

⁶ Fringe banks also include, for example, check-cashing establishments and pawn shops. A number of recent studies provide additional descriptive analyses of the growth of payday lending, the characteristics of payday borrowers, and public policy issues related to the industry (Fox (1999/2000), Caskey (2001, 2002, and 2005), Stegman (2001), Barr (2004), Bair (2005), Pyper (2007), Stegman (2007), and Lawrence and Elliehausen (2008)). While Chin (2004), Chessin (2005), Butler and Park (2005), Mann and Hawkins (2007), and Huckstep (2007) also include descriptions of payday lending and further document its growth, these studies focus more on the legal and regulatory aspects of the industry. Skiba and Tobacman (2008) offer several theoretical explanations (e.g., high discount rates) for why individuals use high interest rate loans and conclude (p. 16) that “the naïve and sophisticated quasi-hyperbolic models perform better than the exponential model at explaining payday borrowing, repayment, and default.”

Martinez Jerez, and Tufano (2008), Melzer (2009), Melzer and Morgan (2009), Skiba and Tobacman (2009). At the same time, several other studies find that access to higher interest rate loans and payday loans in particular have a beneficial effect or cause a reduction in adverse economic outcomes (Morgan (2007), Morgan and Strain (2008), Morse (2009), Karlan (2010), and Karlan and Zinman (2010)).

The results of two studies on the effect of payday loans on personal bankruptcy are also mixed. Skiba and Tobacman (2009) find that payday loans increase the incidence of personal bankruptcy, while Lefgren and McIntyre (2009) find that the existence of payday loans has no effect on bankruptcy rates.

III. EXPERIMENTAL DESIGN AND PROCEDURES

In this paper, we use a laboratory experiment to examine the extent to which the existence and use of payday loans affect an individual's ability to manage and survive financial setbacks with uncertain and unforeseeable expenditures and a certain fixed income.⁷ We consider two economic treatments: the *Loan (L)* treatment, in which payday loans are a financing option; and (2) the *No Loan (NL)* treatment, in which payday loans do not exist. This second treatment is motivated by our interest in examining whether the existence of payday loans alters subject welfare. Given that we did not know *ex ante* the extent to which subjects would put themselves into financially tight circumstances, we conducted our first sessions with a liberal maximum number of overdraft checks, eight. This maximum kicked in after the first experimental month in a session of 30 months, so as to not penalize the subjects too harshly for poor decisions in their first month. After observing 45 subjects in this treatment, we then introduced a treatment that could increase the demand for payday loans by reducing the availability of the alternative, namely we limited each subject to a maximum of two instead of eight overdraft checks after the first month.

An additional treatment variable is whether or not each participant loses utility from writing a check when there are insufficient funds in the participant's account. In the *Overdraft Protection* treatment, the participant is charged a fee and, implicitly, the bank covers the check so that the participant does not incur any negative consequences from the payee for writing a check with insufficient funds in her account. In this paper, we refer to these types of checks as overdrafts. 111 participants faced this treatment condition, 54 without access to

⁷ See Smith (1994) for an excellent discussion of using experimental economics to evaluate policy prescriptions in general and Wilson (2007) for a discussion on the use of experimental economics to examine issues in antitrust.

loans and 57 with access to loans. We subsequently conducted a harsher treatment, the *No Overdraft Protection* treatment, which penalizes participants who “bounce checks” on bills. The penalty, however, is delayed until the next month as it takes time for the check to fail to clear.⁸ In the treatment without overdraft protection, we refer to checks written without sufficient funds and, therefore, checks that incur *both* a fee and a subsequent penalty as bounced checks. 162 participants faced this treatment, half without access to payday loans and half with access to payday loans. The 2³ design is summarized in Table 1.

Table 1. Experimental Design
(Number of Subjects)

<i>Overdraft Protection Treatment</i>			
	<i>No Loan</i>	<i>Loan</i>	Total
<i>8 Overdrafts</i>	<i>NL8</i> (23)	<i>L8</i> (22)	45
<i>2 Overdrafts</i>	<i>NL2</i> (54)	<i>L2</i> (57)	111
Total	77	79	156

<i>No Overdraft Protection Treatment</i>			
	<i>No Loan</i>	<i>Loan</i>	Total
<i>8 Bounced Checks</i>	<i>NL8</i> (41)	<i>L8</i> (41)	82
<i>2 Bounced Checks</i>	<i>NL2</i> (40)	<i>L2</i> (40)	80
Total	81	81	162

Each subject earns cash based on a series of financial and consumption decisions over thirty 28-day months, or 840 periods. Each day lasts four seconds. Participants are seated at visually-isolated carrels, with each subject using a computer to access information, such as the instructions (see Appendix A) and their financial situation (e.g., historical payments, current balance, bills due), and to enter their decisions (e.g., which bills to pay). Subjects earn US dollars by consuming goods for which they have bills to pay in experimental dollars. Each bill appears 28 days before it is due. When a bill appears, a subject receives “consumption points”, or “utility” in the vernacular of economics, for a good or service. Each consumption point equals one US cent in earnings for the subject.

⁸ The penalties associated with bouncing a check represent any costs imposed on individuals by merchants. In addition to charging individuals for bounced checks, merchants may post the individual’s name and/or refuse to conduct business with that individual in the future.

Failure to pay bills on time leads to penalties in the form of deductions from a subject's accumulated consumption points.

Each subject is endowed with a starting balance of 50 experimental dollars (E\$) and collects biweekly paychecks of 475 experimental dollars. The final balance of experimental dollars is converted into US dollars at the rate of E\$400 = US\$1. For ease of discussion, \$ will denote experimental dollars, except for any reference to actual payouts of cash to the subjects at the end of each session.

We chose bill and income parameters to place subjects in tight financial situations so that failure to survive financially results in the termination of the ability to earn money during the session. Each month a subject must accrue a minimum of 100 consumption points. If a subject fails to meet the monthly minimum of 100, the subject may no longer participate in the session. We chose this monthly minimum to induce a reason for the subjects to pay bills. We also chose it to create an incentive for subjects to continue to participate in the experiment to increase their earnings. This minimum threshold, therefore, conveniently serves as the primary means for us to measure how loans affect the ability of subjects to extend their participation and, as we discuss later, to survive financially.

A bar graph at the bottom portion of the screen continuously updates the number of consumption points that a subject has accumulated in a month (see Figure 1 for a screenshot for a subject in the *Loan* treatment). Once a subject is eliminated, he or she can no longer make decisions or earn money in the remaining periods. However, in an effort to not disrupt those subjects who continue to participate, these subjects remain at their computer terminals until all subjects in the laboratory complete the session. Eliminated subjects may surf the Internet or participate in a quiet activity, such as reading, without leaving their carrel.

The series of monthly bills faced by each subject is given in Table 2. Over time, subjects become familiar with these basic monthly bills, as they appear each month 28 days before their due date. As mentioned in the introduction, meeting unplanned expenses is the most frequently cited reason for why payday loan customers' take out payday loans. To capture this feature in the experiment we implemented large bill shocks that yield no consumption points but carry hefty penalties if they are not paid. These additional bills are more irregular and infrequent, and are not known to the subjects until the bills appear on each subject's computer screen 28 days before they are due. Table 3 lists these bill shocks.

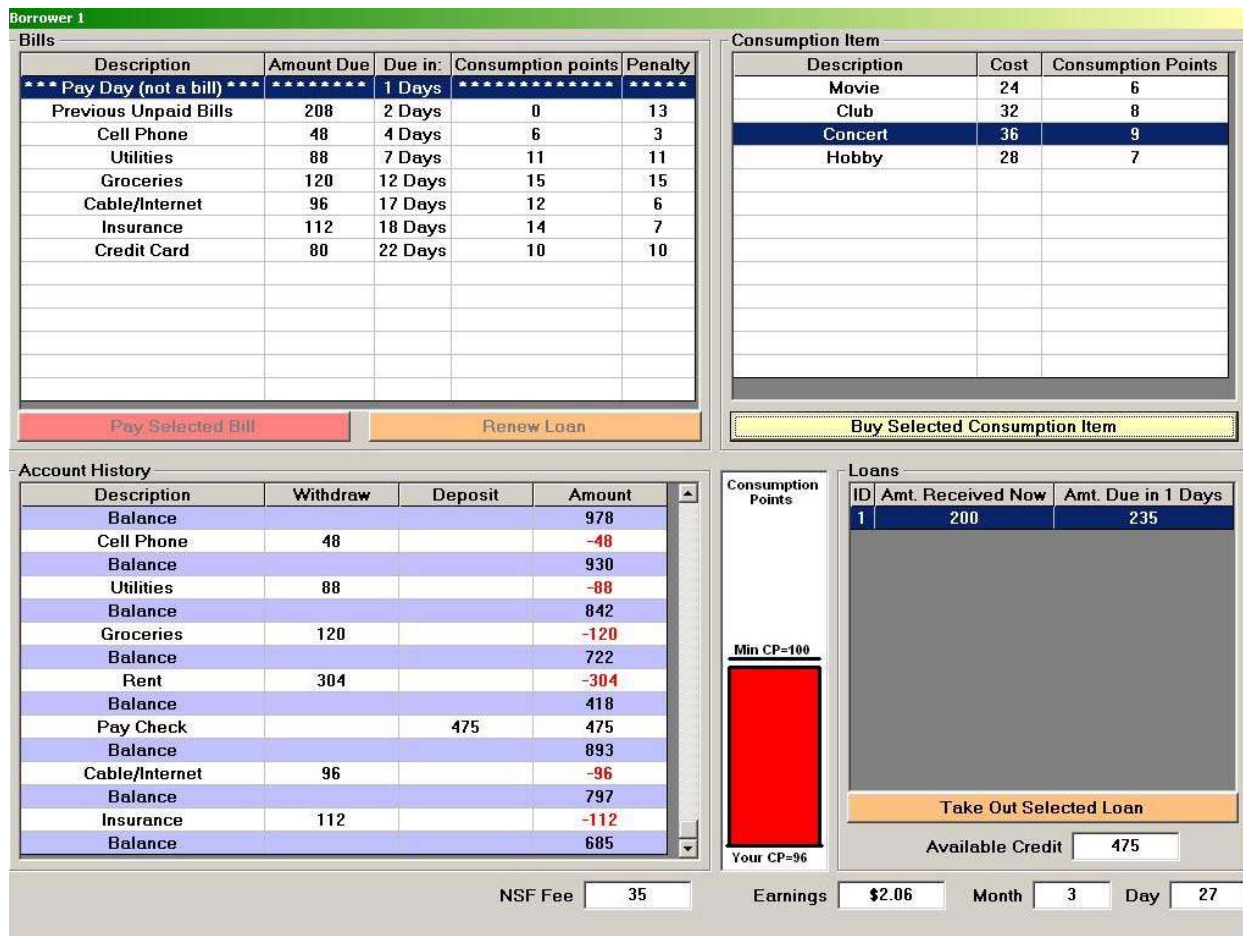


Figure 1. Screenshot for Subject in the *Loan Treatment*

*N.B. The only difference for subjects in the *No Loan* treatment is that they did not have the loan frame in the bottom right corner. The consumption point counter in the bottom middle portion of the screen turned from red to green when the subject met the minimum threshold of 100 consumption points to continue on to the next month.

Table 2. Monthly Bills

Day	Description	Amount	Days until due	Consumption Points	Penalty
2	Rent	304	28	38	38
3	Cell Phone	48	28	6	5
6	Utilities	88	28	11	11
11	Groceries	120	28	15	15
16	Cable/Internet	96	28	12	6
17	Insurance	112	28	14	7
21	Credit Card	80	28	10	10

Table 3. Other Unexpected Bills (or Shocks)

Month/Day	Description	Amount	Days until due	Consumption Points	Penalty
4/7 and 21/7	Vet Visit	180	28	0	45
10/7 and 26/7	Dentist Appointment	190	28	0	48
15/7	Car Repair	200	28	0	50
18/7	Taxes	212	28	0	53
23/7	Appliance Repair	148	28	0	37
24/7	Car Repair	152	28	0	38
26/7	Driving Violation	200	28	0	50

An individual decides which bills to pay and when to pay them. The total amount of bills to be paid over the course of the experiment is \$26,244 and the total amount of income (plus the starting balance) is \$28,075.⁹ Thus bills comprise 93.5% of a subject's income, leaving just 6.5% for discretionary spending. As presented in Table 4, subjects also can choose to purchase optional consumption items at a take-it-or-leave-it price when they become available. Subjects are not informed of the frequency or type of consumption items offered in advance. Purchase of consumption items provide consumption points, which accrue to each subject's earnings. If a (frugal) subject refrains from buying any optional consumption items (and pays all bills on time), he or she will survive until the end of the experiment without taking out a payday loan, bouncing a check, or relying on overdraft protection.

Payment for consumption items is due at the time of purchase. Notice that optional consumption items generate consumption points at twice the rate that bills do. This is meant to capture the more hedonistic pleasure of leisure activities relative to the mundane consumption of utilities, for example. We assume that a vendor has no recourse if a participant bounces a check on an optional consumption item. However, the treatment conditions limit the total number of bounced checks (or overdrafts) to two or eight, so that bouncing checks (or writing overdrafts) eventually catches up with a participant.

