

An Invisible Finance Sector: How Households Use Financial Tools of Their Own Making

**U.S.
Financial
Diaries**

By: Jonathan Morduch and Timothy Ogden of FAI and Rachel Schneider of CFSI

People run their financial lives with a variety of tools. The first tools that come to mind are likely to be formal, like checking accounts and credit cards. But households often use informal tools that are harder to see from outside, like short-term loans from friends or relatives. It's tempting to think that these informal tools are last resorts, or second-best solutions, but informal financial mechanisms are often combined with formal tools, and sometimes are preferred. Among the families in the U.S. Financial Diaries (USFD), for instance, the use of informal loans was as common as the use of alternative financial services (e.g., payday loans, pawn shop loans), though the volumes transacted informally tended to be smaller. Understanding how these informal finance tools work, and why households use them, can offer new perspectives for financial services innovators and policy makers.

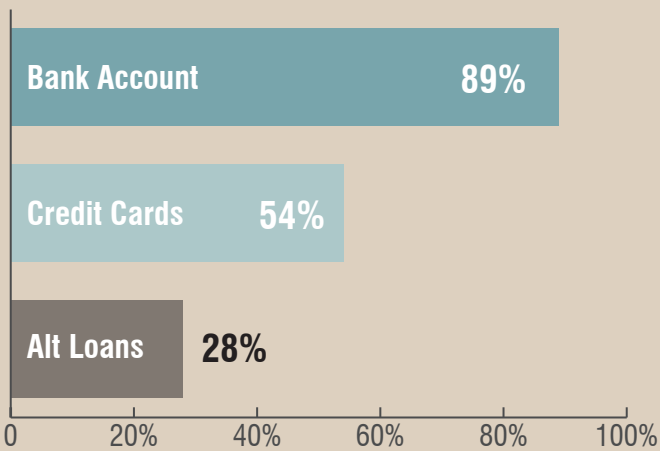
Some people use informal financial services as a substitute for bank accounts and credit cards because they lack access—or believe they lack access—to quality products or because they do not trust formal options. More commonly, however, the two are complements. Households use both to balance their short-term and long-term financial needs. Informal options may offer better terms, or have other features that make them an appealing and ongoing part of the mix (see Figures 1 & 2 for comparative use of formal and informal tools).

In this issue brief, we explain what informal finance is and how informal savings and borrowing tools are used; some reasons why people use such informal tools; the benefits, costs and limits of informal finance; and the implications of these findings for financial services providers and policymakers. We describe the role of informal financial tools in the lives of two families: the Leons and Melinda Perez (names and personal details have been changed to protect the anonymity of participants).

This brief provides an early glimpse at USFD findings. At the time of this writing (August 2014), we are conducting an extensive process of data cleaning and validation that will continue over the next several months. As a result, the sample-wide data presented show patterns and trends that we believe to be accurate, but the specific numbers will likely change in the final data set. Further, it is important to note that the USFD population does not constitute a representative sample of the low- to moderate-income population in the U.S. For more on our sample, the USFD methodology and additional publications, please visit www.usfinancialdiaries.org.

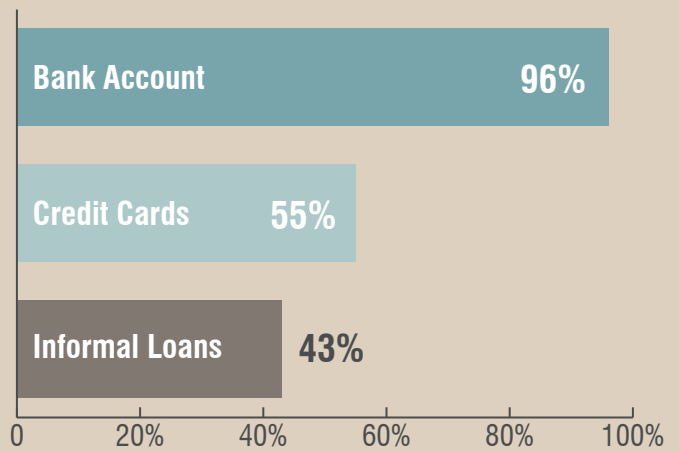
Acknowledgments: The authors would like to thank Nancy Castillo, Kate Dole, Anthony Hannagan, Julie Siwicki, and Laura Starita for their contributions to this USFD Issue Brief.

FIGURE 1: **Percentage of HHs with Informal Loans that Also Have Formal Accounts**^{1,2}



Note: 41% of USFD households have informal loans.

FIGURE 2: **Percentage of HHs with Alternative Loans (Payday, etc.) that Also Have Formal Accounts and Informal Loans**²



Note: 27% of USFD Households have alternative loans.

