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# VIABILITY OF A PEER-TO-PEER LOAN MARKET FOR STUDENTS AND THE UNDERBANKED

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#### **ABSTRACT**

It is difficult to achieve financial stability without access to traditional banking services. "Unbanked" and "underbanked" groups therefore face significant financial hurdles, making them targets for predatory fringe lenders. In this paper, we present the results of a credit survey given to college students and low-income residents of Tacoma, Washington. Our first goal with this survey was to characterize credit use and access among these groups. Given that information, we then could assess the feasibility of developing a viable peer-to-peer (P2P) platform for them that would be a consumer-friendly alternative to fringe lending. We find that there is a need for small-dollar financial assistance, even within our relatively affluent student sample. We discuss the possibility of creating a student P2P market to help them, working through Four Horsemen Investments, a student-run 501(c)(3) not-for-profit organization. Developing such a market on a small scale would be a precursor to expanding it to the local community, where it could help at-risk, low-income families.

JEL: G21, G23, G10

**KEYWORDS:** Peer-to-Peer Lending, Payday Loans, Fringe Credit

## INTRODUCTION

gnorance may be bliss elsewhere, but not in personal finance. For consumers, not understanding the terms of loan products can be devastating, especially with fringe, "predatory" loans. Given the dangers, these sorts of loans are receiving renewed attention at both the federal and state levels. For example, in a speech on March 26, 2015, President Obama warned payday lenders that if they made their profits by "trapping hardworking Americans in a vicious cycle of debt, then you need to find a new business model" (Korte, 2015). Meanwhile, in Washington state, the legislature is considering a bill to allow payday lenders to charge \$495 in interest on a six-month, \$700 loan—a loan that would cost borrowers "only" \$38 if repaid in two weeks. Opponents charge that the idea is "a travesty"—a way "to make more money on the backs of poor people." A prime sponsor of the bill counters that "...a lot of people don't like the fact that we have a lot of low-income people who can't make ends meet, and so there has to be a product like this" (Conklin, 2015). But does there have to be a payday loan product? In 2010, the U.S. Treasury sponsored a convening to consider this question. Participants enumerated a research agenda to inform policy on smalldollar, short-term credit. In this paper, we present the results of a survey based on that agenda. Our immediate goal with the survey was to characterize the financial sophistication and credit use of students and lower-income residents in our community, two groups potentially vulnerable to financial shocks and therefore to fringe lending. Ultimately, though, we hope to develop an alternative to payday products for our community, based on a not-for-profit, peer-to-peer model. We believe that such a model could empower participants in a way that fringe lending cannot.

We find that our survey respondents have good access to traditional banking products. Nonetheless, respondents in both groups are subject to financial distress. Both groups also exhibit significant ignorance

about the features and terms of the products they use. Distress with ignorance is a combination dangerous to financial health. We therefore conclude that members of our community would be well served by a new type of product to address their credit needs. Recent developments in the traditional peer-to-peer (P2P) market may make it a possible solution for community members. For our students, however, we are developing a different sort of model, based more on the altruistic principles underlying our not-for-profit company, Four Horsemen Investments. We sketch out our proposal in our conclusions. The paper proceeds as follows. In the next section, we review the literature on both fringe credit and peer-to-peer lending. In the following two sections, we describe our survey and its results. Finally, we summarize and describe our (work-in-progress) proposed student solution.

## BACKGROUND AND LITERATURE REVIEW

We are concerned with developing a peer-to-peer alternative to payday loans. Thus, our work is informed by the literature on fringe credit use among populations underserved by mainstream banking, and by the growing literature on for-profit P2P lending. We review both in this section. Payday loans are small, shortterm, unsecured loans. They can carry interest rates much higher than those charged by traditional lenders. For example, in Washington state, borrowers currently can borrow up to \$700 or 30% of their gross monthly income—whichever is smaller—for up to 45 days. The maximum fee is 15% for loans up to \$500, or 10% on larger amounts (DFI, 2013). Thus, for a \$700 loan, a borrower would pay \$70 in interest after 45 days, an APR of 81.11%. If rolled over the maximum of eight times per year, the borrower would pay a total of \$560 for use of \$700 for 360 days (assuming he was able to pay the interest charges out of other funds at each rollover date). The eight-loan maximum in Washington was set in 2009. Since this restricting legislation was passed, Washington borrowers have taken out 73% fewer loans: from 3.2 million in 2009 (\$1.3 billion) to 856,000 loans (\$331 million) in 2013 (Brunner, 2015). New legislation, which passed the state senate on March 10, 2015, would eliminate two-week loans and replace them with installments to be paid off over several months. The interest charge for a \$700, six-month loan would be \$495. Supporters of this bill claim it will be better for low-income families to have smaller payments stretched over a longer time. Current state law already allows borrowers to request installment agreements for no additional fee, but precludes borrowers with these arrangements from taking out additional loans.