Bounced checks or overdrafts are permitted in all of the experimental sessions, though as described at the onset of this section, the maximum number permitted varies with the treatment. Each bounced check or overdraft leads to a

⁹ Since the experiment ends after 30 experimental months, this calculation omits the last paycheck on day 28 of month 30 which could not be used to pay bills, nor the last month's set of bills to appear which would come due the following month.

fee of \$35, regardless of the amount of the check. When a participant bounces a check on a bill in the *No Overdraft Protection* treatment, he avoids the consumption point penalty in the current month, but this is only temporary as the penalty then hits the participant on day 23 of the following month. The bill also remains unpaid. The *Overdraft Protection* treatment differs in that the participant avoids the consumption point penalty in the next month. The bill, however, remains unpaid and the participant is still assessed the \$35 fee for the overdraft.¹⁰

Table 4. Consumption Item Purchase Opportunities

Month/Day Introduced	Frequency Item is Offered	Description	Price	Consumption Points
1/7	Monthly	Movie	24	6
1/17	Monthly	Club	32	8
2/22	Monthly	Hobby	28	7
3/19	Monthly	Concert	36	9
5/9	Bi-Monthly	Sporting Event	80	20
6/2	Tri-Monthly	Vacation	200	50

All unpaid bills for the month appear as a lump sum item, “Previous Unpaid Bills”, on the first day of the following month and are due 28 days later. If a participant fails to pay the previously unpaid bills, he or she incurs the associated consumption point penalty (in the case of utilities, 11 points) and the amount is rolled over to the next month until it is paid.

The computer serves as the payday loan lender in this experiment. The payday loans offered in this experiment are always \$200 at a fee of \$35, which is typical of the rate found in naturally occurring markets. No subject may take out a loan more than twice (\$470) per biweekly pay period (recall the \$475 paycheck). Note that the fee for bouncing a check or writing an overdraft is the same as the fee for taking out a \$200 loan. All loans automatically are repaid on the next payday. All sessions begin without loans available and then on day 27 in month 2, the subjects in the *Loan* treatment receive the additional instructions on the availability of loans and how they work. Loans always are referred to in the experiment as “loans” and not “payday loans.”

A total of 318 subjects participated in the experiment conducted at a large state university in the spring and fall of 2006 and the spring of 2007. Subjects were undergraduate students recruited from the university at large, many from a

¹⁰ In the *Overdraft Protection* treatment, the “unpaid” bill represents the sum the individual must implicitly pay the bank which has “covered” the check.

table in front of a cafeteria. Participants received \$7.00 for showing up on time and additional earnings from the experiment itself. Table 5 reports the summary statistics on the subject earnings by treatment.

Table 5. Summary Statistics on Earnings in US\$*

	<i>Overdraft Protection</i>			
	<i>L2</i>	<i>NL2</i>	<i>L8</i>	<i>NL8</i>
Mean	23.59	23.40	20.99	20.58
Median	26.09	24.32	17.94	16.27
Minimum	3.05	2.29	2.69	3.24
Maximum	37.57	37.48	37.30	37.47

	<i>No Overdraft Protection</i>			
	<i>L2</i>	<i>NL2</i>	<i>L8</i>	<i>NL8</i>
Mean	7.38	13.48	17.78	17.71
Median	11.13	6.86	16.61	17.16
Minimum	3.01	2.87	2.86	2.75
Maximum	37.57	37.57	36.74	36.93

* Does not include \$7.00 show-up payment.

Each subject was seated at a computer terminal and privately read the self-paced instructions on the screen. The experiment began after every subject had completed reading the instructions. Each session typically lasted approximately 75 minutes and no subject participated in more than one session (though several attempted to do so). The subjects were told that the experiment would not last longer than 90 minutes and so ended well in advance of this limit even if they survived until month 30. Earnings were paid privately at the conclusion of the experiment.

Before discussing the results we briefly comment on what we can learn about payday loans in the laboratory vis-à-vis the field. A natural question might be, how can we compare the consumption in the experiment with the consumption in the naturally occurring economy? The answer to this question lies not in explaining how the benefit of paying a grocery bill in our one hour computer exercise somehow corresponds to the benefit of supermarket purchases by a 30-year old single mother of two in rural Virginia. Our aim is to observe what groups of cash-motivated participants do and do not do when faced with a focused task; and here's the key, when replicated under a common set of initial conditions. The typical consumer of payday loans is scraping by month to month and lives in a world full of financial shocks whose frequency and magnitude cannot be

anticipated. The policy question that is debated is whether payday loans help or hinder these people scrape by. To this end we designed a novel computer exercise in which each subject must also scrape by from period to period to continue earning money.¹¹ The objectives of the single mother of two and our typical undergraduate participant are clearly different, but how they go about satisfying their objectives involves analogous trade-offs. Both can indulge in or forego optional consumption purchases when they are affordable, and both can or cannot take out loans to finance optional purchases when they are not affordable.

The most important feature of our design is that, despite their meager means, our subjects are strongly induced to strive to participate further in the experiment in much the same way that a single mother of two in Virginia strives to make ends meet as a basis for further striving. Furthermore, no data, that we are aware of, has been collected on the number of payday customers that make *good* decisions with payday loans. One benefit of experimental economics is that in the laboratory, the counterfactual, which is unseen in the naturally occurring economy, comes to light. While field data sets may reflect the circumstances of actual payday loan customers, they cannot control for the circumstances under which these customers may need to use them. Nor can they randomly assign people to conditions with and without access to payday loans to assess the efficacy of payday loans. In sum, a laboratory experiment complements field studies with actual payday loan customers by providing data on what cannot be studied in the field.

IV. HYPOTHESES

Our primary objective is to examine whether access to payday loans influences individual welfare and, more specifically, the likelihood of financial survival in our experiment. There are other measures of welfare on which to assess the impact of payday loans in the naturally occurring economy, but the key feature of our design is the necessity of surviving month to month to earn more money in the experiment. By design participants must earn \$1 by making ends meet to continue on in the experiment. Hence, the likelihood of survival is the most important determinant of a subject's earnings. All other measures are secondary to this primary determinant of participant earnings.

To examine what effect the existence and use of payday loans have on the likelihood of financial survival, we employ the popular proportional hazards

¹¹ To our knowledge this is the first economic experiment in the laboratory to employ an endogenous survival mechanism.

model developed by Cox (1972).¹² In the presence of right censoring, this method of analyzing the effect of covariates on the hazard rate assumes that $\lambda(t_i) = e^{\beta'x_i} \lambda_0(t_i)$, where λ is the hazard function for individual i at time t , \mathbf{x} is the covariate vector associated with the parameter vector β , and λ_0 is the baseline hazard. For a treatment dummy variable, the Cox model affords a simple interpretation of the “relative risk” for our *No Loan* treatment. Subjects in the *No Loan* treatment are $e^{\beta_{NL}}$ times less likely to survive financially than those in the *Loan* treatment. In other words, we have a measure of the difference in survivability between those who do and those who do not have access to payday loans. For continuous covariates, the exponentiated estimated coefficients are interpreted as the effect of a unit change in the covariate on the relative hazard. For example, $e^{\hat{\beta}_1}$ implies that a one-unit increase in the first covariate changes the hazard by $(e^{\hat{\beta}_1} - 1) \times 100$ percent. An attractive feature of the semi-parametric Cox regression is that it makes no assumption about the parametric distribution of the length of financial survival.

Specifically, we include a number of covariates in our Cox regression. The first covariate, *CIPercent*, measures the expenditures on optional consumption items as a percentage of total income.¹³ *NumberLoans* equals the number of loans that subject i took out in the *Loan* treatment.¹⁴ *EarlyPenalties* measures the number of consumption point penalties that the subject incurred in the first two months. We also include several dummy variables as covariates. *No Loan* equals 1 if the subject is in the *No Loan* treatment, and equals zero if the subject is in the *Loan* treatment. *2BC* equals 1 if the subject is in either of the

¹² Kiefer (1988) presents a thorough introduction to the analysis of duration data and subsequent use of hazard models in economics. For a less formal discussion of duration models, see Kennedy (2003).

¹³ Because the set of opportunities for optional consumption items is fixed over a six month cycle and is the same cycle for every subject, the danger is minimal that the length of financial survival affects the covariate *CIPercent*, which is measured as a percentage over all months of survival.

¹⁴ If the duration of financial survival definitionally (or involuntarily) determined the *NumberofLoans* that a subject would take out, then we would have the problem of an endogenous covariate and hence a biased interpretation of the hazard ratio for this covariate. For example, a Cox model to assess whether casualties affect the duration of war has the endogeneity problem that war duration also causes deaths. Each subject in our experiment, however, has a choice of whether or not to put themselves into a position to need a payday loan at any time during the experiment: early, middle, or late. In other words, *NumberofLoans* is independent of time. Just because a subject survives longer doesn't mean that the subject is going to put, or not put, him- or herself into a financially precarious position of needing to take out a loan. A scatterplot of *NumberofLoans* against months of survival reveals no uniform relationship across our subjects, and a simple OLS regression of *NumberofLoans* on months of survival (for all the subjects in the *Loan* treatment) confirms this with an R^2 of 0.01 and a $F_{1,158} = 1.95$ (p -value of 0.1649).

maximum of two bounced checks or maximum of two overdraft checks treatments. *2BC*, therefore, equals zero if the subject is in a treatment that allows her to bounce up to eight checks or write up to eight overdraft checks. *NoOverdraft* equals 1 if the subject is in the *No Overdraft Protection* treatment, and equals zero if the subject is in the *Overdraft Protection* treatment. And finally, *Female* equals 1 if the subject's gender matches the variable's name.

Our hypotheses are as follows. Our primary hypothesis is that the *No Loan* treatment decreases the likelihood of financial survival because those subjects do not have access to the loans to absorb the bill shocks ($\beta_1 > 0$). Critics of payday loans contend that people subjects may be caught in a "cycle of debt." Thus, an increase in the *NumberLoans* variable is hypothesized to decrease the likelihood of financial survival. Similarly, an increase in the use of loans results in more expenditures on loan fees and, therefore, results in fewer funds available to pay for expected bills and unexpected shocks. Both of these interpretations suggest that increases in the number of loans will reduce the likelihood of financial survival ($\beta_4 > 0$).

We also expect that those subjects who can bounce no more than two checks or write no more than two overdrafts are less likely to survive financially. *2BC*, therefore, decreases the likelihood of financial survival because the subjects have fewer opportunities to use bounced checks or overdrafts as a means to absorb bill shocks ($\beta_2 > 0$). We also expect that *NoOverdraft* will decrease the likelihood of financial survival because, all else fixed, subjects incur additional penalties when bouncing checks (in comparison to overdrafts). We hypothesize that the additional penalties in the *No Overdraft Protection* treatment will make it more difficult to survive ($\beta_3 > 0$).

We also hypothesis that increases in the *CIPercent* variable will decrease the likelihood of financial survival, as purchasing optional consumption items results in fewer funds available to pay for expected bills and unexpected shocks as they arise ($\beta_5 > 0$). Further, an increase in the *EarlyPenalties* variable is expected to decrease the likelihood of financial survival as it difficult to continue in the experiment if one incurs penalties early in the experiment.¹⁵ And finally, we have no reason to predict a gender effect in this experiment.

¹⁵ Because *EarlyPenalties* measures the number of penalties only in the first two months and a subject cannot die until the end of the second month, months of survival cannot affect *EarlyPenalties*. Hence, *EarlyPenalties* is not an endogenous covariate.

Before proceeding further we note that in analyzing the data we found a software bug that differentiated the environmental conditions of a small subset of the subjects (11%) from the others in the *Overdraft Protection* treatment only. Specifically, if a subject attempted to repay his or her “Previous Unpaid Bills” exactly on the first of the month, the software recorded the payment in the accounting ledger of the subject, but this line item for “Previous Unpaid Bills” would appear again in the next month to be repaid a second time. Thus, to survive these subjects would have to pay their unpaid bills twice, making their financial survival that much more difficult.¹⁶ This software problem affected four subjects in the *NL8* treatment, seven in the *L8* treatment, twelve in the *NL2* treatment, and thirteen in the *L2* treatment. Fortunately, we can include these subjects in the Cox regression as “alive” or surviving for the month *before* the software bug affected them. That is, in the month prior to the problem they are in exactly the same circumstances as all the other subjects in the experiment with the observation that they are still surviving in the experiment.¹⁷

V. RESULTS

The estimates from the Cox regression are reported in Table 6. We report the results of the three primary treatment conditions in two model specifications, with and without the behavioral variables and gender. The estimated hazard ratio for the *No Loan* treatment is 1.31 and is statistically different from one (p -value = 0.0550) in the full model. The estimate in the treatment dummy only model is 1.24 (p -value = 0.0650). The interpretation of this estimate is that the *No Loan* treatment increases the relative hazard of financial survival in our experiment by 31 percent. After controlling for the expenditures on the optional consumption items, the subjects without access to loans are at a nontrivially higher risk. Hence we find that the existence of payday loans, all else fixed, increases the probability of financial survival by 31%. In the specification that only includes the treatment dummy variables, the probability of financial survival by 24%. Payday loans,

¹⁶ Amazingly some subjects did.

¹⁷ Medical studies that utilize this model often have many subjects coded similarly. The Cox survival model explains how long a subject survived since a treatment condition began and takes as an input whether or not the subject is currently alive at the time of monitoring. In a cross section of individuals it is *not* necessary that the individuals all have the same opportunity to survive, which in our case is 30 months, nor furthermore does the model assume that all subjects must have enough time to expire (in medical studies this means actually dying) for there to be useful information for the proportional hazard. Thus, if we “monitor” the subjects before the software bugs hits, they are coded as alive up until this point. We cannot simply drop these subjects without introducing a bias into results as there may be a latent variable that selects these individuals to pay their bills on the first day of the month.

therefore, are a means for the subjects to absorb shocks when, for example, they do not sufficiently save for the unexpected “rainy days”.

