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# **Immigrant Banking and Consumer Credit: Characteristics and Performance of a Lending Pilot by “La Cooperativa”**

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**Working Paper**

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**CENTER FOR COMMUNITY CAPITALISM  
THE FRANK HAWKINS KENAN INSTITUTE OF PRIVATE ENTERPRISE  
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL**



## Introduction

This report presents the findings of the Center for Community Capitalism's analysis of the Latino Community Credit Union's consumer loan portfolio. With funding from Freddie Mac, the Center conducted this study as an attempt to better understand and serve the financial needs of banked and unbanked Latinos in North Carolina. Opened in 2000, the Cooperativa Comunitaria Latina de Crédito, or Latino Community Credit Union (LCCU), provides bilingual financial services to credit union members in Charlotte, Durham, Fayetteville, Greensboro, and Raleigh, North Carolina. In addition to providing traditional banking services, LCCU also offers financial education and outreach to Latinos in these areas.

The Center collected data on borrower and loan characteristics for 2,786 LCCU consumer loans. These loans represent LCCU's vehicle and personal loan portfolios from 2000 to 2003. The vehicle loans constituted approximately 40 percent of LCCU's portfolio, with used-vehicle loans accounting for 38 percent of the total number of consumer loans. While the small set of new-vehicle loans averaged \$15,595 in size, the used-vehicle loans tended to be considerably smaller averaging only \$6,528. The remaining personal loans (60 percent of LCCU's consumer loan portfolio) further break down into no-collateral (22%), token-collateral (8%), and savings-as-collateral loans (30%). These loans tended to be small with most amounting to less than \$2,000 (the savings-as-collateral loans averaged \$899).

A secondary benefit of each loan is the opportunity to develop borrower credit histories. While the savings-as-collateral loans are specifically geared to this purpose, only 29 percent of all borrowers had a credit score at the time of their loan. LCCU's willingness to extend loans to this set of borrowers provides a valuable service in that successful repayment might provide a stepping stone to a larger vehicle or home mortgage loan; however, the absence of borrower credit histories may also expose LCCU to some risk. The loan data analyses presented in this report offer a preliminary look at LCCU's borrowers and loans, as well as the rates of delinquency and default among LCCU's vehicle and personal loans.

This report is separated into five sections. This first section introduces the project. The second section provides a brief overview of the study's methodology. The third section offers demographic information on LCCU borrowers. The fourth section discusses basic characteristics of LCCU loans. The final section assesses the performance of LCCU's consumer loans.

## Methodology

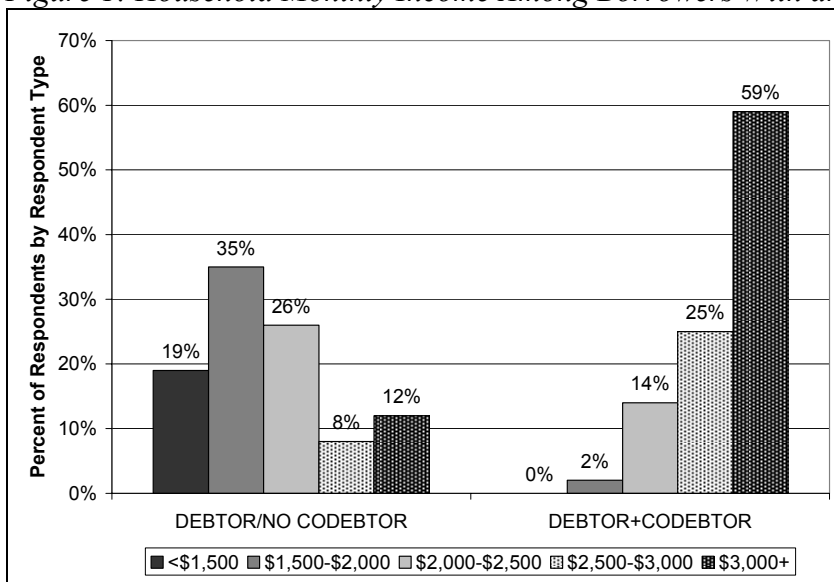
The original population of loans for this study is composed of 2,786 personal and vehicle loans made by LCCU between 2000 and 2003. This "population" of 2,786 loans includes information on borrower characteristics, loan characteristics, and loan performance. To expand the information on borrower characteristics, the Center also collected data from LCCU's loan files for loans that originated in LCCU's Durham office. This "subset" of 1,457 observations has an expanded set of borrower characteristics. In order to provide the most accurate information on the population of LCCU borrowers/loans, data from the population of loans is used when possible. Data on the expanded set of borrower characteristics available for the subset is used to supplement the image of borrowers

provided in the borrower characteristics section. A complete analysis of the representativeness of the subset is provided in the Appendix.

