Building Credit for the Underbanked

Social Lending as a Tool for Credit Improvement

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Executive Summary

In this report, we examine the effectiveness of an innovative social lending program, Mission Asset Fund's (MAF) Lending Circles, at building credit for low-income, underbanked individuals.

To evaluate the success of the program, we determined improvements in the credit scores for a sample of lending circle (LC) participants and for a control group, while controlling for their personal characteristics, economic situations, financial assets, attitudes, and behavior. We selected a sample of 260 MAF participants who started their first lending circle between January 2011 and December 2011 and had completed their lending circle by January 2013. We recruited 383 participants for the control group. Moreover, we used propensity score matching to select the most similar comparison and treatment groups. Using a logistic regression, we modeled the probability of success. Success was measured by whether the person improved their credit score by 20 points or more.

The highlights of our findings are as follows:

- Mission Asset Fund's lending circles have a strong and significant impact on credit scores for low-income clients. Lending circles bring clients to the financial mainstream. Credit scores increased on average by 168 points for the treatment group and the average credit score reached 603 points at the end of the lending circle.

- Improvements in scores were most dramatic among those most in need. Lending circle participants without a credit history or a thin record were almost twice as likely to succeed as those in the control group. For participants with scores above 620, there was no significant difference in the probability of success between the treatment group and the control group.

- The impacts of lending circles go beyond improvements in credit scores — Lending circle clients experienced declines in their outstanding debt. From 2011 to 2012, following a severe recession that devastated the housing market and raised the unemployment rate, the average person in the control group increased their outstanding debt by almost $3,000, whereas the average person in the treatment group decreased their outstanding debt by over $1,000.

- The improvement in outstanding debt was most dramatic among those with a credit history. Lending circles appear to serve two purposes: (1) for people with no credit history, lending circles allow them to establish credit and reduce their debt; and (2) for people with an established record, LCs allow them to get a handle on their financial situation and improve their outstanding debt. While the outstanding debt of the control group with a credit history at the start of the study increased by $2,772 on average during the period of analysis, it declined by $2,483 for the treatment group.

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cestas populares

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Introduction

Low-income individuals, particularly immigrants, frequently face a steep climb to financial stability, with many difficulties accessing mainstream banking services, low-cost loans, and effective savings opportunities. Without a bank account or credit history, working poor families are locked out of the low-cost credit market and have few options for assistance in balancing their month-to-month finances. They are often forced to turn to unscrupulous predatory lenders for basic financial needs. According to the Federal Deposit Insurance Corporation (FDIC), 106 million people, or 28% of the U.S. population, are either underbanked or unbanked—they either lack a bank account or they have made more than one non-bank financial transaction in the past 30 days (FDIC, 2012). During the protracted economic recession, financial conditions eroded for low-income families across the country, and many are still experiencing hardship. More than ever, these families need trusted products and services to help them access responsible and affordable credit, with real opportunities to save and invest in themselves, their children, and their communities.

Programs geared toward establishing and improving credit are of particular importance in helping these individuals achieve financial security. Without a credit score, families are invisible to financial institutions. They are barred from low-cost loans to purchase property or vehicles, and they are even prevented from investing in their own education. Forty-two percent of underbanked individuals nationwide have a thin or nonexistent credit history (CFSI, 2008). To combat this extreme economic exclusion, many social service agencies, often partnering with financial institutions, are bridging the gap between underbanked consumers and financial institutions, offering new credit-improvement products. These products include secured credit cards, accounts that begin with low lines of available credit, loans with terms that improve with positive repayment history, and credit-building loans where payments are deposited into a locked savings account until a predetermined target amount is achieved. However, application requirements and start-up fees for these products may exclude people with low incomes and unfavorable credit histories. In these cases, social lending may be the best alternative for building credit.

Mission Asset Fund's Lending Circles (LC) is an innovative program that formalizes a culturally relevant social lending model and helps clients to build credit free of charge, in addition to providing financial education.

Outside the United States, social lending has been a common and effective practice in helping individuals and families save and get loans. In fact, many cultures have names for the practice: susus throughout Africa, lun-hui in China, tandas in Mexico, and paluwagan in the Philippines (Mission Asset Fund, 2012).

MAF's innovation in lending circles is to convert social loans, where participants contribute their own money, into formal recognizable transactions to the credit bureaus. Through a partnership with Citi, MAF processes the loans and distributes payments electronically. It then records and reports monthly payment activity to credit bureaus, thereby enabling participants to establish or improve their credit scores in the process.

Clients join a group of four or more individuals in a lending circle, where each participant member pays equal amounts and receives the total sum in a rotation. The group decides on the terms of the contract, the duration of the loan, the loan amount, and the distribution of the funds. Members are also expected to participate in financial education classes. MAF secures each of the loans in case any participant defaults.

In this report, we examine the effectiveness of lending circles at improving the credit scores of low-income individuals in San Francisco. We begin with an overview of the characteristics of lending circle clients. We proceed with an analysis of the impact of MAF's Lending Circles Program on clients' credit scores.