Taking out the loans, however, does not come without its risk. The estimated coefficient for the *NumberLoans* variable indicates that each additional loan increases the relative hazard by 3 percent and is highly statistically significant (p -value = 0.0090).¹⁸ Thus, we find that a sparing use of loans enhances the survivability of the subject relative to the *No Loan* treatment. The model predicts that a subject taking out ten or fewer loans in the *Loan* treatment has a lower hazard rate than a corresponding subject in the *No Loan*. However, taking out more than ten loans puts the subjects at a greater risk than a corresponding subject in the *No Loan* treatment.

Table 6. Estimates of the Cox Proportional Hazard Model for Months Survived

	$\hat{\beta}_j$	$e^{\hat{\beta}_j}$	z-stat	p-value	$\hat{\beta}_j$	$e^{\hat{\beta}_j}$	z-stat	p-value
<i>No Loan</i>	0.2137	1.24	1.516	0.0650	0.2666	1.31	1.58	0.0550
<i>2BC</i>	0.0689	1.07	0.468	0.3200	0.2315	1.26	1.55	0.0600
<i>NoOverdraft</i>	0.9343	2.55	6.086	<0.0001	0.3974	1.49	2.37	0.0090
<i>NumberLoans</i>					0.0249	1.03	2.37	0.0090
<i>CIPercent</i>					0.1017	1.11	4.41	<0.0001
<i>EarlyPenalties</i>					0.0844	1.09	14.05	<0.0001
<i>Female</i>					0.0849	1.09	0.58	0.5600
			LR(3) = 42.8	<0.0001			LR(7) = 230	<0.0001
			318 Obs.				318 Obs.	

The interpretation of the *No Loan* and *NumberLoans* variables provides us with an opportunity to offer some comments about what effect both the existence and use of payday loans has on the subjects’ abilities to survive financially in our experiment. In our experiment, 160 subjects had access to payday loans. Of those 160 subjects, 35 of them took out more than ten payday loans. Based on the results of the above hazard model, the predicted probability of survival for these 35 subjects (i.e., 21.9% of the subjects with access to payday loans) was lower than that for otherwise identical subjects in the *No Loan* treatment. At the same time, the predicted probability of financial survival for the remaining 125 subjects for whom payday loans exist was higher than that for otherwise identical subjects in the *No Loan* treatment. In other words, while some subjects’ financial survival was adversely affected by their use of payday loans, the majority of subjects in our experiment (i.e., 78.1% of the subjects with access to payday loans) benefited from both the existence of and their subsequent use of payday loans.

¹⁸ The additional covariates of the square of *NumberLoans* and an interaction variable of *NumberLoans* \times *CIPercent* are both highly insignificant.

The restriction of the number of bounced checks (and overdrafts) to two has a significant impact on the ability of our subjects to survive financially. Relative to the *8BC* treatment, the *2BC* treatment increases the probability of failure by 26 percent (p -value = 0.0600). Even after taking into account the costs associated with bounced checks and overdrafts, this result implies that subjects' abilities to survive financially are greater when the subjects are allowed to bounce more checks or to write more overdraft checks. This result, however, is not robust to the different models. In the streamlined model, *2BC* is not statistically different from 1 (p -value = 0.3200).

As hypothesized, the estimated coefficient for the *NoOverdraft* variable is positive and statistically significant (p -value = 0.0090) in the full model. This result indicates that those subjects in the *NoOverdraft* treatment are 49% less likely to survive financially. Without the behavioral variables, the *NoOverdraft* variable has an extremely large impact ($e^{\hat{\beta}_3} = 2.55$, p -value < 0.0001).

We also find that an increase in the *CIPercent* variable increases the probability of financial failure. Specifically, a one percentage point increase in the share of income used to purchase optional consumption items will increase the probability of financial failure by 11% (p -value < 0.0001). Figures 2 and 3 plot the expenditures on optional consumption items as a percentage of income against the number of months of financial survival and reveals a rather clear linear relationship between the two variables for subjects when the *CIPercent* is greater than 6.5% in the *2BC* treatment.¹⁹ This figure clearly shows that the frugal participants who spend less than 6.5% of their income on optional items generally survive until the end of the experiment; the exceptions are the subjects that make early mistakes by failing to pay a bill associated with a large penalty.²⁰ Furthermore, the more that subjects spend on optional items beyond 6.5% the fewer months they survive.

The estimated coefficient for the *EarlyPenalties* variable is also positive and statistically significant (p -value < 0.0001). As expected, increases in the number of penalty points in the first two experimental months cause an increase in the probability of financial failure. Specifically, each additional penalty point

¹⁹ Recall that monthly bills and other shocks represent 93.5% of the subjects' income. The subjects, therefore, can use 6.5% of their income for optional/discretionary spending (or saving).

²⁰ For example, often if a subject fails to pay the rent bill early in the experiment, there is little that a subject can do in the early months to overcome its associated penalty.

causes the probability of financial failure to increase by 9%.²¹ And finally, we find that gender has no effect (p -value = 0.5600).

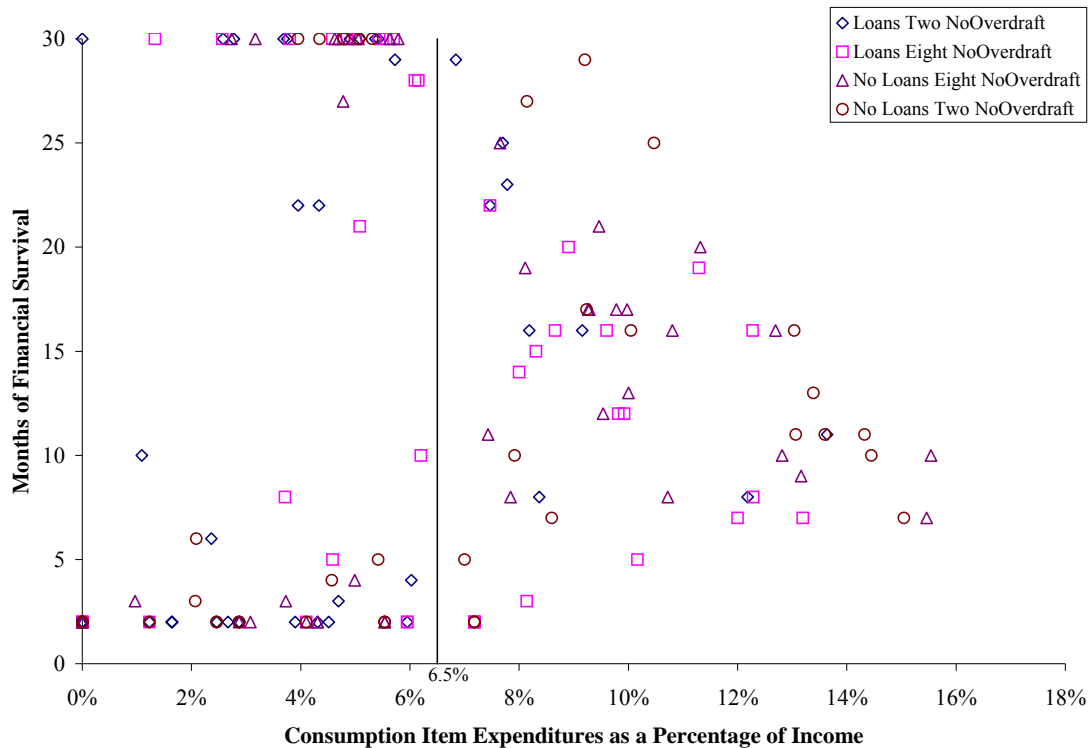


Figure 2. CIPercent Plotted Against Months of Financial Survival for No Overdraft Treatment

We conclude this section with observations on the spontaneous order plotted in Figures 2 and 3. Notice how uniformly people survive until the end of the experiment (once they make it past the first 5 months), *if they restrain their purchases of optional consumption items to less than 6.5% of income*. Recall that by design a solvent subject can only spend 6.5% of income on discretionary spending over a full 30 months of the experiment. For subjects who more liberally spend their income on the optional consumption items, there is a near linear inverse relationship between the months survived and the percentage of

²¹ One possible explanation for this result is that the *EarlyPenalties* variable may capture the effects of the financial skills that each subject brings with her/him to the experiment. We would expect that subjects who know how to pay bills, manage their financial situation, ... etc. are less likely to incur penalties early on in the experiment. Hence, the *EarlyPenalties* variable may also serve as proxy for personal finance skills. Regardless of the interpretation, increases in this variable have a negative effect on the probability of financial survival.

income used to purchase optional consumption items. Considering that people whose $CIPercent < 6.5\%$ take out very few loans, the above analysis indicates that loans are an effective tool to allow people with $CIPercent > 6.5\%$ to survive longer, as long as they do not overuse them.

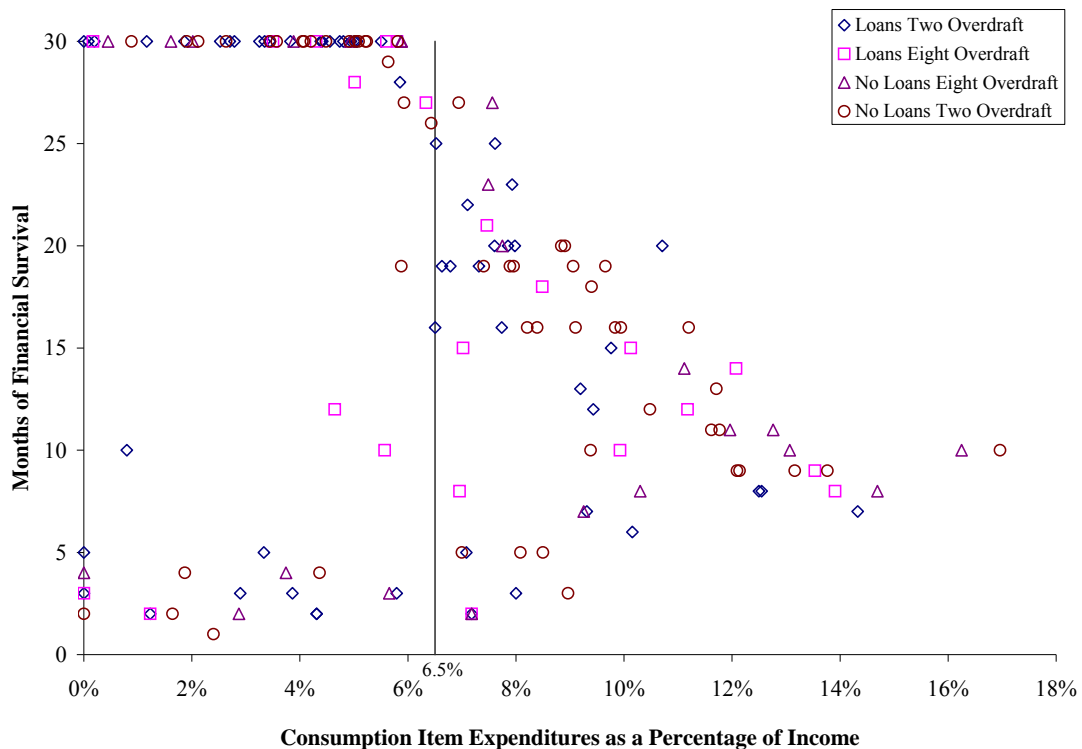


Figure 3. $CIPercent$ Plotted Against Months of Financial Survival for the *Overdraft* Treatment

VI. CONCLUSION

The payday loan industry has received intense scrutiny by policy makers and consumer advocacy groups. This is not a surprising development given the industry's growth, the high interest rates charged on payday loans, and the much-publicized news accounts of those individuals whose repeated renewals of just one payday loan resulted in finance charges that far exceed the initial loan. Given both these high interest rates and allegations of excessive borrowing by some payday loan customers, a number of critics conclude that the payday loan industry represents abusive if not predatory lending. Not surprisingly, some of these same

critics have suggested interest rate caps as a remedy while others have argued that the industry should be banned altogether.

In this paper, we design an environment similar to the one that payday loan customers face. We then conduct a laboratory experiment to examine what effect, if any, the existence of payday loans has on individuals' abilities to manage and to survive financial setbacks (as represented by unexpected expenditures). Our primary finding addresses the question as to whether access to payday loans improves or worsens the likelihood of financial survival in our experiment. We also test the degree to which people's use of payday loans affects their ability to survive financially. We find that payday loans are a means for the subjects to absorb expenditure shocks and, therefore, survive financially. Taking out payday loans, however, does not come without its own risks. Subjects whose demand for payday loans exceeds a certain threshold level are at a greater risk than a corresponding subject in the treatment in which payday loans do not exist. While some subjects' financial survival was adversely affected by their use of payday loans, we found that the majority of subjects in our experiment benefited from the existence of and their subsequent use of payday loans.

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APPENDIX A: EXPERIMENT INSTRUCTIONS

<page 1>

Welcome

This is an experiment in the economics of decision-making. The instructions are simple. If you read them carefully and make good decisions, you may earn a

considerable amount of money that will be paid to you in cash at the end of the experiment.

From this point on, all references are in terms of computer dollars. In this experiment you will have a series of bills you must pay over the course of some days and months. Some bills will come on a monthly basis and some will be one time only.

Bills are located in the upper left portion of the screen and will appear throughout the experiment. Each bill will be due in some number of days after it appears. This means it must be paid on or before the due date. To pay a bill, highlight it by clicking on it and press the **Pay Selected Bill** button.

Each bill will have an amount due. Your account balance is located in the “Account History” frame in the bottom left portion of your screen. This section of your screen records a history of your transactions and your current balance.

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Consumption Points

When a bill appears you will earn **consumption points**. You can think of **consumption points** as the benefit you receive from consuming the item on the bill. The **consumption points** you earn from any given bill is located under the “Consumption points” column in the bills frame.