Borrower Characteristics

The data collected for the population of 2,786 borrowers reveals multiple characteristics of loan applications, contracts, and performance. First, the mean borrower monthly income is \$2,393 (median is \$2,123); however, income among individual borrowers and borrowers with a cosigner are somewhat different. Where mean income among individual borrowers averaged \$2,165 (median \$1,907), the seventeen percent of borrowers who added a cosigner averaged total household monthly income of \$3,288 (median \$3,159).

Figure 1: Household Monthly Income Among Borrowers With and Without a Cosigner

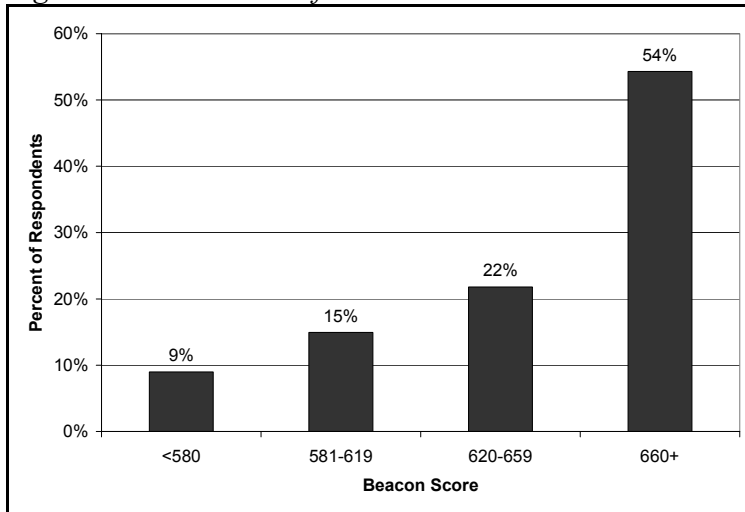


Note: n=1559 for Debtor/No Codebtor; n=398 for Debtor+Codebtor; 787 missing values.

The impact of cosigner income is particularly obvious in the \$2,500 plus income category. Where 12 percent of individual borrowers earned \$2,500 per month, over 57 percent of borrowers with cosigners generated household income of \$2,500 or more per month. This increased income may decrease a household’s risk of default; however, the presence of a cosigner may also be correlated with the presence of a family and the associated expenses.

The original population dataset also included information on borrowers’ credit scores. Beacon credit scores were located for 29 percent of respondents. Of the 71 percent of respondents whose scores were not found, it is likely that the majority do not have a sufficient credit history to generate a score. The mean credit score for borrowers with a reported score was 654 (median 666). Over half of these borrowers had scores above 660, while only 9 percent of borrowers had scores below 580. The full distribution of borrower credit scores is in Figure 2.

Figure 2: Distribution of Borrower Credit Scores

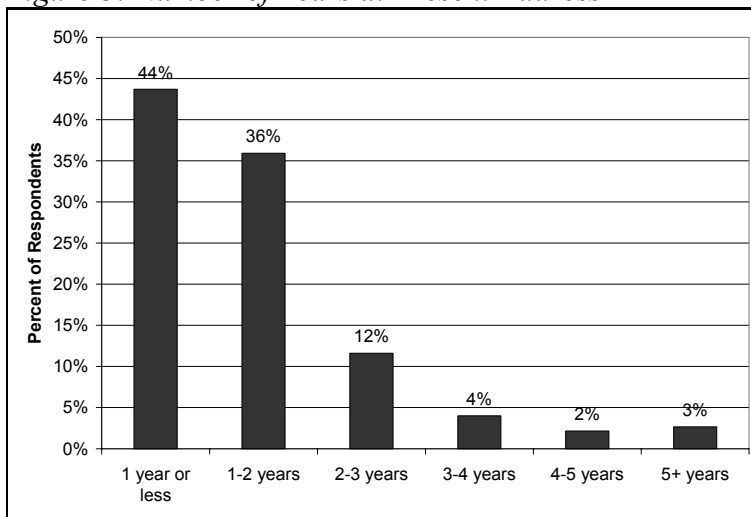


Note: population n=803; 1983 missing scores

The information collected by the Center for the subset of loans also provides information on borrowers' gender, housing, and financial characteristics.<sup>1</sup> Within this subset, 76 percent of borrowers were male.

Over 95 percent of borrowers reported renting a house or apartment, and less than five percent of borrowers reported owning a home. Correspondingly, borrowers tended to move frequently (see Figure 3). Over 40 percent of borrowers had lived at their present address for one year or less; 70 percent had lived at their present address for less than two years.

Figure 3: Number of Years at Present Address



Note: subset n=1353 (103 missing).