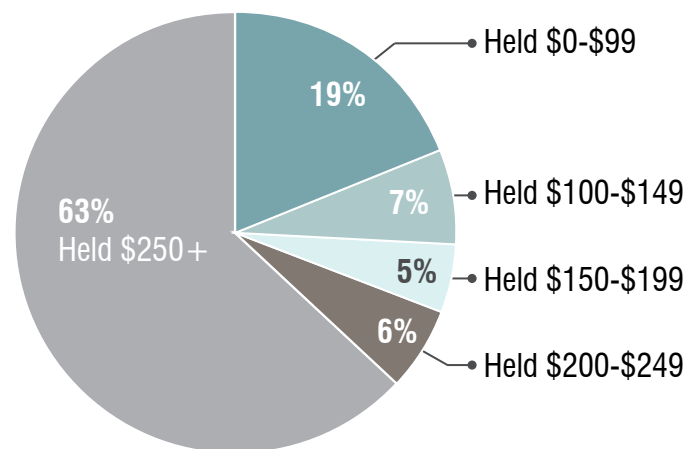
■ Informal Savings Behavior among USFD Households

Holding savings at home was quite common among USFD families: 81% of these households held at least \$100 in cash on hand or in their homes at some point during the study (see Figure 3 for a breakout of the amount of cash held on hand or in the home by percentage of households).^{1,2} Among these households, 91% also had a bank account.³ Other informal savings tools used by USFD households included savings groups and money guards: nine percent of households participated in savings groups, and six percent used money guards to keep their money secure.⁴ (Informal saving was more common among immigrant households, which are oversampled in our study, so the percentages here likely over-state national averages considerably.) The total number using either a savings group or a money guard is 37 households.⁵

WHAT IS “INFORMAL” FINANCE?

We define informal financial tools as anything that does not involve an institution such as a bank or other financial services provider. In this note, we focus specifically on informal savings and borrowing. In the U.S. Financial Diaries population, we also saw informal transactional behavior such as bartering, exchanging of resources and gifting, but that will be discussed in later analyses.

FIGURE 3: **81% of HHs Had \$100 or More on Hand or in the Home**²



Savings Groups

Savings groups have been used around the world for centuries by billions of people, and they have been studied extensively by anthropologists and economists.⁶ Researchers put most savings groups into one of two buckets: RoSCAs (Rotating Savings and Credit Associations) and ASCAs (Accumulating Savings and Credit Associations). Both RoSCAs and ASCAs collect deposits from members in fixed amounts on a fixed schedule, and the money goes into a group pot. In most RoSCAs, the pot is fully disbursed to a single member each turn. In ASCAs, some of the pot may be accumulated over time, or lent out to others, usually with interest. In both cases, the groups typically have a clear beginning and end, though they often start up again once a cycle is completed.⁷

Savings groups are most often formed among family members, friends, or coworkers. Alternatively, a single person may start a group, and participants may all be acquaintances of that person but not necessarily know each other. Everyone in the group agrees to contribute a set amount of money at a pre-determined interval, such as once-weekly. When contributions are due, the leader of a typical RoSCA collects money from each member of the group and delivers the lump sum to the member whose turn it is to receive a payout. Members are put in a queue that dictates the order of payouts; sometimes, a lottery system sets the order. Although these groups are known colloquially as “savings groups,” the money acts more like a loan for those who receive the funds early in the cycle; and more like a savings account for those who receive it later (see sidebar: “Rotating Savings Groups: Savings or Credit?”)

The rules about how contributions are made—and the severity of consequences when a participant is unable to pay in—vary from group to group. Some groups allow for one missed payment in a cycle. There are also scenarios in which the leader will cover missed payments for members of the group under certain circumstances. As demonstrated in this brief through the story of Melinda Perez, members of the group may also borrow or lend money from and to each other to keep their contributions consistent despite cash flow challenges. Alternatively, participants may negotiate their place in the queue if they are unable to pay.

In most cases in the USFD there is no actual meeting between members. Instead, the leader collects and disburses funds. There is usually no storage of the money—it goes directly to the person whose turn it is to receive the payout. A central element in savings groups of all kinds is trust. Each participant must trust that everyone else will continue to make their payments; in turn, each participant accepts the responsibility of reliably paying in to the group. Savings group participants are free to do whatever they wish with the payout once their turn comes up.

There are many types of savings groups around the world, and a number of different models were used by USFD participants over the course of the study. Two-thirds of households that participated in a savings group were immigrants.⁸ Although participation in savings groups was more prevalent among immigrants within the USFD population, participation in savings groups is not exclusive to immigrants.

Savings groups have been formalized by financial services providers, for example the lending circles at

the heart of San Francisco’s Mission Asset Fund and the Village Saving and Loan Associations promoted by international nonprofits in Africa and Asia. Thus saving in groups is not exclusively an “informal” activity, though most operate outside of the formal system.