Every consumption point you have at the end of each month will earn you one cent that will be paid to you at the end of the experiment. Your monthly **consumption point** total will be reset to zero at the beginning of the month.

If you do not pay a bill, you may incur a **consumption point penalty**. The penalty for not paying a bill is located under the “Penalty” column in the Bills section. The penalty will be subtracted from your monthly **consumption point** total. That bill will then appear next month as “Previous Unpaid Bills” in bill section. You will continue to incur the consumption point penalty each month until you pay it off.

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Consumption Points Continued

Each month **consumption items** will also be available for purchase. These items are located in the top right portion of your screen.

Consumption items are optional purchases; there is no penalty if you do not purchase them. If you do purchase a **consumption item**, then the cost will be subtracted from your balance and the **consumption points** will be added to your monthly total.

At the end of each month, which is every 28 days, your **consumption points** will be added to your earnings. They will then be cleared out.

Each month you must consume a minimum of **100 consumption points**. *It is important to note that if you do not reach this minimum by the end of each month, your participation in the experiment will end.*

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Bills continued

If you pay a bill that is greater than your account balance, meaning you don't have enough money to pay for it, you will incur a non sufficient fund (NSF) fee. If this occurs, only the NSF fee of **35** dollars will be subtracted from your balance, and you will avoid the consumption penalty. However, the amount of the bill and its associated penalty will appear next month as part of the "Previous Unpaid Bills".

You can only incur 2 NSF fees.

On the 14th and 28th of every month you will receive a paycheck in the amount of **475**. This will be added to your account balance.

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At the end of the experiment your balance will be converted to cash at a rate of 4 computer dollars to one US cent. This cash will be added to your "Earnings" from the consumption points, which is displayed at the bottom of your screen.

Important Items for Review

- (1) Every **consumption point** you have at the end of a month will earn you one US cent.
- (2) If you do not accumulate the minimum number of **consumption points** by the end of a month, your participation in this experiment will end.

If you feel you are prepared to proceed with the actual experiment, click on the **Start** button. The experiment will begin once everyone has clicked on the **Start** button. If you have a question that you feel was not adequately answered by the instructions, please raise your hand and ask the monitor before proceeding.

<Loan treatment instructions on day 27, month 2>

Loans

At any time you can take out a loan from one of the x different lenders, located in the bottom right portion of your screen.²² All of the loans will give you the same amount, 200 computer dollars. But the different lenders may offer different rates for their loans, located in the “Amt. Due in X Days” column.

Suppose the rate in this column is 225, then if you took out that loan you would receive 200 immediately which would be available to spend. Then you would owe 225 on the next payday (the 14th or the 28th).

The loan will be automatically repaid at the price the amount the lender offered at the time of purchase. On the day the loan is due you can choose to renew it by clicking the “Renew Loan” button. This will renew the loan at the current lender’s rate. The original loan will also be automatically paid back.

²² The software has been programmed to implement subjects as lenders. We chose to first implement a robot lender for this initial project. Each lender has a maximum capacity of twelve loans, so depending upon how many subjects were in a session, we included enough computer lenders to accommodate two loans per subject per pay period.

EXHIBIT I

Assessing the Optimism of Payday Loan Borrowers

Ronald Mann*

This Article compares the results from a survey administered to payday loan borrowers at the time of their loans to subsequent borrowing and repayment behavior. It thus presents the first direct evidence of the accuracy of payday loan borrowers' understanding of how the product will be used. The data show, among other things, that about 60 percent of borrowers accurately predict how long it will take them finally to repay their payday loans. The evidence directly contradicts the oft-stated view that substantially all extended use of payday loans is the product of lender misrepresentation or borrower self-deception about how the product will be used. It thus has direct implications for the proper scope of effective regulation of the product, a topic of active concern for state and federal regulators.

I. INTRODUCTION

Payday lending is at the heart of debates about “alternative” financial products. Since its rise in the early 1990s, the product has gained widespread traction with consumers. In the typical transaction, an individual borrows \$200–\$500 and commits to repay the borrowed funds, together with a one-time fee of 12–18 percent of the loan’s principal, out of the individual’s next paycheck.¹ Payday loans are

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¹ Ronald J. Mann and Jim Hawkins, *Just Until Payday*, 54 UCLA L Rev 855 (2006). The relatively high nominal interest rate reflects the cost structure of the industry.

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now available at about 20,000 storefront locations throughout the Nation, where more than ten million Americans borrowed money in 2010.² To put their success in context, there are more payday lender locations in this country than there are Starbucks and McDonald's locations combined.³

Concerns about payday lending come from its role in the development of "fringe" lending, which has played a major part in the oft-chronicled rise of modern America's culture of indebtedness.⁴ With a vehemence surprising for a product so successful with consumers, consumer advocates are almost uniformly critical of the product.⁵ Two attributes in particular attract the most attention. The first is the relatively high interest rates characteristic of the product, which typically are in the range of 400 percent (a fixed fee of about 15 percent for a loan of two weeks or less).⁶ Concerns about those rates led, for example, to 2007 legislation prohibiting loans to military

On the one hand, operating costs do not decline proportionately with the size of the loan; thus, the administrative costs for small loans are quite high when measured on a percentage basis. At the same time, because the loans are effectively unsecured and typically made with relatively little inquiry into creditworthiness, losses are not insubstantial. Edward C. Lawrence and Gregory Elliehausen, *A Comparative Analysis of Payday Loan Customers*, 26 *Contemp Econ Pol* 299 (2008). For a detailed numerical analysis of the operating expenses and losses of payday lenders and how those compare to fee revenues, see Gregory Elliehausen, *An Analysis of Consumers' Use of Payday Loans* (George Washington University, Financial Services Research Program Monograph No 41, Jan 2009), available at http://www.approvedcashadvance.com/docs/GWUAnalysis_01-2009.pdf.

² The Pew Project, *Payday Lending in America: Who Borrows, Where They Borrow, and Why* (Pew Safe Small-Dollar Loans Research Project Report, July 2012), available at http://www.pewstates.org/uploadedFiles/PCS_Assets/2012/Pew_Payday_Lending_Report.pdf.

³ Donald P. Morgan, Michael R. Strain, and Ihab Seblani, *How Payday Credit Access Affects Overdrafts and Other Outcomes*, 44 *J Money Credit & Bank* 519 (2012).

⁴ John P. Caskey, *Fringe Banking: Check-Cashing Outlets, Pawnshops and the Poor* (Sage 1996); Donncha Marron, *Consumer Credit in the United States: A Sociological Perspective from the 19th Century to the Present* (Palgrave Macmillan 2009); Robert Mayer, *Quick Cash: The Story of the Loan Shark* (Northern Illinois 2010); David Graeber, *Debt: The First 5,000 Years* (Melville House 2011); Louis Hyman, *Borrow: The American Way of Debt* (Random 2012).

⁵ Creola Johnson, *Congress Protected the Troops: Can the New CFPB Protect Civilians from Payday Lending*, 69 *Wash & Lee L Rev* 649 (2012); Nathalie Martin and Joshua Schwartz, *The Alliance Between Payday Lenders and Tribes: Are Both Tribal Sovereignty and Consumer Protection at Risk*, 69 *Wash & Lee L Rev* 751 (2012); Christopher Peterson, *Taming the Sharks* (Akron 2004).

⁶ Mann and Hawkins, 54 *UCLA L Rev* at 855 (cited in note 1).

personnel and their families at interest rates above 36 percent;⁷ this essentially terminated payday lending to military families.⁸

The second concern relates to persistent use of the product. It is well known that many borrowers use the product frequently; in the common phrasing they are said to “roll over” the loans from pay period to pay period because they lack the funds to pay them off as they come due. This leads consumer advocates to fear that borrowers frequently become “mired” in debt that they could have avoided had they never used the product.⁹ The specific concern is that excessive optimism causes users to believe they will pay off their loans rapidly, when in fact they usually will not. Indeed, Bar-Gill and Warren go so far as to assert that no rational consumer expecting to roll over the loan would agree to the terms of a payday loan.¹⁰

These concerns are at the forefront of current regulatory initiatives at the state and federal level. At the state level, many states have adopted specific limitations on rollovers.¹¹ Still others have adopted even stricter regimes that effectively ban payday lending at retail locations.¹² But the most notable activity has come at the federal level, with the recent formation of the federal Consumer Financial Protection Bureau (CFPB). Two regulatory innovations are salient. First, the agency has not only the authority long held by the Federal Trade Commission to respond to unfair and deceptive practices, but also a new, broader power over “abusive” practices by financial firms.¹³ In addition to having broader substantive powers, the CFPB also has sweeping regulatory and supervisory jurisdiction

⁷ The Talent-Nelson Amendment, Section 670 of the John Warner National Defense Authorization Act for Fiscal Year 2007, Pub L No 109-364, 120 Stat 2083, was codified at 49 USC § 987.

⁸ Johnson, 69 Wash & Lee L Rev at 649 (cited in note 5); Patrick Aul, *Federal Usury Law for Service Members: The Talent-Nelson Amendment*, 12 NC Bank Inst 163 (2008).

⁹ Mayer, *Quick Cash* (cited in note 4); Peterson, *Taming the Sharks* (cited in note 5); Alan M. White, *Behavior and Contract*, 27 L & Ineq J 135 (2009).

¹⁰ Oren Bar-Gill and Elizabeth Warren, *Making Credit Safer*, 157 U Pa L Rev 144–46 (2008). Alan White’s analysis is similar. Alan M. White, *Behavior and Contract*, 27 L & Ineq J 135, 159–63 (2009).

¹¹ Mann and Hawkins, 54 UCLA L Rev at 897–98 (cited in note 1).

¹² National Conference of State Legislatures, *Payday Lending Statutes* (2013), available at <http://www.ncsl.org/research/financial-services-and-commerce/payday-lending-state-statutes.aspx>; Pew Project, *Payday Lending in America* (cited in note 2); Morgan, Strain, and Seblani, 44 J Money Credit & Bank (cited in note 3); Sealy Hutchings and Matthew J. Nance, *Credit Access Businesses: The Regulation of Payday and Title Loans in Texas*, 66 Consumer Fin L Q Rep 76 (2012) (discussing recent legislative initiatives in Texas).

¹³ 12 USC § 5531.

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over bank and nonbank financial service providers that previously did not exist at the federal or state level.¹⁴ Because federal regulators previously had no direct supervision over the lending practices of nonbanks like the major payday lenders, the new authority of the CFPB raises the possibility of major new regulatory initiatives in this area.¹⁵

Recent CFPB enforcement actions against major credit card issuers¹⁶ suggest it will pursue its mandate vigorously, which makes an accurate perspective on the payday loan a valuable commodity. Because the CFPB has no authority to regulate interest rates¹⁷ concerns about repetitive use and rollovers are likely to be at the heart of any such regulatory initiative. For example, the director of the agency recently suggested the propriety of CFPB action against products for which “a substantial percentage of users rol[l] over their debts on a recurring basis” because those products amount to “debt traps.”¹⁸ Moreover, the CFPB’s recently published white paper on payday loans directly decries the repetitive use of the product and avows an intention to consider mandating cooling-off periods as a matter of federal law.¹⁹ Press reports suggest that similar action by the Comptroller of the Currency and Federal Deposit Insurance Corporation against large banks is also in the works.²⁰

In the spirit of the call by Sunstein for empirical validation of regulatory strategies, this study responds with a direct test of the accuracy of consumer understanding about repetitive use of the product.²¹ Comparing the results from a survey administered to payday loan borrowers at the time of their loans to subsequent borrowing and repayment behavior, this essay presents the first direct evidence of the accuracy of payday loan borrowers’ understanding of

¹⁴ The CFPB was created by Title X of Dodd-Frank, the Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub L No 111-203, 124 Stat 1376, §§ 1001-1100H. The regulatory authority directed specifically at nonbank financial service providers appears in Section 1024 of Dodd-Frank, codified at 12 USC § 5514.

¹⁵ Johnson, 69 Wash & Lee L Rev at 649 (cited in note 5).

¹⁶ See *In re Capital One Bank*, (USA) NA, No 2012-CFPB-0001 (July 18, 2012) (consent order); *In re American Express Centurion Bank*, No FDIC 12315b etc (Sept 21, 2012) (consent order); *In re Discover Bank Greenwood Delaware*, No FDIC-11-548b etc (Sept 24, 2012) (consent order).

¹⁷ 12 USC § 5517(o).

¹⁸ Richard Cordray, *Prepared Remarks by Richard Cordray, Director of the Consumer Financial Protection Bureau* (2013).

¹⁹ *Id.*

²⁰ Jessica Silver-Greenberg, *Major Banks Aid in Payday Loans Banned by States*, NY Times (Feb 23, 2013).

²¹ Cass R. Sunstein, *Empirically Informed Regulation*, 78 U Chi L Rev 1349 (2011).

the product. In general, the evidence suggests two things. First, most borrowers do not expect that they will be free of debt at the end of the first loan term; on the contrary, more than half of borrowers expect that they will need to continue to borrow for additional pay cycles. Borrower estimates of an ultimate repayment date are realistic; the mean predicted period of borrowing after the initial loan matures is thirty-six days. Among other things, that finding directly rebuts the idea that borrowers never understand that they are likely to roll their loans over.