Lending Circle Clients

In 2008, Mission Asset Fund began piloting, testing, and refining the Lending Circles (LC) model in San Francisco's Mission District, a historic immigrant gateway community where 44% of households have no credit histories (Social Compact, 2008). By January 18, 2013, fully 1,111 clients had participated in the program, 679 (62%) of whom were recruited at MAF. Looking only at the LC clients at MAF, we find that MAF has provided financial products and financial education particularly to Latina immigrant women (see Table 1).

Sixty-two percent of LC clients are females, 88% are foreign born, and 67% are Latino. More than one in ten (14%) are self-employed. The group consists of adults from 26 to 45 years old (average age of 40), but only 36% are in a household with children. (This does not necessarily mean that they do not have children, only that their children are not living with them, as is the case for many immigrant women.)

They are economically vulnerable: 42.5% have a thin or nonexistent credit history, and one in five is unemployed or working part-time.

MAF clients share many characteristics with those who are underbanked in the United States overall. The majority of underbanked people are young, low-skilled, female heads of households, with low levels of income.

Nationwide, 47% of the underbanked are from 26 to 45 years old (FDIC, 2012). A high proportion are foreign born (51.3%) and nearly one-third (28.9%) speak only Spanish. They are financially marginal — 49% are unemployed or not in the labor force (FDIC, 2012) and 42% have a thin or nonexistent credit history (CFSI, 2008).

Table 1
Characteristics of MAF Lending Circle Clients

	% of MAF LC Clients
Gender	
Female	62%
Male	30.1%
Other or Blank	7.8%
Age (Average age is 40 years old)	
18 to 25	11.4%
26 to 45	51.8%
46 to 65	27.5%
65 or More	1.9%
Blank	7.5%
Ethnicity	
African American	2.6%
Asian/Pacific Islander	2.7%
White	3%
Latino	66.5%
Native American	0
Other	1.2%
Blank	24%
Employment Status	
Full Time or More	35.7%
Part Time	11.4%
In School Working or Not	6%
Self-Employed	13.7%
Unemployed	9.4%
No Answer or Blank	23.6%
Place of Birth	
Born in the U.S.	12.5%
Blank	7.5%
Children in Household	
	36%
Credit Status	
No Score or Report	29.1%
Less than 580	13.4%
581 to 619	7.3%
620 to 719	25%
720 or Better	13.1%
Blank	12.1%
Total number of observations	679

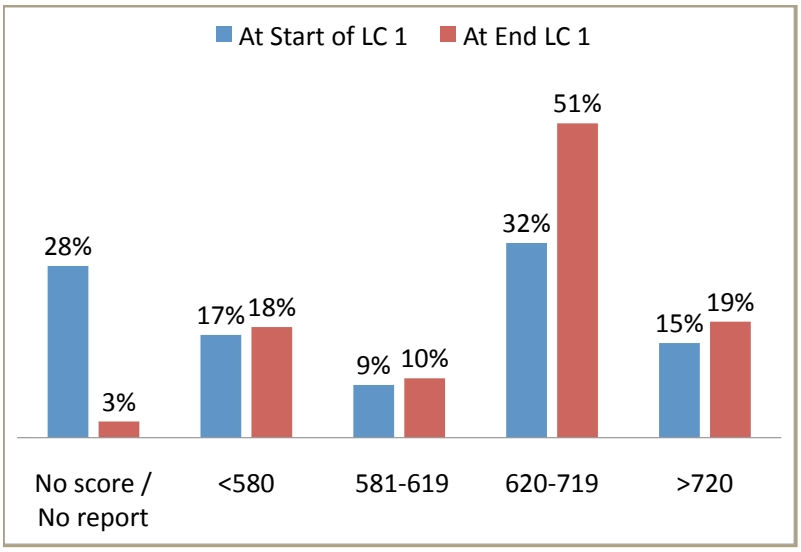
Note: This data is for all lending circle participants at MAF who started their first LC before January 18, 2013.

Credit Improvement after the First and Second Lending Circles

Lending Circles aim to help financially disenfranchised populations transition to the financial mainstream by providing education, coaching, and access to social loans. The expectation is that by gaining information, experiencing the benefits of saving, and receiving peer support, clients will be able to improve their credit scores and change their financial behavior. In this section, we examine the average improvement for LC clients at MAF. However, these numbers only show changes in credit scores, not the impact of the program on these scores. Credit scores could have improved for many reasons. In the next section we isolate the effect of lending circles for clients at MAF and for a comparable group of similar individuals to determine whether the observed improvement in credit scores is a consequence of the LC program.

Figure 1 shows the distribution of credit scores at the beginning and end of the first lending circle at MAF for the entire sample of MAF clients with completed LCs. We see a shift in the credit score distribution at the end of the first lending circle. Twenty-eight percent of clients started without a credit score, and only 3% had no score at the end of the first LC. Meanwhile, a greater proportion of the sample had a credit score of 620 or higher at the end of the first lending circle (70%) than at the beginning (47%).

Figure 1
Distribution of Credit Scores at the Beginning and End of the First Lending Circle



Note: This data is for all lending circle participants at MAF who completed their first lending circle by January 18, 2013. We excluded people whose lending circle was still in progress. For participants with multiple loans, we only evaluated their first lending circle.