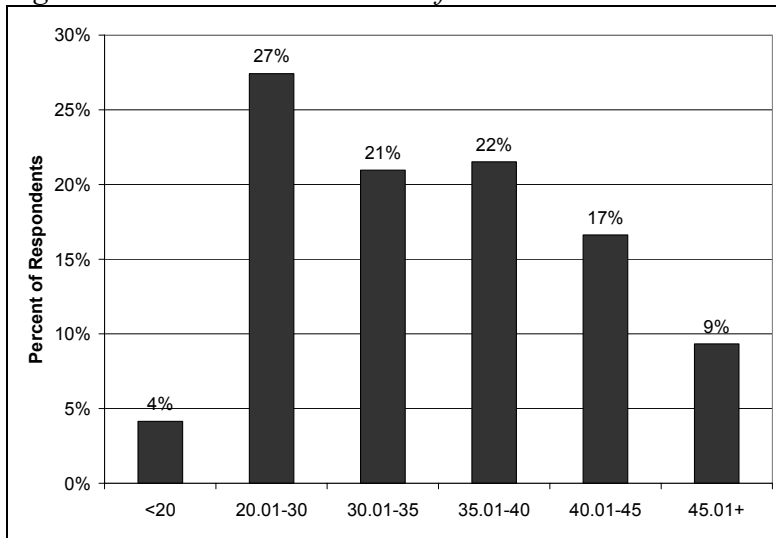
Most borrowers maintained previous relationships with LCCU before applying for a loan. Over 95 percent of respondents owned an LCCU account prior to their loan. Furthermore,

<sup>1</sup> See Appendix for comparison of the subset and population of loans. In general, analysis shows that the subset slightly overrepresents higher-risk loans.

99 percent of borrowers arranged for some form of direct loan payment (i.e. LCCU deducted their monthly payment directly from a specified account).

Nearly all borrowers carried existing debt. In fact, 96 percent of borrowers paid more than 20 percent of their monthly income toward previous debt obligations. Almost half (48%) of borrowers had a debt-to-income ratio of above 35. Figure 4 shows the distribution of borrowers' debt-to-income ratios.

*Figure 4: Debt-to-Income Ratio of Borrowers*

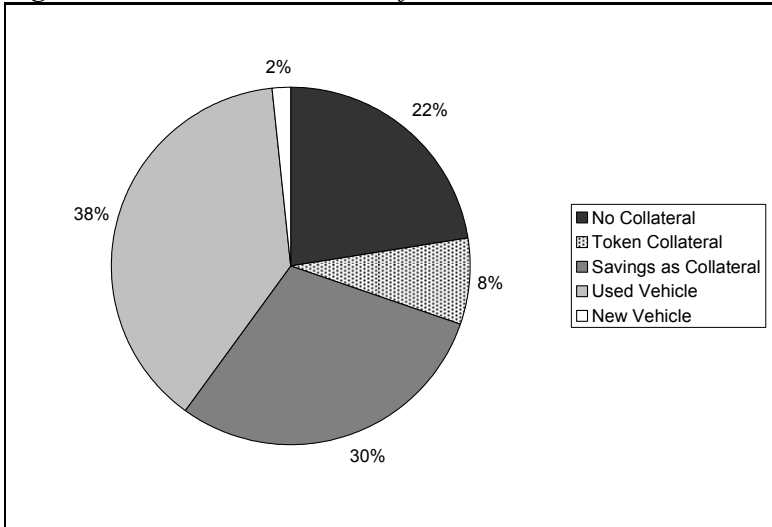


Note: subset n=1083 (374 missing).

### Loan Characteristics

Of the 2,786 loans included in this study, 40 percent were vehicle loans; the remaining 60 percent were personal loans. In the case of both used and new vehicle loans, LCCU used the vehicle as collateral for the loan. Conversely, just over half of the personal loans carried either no collateral or token collateral. Personal savings of the borrower were used to secure the remaining 50 percent of personal loans. Figure 5 shows the distribution of LCCU's consumer loan portfolio by loan type.

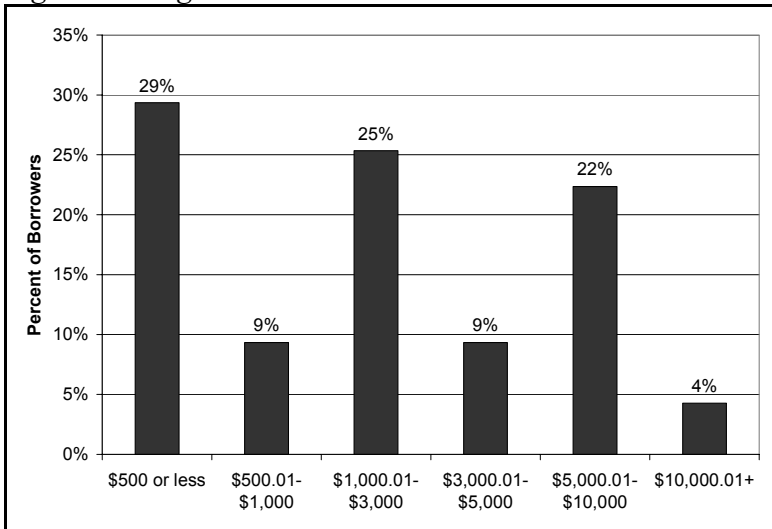
Figure 5: Consumer Loan Portfolio



Note: population N=2786.