Restricting rollovers can make a real difference for fringe borrowers (Bhutta, 2014). The Consumer Financial Protection Bureau has found that 80% of payday loans are rolled over, and that the average payday user takes out ten loans per year (Burke, et al., 2014; see also Melzer and Morgan, 2105). Many borrowers fall into the pattern of borrowing monthly; these consumers stay in debt for an average of eleven months longer than do those borrowers who do not rollover monthly. Their fees and interest often end up being more than their principal (Burke, et al., 2014). Who would want such a loan? Extensive research on payday credit has shown that it is used frequently by working-class people with access to traditional credit sources like credit cards. However, these borrowers may turn to fringe providers when their credit lines are exhausted or deteriorating quickly (Lawrence and Elliehausen, 2008, Agarwal, Skiba, and Tobacman, 2009). In addition, borrowers may come from cultures that distrust banks, or they may wish to avoid the "attitude" that they get at mainstream providers (Buckland and Martin, 2005).

They may feel deterred from seeking mainstream credit, afraid that they might be denied, and may appreciate the quick and straightforward process of a payday lender (Lawrence and Elliehausen, 2008, Melzer, 2011, Skiba and Tobacman, 2008). The reluctance of some small-dollar consumers to borrow from banks is mirrored by most banks' unwillingness to lend to them. Buckland, Hamilton, and Reimer (2006) suggest that the fixed costs of small-dollar lending are simply too high to allow a profitable solution for traditional lenders. Even if we were to stipulate that (and we do not, given the FDIC's success with its Small Dollar Pilot Program for banks), we need not conclude that fringe loans are the only alternative. For example, Buckland, *et al.* (2006) suggest a "stepped" approach to microcredit, in which community-based organizations identify people who may need help, give them short-term loans to substitute for fringe credit,

then educate them and move them toward a traditional banking relationship. The key to this plan is a partnership among community charities, governments, and banks, which allows some of the relatively high costs of small-dollar lending to be borne by not-for-profits. If we accept the view that banking services should be considered utilities, then such subsidies are not unusual.

We believe that peer-to-peer lending may offer another alternative to fringe credit. To motivate the idea that formal peer funding could be an alternative source of small-dollar credit for payday borrowers, we now review some of the salient research from the growing literature on these novel loans. The two for-profit U.S. P2P platforms, Prosper and Lending Club, are electronic consumer finance marketplaces. They started as platforms through which individual borrowers and lenders could bypass traditional intermediaries—potentially lowering rates to borrowers while improving returns to lenders (GAO, 2011, Brill, 2010). As the marketplace has evolved, however, more institutions have entered as lenders. We will comment on the implications of this evolution after describing the traditional structure of the platforms.

Borrowers and lenders on P2P platforms are anonymous. Borrowers post listings—requests for funds—which contain a combination of hard data and soft data. Hard data include traditional underwriting metrics (e.g., debt-to-income ratios, income, and credit utilization), some of which come from the borrower's credit report and some of which are borrower-reported and unverified. Soft data include narrative descriptions of the purpose for the loan and pictures chosen by the borrower. Individual lenders have proven adept at interpreting this soft data, and are able to use the pictures, descriptions, and social network information in a listing to infer about one-third of the incremental information that would be provided from the borrower's credit score. They also are able to forecast default from pictures alone (Iyer, *et al.*, 2009, Freedman and Jin, 2008, Duarte, *et al.*, 2009). Thus, despite the inherent potential for adverse selection and moral hazard (Freedman and Jin, 2008, GAO, 2011), individual lenders can screen loans effectively, even though they are amateurs. The fact that they use their own money undoubtedly provides underwriting incentives that professionals do not have. (Compare these incentives to those of the SOES bandits in the OTC equity market, who also eliminated agency issues by internalizing them. See Harris and Schultz, 1998.)