To assess the improvement of clients according to their initial credit category, we examine the ending scores while controlling for clients' starting scores. That is, column 2 of Table 2 shows the distribution of credit scores at the end of the LC, taking into account where an individual was at the start of the lending circle. For example, 9% of those who started without a credit score continued to have no score at the end of the first LC. Meanwhile, 72% of those who started without a score or a credit report were at prime or better by the end of the first lending circle (62% had a score between 620 and 719, and 10% had a score above 720). Of those clients who started with a low score (below 580), 75% remained below 580 and 24% had scores above 580 by the end of the first LC (16% were between 581-619, and 8% were above 620). Even those who started out with a score of 580 or below and remained in this category at the end of the analysis nonetheless showed improvement—half of these clients improved their scores by more than 20 points.

These are dramatic improvements in credit scores. However, the higher the score at the start of the lending circle, the smaller the improvement. People who were above 620 at the start of the LC remained around prime at the end of the first lending circle, and some clients experienced a decline in their credit score if they were already above 580.

Of particular concern is the group that was near prime (581–619) at the start of the first LC. Twenty-four percent of these clients experienced a short-term decline in their score during the time of the first lending circle. We discuss this decline later on in the report.

Table 2
Distribution of Final Credit Scores, Controlling for the Scores at the Start of the LC at MAF

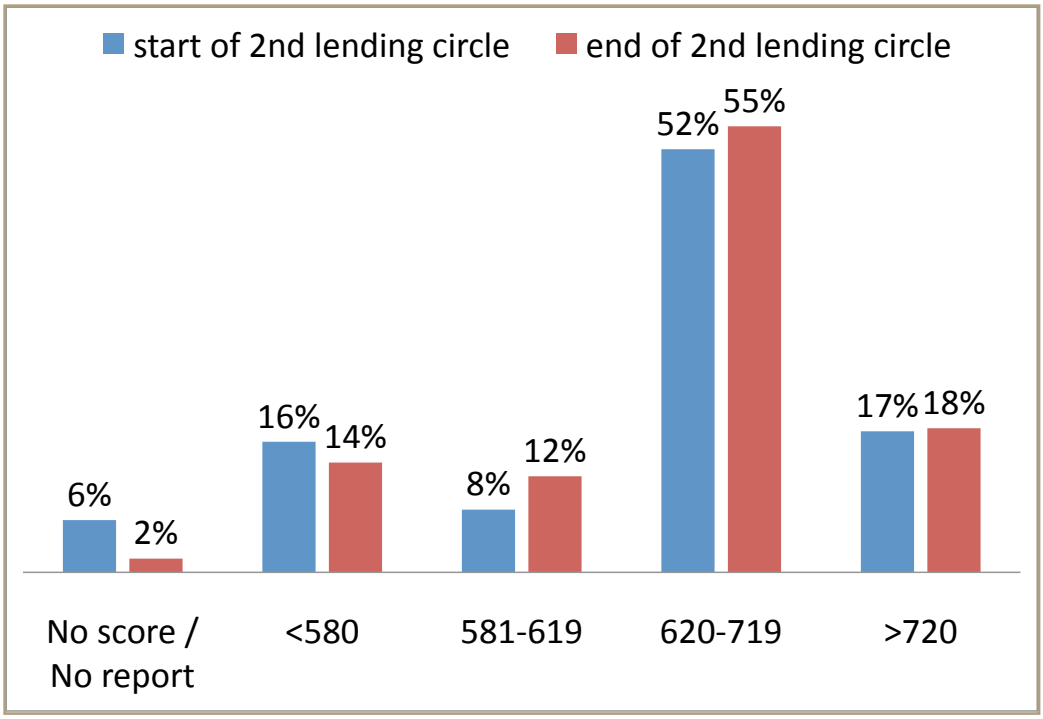
Distribution of Scores at start of LC1	Distribution of Scores at end of LC1
No score/report at start	
No score/report	9%
< 580	8%
581-619	10%
620-719	62%
> 720	10%
< 580 at start	
No score/report	0%
< 580	75%
581-619	16%
620-719	7%
> 720	1%
581-619 at start	
No score/report	0%
< 580	24%
581-619	27%
620-719	49%
> 720	0%
620-719 at start	
No score/report	0%
< 580	7%
581-619	6%
620-719	78%
> 720	9%
> 720 at start	
No score/report	0%
< 580	0%
581-619	0%
620-719	21%
> 720	79%

Note: This sample originates from the accounts records and comprises all unique clients who started and completed a LC before January 18, 2013 at MAF.

Lastly, we examine the distribution of scores for people who did a second lending circle. Since fewer clients finished two lending circles, we have a smaller sample, which makes it slightly more difficult to make generalizations about the impact of the lending circles. The results are nonetheless promising.

Figure 2 shows the distribution of credit scores at the beginning and end of the second lending circle at MAF. Although there are far fewer clients who started without a credit score (because they had already gone through one lending circle), the scores nonetheless continued to improve. There were more clients above 580 at the end of the second lending circle (85%) than there were at the beginning (77%). If we look at this same group at the start of their first lending circle, only 56% were above 580.

Figure 2
Distribution of Credit Scores at the Beginning and End of the Second Completed Lending Circle at MAF



Note: This data is for all MAF clients who completed their second lending circle. There were only 118 clients (only 11 at affiliated sites) for whom we have full records of credit scores to generate this table: 2 (No score/No report), 16 (<580), 14 (581-619), 65 (620-719), and 21 (>720) at the end of the second lending circle.