The size of these vehicle and personal loans varied widely. Figure 6 shows the distribution of loans by loan size. Nearly three-fourths of the loans were for \$5,000 or less and almost 30 percent were for \$500 or less. The mean loan size for the portfolio was \$3,505 (median \$2,000). Similarly, the loan terms ranged widely, from an average of 7 monthly installments for savings-as-collateral loans to 58 installments for new-vehicle loans.

Figure 6: Original Loan Amount



Note: population N=2786.

The annual percentage rates (APR) applied to these loans varied from 5 percent to 15 percent depending on loan type. All borrowers receiving no-collateral or token-collateral loans received 15.0 percent APR. Similarly, LCCU extended 11.75 percent APR for all used-vehicle loans. New-vehicle loans generally carried an APR of 7.9 percent, though a few borrowers received 8.9 percent (mean APR for new-vehicle loans was 8.0 percent). The APRs for personal loans with savings as collateral exhibited the most variation.

These APRs ranged from 5.0 percent to 7.0 percent (mean 5.49%) with respondents receiving multiple different values in this range.

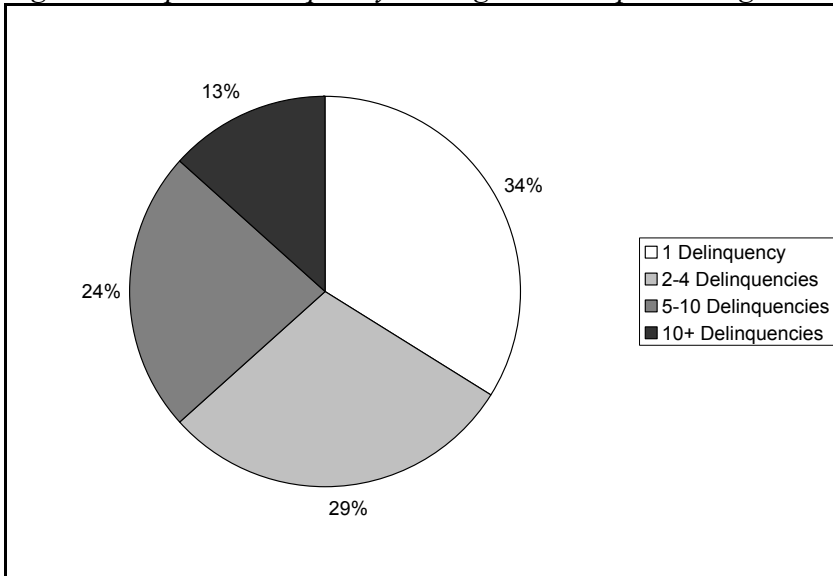
### Loan Performance

Of the 2,786 loans included in this study, 18 percent experienced some form of delinquency and 2 percent were charged off prior to data collection. This section explores several findings regarding the performance of the loans surveyed. Because multiple loans remained active at the time of data-gathering, these findings must be regarded as lower bound rates of delinquency and default. Nevertheless, several findings provide useful information regarding the performance of the LCCU loan portfolio.

The majority of loans did not suffer any serious delinquency. As noted in the previous paragraph, only 18 percent of loans (500 loans) experienced a delinquency of 30 days or more. This delinquency rate decreases even further for 60 and 90 day delinquencies. Where 82 percent of borrowers were never 30 days late with a payment, 91 percent of borrowers were never 60 days late and 95 percent of borrowers were never 90 days late.

These delinquency rates provide a rough image of delinquency within the loan population, but mask the presence of repeated delinquency. Of the 500 loans experiencing a 30 day delinquency, 330 (66%) experienced multiple delinquencies. In fact, 184 (37%) experienced more than 5 delinquencies. Figure 7 shows the frequency of repeat 30 day delinquencies for loans that experienced at least one 30 day delinquency.

*Figure 7: Repeat Delinquency Among Loans Experiencing 30 Day Delinquencies*

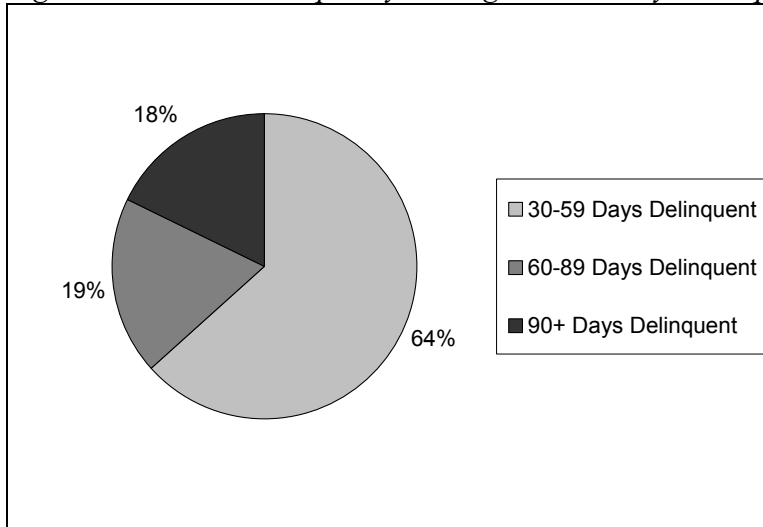


Note: n=500.