Soft data of particular relevance for us are the endorsements that can come from "friends" or group members. Groups on Prosper are affiliations of users, based on offline links like alumni or employment ties. Any Prosper member can join or form a group, but borrowers can belong to only one group at a time. While groups are not responsible for their members' loans, they can monitor their performance. The important feature here is that group leaders know who their members are—not just their screen names. They thus can vet members' listings before they are funded, and monitor them afterward. (See Berger and Gleisner, 2009, for a discussion of P2P groups.) "Friendships" are even less formal than groups. However, again, friends actually know each other's identities. Thus, friends may also be able to perform intermediation by vetting and monitoring.

Lin, Prabhala, and Viswanathan's (2011) evaluate the impact of friend endorsements by classifying them based on the intensity of the relationship: for example, they distinguish "friends" who are simply registered on Prosper, friends who are Prosper borrowers or lenders, and friends who are lenders and who actually bid on the given listing. The authors show that listings associated with a meaningful friend endorsement are more likely to be funded, pay significantly lower rates, and are less likely to default. (See also Berger and Gleisner, 2009, for similar results.) When the friends are lenders, the results are even more striking: borrowers with lender-friends are almost twice as likely to be funded, at interest rates approximately 60-150 basis points below those without lender-friends. They are also about 9% less likely to default. Finally, when the lender-friends actually bid on a listing and win, borrowers pay 200 bp less and are about 11% less likely to default. Results for groups are similar. Berger and Gleisner (2009) show that borrowers affiliated with groups can borrow more, and at lower rates. They also are less likely to default, despite having lower average credit grades and higher average indebtedness. When a group leader bids on a member's loan, the

loan rate falls by 156 bp, all else equal. Everett (2010) also shows that bids by group members affect loan rates, and describes the effects as "negative, very large, and very significant."

Lenders who incorporate such easily observable signals into a listing screen can significantly improve their P2P portfolio's performance (Klafft, 2008). As noted above, friend and group endorsements certify the borrower and alleviate information asymmetries (Lin, *et al.*, 2011, Berger and Gleisner, 2009). But there is more to these friendship signals than just the possibility for vetting and monitoring—relationships provide the opportunity for social enforcement of the loan terms. Since friends and group leaders know the identity of the borrower, they can link default with an actual person. Borrowers who must bear the "social stigma" of default may be more conscientious about repaying. This is true even when borrowers use the platform very infrequently: La Ferrara (2003) shows that the "non-anonymity" of groups enforces social contracts even when individual actors participate only in one iteration of a repeating game. The social costs of default are greater the closer the relationships involved are—for example, when a loan is funded by a lender-friend who is active on a P2P platform (Lin, *et al.*, 2011), or when a group is composed of members who have real-world ties (Everett, 2010).

On Prosper, for one, the emphasis on "group" lending has been a casualty of the institutional evolution of the market. Nonetheless, the social aspect of the market persists. Both Lending Club and Prosper continue to hype the "human face" of their lending, both because it resonates with borrowers and because it encourages repayment (*Economist*, 2013, Cortese, 2014). Thus, even though institutions now dominate the "dentists, dabblers, and stay-at-home moms" who have been the traditional lenders (Cortese, 2014), there is still an inherent element of altruism on the platforms. This, combined with the scale and the speed that institutional money provides, may actually enhance P2P's appeal to cash-strapped borrowers. To see if it can help our borrowers—the students and low-income residents of Tacoma—we turn now to the results of our survey.