Are Lending Circles the Reason for the Improvements in Outcomes?

The previous section showed great improvements in credit scores for participants of the lending circles. However, it is important to determine if these results stem directly from the experience. How well did participants do compared to a control group with similar characteristics? This section provides an overview of the methodology employed to answer this question, as well as an overview of the process used to ensure a good comparison group. We then present the results in a model that examines the impact of lending circles on the probability of success, as measured by the acquisition of a credit score or by an improvement of 20 points or more in an existing score.

Overview of Methodology

We assess the impact of the Lending Circles Program by using logistic regressions that examine the improvements in credit scores for the treatment group relative to a control group. For these regressions, we selected a subsample of MAF clients who started on their first lending circle between January 2011 and December 2011 and had completed their LC by January 2013. During this period, a total of 260 new participants enrolled at MAF's Mission District office. Likewise, 383 control individuals were recruited using similar tactics. Credit reports were collected at the beginning and end for both groups. In addition, both groups were administered a 70-element in-person questionnaire at the beginning of the evaluation period (the pre-test) and a 10-element questionnaire taken either online or by phone at the end of the analysis (the post-test).[1] The initial survey was longer in order to gather information on personal characteristics for both the treatment and the control groups. This information included the participant's current economic and financial situation, financial assets, investments and accounts, financial goals, expectations, and behavior. (For example, the survey asked participants if they had used a pawn shop loan, if they had enough money saved for an emergency, if they could get a loan for $1,000 in case of emergencies, and if they were motivated to change their financial situation.) The purpose of the second survey was to assess changes in their economic situation, motivation, attitudes, and financial behavior.

[1] *Questionnaires are available in Appendix A and Appendix B.*

Selecting the Control Group

We employed three strategies to account for the differences between the treatment and control groups in our analysis: (1) we used similar recruiting tactics (posters and radio announcements, street interceptions, and recruitment presentations at other community-based organizations); (2) we used propensity score matching to select from the control group those who most closely matched the characteristics of the treatment group at the beginning of the evaluation period, drawing on the initial characteristics from the survey[2]; and (3) we incorporated controls in the regression analysis.

We used over 44 measures to match LC clients to the control groups. Of those, the following key traits were most important in the matching:

- Credit score distribution at the beginning.
- Checking account ownership at the beginning.
- Ability to save in last 3 months (measuring savings behavior).
- Extent to which they got phone calls from bill collectors (measuring financial struggles).
- Motivation to improve their situation in the next 12 months (measuring interest in improving their financial circumstances).
- Gender (to ensure that the same proportion of females were in both groups).

After removing cases with missing data, the use of propensity score matching resulted in a sample of 137 controls that almost identically matched the initial characteristics of the MAF participants. Table 3 shows the characteristics of the control and treatment groups.

Although the control group and the treatment group are almost identical in 32 different measures, there are some noticeable differences. Only 37% of the control group has been able to reduce their debt in the last

[2] *For information and examples on propensity score matching see: Caliendo and Kopeinig, 2005; Stuart, 2007a, 2007b; Essama-Nssah, 2006; Guo and Fraser, 2010; Ham, Li, Reagan, and Federal Reserve Bank of New York, 2005; Heckman, , 2009; Hardis Fraeman, 2010; Stuart, 2009; Todd, 1999.*

Table 3
Characteristics of Treatment and Control Groups from the Pre-test

	Control	Treatment
Financial Assets *(% with the following)*		
A Checking Account	99%	97%
A Savings Account	74%	71%
Health Insurance	65%	54%
Life Insurance	19%	13%
Auto Insurance	46%	46%
Investment Stocks	8%	8%
Retirement Funds	19%	15%
Importance of Financial Services *(% answering very important)*		
Checking Account	73%	70%
Savings Account	65%	60%
Health Insurance	81%	75%
Life Insurance	50%	49%
Auto Insurance	53%	56%
Investments	24%	29%
Retirement Funds	53%	47%
Financial Struggles in the Last 3 Months *(% answering yes)*		
Have you used a check cashing store?	8%	10%
Have you received a call from a bill collector?	19%	18%
Have you paid a late fee on a bill?	40%	35%
Have you used a pawn shop loan?	9%	7%
Have you applied for a loan which you were denied?	14%	17%
Have you taken out a payday loan?	9%	9%
Financial Planning in Last 3 Months *(% answering yes)*		
Emergency money for 3 months' expenses?	19%	29%
Have you been able to reduce your debt?	37%	46%
Have you been able to save money?	42%	42%
Have you been able to pay your bills on time?	73%	76%
Have you been able to invest money?	14%	10%
Do you feel you have been in control of your finances?	53%	46%
Have you made a budget to plan your expenses?	50%	47%
Paid bills using an automated bill-pay system?	48%	52%

	Control	Treatment
Financial Confidence *(% answering 5 on 1-5 scale)*		
How certain are you that you can get $1,000 for an emergency?	26%	29%
How comfortable are you going to a bank?	45%	45%
How certain are you that you could receive a bank loan?	10%	12%
How much do you worry about your financial situation?	45%	42%
How motivated are you to improve your financial situation in the next year?	71%	74%
How confident are you that your financial situation will improve in the next year?	34%	53%
Demographic Characteristics		
Working Full-time	43%	33%
Working Part-time	19%	16%
Self-employed	5%	10%
Unemployed	12%	12%
University degree (4 years or more)	27%	24%
Own house	12%	5%
Own car	42%	46%
Not an immigrant	23%	13%
Latino/a	69%	79%
Female	66%	62%

Note: Sample size includes 210 in the treatment group and 139 in the control group.