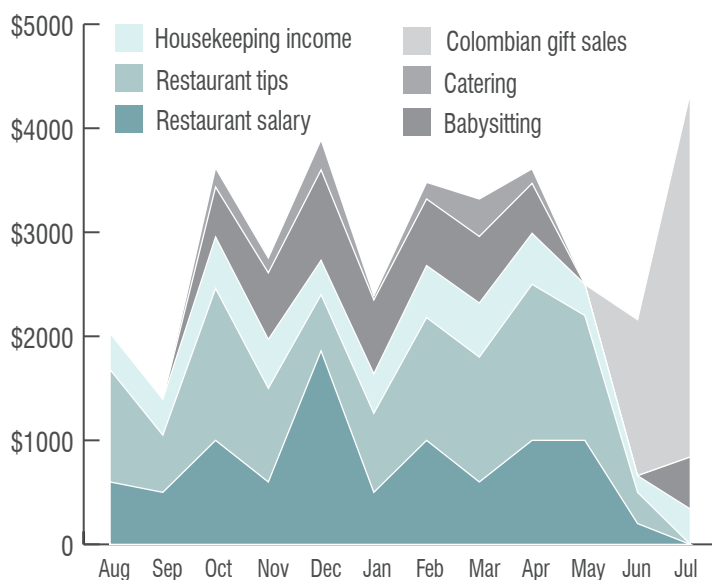
Money Guards

A money guard is a person who is relied upon to hold savings for another person. Money guards may be used for a variety of reasons. People sometimes keep savings with money guards to prevent spending, since the funds are not easy to access. Alternatively, savers may feel they don’t have enough to keep at a bank. Keeping the money with someone else may be safer than keeping the money at home. Or, undocumented workers who either cannot get a bank account—or who think they cannot—may use a money guard as an informal savings account outside of the home. Of those households in the USFD sample who used money guards, 73% also had a bank account.⁹

Meet Melinda Perez

Melinda Perez, 51, is an ambitious Colombian woman who has been living in the United States since 2009. She left Colombia when she lost her job there and was unable to find another position. Today, she lives with her sister in New York and pieces together income from a variety of formal and informal jobs. She works at a restaurant three days a week. She does casual housekeeping. She babysits twice a week. And, she sells items that her family sends from Colombia. In addition, she occasionally works events put on by another restaurant. All told, Melinda earned \$35,000 between August 2012 and July 2013 (see Figure 4).

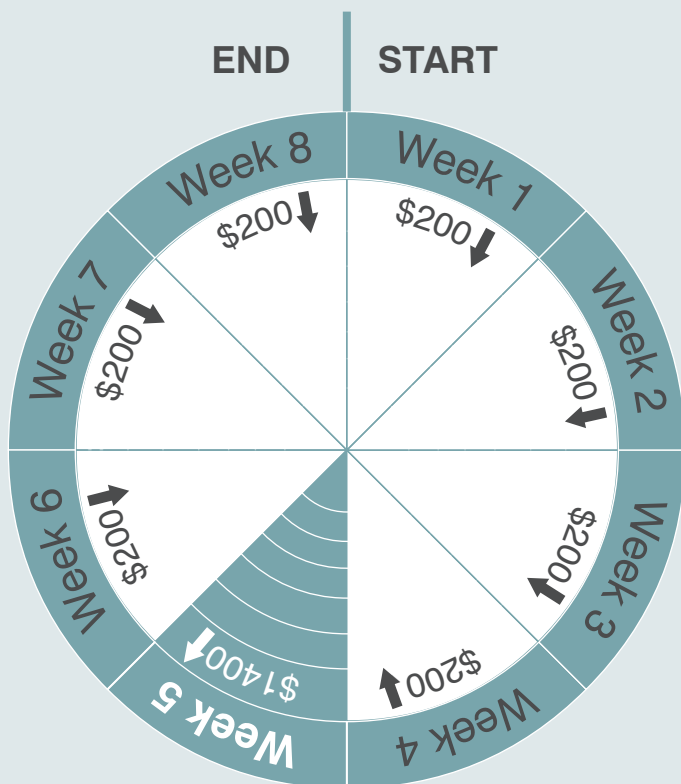
FIGURE 4: Melinda’s Income



ROTATING SAVINGS GROUPS: SAVINGS OR CREDIT?

Rotating savings groups have an element of both savings and credit (see the figure below). A member who receives the pot early in the cycle is effectively borrowing, while one whose turn falls at the end of the cycle is saving.

Research—including the USFD study—has demonstrated that low- to moderate-income consumers need, but often struggle to accumulate, large lump sums. Breaking down these lump sums into smaller contributions over time is a core function of financial services, formal or informal. This accumulation of funds can be accomplished by either saving money gradually or borrowing a lump sum and then paying it off, bit by bit.¹⁰ The categorization of a financial vehicle as credit or savings is less important than its ability to aid the household in accumulating a lump sum when needed. Particularly for people who have little financial slack, creating an external structure to encourage following through on making small payments to generate a lump sum is immensely valuable. This is what a savings group accomplishes.



Melinda keeps a checking account, which she uses to pay rent and other short-term living expenses. In this account, she generally maintains a balance of at least \$300-\$400. For longer-term savings, Melinda participates in a savings group with other employees of the restaurant where she works. She joined the group soon after arriving in the U.S. Most weeks, Melinda contributes \$200 to the group, so her monthly contribution is most often \$800 or \$1,000, depending on the number of weeks in the month.