## DATA AND METHODOLOGY

Our survey was motivated in part by a convening held by the United States Department of the Treasury in 2010, Developing a Research Agenda on Small-Dollar Credit and Financial Empowerment, whose goal was to "inform policymaking that can address the challenges related to meeting the small-dollar credit needs of underserved populations" (Treasury, 2010). To frame our study, we chose nine of the "demand-side" questions identified by the convening's participants. These questions concerned the relationships among various financial products; the ability of certain populations to access traditional banking services and to accumulate savings and build wealth; and propensity for certain groups to rely on informal lenders, like friends and family, to meet their credit needs. (See Livingston, 2013 for a complete description of the survey instrument.) Our survey focused on students and relatively low-income people from Tacoma, Washington. (Tacoma is the third largest city in Washington state, with about 200,000 residents.) Both of these groups could be at risk for negative outcomes from fringe credit use, as discussed in the Treasury Department's convening. The student sample has several parts.

The majority of our student data comes from a 185-respondent sample from our small, liberal arts undergraduate university. The sample was drawn using stratified random sampling, with courses as the sampling unit. Our university's core curriculum is organized around five "ways of knowing" (mathematical, natural scientific, social scientific, humanistic, and fine arts "approaches"), so we sampled across this taxonomy at each grade level. This gave us 20 approaches/grade combinations. Every course that fit a combination was listed, and we chose a course randomly from that list. In some cases, we could not sample our chosen course (for example, because of timing or instructor concerns), so we chose again. We ended up sampling 12 of our 20 cells, for a total of 14 courses (we had three business courses in one social science cell, but only one course each in natural sciences and humanities). Every student in each randomly chosen class was sampled. Sampling occurred during the 2012 and 2013 school years. We

augmented this sample with 63 respondents from additional business courses from the 2014 year (required, elective, and university-wide outreach courses), increasing the power of our tests without altering the qualitative results or the demographic profile of the respondents. We call the 248-student combination of the stratified sample and this addition the "UPS sample." Compared to the overall university, we have significantly more males and more upperclassmen. However, the vast majority of the sampled students conform to the university's demographic: they live with their parents when not at school, have access to a car, have never been married, and have no children. Their families make more than \$50,000 per year and own their own homes. This is the profile of the student for whom our initial P2P outreach would be targeted.

For the second part of the student sample, we surveyed 21 graduate and 22 undergraduate finance students from a larger private university, as well as three volunteers from the Tacoma branch of the University of Washington. While this clearly was not a random sample, it did give us the opportunity to consider the broader appeal of a P2P initiative. In this sample, 59% did not live with their parents, 76% were married, and 90% owned their own homes. They were otherwise similar to the UPS sample. (See Table 1.) The rest of our respondents, whom we will call the "community" sample, came primarily from financial assistance events held at the Goodwill Milgard Work Opportunity Center in downtown Tacoma. The majority of these respondents attended the Volunteer Income Tax Assistance (VITA) Super Saturday event, which is the kickoff of tax preparation season. People come to this event to have their federal income taxes prepared for free; to participate, they must have incomes below the IRS's cutoff (around \$51,000). Most of the rest of the sample came from a "Financial Fitness Fair," a free community outreach event focused on financial literacy. (The final three respondents were visitors to the Goodwill outlet store adjacent to the Milgard Center.) Again, this is not a random sample. Not only did we use volunteers from a specific income group, we also surveyed people who knew about a free tax preparation service and who were motivated to come on the first possible day. Thus, our results are simply suggestive.

The community respondents' demographic profile is broadly consistent both with Tacoma/Pierce County's and with the typical Pierce County VITA client. (These reference figures, from city-data.com and the Pierce County Asset Building Coalition's 2012 VITA client survey—included in the intake process for every VITA client—are included in Table 1 for reference.) It is, however, very different from the student sample. The community sample has high proportions of women (70% v. 43% for the student sample), people over 40 (83%, compared to 89% below 23 in the student sample), and people earning less than \$15,000 per year (52% v. 2%). 86% of people in the community sample have children and 77% have been married; only 2% of the students are married, and less than 2% have children. Of course, none of these differences in surprising, given our sample procedure. They may have implications, however, both for payday and peer-to-peer loan use.