Because of the high frequency of repeat delinquency, the 500 delinquent loans produced 1148 ever 30 day delinquencies. Of these delinquencies, 419 (36%) became at least 60 days delinquent and 203 (18%) became at least 90 days delinquent. When these delinquencies are totaled with respect to the longest term of delinquency, 729 of the 1148 delinquencies (64%) became 30 days delinquent but were resolved before becoming 60 days delinquent. Similarly, 216 (19%) were resolved after becoming 60 days delinquent

but prior to becoming 90 days delinquent. Figure 8 shows the frequency with which ever 30 day delinquencies progressed into more serious delinquency.

*Figure 8: Serious Delinquency Among Ever 30 Day Delinquencies*

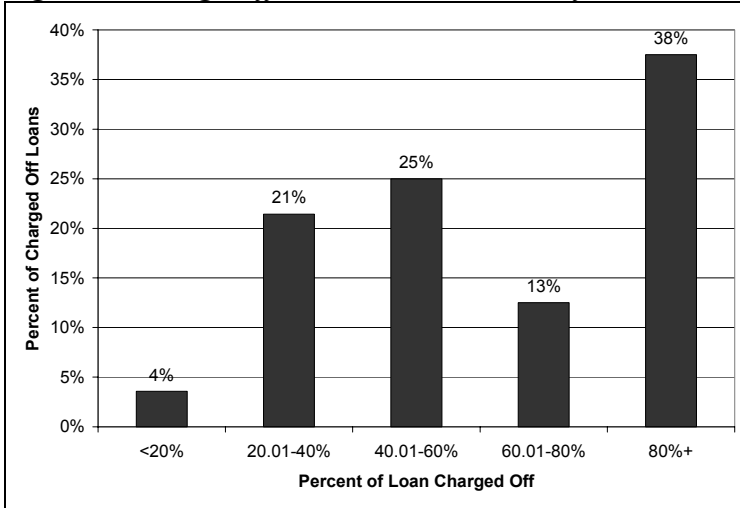


Note: n=1148 ever 30 day delinquencies.

Despite a relatively high rate of repeat delinquency (12 percent of loans experienced some form of repeat delinquency), only two percent of loans were charged-off. However, the documented charge-off rate may understate the actual charge-off rate, as many loans were still active when data was collected. While mean and median statistics should approximate actual values, the charge-off rate and costs must be interpreted as minimum values.

Of the loans charged-off, just over half were for 60 percent or more of the original principal (see Figure 9). In fact, 38 percent of charge-offs were for at least 80 percent of the original loan amount. The mean amount charged-off was \$1,856 (median \$1,159). When spread over LCCU's portfolio, these charge-offs cost \$37.31 per loan extended.

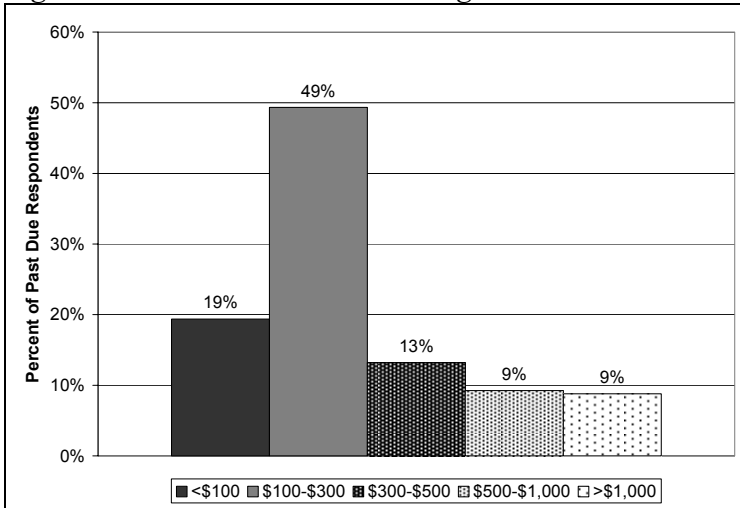
Figure 9: Charge Off Amount as a Percent of Loan Amount



Note: n=56 charged-off loans.

In addition to loans charged off, 227 loans (8% of all loans and 15.5% of outstanding loans) had some positive amount past due at the time data collection ended (December 2003). While a few borrowers were severely overdue at that time, most had only missed one payment; mean amount past due was \$362 (median \$204) and mean number of overdue payments was 2.4 (median 1). Figure 10 displays the concentration of past due amounts below \$300.