3 months, as compared to 46% of the treatment group; a significantly higher proportion of the control group has been able to save in the last 3 months; and they feel more in control of their financial situation than the treatment group.

On the other hand, participants in the treatment group feel more confident that their financial situations will improve in the next year. But since the treatment group received the survey after deciding to join a program to improve their financial situation, this response may reflect their hope for the success of the program.

Meanwhile, the control group's response most likely reflects the uncertainty about the future that many Americans felt in 2011. Throughout most of the spring and summer of 2011 (the period in which we collected our sample), the percentage of Americans who said that economic conditions were getting better remained between 26% and 37% (Jacobe, 2011). There is, however, very little difference among the groups regarding their level of motivation to change their financial circumstances. Over 70% feel highly motivated to improve their financial situation in the next 12 months. The control and treatment groups were very similar in their asset holdings. Both had similar rates of checking and savings account utilization. However, the control group has more individuals with health insurance and life insurance, as well as more people with retirement accounts.

Both groups placed a similar degree of importance on financial services. It is interesting to note that while about half think life insurance and retirement accounts are highly important, fewer than half have them. Also, about 1 in 4 say that investments are very important, but only 8% have them. Lastly, about the same proportion of participants in the treatment and control groups appear to be in severe hardship. Over a third had paid late fees in the past 3 months; close to 20% received a call from a bill collector; more than 1 in 7 had been denied a loan; and close to 1 in 10 say they actively use pawn shops, check cashing facilities, or payday loans.

In general, the control group appears to be a little better off than the treatment group. They work full-time at higher rates, with slightly more education and higher rates of homeownership. Given these characteristics, we expect the control group to do better (holding all else constant) than the treatment group. But we control for all of these differences in the model so as to isolate the effect of lending circles from other differences between the groups at the start of the program.

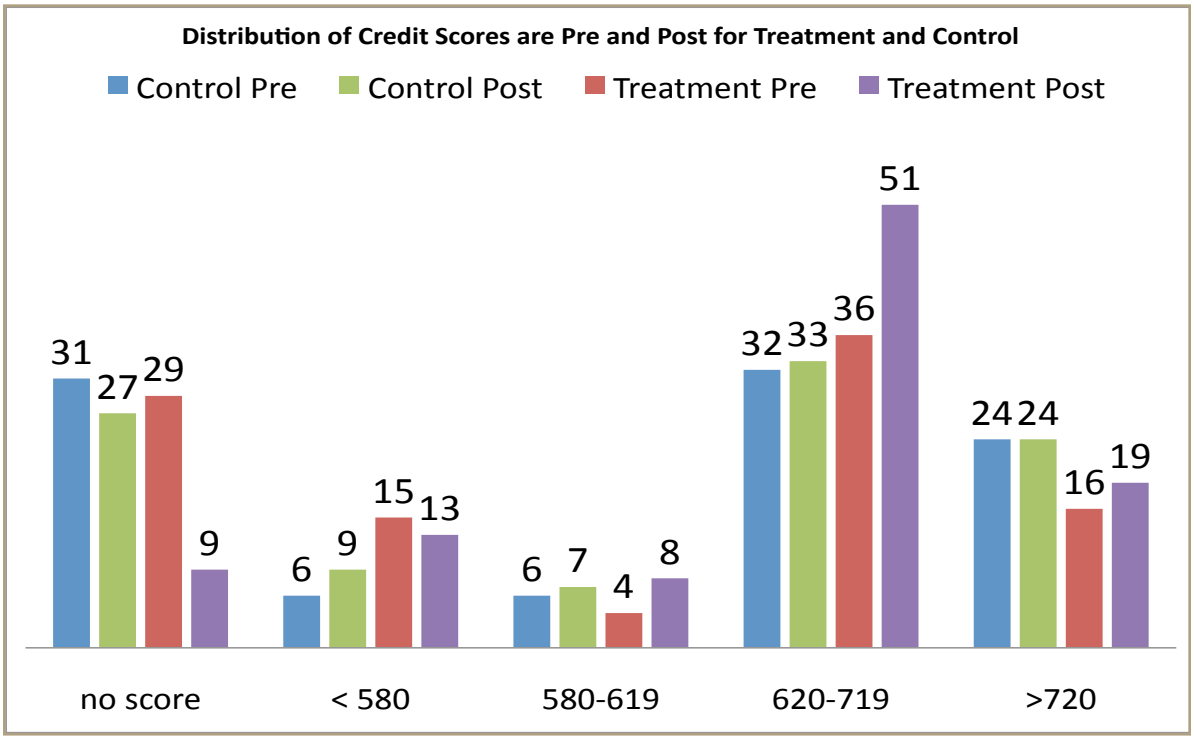
Credit Report Outcomes

Just as we found in the prior section for the entire sample of LC clients, there was a dramatic shift in the distribution of credit scores for the treatment group, while there was only a minor change in the scores for the control group (Figure 3). While the proportion of treatment group participants without a score fell from 29% to 9%, the share without a score remained near 30% for the control group at the end of the analysis. There was also a significant increase in the proportion of LC clients who had credit scores above 620 after participating in the lending circle and almost no change for the control group.