Our community sample characteristics are comparable to the profiles of payday loan users. For example, women are more likely to use payday loans (Skiba and Tobacman, 2008), as (perhaps correspondingly) are people with children and those who are divorced or separated (Elliehausen and Lawrence, 2001). Payday borrowers have lower rates of homeownership (Skiba and Tobacman, 2008, Lawrence and Elliehausen, 2008), and generally have annual incomes between \$15,000 and \$50,000 (Melzer, 2011, Flannery and Samolyk, 2005). (In Washington state, the average monthly income for payday loan users is \$2,822; DFI, 2011.) Skiba and Tobacman (2008) find that African Americans and Hispanics are more likely than other groups to use payday loans. Finally, Campbell *et al.* (2012) find that financial literacy is lower among the relatively young and old, a finding germane to both our samples. Thus, our community sample, while not random, does reflect the demographic characteristics of the fringe-loan users we are trying to characterize.

Table 1: Sample Characteristics

			Vita	Pierce county/
	Students	Community	Survey	Tacoma
SEX				
male	57%	30%	38%	49.4% (2011)
female	43%	70%	55%	51%
AGE				
< 23	93%	4%		
23-30	7%	9%		35.1 (2011 median)
31-39		4%		
40-49		30%		
50-59		26%		
60+		26%		
INCOME				
less than \$15,000 per year	1%	52%		
\$15,000-\$50,000 per year	18%	48%		\$48,673 (2009 median
above \$50,000 per year	81%	0%		
HOME OWNERSHIP				
own	93%	41%	26%	
rent	7%	59%	49%	
HAVE CHILDREN	,	****		
yes	2%	86%		
no	98%	14%		
MARITAL STATUS	7070	11/0		
never married	97%	23%		29.3% (ages 15+)
separated	0%	0%		2%
divorced	0%	27%		14%
widowed	0%	14%		7%
married	3%	36%		47%
ETHNICITY	370	3070		4770
Caucasian	78%	48%	41%	61%
Black or African American	3%	24%	30%	11%
Hispanic	4%	8%	9%	11%
nispanic Asian or Pacific Islander	13%	8%	9% 11%	8%
American Indian or Alaska Native	0%	870 12%	4%	8% 2%
American mulan of Alaska Naulve	U70	1 4 7 0	470	∠70

This table characterizes our sample and compares it to earlier community surveys. Our sample has two parts. The student sample has almost 250 respondents, the vast majority of whom came from an undergraduate liberal-arts university. The community sample was drawn from financial outreach events at a downtown Tacoma, Washington Goodwill. The VITA and Pierce County samples are from earlier studies of the local populations, and are presented for comparison. There are significant differences between the student and community sample. The community sample reflects the type of demographic characteristics that are common among payday loan users.

Our community itself is also consistent with prior findings about the *supply* side of fringe lending, which show that fringe lenders tend to concentrate in less affluent and minority neighborhoods. (See Sawyer and Temkin, 2004, Li *et al.*, 2009, Bhutta, 2014. For a behavioral explanation linking lower income to impatience, see Thaler and Shefrin, 1981.) As part of an ongoing study of the supply of fringe credit in Tacoma, one of the authors worked with a city representative to map pawnshop and payday lenders against the racial makeup of local neighborhoods. We also included temporary agencies in this mapping, since their presence may indicate that local communities face financial distress. (The maps are available from the authors upon request.) The results show that fringe providers clearly cluster in minority and less affluent neighborhoods. Our community therefore appears to be consistent with the results of prior studies on both the supply and demand for fringe loans, providing context for the evaluation of our student sample.

## RESULTS AND DISCUSSION

Our goal is to create a peer-to-peer solution for our community, starting with our own students. However, we needed to verify that they need help. Ours is a small, private, liberal arts university. Tuition is almost \$43,500 per year, with a total cost of annual attendance of almost \$58,000. As is borne out by our own sample's demographic data, our students have traditionally come from affluent households. Nonetheless, about 60% of our students have demonstrated financial need, and only 18% of them have that need fully met by current university programs (CollegeData, 2015). In addition, the university has recently established

the "Tacoma Public Schools Commitment," which states that we are "committed to meeting the full demonstrated financial need of admitted Tacoma Public Schools applicants for first time, first year undergraduate study beginning with the 2015-16 academic year" (UPS, 2015). Thus, we expected that there would be an opportunity for us to provide students with incremental financial assistance.