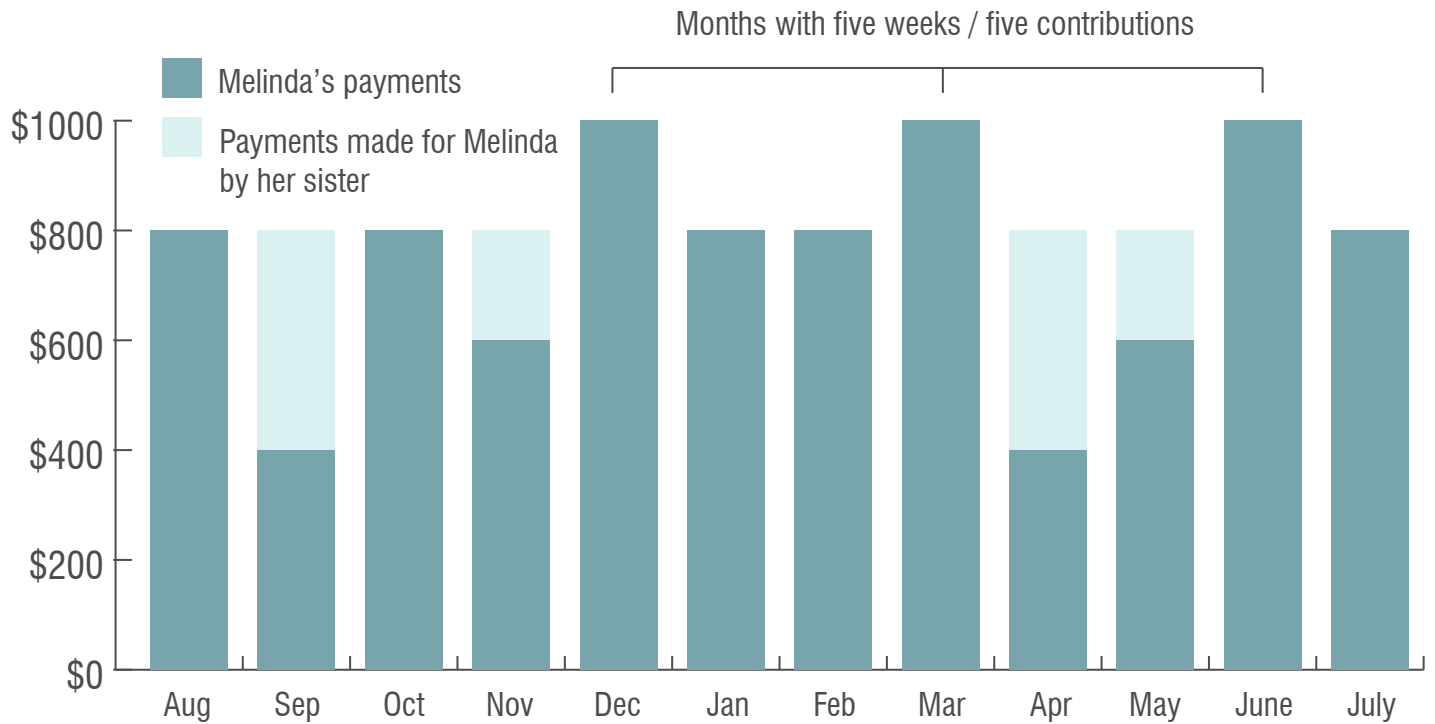
However, Melinda's sister, who introduced Melinda to the group and also participates in it, occasionally makes payments for her when Melinda cannot make her own contribution. For example, Figure 5 on page 5 shows that, in September 2012 and April 2013, Melinda's sister covered two payments to the savings group for Melinda, so Melinda's contribution in those months was \$400 instead of \$800; in November 2012 and May 2013, her sister covered one payment, making Melinda's monthly contribution \$600. Though it did not happen during the study period, Melinda has occasionally paid her sister's portion as well. This partnership prevents both of them from ever missing a payment to the group.

When it's Melinda's or her sister's turn to receive the payout from the savings group, they settle their debts to each other by sharing the payout. In September 2012, Melinda received a net payment of \$6,400, after repaying her sister for all of the contributions she made on Melinda's behalf. In December 2012, her sister's turn came and she gave Melinda \$1,200 to repay contributions Melinda had made for her. When she receives her lump sum payment from the savings group, Melinda typically sends the money to Colombia to help pay for a house that she purchased there. Melinda is a dedicated and disciplined saver – her contribution to the savings group represents, on average, 26% of her monthly income.

Why save at home or through groups?

Setting money aside for future use is an important financial activity for many people—and USFD households demonstrate many of the ways in which people save, with or without the help of banks. While people often save small amounts of money at home, USFD households provide examples of people saving outside of banks with a great deal of discipline and commitment. Mike Smith, a single man in his mid-50s living in a small town in Kentucky, offers one such example. When Mike receives a paycheck, he cashes it and puts the money in his wallet. When the amount in his wallet exceeds \$1,000, he pulls \$500 aside to

FIGURE 5: **Melinda’s Savings Group Payments**



add to the cash savings he keeps at home in a secret location. This savings balance at home is separated into two “accounts,” one of which is for general savings and one of which is for accumulating funds for his annual property tax bill.¹¹

People save at home for a variety of reasons: to ensure that unexpected, urgent expenses can be paid; for convenience and control; or because they do not trust banks (like Mike Smith) or believe they will be hit with hidden fees. Saving at home can be done without involvement from anyone else, so the barriers to doing so are low.