More important for present purposes, most (though surely not all) borrowers have a good understanding of their own use of the product. Specifically, most borrowers finally repay their loans and are free of debt within two weeks of the date they predicted on the date of the loan. The evidence that such a large share of borrowers accurately understand how the product will be used contradicts the accepted premise that substantially all extended use of payday loans is the product of lender misrepresentation or borrower self-deception about how the product will be used. More broadly, that evidence renders irrelevant the oft-stated premise of behavioral policy-making, the so-called golden rule of policy-making under which regulatory intervention is appropriate only if it can correct a choice that is an error for substantially all of those who make it.²²

Section II of the Article situates the survey against prior writing about payday loans. Section III describes the survey and resulting dataset. Section IV describes the results. Section V elucidates the implications of the empirical results for the theoretical and policy debates about payday lending regulation. Section VI briefly concludes and suggests directions for extension.

II. LITERATURE REVIEW

The focus of this essay is on the particular concern that payday loan borrowers do not understand the product, and specifically that a bias toward optimism causes them systematically to overestimate the likelihood that they will be able to free themselves from debt promptly. The idea of an optimism bias is often attributed to the well-known study by Weinstein of the life expectations of students.²³ The basic concept is that individuals systematically assess their own future opportunities and behavior with undue and excessive

²² Richard H. Thaler and Cass R. Sunstein, *Nudge: Improving Decisions about Health, Wealth, and Happiness* (Yale 2008).

²³ Neil D. Weinstein, *Unrealistic Optimism about Future Life Events*, 39 J Personality & Soc Psych, 806 (1980).

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optimism. Buttressed by numerous empirical studies,²⁴ the idea has been widely accepted as a basic tenet of the behavioral economics literature.²⁵

Among legal academics, concerns about the optimism bias as a cause of excessive use of payday loans have been pervasive. The claim has been pressed in passing by several scholars,²⁶ but by far the most prominent and detailed support for that perspective comes from Oren Bar-Gill and Elizabeth Warren. Payday loans are one of the central examples in their work “Making Credit Safer.”²⁷ Their strategy with respect to payday loans is to suggest that borrowers who roll their loans over have underestimated the risk of nonpayment, reflecting their premise that no rational consumer would borrow from a payday lender with an expectation to roll over the loan. Thus, they argue, only the “customer who misestimates her ability to repay the loan in fourteen days will likely roll the loan over.”²⁸ That perspective is particularly important because of their role in the creation and design of the CFPB,²⁹ and because of Warren’s place now in the United States Senate (on the Senate Banking Committee), where she can be expected to play a key role in financial regulation.

A similar perspective pervades the more recent work of the Pew Charitable Trusts’ Safe Small-Dollar Loans Research Project. A 2012 study based on a nationally representative survey of payday lending

²⁴ Ernest J. Doleys and Guy A. Renzaglia, *Accuracy of Student Prediction of College Grades*, 41 *Personnel & Guidance J* 528 (1963); Lynn A. Baker and Robert E. Emery, *When Every Relationship Is Above Average: Perceptions and Expectations of Divorce at the Time of Marriage*, 17 *L & Human Beh* 439 (1993); Phanikiran Radhakrishnan, Holly Arrow, and Janet A. Sniezek, *Hoping, Performing, Learning, and Predicting: Changes in the Accuracy of Self-Evaluations of Performance*, 9 *Hum Performance* 23 (1996); Terence R. Mitchell, et al, *Temporal Adjustments in the Evaluation of Events: The “Rosy View,”* 33 *J Exper Soc Psych*, 421 (1997); D.A. Amor and S.E. Taylor, *When Predictions Fail: The Dilemma of Unrealistic Optimism*, in T. Gilovich, D. Griffin, and D. Kahneman, eds, *Heuristics and Biases: The Psychology of Intuitive Judgment* (Cambridge 2002).

²⁵ Christine Jolls, *Behavioral Economics Analysis of Redistributive Legal Rules*, 51 *Vand L Rev*, 1653 (1998); Cass R. Sunstein, *Hazardous Heuristics*, 70 *U Chi L Rev* 751 (2003); Thaler and Sunstein, *Nudge* (cited in note 22); Tali Sharot, *The Optimism Bias: A Tour of the Irrationally Positive Brain* (Pantheon 2011).

²⁶ Peterson, *Taming the Sharks* (cited in note 5); White, 27 *L & Ineq J* at 135 (cited in note 10).

²⁷ Bar-Gill and Warren, 157 *U Pa L Rev* at 1 (cited in note 10).

²⁸ *Id* at 44.

²⁹ For their recommendations of something like CFPB, see Elizabeth Warren, *Unsafe at Any Rate*, 5, *Democracy*, 8 (2007) online at <http://www.democracyjournal.org/5/6528.php?page=all>; Elizabeth Warren, *Redesigning Regulation: A Case Study from the Consumer Credit to Market* (2012).

borrowers finds that most borrowers do not use the product for short periods of time, but rather are indebted for about five months out of each year.³⁰ Again, that study works from the premise that the product is designed for immediate repayment, and that use in extended borrowing cycles necessarily is problematic. In their own words, the product's actual use is in "sharp contrast" to its "advertise[ment] as short-term, small-dollar credit intended for emergency or special use."³¹ Those concerns are even more prominent in the most recent report from the Pew Project, which emphasizes the premise that borrowers "hold unrealistic expectations about payday loans."³²

Although the perspective articulated by Bar-Gill, Warren, and Pew has been taken for granted among legal scholars, its analytical shortcomings are apparent. For one thing, as a theoretical matter, it is not at all clear that optimistic behavior reflects poor financial choices. Thus, such empirical evidence as there is suggests that those who are optimistic in fact often (though certainly not always) make better financial choices than those who are not.³³ Moreover, it is well known that many consumers do a poor job of managing their lifetime consumption and savings choices. The typical "prudent" consumer invests too conservatively, resulting in a substantial shortfall in lifecycle investing; Ayres and Nalebuff vigorously argue that a more "audacious" pattern of behavior would be beneficial.³⁴

³⁰ Pew Project, *Payday Lending in America* (cited in note 2). Having said that, the overdraft rates reported by the Pew Project, *Payday Lending in America: Report 2: How Borrowers Choose and Repay Payday Loans* (hereinafter *Report 2*) 19, 33 [Pew Safe Small-Dollar Loans Research Project Report, 2013], suggest that the Pew sample involves a considerably less creditworthy group of borrowers than the sample analyzed here. This most likely relates to the inclusion in the Pew sample of a large number of online customers (451 storefront customers and 252 internet customers). Pew Project, *Report 2* at 55 (cited in note 30). Because those lenders are not readily supervised by state regulators, there is a strong likelihood of more abusive lending and collection practices, and considerable reason to think that the borrowing pool is less creditworthy. Silver-Greenberg, *NY Times* (Feb 23, 2013) (cited in note 20); Pew Project, *Report 2* at 16. The Pew data also warrant caution because they are based on post hoc estimates by borrowers of prior borrowing behavior, rather than direct observation of behavior documented in loan records (the strategy for this project).

³¹ Pew Project, *Payday Lending in America* at 13 (cited in note 2). The suggestion that the lenders are misrepresenting the nature of the product in some way is not unique to the Pew Project. See, for example, White, 27 *L & Ineq J* at 159 (cited in note 10) (suggesting that payday loans "are described (falsely) as a short-term credit product, exploiting the consumer's optimism bias").

³² The Pew Project, *Report 2* at 19 (cited in note 30).

³³ Manju Puri and David T. Robinson, *Optimism and Economic Choice*, 68 *J Fin Econ* 71 (2007).

³⁴ *Id.*; Ian Ayres and Barry Nalebuff, *Lifecycle Investing: A New, Safe, and Audacious Way to Improve the Performance of Your Retirement Portfolio* (Basic 2010).

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Also, as an empirical matter, it seems far too simple to attribute misperception of product use to a vague and general bias toward “optimism.” More recent scholars have emphasized the variety of cognitive limitations that might lead to arguably ill-advised borrowing. For example, some borrowing might relate to a misprediction of future self-control (such as a failure to appreciate the likely effects of hyperbolic discounting), a classic example of the optimism bias.³⁵ Others recently have emphasized the possibility that scarcity creates a cognitive “load” that might force inattention to the costs of future borrowing.³⁶ Still again, some of the borrowing is likely to relate to a misprediction of the income and consumption shocks necessary for repayment to occur.³⁷ Thus, absent a research design that can distinguish among those causes, even empirical evidence that borrowers mispredict their use of the product well might reflect any number of problems more or less closely related to excessive optimism.

Against that background, it is distressing that those who seem so sure that all payday loan borrowers are making incorrect choices have failed to observe either the theoretical or empirical ambiguity that plagues their claims. Indeed, legal scholars writing about the role of optimism bias in consumer lending have not for the most part offered empirical evidence;³⁸ rather they have imported the findings of the behavioral economists and psychologists into this context, using the possibility of optimism bias to explain increases in consumer borrowing.³⁹ Hence, empirical work about the prevalence and significance of optimism among payday loan borrowers has come from other venues.

³⁵ Paige Skiba and Jeremy Tobacman, *Payday Loans, Uncertainty and Discounting: Explaining Patterns of Borrowing, Repayment, and Default* (Vanderbilt Law and Economics Research Paper No 08-33, Aug 21, 2008), online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1319751 (visited July 12, 2013).

³⁶ Anuj K. Shah, Sendhil Mullainathan, and Eldar Shafir, *Some Consequences of Having Too Little*, 338 *Science* 682 (2012).

³⁷ Ronald J. Mann, *After the Great Recession: Regulating Financial Services for Low- and Middle-Income Communities*, 69 *Wash & Lee L Rev* 729 (2012).

³⁸ This is of course a commonly noted problem with much of the legal scholarship applying behavioral analysis. Doron Teichman, *The Optimism Bias of the Behavioral Analysis of Crime Control*, 2011 *U Ill L Rev* 1697, 1710.

³⁹ Richard M. Hynes, *Overoptimism and Overborrowing*, 2004 *BYU L Rev* 127 (2004); Cass R. Sunstein, *Boundedly Rational Borrowing*, 73 *U Chi L Rev* 249 (2006); Nathalie Martin and Ocean Tama y Sweet, *Mind Games: Rethinking BAPCPA's Debtor Education Provisions*, 31 *SIU L J* 517 (2006); Adam J. Levitin, *Finding Nemo: Rediscovering the Virtues of Negotiability in the Wake of Enron*, 2007 *Colum Bus L Rev* 83 (2007).

An important paper by Bertrand and Morse tests the effectiveness of various disclosure forms in altering perceptions about how the product will work.⁴⁰ Bertrand and Morse also surveyed borrowers about how long they believed payday loans typically remain outstanding; about half the borrowers in their study thought that loans typically remain outstanding beyond the base two-week period. A recent survey by researchers at the Center for Financial Services Innovation asked a sample of borrowers using a variety of alternative financial services, after the fact, if it “took more time than expected to repay the loan.” Of the payday loan borrowers, only 32 percent reported that it did take longer than expected.⁴¹ Similarly, the 2013 report from the Pew Project addresses this question obliquely, finding on the one hand that the overwhelming majority of borrowers report the terms of the transactions as clear but at the same time report that they do not have funds in their monthly budget to repay the loan in one cycle.⁴²

Collectively, those studies suggest that payday lending borrowers understand that many borrowers roll over their loans, and that this understanding is, at the most general level, accurate. Neither study, however, sheds any light on the central factual question: how well do individual borrowers understand their own likely future behavior? If optimism in fact is driving these decisions, then borrowers systematically are likely to underestimate the time to repayment. That is the question that motivated this study.

III. DATA AND METHODS

A. The Survey

1. *Survey Design.* Because the survey instrument was to be administered to borrowers at the point of borrowing, the interest in obtaining a high response rate suggested that it should be concise, limited to one side of a single sheet of paper. Limited by that constraint, the instrument inquires about borrower characteristics, use of the borrowed funds, and borrower expectations about repayment.

⁴⁰ Marianne Bertrand and Adair Morse, *Information Disclosure, Cognitive Biases, and Payday Borrowing*, 66 J Fin 1865 (2011).

⁴¹ Rob Levy and Joshua Sledge, *A Complex Portrait: An Examination of Small-Dollar Credit Consumers* (Center for Financial Services Innovation, Aug 2012), available at <http://www.fdic.gov/news/conferences/2012-09-2728/A%20Complex%20Portrait.pdf>.

⁴² Pew Project, *Report 2* at 13–17.1 (cited in note 30).

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The questions eliciting background data mirror similar questions examined in the existing literature,⁴³ and help to establish a baseline of the characteristics of the payday loan borrowers in the sample. The instrument collects information about race, age, gender, education, and prior experience with payday lenders.

On the second topic, the instrument offers thirteen specific uses. Borrowers can check as many as apply or add text into a catchall into which borrowers can add written comments; that question tracks precisely the question asked on that topic in Bertrand and Morse⁴⁴ with the addition of an option for education expenses.

The focal point of the survey is assessing the quality of borrower understanding of how the product will be used. Initially, the object was to take the topic of Bertrand and Morse⁴⁵ and test the accuracy of perception, by comparing the borrower's expectation to actual subsequent borrowing and repayment behavior. As it turned out, however, it was far more complicated than expected to modify the Bertrand and Morse survey question for this project.

The Bertrand and Morse survey included the following question: "What's your best guess of how long it takes the average person to pay back in full a \$300 payday loan? Please answer in weeks."⁴⁶ In modifying that question for use in this survey, several issues arose, which ultimately led to three separate questions on this topic. The biggest problem relates to the inherent ambiguity of what it means in this context to pay a loan "back in full." As it happens, the law of many states (including the five states in which the survey was given) technically forbids "rollover" loans.⁴⁷ Still, it is possible in most states (including all of the survey states other than Florida) for the lender to conduct same-day transactions in which a new loan is issued on the same day as the loan being paid off. Although the difference between a rollover (collecting a new fee and extending the term of the existing loan) and issuing a new loan shortly after repayment of the old loan might seem technical, it complicates the survey process considerably. For one thing, excluding borrowers who default on the first loan (and there were no such borrowers in this dataset), all borrowers in fact pay the loan back in full at the conclu-

⁴³ Lawrence and Eliehausen, 26 *Contemp Econ Pol* at 299 (cited in note 1); Eliehausen, *Consumers' Use of Payday Loans* (cited in note 1); Michael S. Barr, *No Slack: The Financial Lives of Low-Income Americans* (Brookings 2012).