Figure 10: Amount Past Due Among 227 Overdue Loans



Among the group of loans that remained outstanding when data collection ended, past due amounts were concentrated among no-collateral and used-vehicle loans. Twenty-three percent of outstanding no-collateral loans and 15 percent of outstanding used-vehicle loans carried some past due amount, compared with 12 percent of token-collateral loans, 11 percent of new-vehicle loans, and 7 percent of savings-as-collateral loans (see Figure 11).

In addition to more loans becoming delinquent, no-collateral and used-vehicle loans also experienced higher levels of serious delinquency. Where none of the token-collateral, new-vehicle, or savings-as-collateral loans had more than two payments missed, 3 percent of no-collateral and used-vehicle loans recorded at least three missed payments.

While no-collateral and used-vehicle loans carried roughly equal levels of delinquency, Figure 11 shows that no-collateral loans were substantially more vulnerable to default (though defaults on used-vehicle loans carried a higher cost). Of 624 no-collateral loans, 33 (5.3%) were eventually charged-off. A smaller percentage (1.5%) of used-vehicle loans ended in default; however, these loans resulted in much higher charge off amounts. Whereas defaulted no-collateral loans averaged \$881 at the time of default, defaulted used-vehicle loans, on average, left \$4,078 outstanding. When these costs are spread across all such loans, defaults cost LCCU \$47 per no-collateral loan and \$61 per used-vehicle loan.

*Figure 11: Characteristics and Measures of Loan Performance by Loan Type*

|   | New Vehicle | Used Vehicle | Savings as Collateral | Token Collateral | No Collateral |
|---|-------------|--------------|-----------------------|------------------|---------------|
| # of Loans                                  | 45          | 1072         | 827                   | 218              | 624           |
| Mean Loan Amount                            | \$15,595    | \$6,528      | \$899                 | \$1,620          | \$1,553       |
| Mean APR                                    | 8.0%        | 11.75%       | 5.5%                  | 15.0%            | 15.0%         |
| Mean Loan Term (in months)                  | 58          | 40           | 7                     | 16               | 15            |
| Percent of Accounts Charged Off             | 1<br>(2.2%) | 16<br>(1.5%) | 1<br>(0.1%)           | 5<br>(2.3%)      | 33<br>(5.3%)  |
| Average Amount Charged Off                  | \$3,063     | \$4,078      | \$44.33               | \$1,311          | \$881         |
| Cost per Loan (of Loan Type)                | \$68        | \$61         | \$0.05                | \$30             | \$47          |
| Delinquency Rate <sup>2</sup>               | 10.8%       | 15.4%        | 7.1%                  | 12.4%            | 22.7%         |
| Percent of Payments Delinquent <sup>3</sup> | 1.4%        | 2.9%         | 2.0%                  | 3.2%             | 8.1%          |

A final speculative finding is that borrower credit score was not a precise predictor of loan performance in this sample (see Figure 12). For instance, used vehicle borrowers with scores between 621 and 660 were more likely to be delinquent with payments than

<sup>2</sup> Delinquency rate is calculated as the ratio of the number of loans past due to the number of loans outstanding for each loan type as of December 2003 (end of data collection).

<sup>3</sup> Calculated within each loan type as the number of delinquent payments divided by the total number of payments.

were borrowers with scores below 580. Furthermore, no-collateral borrowers with scores between 581 and 620 were also more likely to be delinquent than no-collateral borrowers with scores of 580 or less. While the figures presented in Figure 10 show only a bivariate analysis, these findings suggest that borrower credit score may provide only a rough predictor of loan performance.<sup>4</sup>

If many borrowers have limited or short credit histories, then the credit score may provide a less relevant tool for assessing risk. Figure 12 shows that the loans extended to borrowers without credit scores outperformed several sets of borrowers with relatively high credit scores. For instance, no-collateral borrowers without credit scores generated fewer delinquencies per loan than any of the sets of no-collateral borrowers with reported credit scores. The lack of a precise and systematic relationship between credit score and risk in Figure 12 suggests that the importance of credit score relative to other predictors of risk may be diminished for this population of borrowers.

*Figure 12: Mean Number of 30 Day Delinquencies by Credit Score and Loan Type*

|                     | Used Vehicle | Token Collateral | No Collateral |
|---------------------|--------------|------------------|---------------|
| % with Credit Score | 30.7%        | 49.5%            | 55.1%         |
| No Score            | 0.65         | 0.33             | 0.46          |
| 580 or less         | 0.62         | 1.00             | 1.04          |
| 581-620             | 0.44         | 0.27             | 1.26          |
| 621-660             | 0.71         | 0.11             | 0.54          |
| Greater than 660    | 0.27         | 0.11             | 0.48          |

Note: Used Vehicle n=329 (borrowers with credit score); Token Collateral n=108; No Collateral n=343; New Vehicle and Savings as Collateral borrowers are omitted due to insufficient availability of credit scores.