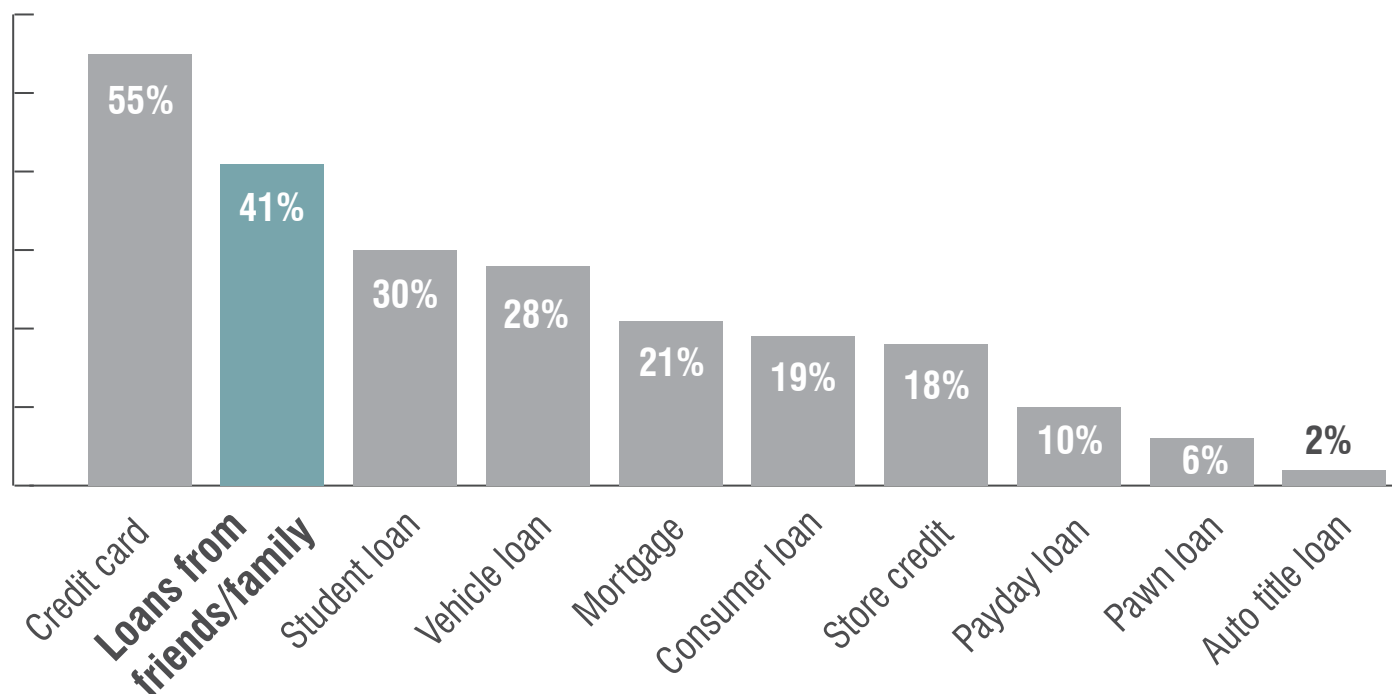
People often save in groups because of the commitment feature and social support that savings groups provide. These are the attributes that Melinda Perez values in her savings group, and they are core reasons why she has stayed in the group for five years. Contributing to the group is a responsibility; she is forced to save on a regular basis—and the money remains stashed away until it’s her turn to receive a payout. Melinda also likes that she receives a lump sum twice a year (once through her own payout, once through her sister’s). In the words of another USFD participant who contributed to a savings group, the obligation to pay in is “sacred.” Another said, “I can’t just go and get [the money], and it’s almost like I don’t have it.” Another savings group participant said, “When you save in a group, you feel the obligation

to give a fixed amount weekly; with a bank, you put money in the account when you feel like it.”

Still, there are downsides to informal savings. Funds kept in the home may not be safe, depending on the saver’s circumstances. Furthermore, while the accessibility of money at home can often be an advantage, there may be moments when accessibility is a liability, making it too easy for household members to spend the money. While savings groups deal with temptation challenges, they are, like home savings, vulnerable to theft: a member may disappear after getting a payout or the group leader could misappropriate funds collected.