In addition to the changes in credit scores, there were significant adjustments to other aspects of the credit report, as Table 4 shows. Most striking were the changes in outstanding debt.[3] Clients appear to be using LC funds to pay installment debt, particularly people who started the program already having a credit score.

On average, participants in the control group who had a score at the start of the study increased their outstanding debt by over $2,700, while clients in the treatment group decreased their outstanding debt by over $2,400. Even when we include

Figure 3
Distribution of Credit Scores at Pre-Test and Post-Test for Treatment and Control Group



Note: The sample size included 210 participants in the treatment group and 139 in the control group.

[3] *We calculated the outstanding debt from the credit report. It is the sum of revolving and installment credit.*

people who had no credit score at the start of the study, outstanding debt declined by $1,051 on average, while the control group borrowed almost $3,000 more on average. During this time, California was still suffering from the effects of the recession. In the summer of 2011, a headline in the Huffington Post[4] read "CA Lost Most Jobs in US During 5-Year Period." Moreover, the housing crisis was serious in the San Francisco Bay Area, and many of the families who lost homes may have found in MAF a place to start rebuilding their lives.

The treatment group also did better in terms of credit scores. On average, scores for the treatment group increased by 168 points during the period of analysis. Just as we found earlier, there was a small improvement in scores, on average, for people in the treatment group who had credit scores at the start of the study. As expected, the treatment group added more lines of credit than the control group, since by the end of the program the Lending Circle appeared as a line of credit for 86% of LC clients.

Table 4
Changes in Credit Report Elements from Pre-Test to Post-Test

	Control		Treatment	
	Including zeros	*Only those with scores*	*Including zeros*	*Only those with scores*
	Mean	Mean	Mean	Mean
Average Credit Score				
Pre-Test	456	684	435	614
Post-Test	497	668	603	633
Change	+41	-16	+168	+19
Lines of Credit				
Pre-Test	8	12	6	9
Post-Test	9	13	9	11
Change	+1	+1	+3	+2
Outstanding Debt				
Pre-Test	$9,360	$9,491	$9,237	$12,855
Post-Test	$12,271	$12,263	$8,186	$10,372
Change	+$2,911	+$2,772	-$1,051	-$2,483
Number of observations	138	92	209	148

Note: The "Including zeros" columns provide the average for the entire sample, including people who had no scores at the start of the study. We set missing records to zero and estimated averages including those zeros. The "Only those with scores" columns provide the average for those who had scores at the pre-test.

[4] *First posted on 7/25/11: See http://www.huffingtonpost.com/2011/07/25/ca-loses-most-jobs-in-rec_n_909183.html.*

Measuring the Impact of Lending Circles

To formally test these results, we used the following model:

$$Y = \beta 0 + \beta 1 * \text{treatment} + \beta 2 * \text{treatment} * \text{credit} + \beta 3 * \text{credit} + \beta 4 * \text{personal charact} + \beta 5 * \text{financial indices} + e$$

Using logistic regressions, Y captures the probability of success which equals
1= if a person credit score improved by 20 or more points
0 = no success

The variable *treatment* captures the impact of lending circles and it is a dummy variable that equals 1 for a lending circle client and 0 for the control. The variable *credit* controls for the credit score at the pre-test. The categories of credit scores are shown below[5]:

If credit score = **0** or no score THEN credit = **1**
If credit score <**580** THEN credit = **2**
If credit score>=**580** and <=**619** THEN credit = **3**
If credit score>=**620** and <=**719** THEN credit = **4**
If credit score>=**720** THEN credit= **5**

We also wanted to examine the effect of lending circles for people with different credit scores at the start of the program, so we could compare whether particular groups benefited more from the program. For that reason, we included the interaction between the treatment and the credit score, *treatment * credit.* The variable *Personal charact* includes controls for education, immigration, and dummy variables for whether the person is Latino, was employed full-time, was female, owned a car, or owned a home at the start of the program.[6] *Financial indices* are 10 indexes[7] that capture asset holdings, financial behavior, and financial motivations and attitudes.

The variables that comprise each index are described at right:

[5]*To normalize the distribution of credit, the natural log was then taken.*

[6]*Since our sample was small, and we did not want to lose additional observations due to missing values, we assigned a value where missing. We then converted the variables into scales to smooth out the distribution of responses.*

Education is a 5 scale: 1 = six years or less of primary school; 2 = more than 6 years, but didn't graduate from HS; 3 = high school diploma or GED; 4 = technical/vocational school or some college; 5 = university degree (4 years) or more; and 0 = if missing.

Immigrant is a duration variable, as well as an immigration variable. The higher the number the longer someone has been in the US or the highest, the person was born in the US: 1 = prefer not to answer; 2 = 2006 to present; 3 = 2000-2005; 4 = before 2000; 5 = not an immigrant; and 0 = missing.