⁴⁴ Bertrand and Morse, 66 *J Fin* at 1870 (cited in note 40).

⁴⁵ *Id.* at 1876.

⁴⁶ *Id.*

⁴⁷ Cal Fin Code § 23037(a); Fla Stat § 560.404(19) (requiring twenty-four-hour cooling-off period between loans); Kan Stat Ann § 16a-2-404(6); La Rev Stat § 9:3578.6(7) (permitting rollovers only upon partial prepayment); 59 Okla Stat § 3109(A).

sion of the first pay period.⁴⁸ Thus, if I had used the Bertrand and Morse question without revision (asking how many weeks it would take for a loan to be paid “back in full”), all borrowers who understood the product and answered truthfully would have responded with an answer indicating the original date of maturity (in this dataset typically something less than fourteen days). Yet if the question is designed to test perceptions about rollovers, such answers would indicate ignorance of the likelihood that many if not most of the borrowers would take out a new loan shortly after repayment of the original loan.⁴⁹ Because of the difficulty of separating the responses that might reflect a literal reading of the question from those that might reflect a colloquial reading of the question, I decided to phrase the question differently.

Trying to ask a question that could be answered with literal accuracy in an informative way, I revised the Bertrand and Morse question and divided it into two separate questions. The first asks about the borrower’s anticipation of whether the survey loan will be rolled over: “Do you expect to continue this borrowing after the due date of this loan?” Paired with that question is a follow-up about the extent of likely rollovers, roughly parallel to the Bertrand and Morse estimate: “If so, for how many additional weeks?” To be sure, this question is more complex than the Bertrand and Morse question, and thus poses a risk that subjects will not understand what the question is asking, but ultimately I decided that the virtue of precision justified the more complex phrasing.

A second problem relates to a mismatch between rollovers as the problematic aspect of the product and borrowers being mired in a long-term debt relationship as the ultimate policy concern.⁵⁰ Even if we extend the concept of rollovers to include substantially contemporaneous new borrowings (the subject of the revised question discussed above), we have missed much of what makes the pattern of payday borrowing troubling. In truth, even if a borrower does not roll a loan over, but instead repays the loan out of incoming salary, the borrower has not become free from the cycle of payday borrowing until the borrower goes an entire pay cycle without a new loan.⁵¹ Thus, the proper topic of inquiry is the length of the borrowing cycle—starting from the initial loan, how much time elapses before the

⁴⁸ It is apparent, in accordance with applicable local law, that none of the loans in this dataset were rolled over at their original date of maturity.

⁴⁹ In the data that I analyze here, for example, 67 percent of the borrowers took out a new loan on the same day as they repaid the initial loan.

⁵⁰ Graeber, *Debt* (cited in note 4); Hyman, *Borrow* (cited in note 4).

⁵¹ For a detailed discussion of that problem and the weakness of typical state regulatory responses, see Mann and Hawkins, 54 *UCLA L Rev* at 898 (cited in note 1).

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borrower is free from debt in the sense of going an entire pay period without a new loan.⁵² The final question of the survey attempts to gauge expectations about that broader notion of repayment: “We’d like to understand more about your overall financial picture. How long do you think it will be before you have saved enough money to go an entire pay period without borrowing from this lender? If you aren’t sure, please give your best estimate.”

2. *Survey Administration.* With the cooperation of a large national payday lender, the survey instrument was administered to borrowers at payday lending stores in a group of five states during the summer of 2012; the goal was for administration to continue at each store until the total number of surveys had reached approximately 1200. The survey was presented to every other eligible borrower. To ensure that the borrower was not in the middle of a borrowing cycle, borrowers who had borrowed during the preceding thirty days were not eligible.⁵³ Aside from that exclusion, all borrowers approved for loans were eligible. The reason for presenting the survey only to alternate borrowers was to limit the possibility that potential borrowers would come to the store for the purpose of receiving the modest survey compensation (\$10). In the end, the survey was presented to 1374 borrowers. The response rate was quite high; only forty-eight refused, for a response rate of 96.5 percent.⁵⁴ Table 1 summarizes the distribution of the surveys and store locations among the five states.

⁵² Fusaro and Cirillo use a similar technique constructing the “spell” of an individual’s borrowing. Marc Anthony Fusaro and Patricia J. Cirillo, *Do Payday Loans Trap Consumers in a Cycle of Debt* (Working Paper, Nov 16, 2011), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1960776.

⁵³ Because the focus of the project is on studying the relation between borrowing cycles and borrower expectation, it makes sense to collect a group of borrowers at the beginning of their cycle. To be sure, this is likely to produce a dataset that is more representative of borrowers than it is of loans; because most of the excluded borrowers were those in the middle of a borrowing cycle, a higher share of loans during the survey period were “cycled” loans than extrapolation from this data would suggest. Unfortunately, the data provided to me do not permit me to identify the borrowers excluded for that reason. Accordingly, I cannot identify any differences between the borrowing patterns of customers who were mid-cycle when this survey began and the borrowing patterns of customers who started a new cycle during administration of the survey.

⁵⁴ Unfortunately, I did not receive loan numbers for the forty-eight borrowers who refused the survey. As a result, I cannot compare the borrowing characteristics of those borrowers who refused the survey to the borrowing characteristics of those that completed it.

Table 1. Summary of Survey and Store Distribution

State	Locations	Surveys
California	24	374
Florida	14	447
Kansas	4	86
Louisiana	11	359
Oklahoma	5	60
Total	58	1326

3. *Lender Data.* Because the purpose of the project was to assess the accuracy of borrower expectations about the product, it was crucial to obtain data about the actual borrowing and repayment practices of the survey subjects. The lender provided access to complete transaction data about all borrowers for a period of twelve months.⁵⁵ Access to this type of data is crucial, because it makes it possible to study the actual patterns of borrowing and repayment at the individual level. For this particular project, it allowed me to examine two aspects of the behavior of payday borrowers that has not previously been studied. First, as discussed above, it allowed me to calculate the actual borrowing cycles for each borrower—I was able to determine for each borrower who answered a survey how long from the date of the contemporaneous loan elapsed before the borrower went an entire pay period without borrowing.⁵⁶ Second, because the survey displays the borrower’s expectations about repayment behavior, I was able to compare the borrower’s expected repayment behavior to what actually transpired.

⁵⁵ Without identifying the lender, I can report that the lender’s products are typical of those of large national storefront lenders. Thus, for example, it offers only payday loans as described above, except that it does follow the Community Financial Services Association of America’s policy of permitting borrowers to switch to an amortized product after an extended borrowing cycle. It does not appear that any of the borrowers in this dataset took advantage of that opportunity.

⁵⁶ To be sure, I can only assess the borrowing cycle from this particular lender, so my data do not account for the possibility that a borrower might start a borrowing cycle with one lender and shift mid-cycle to a different lender. It is difficult to assess the importance of that problem precisely, but given the low transaction costs of continuing with another lender, as compared to switching to a new lender, it seems unlikely to alter the general thrust of the results summarized below.

IV. RESULTS

The most important results of the survey relate to the central questions that motivated the project; three topics warrant detailed discussion. First, most borrowers expected that they would continue borrowing for some time after the initial loan. This undermines the notion (characteristic of much of the legal and policy literature on the subject) that the repeated borrowing that is typical of payday borrowers generally reflects surprise on the part of the borrowers or deception on the part of the lenders. Second, the borrower's predictions about their future repayment behavior, although imperfect, are surprisingly accurate. On the principal question—when would the borrower be free from borrowing for an entire pay period—about 60 percent of the borrowers predicted the final repayment date with reasonable accuracy (within a fourteen-day window, as discussed below). That is to say, most borrowers could predict to within one pay period when they would be free of debt. Moreover, the errors that the borrowers did make were not systematic; thus, because the “optimistic” errors essentially balanced the “pessimistic” errors, the average error in prediction was close to zero. Third, most surprisingly, the demographic characteristics do little to differentiate borrowers in explaining the accuracy of predictions. The strongest and most consistently significant predictor of accuracy are heavy prior use of the product, which relates substantially to poor predictions, and the nature of state regulation, which leads to substantial variation in the quality of predictions (presumably because of differences in the pool of borrowers).

A. Borrower Characteristics

Before turning to the substantive results, a few words about the characteristics of the borrowing population are warranted. Figure 1 summarizes the distribution by race, gender, age, and educational attainment. As the figure indicates, payday loan borrowers are less likely to be white (less than 25 percent) and more likely to be black (about 50 percent) than the general population, more likely to be female (about 60 percent), likely to be relatively young (the modal group is twenty-five to thirty-four years old), and likely to be relatively well educated (more than half have attended college).⁵⁷ In gen-

⁵⁷ There is a substantial group that reports attending college but that has not achieved a BA degree or the equivalent. This is in part due to the young age of that portion of the sample and the concomitant likelihood that their postsecondary education is ongoing.

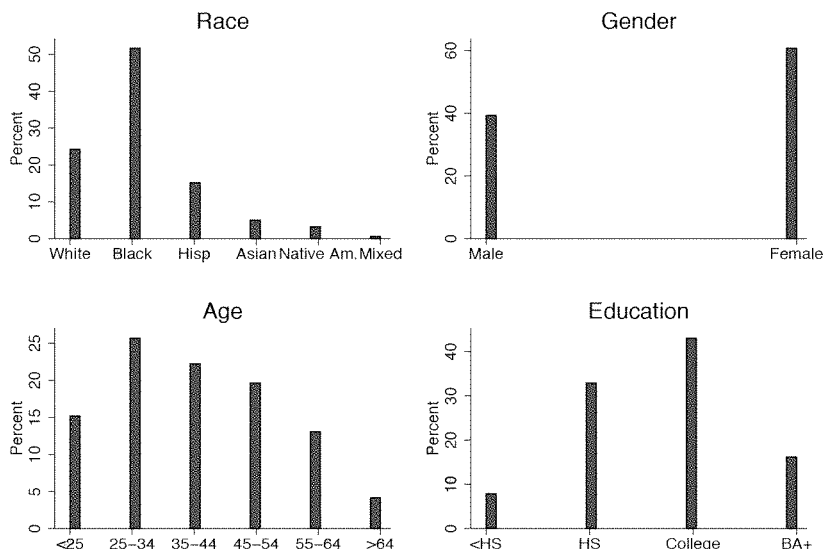


Figure 1. Demographic characteristics of borrowers. Histograms display distribution of demographic characteristics based on survey responses of borrowers. N = 1318-24.

eral, those characteristics are consistent with the findings of prior academics that have collected similar information about payday lending customers.

The data about the uses to which the funds are put are also, broadly speaking, similar to prior survey results asking about similar topics. As summarized in Figure 2, in general they show that the dominant use (about two-thirds of all borrowers) is for ordinary recurring expenditures (rent, utilities, groceries, or the like). A much smaller share (about 10 percent) respond to emergencies, and an even smaller share (less than 5 percent) are for leisure expenditures (gifts, dining, and the like).⁵⁸

B. Ex Ante Understanding of Continued Use

The most straightforward information to come from this survey involves the expectations of payday lending borrowers about the expected length of their borrowing. As summarized above, the survey

⁵⁸ About 17 percent report uses in multiple categories. For comparison, see the similar figures in Pew Project, *Payday Lending in America* at 14 (cited in note 2).

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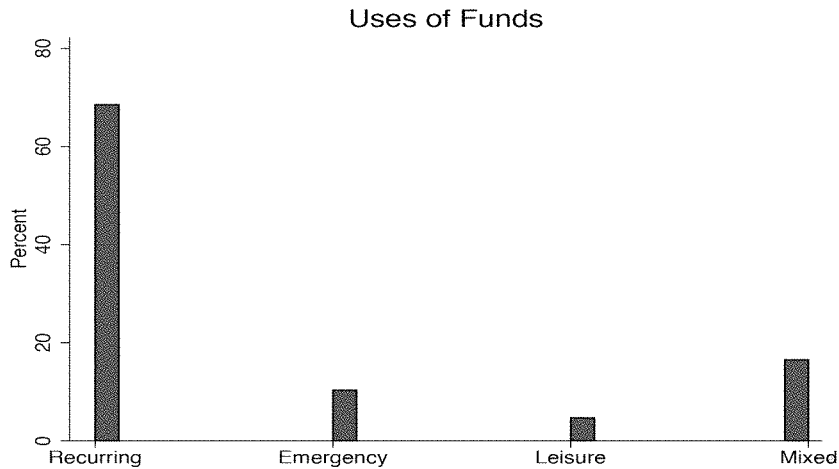


Figure 2. Planned uses of borrowed funds. N = 1069. Histograms based only on responsive surveys.

asked a series of closely related questions on that topic. However the question was phrased, a large group of borrowers expected, at the time of their loans, that they would be using the product continuously for a considerable time. So, for example, when asked whether they would “continue” their borrowing after its original due date—essentially whether they anticipated rolling over their loans—40 percent ($n = 518$) thought that they would and another 2 percent ($n = 19$) wrote in an answer indicating in one way or another that they couldn’t be sure (“don’t know,” “idk,” “maybe,” “not sure,” and so on).⁵⁹

What is most notable, however, is the variability of expectations about how long the borrowing would continue (the follow-up question to the question whether the borrowing was expected to continue). As the first panel of Figure 3 displays, among the borrowers who offered an estimation as to when they would repay their debt,⁶⁰ a substantial group (more than half) expected that it would

⁵⁹ That answer resonates with the concerns emphasized in Mann, 69 Wash & Lee L Rev at 744–47 (cited in note 37), about the inherent unpredictability of a solution to the financial problems of the desperate.