If a savings group member misses multiple deposits, he or she may forfeit the funds that have already been put in, in addition to losing an important social network. This social tension was evident in a pair of USFD households that participated in a savings group in New York City. One household brought the other in to the group, but then became anxious that the referred household would not pay consistently. The referred household was also anxious about making payments, and prioritized payments over all else, including food, to ensure that the household lived up to its commitment and could stay in the group. For households with unpredictable incomes, savings groups have disadvantages as well as benefits.¹²

FIGURE 6: **Loans from Friends or Family are the Second Most Common Form of Credit**¹⁵



Another significant limitation to savings groups is a lack of control over the timing and amount of the payout. Savings groups are suitable for relatively time-insensitive needs. They aren't well suited for dealing with emergencies. Furthermore, each participant other than the group leader has little control over the amount of each required deposit or the total sum accumulated. Members may have to save more than is comfortable, or join multiple groups if their savings needs don't closely match the needs of other members.

By saving money outside of the formal financial system—either in groups or at home—people also forego the benefits of participating in the system, such as building up a transaction and relationship history that may enable access to other useful products, or an opportunity to earn interest (though in the current environment, this is a small price to pay).

■ Informal Borrowing among USFD Households

Loans from friends and family were the second most common form of credit used by USFD households. (see Figure 6).¹³ Two out of every five households (41%) owed this kind of debt at some time during the study. Nearly as many (39%) were owed money by friends and family, and 23% had both borrowed and lent money.¹⁴ Informal debt occurred across USFD research sites and demographic groups.

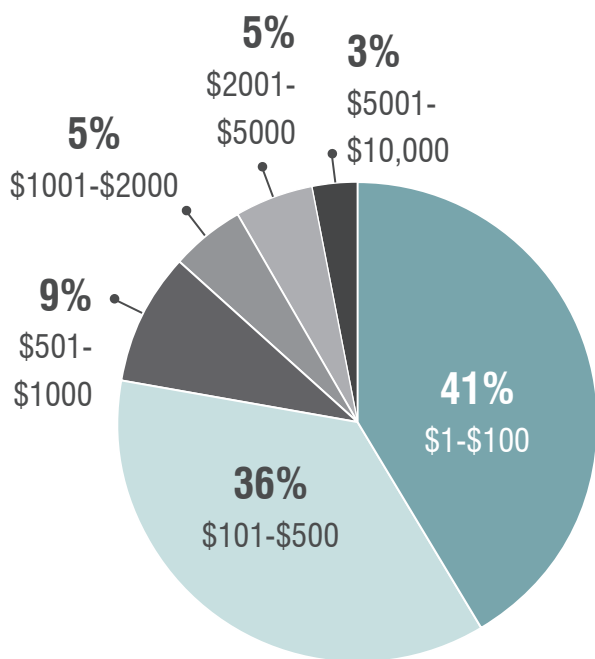
The structure of informal loans and their repayment varies significantly from household to household and from loan to loan. Households borrow in small installments and in large lump sums; they show similar variety in repayment behavior. The most common loan size borrowed from friends and family was under \$100, indicative of struggles with cash flow. More than half of loans borrowed from friends and family exceeded \$100. A fifth of loans were for more than \$500 (see Figure 7).

Meet the Leons

Andrea Leon, 37, and her new husband Manuel, 36, live in Northern California with their three-year-old son. Andrea and Manuel each have two other children from previous relationships who live outside of the household. Andrea is an administrative assistant for a human resources company. Manuel works for a house painting company. Their annual income is \$60,000-\$70,000 (see Figure 8). Andrea was born in the U.S., and Manuel was born and raised in Venezuela.

Andrea accumulated a large balance of debt in the past, particularly in the wake of a prior divorce. After the divorce, she made a concerted effort to pay down her debt by moving into her parents' house to save money. In 2008, she also consolidated her credit cards, taking out a Bank of America card with her dad as co-signer. As a result, she now has a solid credit profile: when she purchased a car recently, she

FIGURE 7: Amounts Borrowed from Family and Friends¹⁶



learned that her credit score was 716. She continues to hold and use several credit cards, each taken out for different reasons (see Table 1), as well as a vehicle loan borrowed through Wells Fargo.

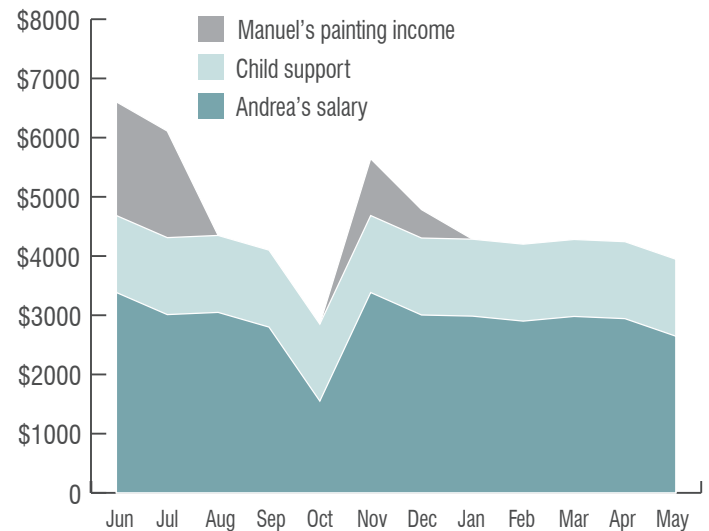
In addition to the formal credit sources Andrea has used, she and Manuel borrowed from friends and family on a few occasions over the course of the USFD study. The largest was a \$1,700 loan Andrea took out from her father in order to pay off the balance on her Citi credit card before an initial 0% interest offer expired. She took this loan out in February of 2013 and paid it back that April, without any interest charges, once she received her tax refund.