Asset Holding Indexes

Financial Protection – Indicates whether a participant owns investments, retirement accounts, life insurance, and health insurance at pre-test.

Auto – Indicates whether a participant owns a car and car insurance.

Bank Holdings – Indicates whether a participant has a checking account, savings, or money saved for 3 months.

Financial Behavior Indexes

Predatory Lending – In the last 3 months, did the participant use a check cashing facility or a payday loan?

Financial Struggles – In the last 3 months, was the participant contacted by a bill collector, denied a loan, or required to pay late fees? Did the participant go to a pawn shop?

Financial Control – In the last 3 months, did the participant decrease his or her debt and pay bills on time? Does the participant feel in control of his or her finances?

Financial Planning – In the last 3 months, was the participant able to save, able to invest, make a budget, or use autopay?

Financial Confidence, Motivation, and Attitudes Indexes

Financial Confidence – Can the participant borrow $1,000 in an emergency? Is the participant comfortable at a bank, sure that he or she can get a loan, not worried about the future, and confident things will improve?

Value Basic Financial Service – What are the participant's views about the importance of having a checking account, a savings account, and health insurance? What is the participant's level of motivation to improve his or her financial condition in the next 12 months?

Value Higher Financial Service – What are the participant's views about the importance of having investments, retirement accounts, life insurance, and auto insurance?

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[7] *Cluster Analysis was used to create the indexes with the responses from 32 variables in the pre-test. This analysis generates clusters of correlated variables that are combined into an index that capture financial behavior, asset ownerships or attitudes. The entire MAF sample (control and treatment) was used and the results identified the variables along with the weight appropriate for each variable in the index. We examined the internal validity of the index and of the ten indexes, four showed strong internal consistency measured by Cronback Standardized Alpha Coefficient of 0.65 or more. This included Index 1 (Financial Protection), Index 4 (Auto), Index 8 (Value of Financial Services 2), and Index 10 (Value of Financial Services 1). Another four of the indexes had a Cronbach Alpha Coefficient above 0.5 but below 0.65: Index 2 (Financial Struggles), Index 5 (Bank Holdings), Index 7 (Financial Planning), and Index 9 (Financial Confidence). Showing the least internal consistency (alpha less than 0.5) were Index 3 (Financial Control), Index 6 (Predatory Lending). A low alpha does not necessarily mean the cluster is not correlated, missing data and the small sample size affects the consistence of the indexes, but they show promising results in the analysis. More research is needed to assess their predictability.*

Table 5 shows three different logistic regression models. In all models, the treatment variable is strong and statistically significant at <0.0001. In the first model, the effect is strong, and it remains significant and strong when we include the Financial Protection Index and the Financial Control Index in the second model and in the third model after adding the full set of controls.

Very few other variables are significant, which reflects the quality of the match. But as expected, those participants who had more assets, such as investments and retirement accounts (Financial Protection Index), and those who were already reducing their debt, paying bills on time, and feeling in control of their finances (Financial Control Index) at the pre-test did better than their counterparts.

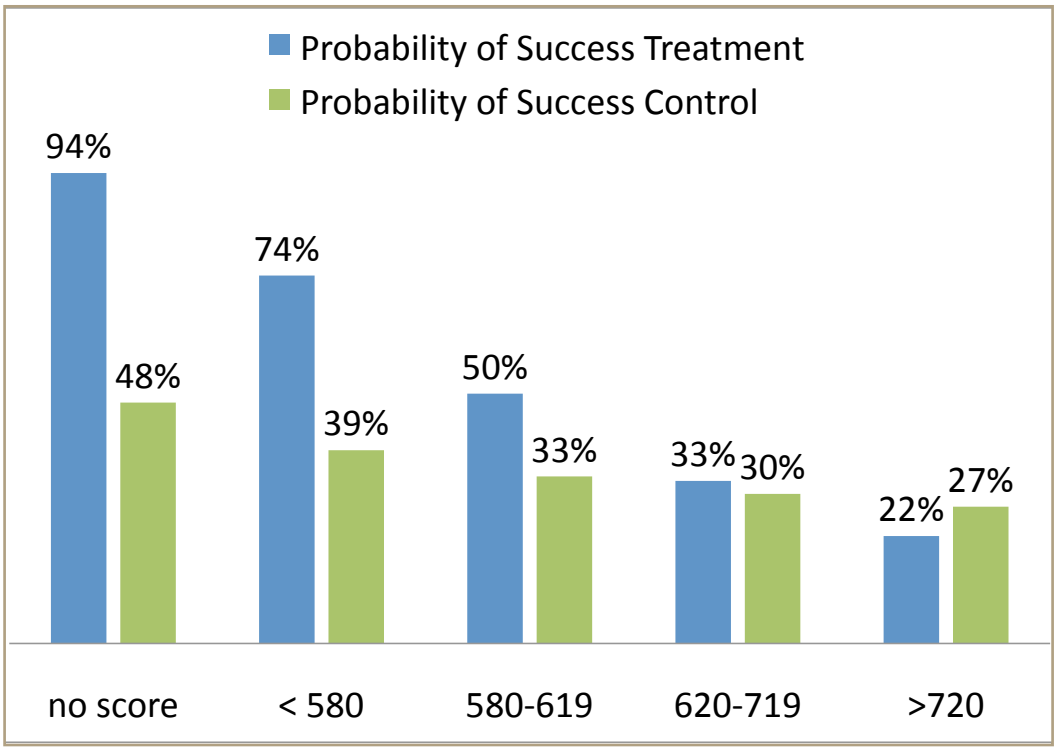
Table 5
Logistic Regressions of the Probability of Successfully Improving Credit Scores