⁶⁰ For a variety of reasons, the number of respondents providing a numerical response to that question was relatively small ($n = 340$). For one thing, the instrument sought a response only from those that expected to “continue” their borrowing after the initial loan (a little less than half of the respondents). Furthermore, even among the group who did indicate they expected to continue, a substantial group of respondents (about a third) did not answer the question. Finally, as noted above, a number

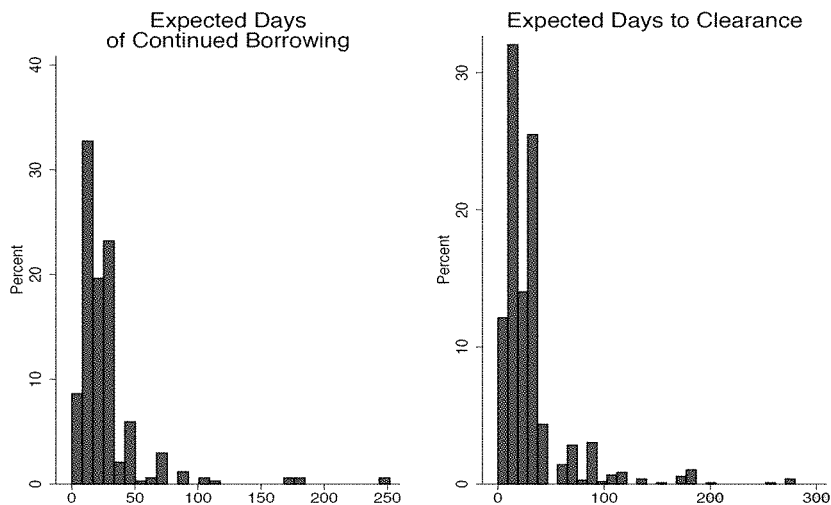


Figure 3. Expected borrowing patterns. First panel ($n = 340$) depicts the number of days the borrower expected the borrowing to continue beyond the original dues date; second panel ($n = 1072$) depicts the predicted number of days from loan date to date when borrower expects to be free from debt for an entire pay period. Histograms based on numerical responses only.

take more than twenty days, which is to say that they expected that the borrowing would continue for more than two weeks beyond the due date of the original loan. To put it more clearly, a majority of the respondents to that question contemplated at least three consecutive loans.

Because of the practical ambiguity about what it means to “continue” borrowing in a system in which rolling over a loan is formally unlawful (and thus something that apparently does not happen in any of the stores covered by the survey), the broader question about when the borrower expected to be free of debt for an entire pay period seems considerably more instructive about the reality of borrower expectations. The data also suggest some reason to believe that the question made more sense to the borrowers, because they responded to it much more readily: only two-thirds ($340/518$) of the borrowers who said they would “continue” borrowing responded to the question “how long,” but 80 percent of the borrowers ($n = 1072$) who answered surveys responded with a numeric answer to the question how long it would take for them to be free from debt.

of respondents (about twenty) responded with written text indicating in one way or another that they could not be sure when the borrowing would end.

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The second panel of Figure 3 summarizes the results for that question. The responses suggest a relatively long period of expected borrowing. Thus, looking only to the numerical responses, fully half of all borrowers expected to remain in debt three weeks or more; the mean response was thirty-six days. Because this question was asked of all borrowers (not only those who expected to continue in debt past the period of the original loan), it indicates yet again, using this somewhat different metric, that most of the borrowers expected that they would borrow again after the initial period of debt. What is most striking is the long right tail of the distribution. Fully 10 percent of respondents expected to remain in debt seventy days and 5 percent to remain in debt more than 110 days.

C. Predicting Freedom from Debt

The survey responses discussed in the preceding section are not unique. Although the questions are modified somewhat (as discussed above), they are in substance similar to the questions Bertrand and Morse asked about the borrower's understanding of typical product use. What is novel about this data structure, however, is the ability to match those predictions to the actual behavior of the borrowers, which allows a direct test of the extent to which excessive optimism about future behavior relates to borrower use of the product. It is also important that this study examines the cycle of repayment, rather than the narrower question of rollovers. By examining the entire cycle, I get a much more extended (and realistic) understanding of the continuing indebtedness related to a single loan.

There is, to be sure, a glass-half-empty/half-full quality to assessment of the responses. As with the effects of the disclosures that Bertrand and Morse discuss, assessments of borrower psychology depend directly on a baseline intuition about "typical" or "normal" psychology.⁶¹ So, in this case, an assessment of whether the borrower's predictions are "surprisingly" accurate, inaccurate, optimistic, or pessimistic depends directly on a baseline about how accurate such predictions reasonably could be expected to be.

As it turns out, the difference between the outcomes and predictions is quite varied, with a considerable number of borrowers becoming clear from debt earlier than expected and a considerable number becoming clear from debt later than expected. Overall, the distribution is centered near zero, with long tails extending in both directions; the median error is only three days.

⁶¹ Bertrand and Morse, 66 J Fin at 1889–90 (cited in note 40).

Table 2. Accuracy of Predictions of Payday Borrowers

Window of Predictions (Days)	Percentage On-Time (%)
7	51
14	57
21	63

Note: N = 1072.

Because the purpose of the project is to assess the accuracy of the predictions, it is necessary to determine how best to measure accuracy. Given the rough quality of the predictions (which the survey instrument requests in weeks), it makes little sense in evaluating the predictions to ask whether the debt was repaid on the precise date predicted. Thus, in making a rough judge of the quality of the predictions, it seems sensible to provide for a window on either side of the precise date. Because the lending cycle for these borrowers is the pay period, and because the overwhelming majority of the borrowers appear to have a two-week pay cycle, I ultimately decided to analyze whether the prediction of the date on which the borrower will be clear of debt falls within two weeks of the actual date on which the borrower turns out to become clear of debt.⁶² From that perspective, Table 2 summarizes the central findings of the essay. As the Table indicates, almost 60 percent of respondents managed to become free of debt either before or within two weeks of their predicted date of clearance. To test the robustness of that estimate, I made parallel calculations using seven-day and twenty-one-day windows. Those produced results that bracketed the 57 percent figure for the fourteen-day window: 51 percent for the seven-day window and 63 percent for the twenty-one-day window. To put it conversely, only 43 percent failed to clear themselves from debt within two weeks of their predicted date and less than half were late by more than a week. That is, of course, not an insignificant share, but it does suggest that a strong majority of those using the product have a basic understanding of what will happen when they borrow.

⁶² That fourteen-day window is the same window the CFPB used in its white paper examining a similar question. Consumer Financial Protection Bureau, Payday Loans and Deposit Advance Products (White paper, Apr 24, 2013), available at http://files.consumerfinance.gov/f/201304_cfpb_payday-dap-whitepaper.pdf. For purposes of these calculations, this is the number of days from the date of the surveyed advance to the date the borrower repays a loan and has no new borrowings for a period that exceeds fourteen days. For purposes of these calculations, the five borrowers who defaulted on their loans without making payment are treated as late.

C. The Role and Experience of Demography

Although the findings summarized in the previous section suggest that the quality of borrower predictions is reasonably good, it is important to consider the possibility that the quality of predictions relates substantially to race, gender, age, or education. If it were clear, for example, that borrower predictions were systematically less accurate for low-income, elderly, or minority populations, those findings would be considerably less reassuring than they seem at first glance. Figure 4 is a dotplot that summarizes the results of a logistic regression model assessing those relationships. The dependent variable is whether the particular borrower was more than fourteen days late in becoming clear from debt, as compared to the borrower's prediction in the survey instrument. The model includes explanatory variables for the borrower's race, gender, age, education, state of residence, and prior experience with the product. The reference borrower is a white male twenty-five to thirty-four years old residing in California with a college education and some prior experience (reporting one to ten prior transactions) with payday lending.⁶³

Because the dataset is relatively small, there may be relatively small effects undetected here, but in general the regressions largely exclude the possibility that demographic characteristics of the borrowers have a substantial effect on the accuracy of borrower predictions. For example, with respect to race, all of the race variables included in the model have positive coefficients, suggesting a greater likelihood of unexpectedly late payment for nonwhite respondents than for white respondents, but none of the coefficients is significant even at the 10 percent level. Similarly, gender appears to be wholly irrelevant. Age produces a substantial result only for the fifty-five-to sixty-four-year-old group who appear to be about eleven percentage points more likely to have underestimated the repayment period than twenty-five- to thirty-four-year-olds; against a mean of 37 percent, that reflects an increased likelihood of late payment of about 30 percent.

At the same time, geography (presumably at least in part a proxy for differences in the local legal regime) does appear to play a substantial role. Borrowers in Florida are about twelve percentage

⁶³ I investigated the possibility that those effects related to the purpose for which the borrower obtained the initial advance, but found no significant relationships (either for individual purposes or for a variety of aggregated groups of purposes). That well might relate to the relatively small number of borrowers that sought loans for the various purposes included on the survey.

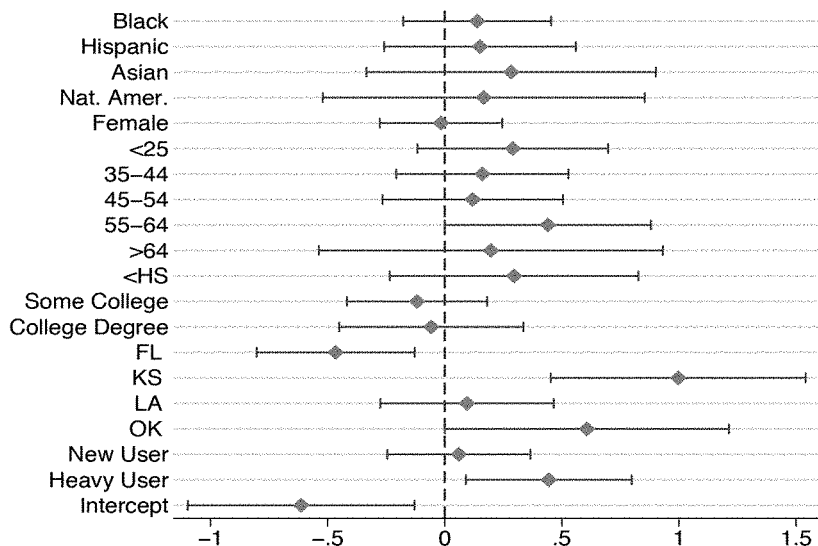


Figure 4. Nomogram predicting results from logistic regression analysis of the effects of geography, demography, and experience, on predicting product usage. N = 1041.

points less likely to pay later than expected (as compared to California borrowers), where borrowers in Kansas are about twenty-five percentage points more likely to pay later than expected. The small sample from Oklahoma suggests a likelihood of later-than-expected payment elevated by fifteen percentage points, significant only at the 10 percent level. Although the small group of states in which the survey was administered makes it difficult to interpret those results, it is instructive to look briefly at the differing regulatory regimes in the five survey states to consider potential explanations. Table 3 summarizes salient characteristics of those regimes.

Interestingly, the most constraining regulatory system among the survey states matches up with the outlier on predictive accuracy. Florida’s regime is on each of the dimensions summarized in the table the most restrictive: the lowest interest rate, the only defined cooling-off period, and database-verified limitation to one loan. At the same time, as Figure 4 illustrates, Florida borrowers are substantially more accurate than the norm in this data. The most likely explanation is that the Florida borrowers are systemically less risky because the low-interest rate cap and other features of the Florida

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Table 3. Regulatory Regimes in Survey States

State	Highest Lawful Fee (per \$100)	Rollover Constraints	Multiple Lender/Database Constraints
California	\$15	Direct rollovers prohibited	None
Florida	\$10	Twenty-four-hour cooling off period	Twenty-four-hour cooling off period applies to all lenders; database verification required
Kansas	\$15	Direct rollovers prohibited	None
Louisiana	\$16.75	Permitted with \$25 partial payment	None
Oklahoma	\$15	Direct rollovers prohibited	No more than two loans (from all lenders) permitted at any time; database verification required

Source: Cal Fin Code §§ 23036(a) & (c), 23037(a); Fla Stat § 560.404(6), (18) & (19); Kan Stat Ann § 16a-2-404(1)(c) & (6); La Rev Stat §§ 9:3578.4, 6(7); 59 Okla Stat §§ 3108, 3109(A), (B).

statute⁶⁴ limit Florida stores to a more financially stable group of borrowers than the regulatory regimes in the other states.⁶⁵

⁶⁴ Among other things, the Florida statute also includes a twenty-four-hour cooling-off period enforced by a database enforcement scheme that is more rigorous than any schemes in the other surveyed states.