Separately, a friend of Andrea's sold Manuel a car, the value of which was \$2,800; the purchase was financed by the seller through an informal loan. Manuel agreed to gradually pay off the loan, which did not charge interest nor have a set due date. In May 2012, he made a payment of \$1,000 toward the car, and his remaining balance at that time was \$900. Rather than paying off the car loan with a regular schedule of payments, Manuel made payments as he was able.

Why borrow from friends and family?

Among the 41% of households that borrowed money from friends and family, 55% also had a credit card.¹⁷ At least some of these households, therefore, intentionally borrowed from friends or family instead of borrowing from banks or credit card companies.

FIGURE 8: The Leons' Income



In many cases, people borrow informally because it costs less, in ways both direct—informal loans generally do not include interest charges—and indirect—loans taken out from family or friends may be faster and easier to obtain, with less hassle from an application or approval process. Andrea Leon said she felt that she could have gone to a bank or other financial provider when she needed the \$1,700 that she borrowed from her father, but she did not want to

TABLE 1: The Leons' Credit Cards¹⁸

Credit Card	Reason for opening	Balance (7/2013)
Care Credit Card	Pay for eye surgery	\$3490
GE Money Card	Buy wedding rings	\$490
Citi Credit Card	See if she qualified	\$0
Best Buy Card	Washing machine	\$0
Bank of America	Consolidate credit	\$1800

have to go through a lengthy application process and pay interest. Although she does not like to depend on other people for money, she said, "This seemed the simplest and quicker way." There was a clear understanding between her and her father about when the loan would be repaid, but if she had been unable to repay it, her father would have been flexible.

Some indicated that they chose to borrow from friends and family even when other sources were available

because informal borrowing offers convenience and flexibility. The fact that funds borrowed informally do not get reported to the credit bureaus is a benefit for households that need the loose repayment expectations (though this is a downside for households who repay steadily). One study participant who chose informal borrowing over formal borrowing said, “I don’t make enough to be able to repay on a rigid schedule.” Another said, “The [formal] loan would have a due date and I may not be able to return it on the due date. It’s better to borrow from family or friends because I have the flexibility of returning it when I can.”

Yet borrowing from family and friends can have downsides, and some borrow this way because they have no other options. Households who would have preferred to go to a financial institution had that been an option emphasized the potential damage to relationships that borrowing from friends and family can cause. One informal borrower said: “He offered to help out. There’s no interest. Even though you get the leeway and they understand your situation, I know I owe him. He knows I owe him. The bank doesn’t know when you take a vacation or go out of town. He does know. He wouldn’t mention it, but he knows.”

Additionally, although informal loans offer flexible terms, borrowing from friends and family may come with a difficult-to-fulfill expectation of reciprocity. Even when they lend willingly, lenders in this system may not be able to be very discriminating when it comes to assessing the “creditworthiness” of kin who later ask for money—or when it comes to setting expectations about the cost and repayment terms of an informal loan. Andrea Leon, for example, loaned \$100 to her brother-in-law that she does not expect to be repaid.

As with savings groups, loan flexibility has benefits and costs. While an informal loan with flexible terms may provide needed breathing space, without a formal structure for repayment, social ties are the main factor imposing pressure to pay it off, and the social cost of failure to pay (or of enforcing payment when needed) may be high. Further, family and friend networks are inherently limited in terms of their ability to provide funds or to spread risks. A person may not know anyone who has available cash and willingness to lend at a given moment, and social networks are mostly local and therefore may be subject to the same risks, e.g. natural disasters, or regional economic downturns.

■ Implications for Innovators

Many people use informal savings and borrowing as complements to products and services offered by financial institutions. In other words, these consumers

are participating in the formal financial system and might be willing to expand their use of formal products and services if they contained the right features. Financial institutions cannot replicate all the positive features of informal mechanisms, but reviewing the use of these informal tools can generate insights into how customers make financial decisions. After all, these are the products and services that consumers design for themselves.

Savings groups, in particular, suggest opportunities for innovation in the formal sector. Aspects of the mechanisms that make savings groups popular—regularity, commitment, peer support—can be replicated with technology. Evidence from developing countries suggests commitment savings accounts (which require savers to meet a pre-defined time or amount goal), reminders to save (for example, via SMS message) and peer-monitoring arrangements can be popular and effective product features. Meanwhile, formal financial institutions are well-equipped to mitigate the risks and downsides of savings groups: insured deposits, control over timing and amount of savings goals, and the flexibility to adapt to cash flow challenges are important competitive advantages.