In this section, we present evidence that bears that out. There is financial distress in our student sample. In addition, despite their access to traditional banking products, our students display a disheartening level of ignorance about those products. In contrast, the community group was (slightly) better informed, but faced more significant financial problems. We discuss results from both groups below. We start with the access question, since one of the ways we observe distress is through the ways respondents (mis)use their traditional accounts. Both school and community respondents used traditional banking and financial products. (See Figure 1.) Significantly more than half of the community sample had checking and savings accounts, and almost all students did. (98% of students had checking and 94% savings—strongly significantly more than the community group, with p << .01.) Students were also significantly more likely to have direct deposit arrangements into those accounts.

Overall, the groups also were similar in their use of plastic, with about half having credit cards and less than 10% having an American Express charge card. The community group, though, was more likely to have department store or gas cards—a result driven by the financial fitness fair participants, half of whom had store cards (v. about 13% for both students and the VITA subsample;  $p \approx .06$ ). Although they used demand and time deposits, only about a third of each group got them from credit unions. Our mapping research showed that there are numerous credit union branches scattered throughout our area, especially in those neighborhoods with below-median incomes—areas served also by fringe lenders. (These maps are available on request.) Most of these credit unions require nothing more for membership than Washington residence. Nonetheless, members of both our community and student samples are much more likely to use large, for-profit banks for their checking and savings accounts.

Not appreciating the benefits of not-for-profit credit unions may reflect a general lack of sophistication among our sample respondents. There is other evidence in the sample responses that illustrates the divide between access to financial products and efficient use of them. Many of our respondents misunderstood and misused the products they had, and were unable to avoid financial distress in spite of their access. First, the good news: well over 70% of all respondents checked their bank accounts at least once a week. The bad news: about 20% had bounced a check (actually, an average of two) within the last year. This was especially a problem for the financial fitness fair respondents, 43% of whom had recently had an overdraft. Overdrafts are substitutes for payday loans (Morgan and Strain, 2008, Melzer, 2011), so we see possible vulnerability to fringe lending within our sample.

Another payday-loan substitute is a credit card. Lawrence and Elliehausen (2008) and Agarwal, Skiba, and Tobacman (2009) link payday loan use to the credit rationing faced by people close to their cards' limits. Among our respondents, 11% of our student sample, 38% of the full community sample, and fully 80% of the financial fitness fair subsample reported having been so close to maxing out their cards over the prior year that they had been unable to use them. Even for those who still had room on their cards, the level of ignorance about the cards' terms did not inspire confidence, especially for our students. For example, while students were more likely to pay their balances off in full every month (69% v. 33% for the community sample; p < .01), the vast majority of them (85%) had no idea what the APR on their credit card was. Even fewer knew their over-limit or cash advance fees. In the community sample, the financial fitness fair respondents were better informed than the VITA group, perhaps because of prior difficulties. Nonetheless, about two-thirds of our community respondents could not describe their cards' rates or fees.

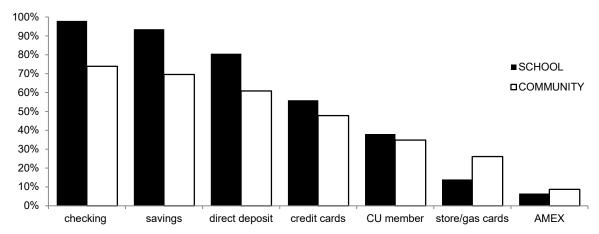


Figure 1: Use of Credit Products in Our Student and Community Samples

This figure summarizes our respondents' access to traditional financial products. In most cases, the student sample (dark bars) reflects heavier use, with the exception of gas/store credit cards and Amex charge cards. Nonetheless, this evidence is consistent with that of prior payday-loan studies, which show that borrowers who use fringe credit often also have access to more mainstream sources.

Bouncing checks and maxing out credit cards is clear evidence of financial distress. To learn more about our respondents' financial challenges, we followed Elliehausen and Lawrence (2001), Skiba and Tobacman (2009), and Melzer (2011) in asking respondents if they had recently been turned down for credit, had been reluctant to ask for credit for fear of being turned down, had unexpected medical bills, or had an immediate cash need that they could not meet. The community sample reflected more financial distress, with about half reporting these sorts of problems. The area of least concern—and the one category with less than a 50% affirmative response—was medical bills, at about 40%. In all cases, the financial fitness fair subsample reported more problems, especially on the generic needing-cash question (to which 78% responded affirmatively). (The *p*-value for difference in proportions was about 4% for this question; for the other questions, our small sample size gave us too little power to detect differences.)