⁶⁵ It is difficult to tell whether that result is better, or worse, than the results in other states, because it obviously reflects a constraint of credit to the customers to whom it would be profitable to lend under the regulatory regimes of other states. Moreover, it seems quite likely that at least some portion of the relatively less creditworthy borrowers to whom it is unprofitable to extend loans under Florida's regime are resorting to online lenders (whom Florida's regulatory system cannot, practically, control). The Pew Project does suggest that stronger regulatory regimes do not result in an increased level of online borrowing, but the amount of data on which that conclusion is based makes it difficult to accept at face value. Pew Project, *Payday Lending in America* at 5, 22 (cited in note 2) Among other things, it is plain that the number of borrowers from any particular state is quite small, which makes it impractical to conduct separate statistical analysis on a state-by-state basis of likely predictors of payday borrowing. *Id.* at 32. It also is relevant that those findings are based on post hoc interviews rather than direct observation of lending activity. *Id.* at 21–23. Similarly, because the analyses involves simple cross-tabulations, which do not control for other state-level characteristics that might influence the demand for payday

Finally, prior experience with the product has a marked effect, with heavy users (those self-reporting more than ten prior payday loans)⁶⁶ being more than eleven percentage points more likely to pay late. This suggests a direction for the relation between product usage and understanding: it is not that understanding of the product comes from prior use. Rather, it is that heavy users of the product tend to be those that understand least what is likely to happen to them.⁶⁷ Related to that point, it appears that those who predict long borrowing periods are those most likely to err substantially in their predictions.⁶⁸ Specifically, both the likelihood of unexpectedly late payment and the proportionate size of the error increase substantially with the length of the borrower's prediction. This does not necessarily mean that heavy users are those that understand the product the least; it may simply indicate that they are the individuals who are in the most serious financial distress, for whom freedom from debt is most difficult to predict. In either event, however, it suggests that prior experience with the product is not an important indicator of improved understanding.⁶⁹

borrowing, their accuracy is quite suspect. In any event, the finding that online borrowing is no higher in aggressive regulatory regimes than in lax regulatory regimes well might relate to the demand for borrowing in the aggressively regulated states (with a relatively low demand for this kind of borrowing relating both to the tolerability of an aggressive regulatory regime and the limited demand for online borrowing).

⁶⁶ The survey excludes borrowers who had a loan in the immediately preceding thirty days. The question about prior usage was designed to explore lifetime experience with the product, rather than short-term financial stability. I note that by excluding a group of possibly heavy users that feature of the data collection likely results in a less experienced, but possibly more creditworthy, sample.

⁶⁷ A parallel model (not presented here) measuring intensity of use by the number of loans in the previous six months as documented in the lender's records (as opposed to the self-report of previous loans) produced a similar result.

⁶⁸ A *t*-test suggests that the difference between the likelihood of error for the quartile of borrowers with the shortest predicted borrowing cycle and the likelihood of error for the quartile of borrowers with the highest predicted borrowing cycle is significant at the 1 percent level.

⁶⁹ The possibility that a small group of the population does a particularly poor job of making future assessments about financial behavior, and that this might relate to unjustifiable optimism, resonates with the findings of Puri and Robinson, suggesting that individual two standard deviations above the mean (overpredicting their actuarially expected lifetime by more than twenty years) are significantly more likely to make imprudent financial decisions. Puri and Robinson, 68 *J Fin Econ* at 71 (cited in note 33).

V. IMPLICATIONS

Like the findings reported by Bertrand and Morse,⁷⁰ the findings reported here cut in two directions. On the one hand, they suggest that a substantial share of payday lending is rational, in the sense that the borrowers generally understand the outcome of product use at the time they receive an advance of funds. It is not easy, as they note, to develop policy proposals based on data that suggest that large groups of borrowers use the product with an understanding of their future behavior.

Still, the findings are provocative against the backdrop of the understanding of the product that dominates legal and policy-making circles. As suggested above, the basic premise of the regulatory community to date (as reflected in the work of Bar-Gill, Warren, and the Pew Project) is that all uses of the product that lead to a cycle of borrowing are problematic—either because they rest on a prior misunderstanding of the product or, more seriously, because they demonstrate deceit by the lender. That premise, if true, implicitly supports a substantial prohibitory intervention related to the roll-over feature of payday loans, at least under the widely held behavioral economics theories of regulation. Although behavioral-based regulatory theorists commonly suggest that regulators should aim strongly toward a “nudge,” and should avoid prohibitory regulation, they do recognize the propriety of prohibitory paternalistic intervention that aids an overwhelming majority of borrowers—“asymmetric” paternalism in the terminology of its most sophisticated advocates.⁷¹ If it were true, then, that an overwhelming majority (or all) payday lending borrowers who roll over their loans do so because of misperception, then prohibitory intervention would make sense under that theory.

The findings summarized above, however, contradict that argument at its first step. Specifically, they document a set of borrowers, most of whom accurately understand, when they first borrow, how long it will take them to get free of their debt. More generally, those findings are in tension not only with the specific application of the optimism bias idea to payday lending but with the generally quick acceptance, without empirical investigation, of the idea that

⁷⁰ Bertrand and Morse, 66 J Fin at 1865 (cited in note 40).

⁷¹ Colin Camerer, et al, *Regulation for Conservatives: Behavioral Economics and the Case for Asymmetric Paternalism*, 151 U Pa L Rev 1211 (2002); Thaler and Sunstein, *Nudge* (cited in note 22); Sunstein, 73 U Chi L Rev at 249 (cited in note 39). The strong modern distaste for “hard” paternalism is not unique to American regulators, but appeals to the British as well. Financial Conduct Authority, *Applying Behavioral Economics at the Financial Conduct Authority* 47–50 (2013).

substantially all of the financial behavior of the less sophisticated is plagued by such misperceptions. That finding has two direct implications for regulatory design. First, it strongly undermines the likely efficacy of even a relatively forceful “nudge,” the kind of “sticky default” that Michael Barr and Sendhil Mullainathan have advocated for mortgage regulation.⁷²

Second, it starkly undermines the conventional case for modern prohibitory behavioral regulation. As summarized above, the “golden rule” of regulation sought by the leading school of behaviorally influenced policymakers rests on the empirical premise that substantially all of the affected population would make the choice sought by the regulator (in this case, not to roll over the loan, or not to enter into it if roll over seemed likely). The empirical assumptions of Bar-Gill, Warren and others play directly into that regulatory framework. But without those empirical assumptions, the case for a “golden” exercise of asymmetric paternalism is simply not available.

To be sure, at first glance there might seem some cause of concern for the 40 percent of borrowers who do not accurately foresee their use of the product. The natural question, however, is what share of borrowers could predict their future use of any modern financial product. Because scholars have not conducted similar surveys for other competing financial products, it is difficult to compare the approximately 60 percent share of payday lending borrowers who have a reasonably accurate perception of how they will use the product with the shares that could make similarly accurate predictions about other financial products. Still, many products might fare much worse on that metric. Is it fair to expect, for example, that 60 percent of those who borrow on a credit card could predict within two weeks the date on which they would finally repay all outstanding debt on the card?⁷³ It would make little sense for regulatory intervention

⁷² Mullainathan is now the Assistant Director for Research at the CFPB, and it is reasonable to think his views influenced the CFPB’s recently promulgated comprehensive reform of mortgage disclosure regulation. See Bureau of Consumer Financial Protection, High-Cost Mortgage and Homeownership Counseling Amendments to the Truth in Lending Act (Regulation Z) and Homeownership Counseling Amendments to the Real Estate Settlement Procedures Act (Regulation X); Final Rule, 78 Fed Reg 6856 (2013). Michael S Barr, Sendhil Mullainathan, and Eldar Shafir, *The Case for Behaviorally Informed Regulation*, in David Moss and John Cisternino, eds, *New Perspectives on Regulation* 25, 27 (Tobin Project 2009), available at http://www.tobinproject.org/sites/tobinproject.org/files/assets/New_Perspectives_Full_Text.pdf.

⁷³ Oren Bar-Gill, *Seduction by Contract: Law, Economics, and Psychology in Consumer Markets* 89–90 (Oxford 2012).

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based on misperception to shift borrowers to other products that are plagued by higher rates of misperception than payday loans.

The closest recent information on this subject comes from Levy and Sledge, who ask users of a variety of alternative financial services whether it took them longer than expected to repay the loan.⁷⁴ Their results suggest that payday loans are not an outlier with respect to predictability of repayment: they found that 32 percent of payday lending borrowers reported taking longer than expected to repay their loans, as compared to 32 percent of auto title loans, 29 percent of pawn loan borrowers, and 20 percent of bank deposit advance borrowers.

The obvious implications, then, are that the strongest case for direct regulation of payday rollovers is a direct exercise of paternalism, based not on the idea that informed customers would choose not to borrow when roll over seems likely, but rather on the regulatory conclusion that borrowers should not be allowed to have those loans even if they understand their consequences. Although this regulatory approach often is appealing to policy-making think tanks,⁷⁵ it is much less likely to find favor with the more mainstream academic regulatory analysts.⁷⁶ Thus, for example, Cass Sunstein has directly disavowed the propriety of this kind of regulation.⁷⁷ In that context, at least, with such a limited empirical understanding of either the factors that lead to the continuing high demand for high-cost credit or the factors that make other credit alternatives seem so much more expensive to the customers, the quick choice of prohibitory regulation seems more like a palliative cop-out than a bold reform. In truth, what is needed is a better understanding of the financial problems of the increasing number of low- and middle-income households in our economy, coupled with a frank assessment of the problems with the

⁷⁴ Because Levy and Sledge inquired about product use retrospectively—asking borrowers about their past use—it is possible that their results overstate the accuracy of borrowing expectations: the likelihood that a “hindsight bias” would lead borrowers after the fact to remember their performance as having been better than it actually was. Still, because they used a similar methodology for several products, their results provide a useful benchmark for comparing the role of misperception for different products. Levy and Sledge, *A Complex Portrait* (cited in note 41).

⁷⁵ The 2013 Pew Report takes this tack directly. Pew Project, *Report 2* at 5 cited in note 30). Still, their survey results resonate strongly with the findings discussed above—they report that 88 percent of storefront customers say the terms of lending are clear. *Id.* at 16.

⁷⁶ That is not to say there is no serious academic support for paternalistic regulatory intervention. For one serious effort to defend that form of regulation. See Eyal Zamir, *The Efficiency of Paternalism*, 84 Va L Rev 229 (1998).

⁷⁷ Sunstein, 73 U Chi L Rev at 249 (cited in note 39); Sunstein, 78 U Chi L Rev at 1349 (cited in note 21).

social safety net that lead to the desperate demand for short-term credit that the Pew Project documents.⁷⁸

VI. CONCLUSION

Payday loans are a fascinating topics for the regulatory analyst. Reviled for abusiveness by middle- and upper-class academics, the product remains intensely attractive to those for whom it is designed. Thus, looking forward from the immediate regulatory possibilities discussed above, the findings suggest a wide variety of possibilities for further research. The most obvious possibility would be to probe the rationality of the borrowing decision in the first place. As discussed above, much literature has assumed that the decision to borrow expecting rollovers cannot be rational. If the data presented here suggest that most borrowers are making that choice consciously, it suggests the value of further inquiry into the longer-run status of balance-sheet deterioration of payday lending borrowers. Here, the suggestion of Agarwal Skiba, and Tobacman that payday loan borrowing often reflects a long-term loss of liquidity from other sources, such as credit cards, well might show the way to a broader understanding of the relevant balance-sheet problems.⁷⁹

Extending the work in a different direction, broader surveys of payday lending borrowers could explore the geographic variation identified above, with a view to identifying any relation between the share of misperceiving borrowers and the rigor (or laxity) of state regulation.⁸⁰ Extension of the survey to online lenders (who have a much more aggressive business model) could explore the likelihood that the users of online loans are more likely to suffer from misperception. And more ambitiously, similar surveys of users of other financial products could document the relative accuracy of borrower understandings of those products. To the extent those products use

⁷⁸ Working in that vein, Morgan suggest that bans on payday loans are associated with an increase in bounced checks and overdraft fees. Morgan, Strain, and Seblani, 44 J Money Credit Bank at 519 (cited in note 3).

⁷⁹ Sumit Agarwal, Paige Marta Skiba, and Jeremy Tobacman, *Payday Loans and Credit Cards: New Liquidity and Credit Scoring Puzzles?*, 99 Am Econ Rev 412 (2009).

⁸⁰ Researchers might examine, for example, whether any shift in borrowing patterns occurred after the adoption of more modern disclosure requirements, such as the recent Texas statute requiring preloan disclosure of typical repayment patterns (Hutchings and Nance, 66 Consumer Fin L Q Rep 76 (cited in note 12)), patterned on the disclosures tested by Bertrand and Morse, 66 J Fin 1865 (cited in note 40). Although I generally am skeptical of the utility of disclosures, data on their effectiveness in this context is admittedly limited.

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different regulatory and disclosure regimes the comparative results might foster an understanding of the value (or futility)⁸¹ of those regimes. Similarly, to the extent that behavioral regulatory interventions more broadly are premised on misperception, such studies would help to focus interventions on the products where misperceptions are most pervasive.

⁸¹ See Omri Ben-Shahar and Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U Pa L Rev 647 (2010).

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION

COMMUNITY FINANCIAL SERVICES
ASSOCIATION OF AMERICA, LTD. *et al.*,

Plaintiffs,

v.

CONSUMER FINANCIAL PROTECTION
BUREAU *et al.*,

Defendants.

Civil Action No. 1:18-cv-295

[PROPOSED] ORDER

Before the court in the above styled and numbered case is Plaintiffs' Motion for Preliminary Injunction, filed September 14, 2018. Having considered the motion, the case file, and applicable law,

IT IS ORDERED that Plaintiffs' motion is **GRANTED**. The Court hereby **ENJOINS** all enforcement of the Final Rule on Payday, Vehicle Title, and Certain High-Cost Installment Loans, described in 82 Fed. Reg. 54,472 (Nov. 17, 2017) (codified at 12 CFR pt. 1041). The Final Rule is enjoined pending further order of this Court or until this Court enters final judgment in this case.

SIGNED this ___ day of _____, 2018.

THE HONORABLE LEE YEAKEL
UNITED STATES DISTRICT JUDGE