Our data on informal finance suggests that there is room for innovation in installment loans and small-dollar credit as well. Finding a way to track informal borrowing behavior—which happens outside of the credit reporting system—could add depth to lenders’ understanding about the creditworthiness of a large number of borrowers. The use of high-touch customer service could improve repayment, as a personal connection with the lender can add positive pressure to encourage borrowers to meet their repayment obligations. Finally, USFD data demonstrates that having flexibility on how loans are repaid is highly valued. Where possible, then, repayment programs should be structured with a degree of flexibility.

Innovation can also come from breaking away from a binary framework of credit products and savings products. From the household’s perspective, one goal is accumulating sufficiently large lump sums when needed; the tool required is one which breaks down the lump sum into smaller chunks. That can be accomplished with savings or credit. This suggests that credit scores are calculated with data that is too narrow. It may be just as relevant to a lender whether a prospective borrower has the discipline to make regular savings deposits as to make regular loan payments. By envisioning products strictly within the narrowly defined buckets of savings and credit, we fail to acknowledge the underlying financial needs of

a large swath of consumers, and fail to be sufficiently creative about how to meet those needs. Furthermore, financial providers forego an opportunity to better serve customers.

Reviewing the use of informal financial tools illustrates that consumers seek a balance of structure and flexibility in the products they use. Compared to saving at home, for example, a bank account is overly structured in some respects: money is only accessible during bank hours, or for a fee at an ATM, and only in particular denominations; further, a bank account is itself only available to those who are able to present the correct form of identification. Compared to saving in a group, however, bank accounts offer little to no structure when it comes to telling people when to save, how much to save, or when to access that savings for some purpose. Financial institutions could innovate by thinking more about when and how to provide structure and when and how to provide flexibility. In aiming to strike a balance between structure and flexibility, financial providers may be better positioned to broaden their customer base while improving access to high-quality financial services for consumers.

account.

10. This concept is perhaps best explained by Stuart Rutherford in *The Poor and their Money*. (Practical Action 2009).

11. For more on Mike Smith, please visit www.usfinancialdiaries.org and click on the link for "Household Profiles."

12. See the USFD issue brief on this topic, "Spikes and Dips: How Income Uncertainty Affects Households," available at www.usfinancialdiaries.org.

13. Field researchers had to use discretion in how they recorded cash inflows that came from friends or family members. Such inflows could be recorded as either "resources received" – meaning the money was a gift – or as loans – meaning that there was some expectation of repayment. However, "resources received" sometimes came with a sense of obligation, even if there was not a clear agreement about repayment. As we continue to review and validate USFD data, we will learn more about the rules and norms of exchanging money between households.

14. All three data points in this paragraph come from a sample size of 244 households; data as of 4/25/14.

15. 244 households; data as of 4/25/14.

16. 93 households and 223 loans; data as of 8/20/14.

17. 244 households; data as of 4/30/14.

18. Detailed data on financial instruments was collected in July 2013 as part of a supplementary research module. For more on the research methodology of the USFD study, visit www.usfinancialdiaries.org.

1. Note that figures for household savings, as well as all figures throughout this brief, describe phenomena seen among USFD households. They should not be more broadly interpreted as reflecting the incidence of behaviors of low- to moderate-income households in the U.S. The USFD population does not constitute a representative sample of the low- to moderate-income population in the U.S.

2. N=244, dated 8/19/2014. Note that field researchers could record two categories of cash physically held by the household: cash on hand and cash saved at home.

3. 244 households; data as of 8/19/14.

4. 244 households; data as of 4/25/14. Note that money guards are not always used to keep personal savings safe. In some cases, this instrument was used for households that operated fund-raisers and had to be the conduit for the money over a very short period of time.

5. 15 households used money guards; 22 participated in savings groups; data as of 7/25/14.

6. For an overview on saving groups, see chapter 3 of Beatriz Armendáriz and Jonathan Morduch, *The Economics of Microfinance* (MIT Press, 2010) and Stuart Rutherford, *The Poor and their Money* (Practical Action, 2009).

7. For a description of the use of informal saving groups in financial diaries from India, Bangladesh, and South Africa, see Collins, Daryl, Morduch, Jonathan, Rutherford, Stuart, and Ruthven, Orlanda. *Portfolios of the Poor* (Princeton, NJ: Princeton University Press, 2009).

8. 7 households were non-immigrants; 15 were immigrants: data as of 9/25/14, showing all 22 households that were participating in savings groups out of 244 households in the study.

9. N=244; 11 of 15 households using money guards had a bank



The U.S. Financial Diaries Project collected detailed cash flow and financial data from more than 200 families over the course of a year. The data provide an unprecedented look at how low- and moderate-income families—in four regions and 10 distinct demographic profiles—manage their financial lives. USFD was designed and implemented by Jonathan Morduch of NYU Wagner's Financial Access Initiative, Rachel Schneider of the Center for Financial Services Innovation, and Daryl Collins of Bankable Frontier Associates. Morduch and Schneider are the Principal Investigators for the ongoing analysis of the data. For more information, please visit www.usfinancialdiaries.org.



The Financial Access Initiative is a research center housed at NYU Wagner focused on exploring how financial services can better meet the needs and improve the lives of poor households. www.financialaccess.org



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