There was distress among the student sample also, although in all cases they reported significantly fewer problems than did the community members. Nonetheless, 21% of students reported generic cash-flow problems, with those problems being more acute for students in public schools or graduate programs. These results suggest respondents' vulnerability to the sales pitch of payday lenders, who assert that they help consumers meet liquidity shocks and smooth consumption. In fact, 38% of our community respondents have used payday loans.

The majority used their loans for rent; the next largest category was utilities. Borrowers were more likely to consider asking friends or family for money than to try traditional alternatives such as banks loans or credit card advances; they ultimately chose payday loans for their speed and privacy. While reporting overall that they were "neither satisfied nor dissatisfied" with their payday loans, they did complain about their high cost and their making it "too difficult to get out of debt." In our student sample, only one respondent had used a payday loan. He was atypical of our student sample: married, with children, renting his home, and earning between \$15,000 and \$50,000 per year. Thus, demographically, he was much closer to the community sample than to our student sample.

To explore other ways respondents met their needs for cash, we asked if they had ever borrowed from friends or family. While both Bertrand and Morse (2009) and Lawrence and Elliehausen (2008) addressed borrowing that was not arms-length, they did not distinguish friends from family. In our community sample, the distinction did not seem important: about half of those respondents reported borrowing from both friends and family. (There was significantly higher rates of borrowing in both categories from the

fitness fair respondents, two-thirds of whom had borrowed from friends and 78% of whom had borrowed from family.) In the student sample, however, the distinction between the two groups was critical. There, more than twice as many had borrowed from family (45%) as from friends (22%).

To learn more about our students' borrowing, we created a "distressed" subsample from the 248-student UPS sample by isolating the respondents who answered "yes" to any of the four distress questions described above. (We chose to focus on this sample since our P2P initiative is meant to benefit them.) Ninety-one students (37%) were in this subsample, 54 of whom had answered affirmatively to one of the four questions, 25 to two, 10 to three, and 2 to all four. Members of this subsample were significantly more likely to have bounced at least one check over the last year (29% v. 15%), and to have bounced more (an average of 2.89, with a maximum of 20, compared to an average of 2.17 with a maximum of 12 for other respondents).

Members of the distressed subsample were significantly more likely than the "nondistressed" complement to borrow from friends (36% v. 18%) and family (64% v. 38%). However, both groups showed similar patterns in their borrowing: they went to their families for necessities, and to their friends for fun. (See Figure 2.) Twenty-four percent of respondents in the distressed sample borrowed from friends for eating out or entertainment, three times more than borrowed for the next largest categories (transportation-related expenses and groceries, each at 8%).

In contrast, 31% of the distressed sample borrowed from their families to make a rent or mortgage payment. About a quarter asked family to help with textbooks or other school expenses. When parents provided credit cards to students, there was still a focus on necessities: both groups used the cards for textbooks, family emergencies, school supplies, medical bills, transportation, and groceries. Members of the distressed group were more likely to have a parental credit card (56% v. 49%), although the difference was not significant. Given the results discussed in this section, we believe that there is a need for small-dollar, short-term credit in our community. Even the relatively affluent students at our university exhibit signs of financial distress and a lack of financial sophistication. Their need for help with basic expenses like rent makes them a potential target for payday lenders, 70% of whose loans help borrowers with basics (Conklin, 2015). We therefore believe that a peer-to-peer approach managed by a not-for-profit like Four Horsemen Investments can make a real contribution. We outline our proposal, and provide summary comments and suggestions for future work, in the next section.