### Limits

The analysis presented in this report relies on data provided to the Center and collected by the Center for loans originated between 2000 and 2003. The relevance of this report to current LCCU operations requires (1) that the data collected accurately reflect the population of LCCU loans originated between 2000 and 2003 and (2) that the experience of LCCU borrowers between 2000 and 2003 can be generalized to current borrowers. This section examines each of these propositions.

First, missing data on borrower and loan characteristics may conceal information relevant to interpreting the experience of the loans surveyed. Missing data theoretically should not bias analysis unless the missing values are concentrated among one type of loan. The high levels of missing values in this dataset raise concerns that such concentrations may exist. For instance, 28 percent of respondents do not have a recorded value for respondent income; a small number of additional borrowers (<1%) share their loan with a cosigner but did not report cosigner income. These borrowers (28% total) are concentrated among loans with savings as collateral. Consequently, they tend to have low APR (mean 5.64%) and low levels of delinquency. In addition to income, large proportions of respondents also have missing values for debt-to-income ratio (26%) and home ownership (36%).

<sup>4</sup> In multivariate analyses not presented, credit score was not a significant predictor of default. However, these models are not presented because the data did not provide sufficient power to identify any meaningful predictors of default other than loan type.

A second point of possible error stems from differences in loan performance across loans originated in different years. Figure 13 displays the substantial improvements in charge-off rate, cost, and delinquency from 2000 to 2003. These improvements may result from differences in economic climate. On the other hand, if these improvements represent improved ability of LCCU to screen loans, findings from this data may not be able to be extrapolated to LCCU's current loan portfolio.

*Figure 13: Loan Performance by Year of Origination*

|  | 2000  | 2001  | 2002 | 2003 |
|--|-------|-------|------|------|
| Percent of Loans Charged-Off                 | 21.7% | 7.1%  | 1.9% | 0.4% |
| Cost per Loan of Charged-Offs                | \$272 | \$184 | \$25 | \$4  |
| Mean Number of 30 Day Delinquencies per Loan | 4.7   | 2.7   | 0.9  | 0.1  |

Summary/Conclusions

The analysis presented in this report offers primarily descriptive information regarding the characteristics of LCCU borrowers and loans. LCCU borrowers have relatively small monthly incomes (mean \$1,722) and relatively high levels of existing debt (median debt-to-income ratio 35). These borrowers tend to apply for loans of less than \$3,000 and often accept APRs above 10 percent. Eighteen percent of borrowers are 30 days delinquent at least once and two percent of loans must be charged-off.

With respect to loan performance, this study's findings are threefold. First, borrowers who become delinquent once are likely to become delinquent multiple times. Second, no-collateral loans are most vulnerable to delinquency and default, while savings-as-collateral loans are least vulnerable. Third, credit score may not provide a precise predictor of loan performance for this borrower population.

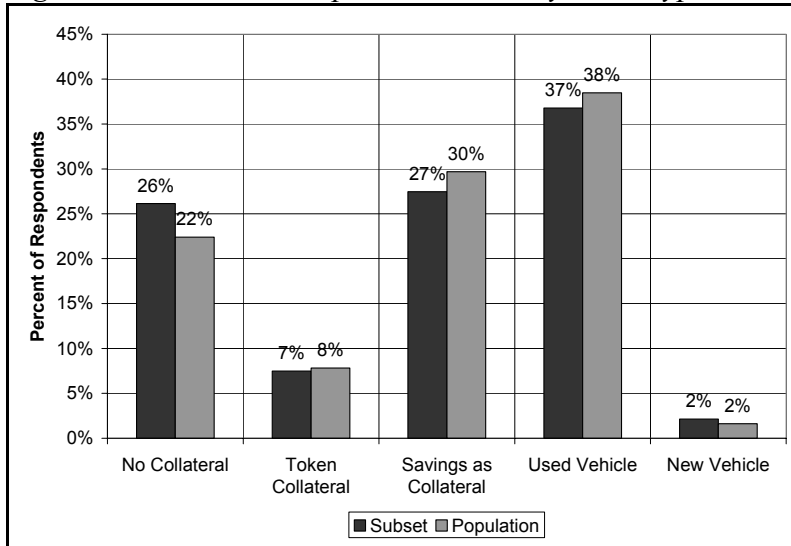
While these findings present initial guidance for improving loan screening and maintenance, further investigation into these findings is also necessary in order to isolate factors that contribute to varying loan performance trajectories. The Center attempted more sophisticated analytical techniques, but found that missing data and small sample sizes among loan and borrower subgroups prevented reliable analysis.

**APPENDIX: Representativeness of the Subset**

The characteristics of borrowers in the subset closely match the characteristics of the population of loans with respect to most borrower and loan characteristics. This section details and discusses those variables on which the subset differs from the loan population.

First, the subset contains slightly more no-collateral loans and slightly fewer loans that use personal savings as collateral. Figure 14 compares the make-up of the subset and population with respect to loan type.