Variables	Model 1	Model 2	Model 3
Intercept	-1.1 *** (0.2)	-3.2 *** (0.8)	-2.4 ** (1.2)
Treatment	3 *** (0.4)	3.3 *** (0.4)	2.9 *** (0.5)
Treatment x Credit Score	-2.2 *** (0.3)	-2.4 *** (0.3)	-2 *** (0.4)
Credit Score			-0.6* (0.3)
Financial Protection		0.4 (0.3)	0.7 ** (0.4)
Financial Control		0.8 ** (0.2)	0.9 *** (0.3)
Financial Struggles			0.3 (0.4)
Auto Index			0.6 (0.7)
Bank Holdings			-0.2 (0.3)
Predatory Lending			-0.3 (0.5)
Financial Planning			-0.2 (0.3)
Value Basic Financial Services			-0.1 (0.2)
Financial Confidence			0 (0.1)
Value Higher Financial Services			-0.1 (0.1)
Employment Full time			0 (0.3)
Education			-0.2 (0.1)
Own Home			0.5 (0.5)
Own Car			-.3 (0.7)
Immigrant			0.1 (0.1)
Latino			0.4 (0.4)
Female			0.1 (0.3)
Adjusted R Square	0.3401	0.378	0.414
Number of Observations	347	347	344

Notes:
Standard errors in parentheses.
**** significant at a 1%*
*** significant at a 5%*
** significant at a 10%*

Figure 4 shows a simulation of the probability of success for clients depending on the credit score at the pre-test. Controlling for all characteristics of the model, participants in the treatment group were almost twice as likely as the control group to succeed when they had no credit or a poor score (<580) at the start of the program. The probability of success for the average person who had no credit at the start of the program was 94% and it was 74% if they had a poor credit report. However, as the score at the pre-test increases, the probability of success decreases. There is no significant difference in the probability of success, as measured by increases of 20 points or more, between the treatment group and the control group for people who started at scores above 620.

Figure 4
Simulation of the Probability of Success from Model 3 Logistic Regression



Notes: These simulations are generated from the results from Model 3 in Table 5. We used the coefficients in Model 3 and the mean of all the variables in the model. The means for each the variables are: Financial Protection=1.64; Financial Control=1.88; Financial Struggles=1.8; Index Auto=1.36; Bank Holdings=1.2; Predatory Lending 1.3; Financial Planning=1.96; Value Basic Financial Service=5; Financial Confidence=3.3; Value Higher Financial Service=6.2; Employed full time=0; education=2; Own home=0; own car=0; immigrant=2.5; Latino=1; and female=1.

Summary of Results

In this report, we explore the effectiveness of Mission Asset Fund's Lending Circles for building credit for low-income, underbanked clients. We selected a sample of 260 MAF clients (who started on their first lending circle between January 2011 and December 2011 and had completed their lending circle by January 2013) and a comparison group of 383 participants. We examined the impact of lending circles on the probability of success, as measured by improvements in credit score of 20 points or more.

We found that lending circles are successfully transitioning primarily immigrant women to the financial mainstream and improving outstanding debt at the same time. The success of the program is notable in that the study took place in the wake of one of the most severe recessions in California's history. The program appears to be serving two purposes: (1) for people with no credit history, lending circles allow them to establish credit and reduce their debt; and (2) for people with an established credit record, lending circles assist them in getting a handle on their financial situations and improving their outstanding debt.

Lending circles are transforming the credit distribution of clients with no credit or thin credit. Holding constant for other factors, the probability of going from no credit score to a score was 94% for the treatment group, while it was close to 48% for the control group. The increase in score was also significant. Seventy-two percent of those who started with no credit score had a score at prime or better by the end of the first lending circle (62% had scores between 620 and 719, and 10% had scores above 720). Moreover, clients in the Lending Circles Program who had a poor credit record (with credit scores less than 580) were almost twice as likely as those in the control group to improve their scores by at least 20 points.

There was, however, no significant difference between the treatment and control groups for participants with scores above 620. Because we defined success as an increase in score of 20 points or more, it is difficult for people who already have scores above 620 to improve sufficiently to reach this measure after one Lending Circle. Nonetheless, their scores might still be increasing, and we might be missing significant improvements by requiring a jump of 20 points or more. Moreover, lending circles are providing clients a mechanism for reducing their outstanding debt. The outstanding debt of the control group with a credit score at the start of the study increased by $2,772 on average, while it declined by $2,483 for the treatment group during the period of analysis.

These are strong results. The question is whether these results persist at other locations with other populations. The second report of this series, *Replicating Lending Circles: Lessons Learned from Six Bay Area Communities*, examines the application of lending circles in a pilot study at five Bay Area communities (Reyes, et. al, 2013).

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