#### CONCLUSIONS

The Consumer Finance Protection Bureau has payday lenders squarely in its sights, supported by a president who believes that "One way to make paychecks go farther is to make sure middle-class Americans don't get ripped off," and that if payday lenders cannot help make that happen, they "need to find a new way of doing business" (Korte, 2015). Fringe lenders decry such regulatory attention, asserting that it will restrict limit consumers' credit options. Nonetheless, the options they seem to favor come with exceptional costs to borrowers, as the current \$495 fee/\$700 loan proposal in Washington illustrates. We agree with the consumer advocates who believe that fringe credit can be a debt trap. We also believe that peer-to-peer loans may offer a possible alternative, especially if not-for-profits can provide some of the high-fixed-cost screening activities that make small-dollar, short-term loans unattractive to traditional lenders. We are therefore encouraged by the ongoing evolution of the online P2P marketplaces, where infusions of institutional capital are vastly increasing the supply of funds and the scope of lending. Institutional involvement also speeds up the online platforms' funding processes, which is essential if P2P is to compete with fringe lenders. Many payday borrowers cite speed as one of the most important factors in the decision to get a payday loan: payday shops are open late, and borrowers can apply and then walk right out with their cash. In contrast, early Prosper loans could take 10 days or more to fund. Now, listings that might have stayed open for weeks, waiting for individual lenders' bids, are snapped up in minutes.

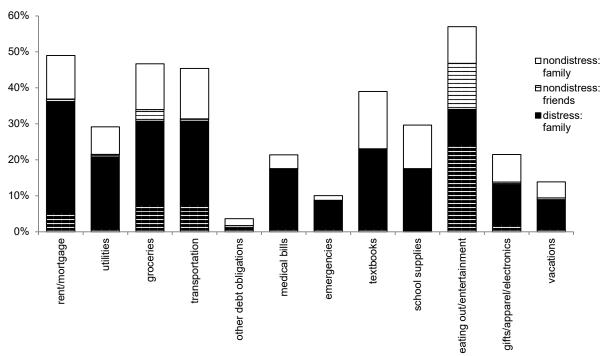


Figure 2: Comparison of Borrowing by Distressed and Non-Distressed Student Subsamples

From our 248-student UPS sample, we created a "distressed" subsample by isolating the 91 respondents who answered affirmatively to at least one of four credit-rationing questions. This subsample is represented by the darker blocks at the bottom of each column in the figure. The rest of the UPS sample formed the "nondistressed" complement; they are represented by the lighter blocks at the tops of the columns. For each subsample, respondents who borrowed from family are shown as solid blocks; those who borrowed from friends are shown as lined blocks. The first 5 columns from the left depict daily necessities; the next 2 depict urgent, unexpected expenses; the next 2 depict school expenses; and the last 3 depict discretionary expenses. Overall, distressed students were much more likely to borrow from both friends and family. Both subsamples borrowed from family for necessities and from friends for fun.

However, for students, the online P2P platforms fail in two ways: they do not offer small enough loans, and they have become too divorced from the social enforcement mechanisms of traditional microfinance. We want to create a program for our students that would allow them to work collaboratively to avoid getting caught in the fringe loan trap. The results of our survey show that there is need for such a resource among our students, despite their good access to traditional banking products. The solution we are developing will be run by Four Horsemen Investments (4HI), a 501(c)(3) nonprofit corporation run by University of Puget Sound students. This organization's mission is to promote financial literacy. Student members have been running a portfolio of traditional P2P loans on the Prosper and Lending Club platforms since 2009.

The 4HI Peer-to-Peer Student Network would be a new initiative helping to facilitate financial collaboration among students. Like payday loans, our financial assistance would come in small amounts, but unlike fringe and current P2P products, we intend to draw explicitly on the traditional microfinance tenet of social circles. As we currently envision the initiative, students would contribute funds to be redistributed to other students. The suppliers of funds would be able to specify how their money would be allocated, either to one of their social circles or to the campus as a whole. Students requesting funds from the program would need to be a member of at least one funded social circle. In keeping with 4HI's altruistic ideals, we would charge no interest. Instead, these would be micro-grants, whose repayment we would like, but which we do not expect. Obviously, giving away money cannot be the ultimate solution to the fringe credit problem. Nonetheless, the outcome of our initiative may inform new sorts of approaches that connect peer-to-peer lending and philanthropy. On an intimate enough scale, P2P arrangements can leverage both social stigma (to motivate borrowers) and altruism (to entice lenders). Four Horsemen Investments wants to develop this idea by starting with students, because their needs are most familiar to us. If this platform is successful at

the University of Puget Sound, we hope it will spread to other campuses in the surrounding area and eventually to the entire community.

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