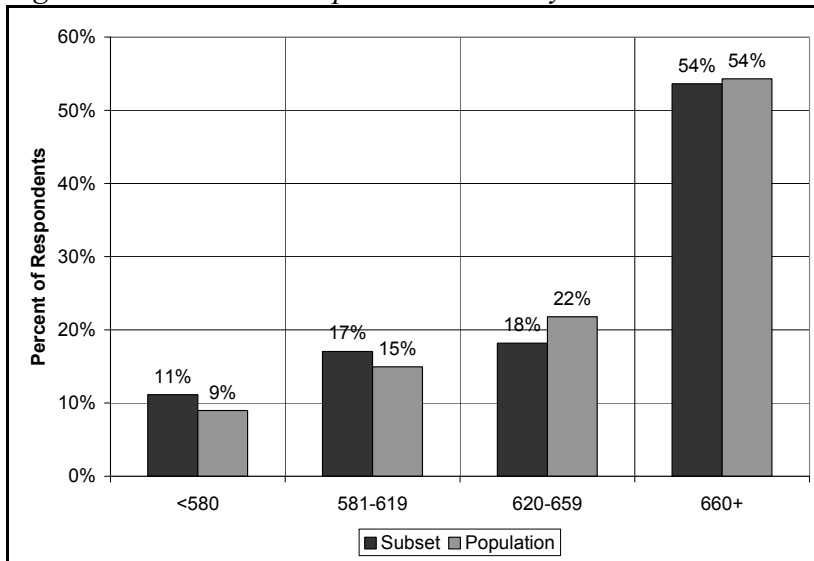
Figure 14: Subset and Population Loans by Loan Type



Note: subset n=1457; population N=2786.

Second, the subset also overrepresents individuals with credit scores below 620. Where 28 percent of borrowers in the subset have credit scores of less than 620, only 24 percent of borrowers in the full sample have scores in that range. Figure 15 compares the distribution of subset and population loans by credit score.

Figure 15: Subset and Population Loans by Credit Score



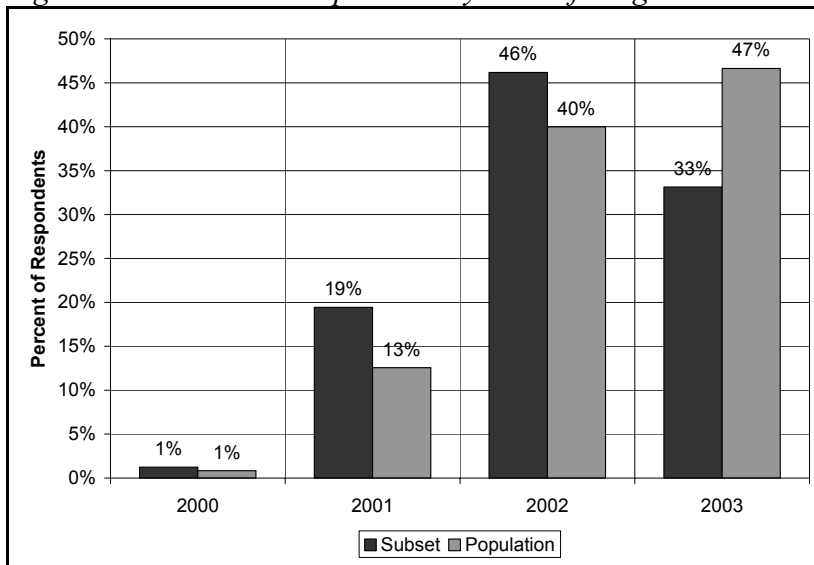
Note: subset n= 440 (1017 missing values); population N= 803 (1983 missing values).

Third, the subset suffers from a higher rate of charge-offs. Where 2.0 percent of loans in the population were charged-off, 3.1 percent of loans in the subset were charged-off. This higher charge-off rate is consistent with overrepresentation of borrowers with lower credit scores and no collateral.

Lastly, the subset overrepresents loans originated in 2001 and 2002 and underrepresents loans originated in 2003 (see Figure 16). This deviation from the population may help to

explain the characteristics of the subset sample explicated above. It may be the case that the economic downturn of 2001 hurt borrowers' abilities to provide collateral or that the downturn forced some borrowers to reenter the credit market prior to paying down other debts (lowering the borrower's credit score). These weakened borrower characteristics, in turn, may have contributed to the higher charge-off rate experienced by loans in the subset.

Figure 16: Subset and Population by Year of Origination



Note: subset n=1457; population N=2786.

While the above characteristics suggest that the subset slightly overrepresents higher-risk borrowers, the impact of this bias on the findings presented in the body of this report are unclear. The population, of course, remains an unbiased source of information on the population of loans; however, the bias shown above may cause slight error in findings that rely on the expanded borrower characteristics of the subset.

The Kenan Institute's Center for Community Capitalism engages in multi-disciplinary research and outreach activities that explore ways to apply private sector approaches to revitalization of America's distressed communities. The Center's work focuses on techniques that are both effective in building wealth and assets in disadvantaged communities and are sustainable from a business perspective.

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