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*Performance of Community
Reinvestment Loans: Implications
for Secondary Market Purchases*

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The government-sponsored enterprises (GSEs) have been very successful in extending credit to nontraditional borrowers using technology, homeownership education, and outreach. For instance, between 1993 and 1999 the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) increased their combined total purchases of home loans by 22 percent. Their purchases of home loans originated to very low- and low-income borrowers increased at much higher rates (Bunce 2000). Unfortunately, in 1999 both GSEs fell significantly below other market players in funding affordable goals. In that year, loans made in underserved areas accounted for 20.6 percent of Fannie Mae's purchases and 21.2 percent of Freddie Mac's purchases, in comparison with 25.8 percent for the market as a whole.

In all likelihood, if the GSE affordable market is to continue to grow, the GSEs will need to expand their guidelines for affordable loan purchases. This requires the development and mainstreaming of new affordable and more flexible products. These products must offer a different mix of underwriting requirements than is currently available, and the GSEs are pilot-testing several such products. Unfortunately, these are limited in number and not as aggressive as many community lending portfolio products.

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Alternatively, the GSEs could purchase aggressively underwritten community lending portfolio products. In general, they have been reluctant to do so because these products may allow for low borrower credit scores, low or no down payment, high debt-to-income ratios, and no mortgage insurance. Moreover, the GSEs have little knowledge about the performance of these loans over time. Thus a central question is whether community lending products that feature such flexible guidelines are prudent targets for GSE purchase.

This chapter begins filling this void by undertaking an analysis of the performance of a sample of portfolio loans within twenty-four months of purchase by Self-Help Ventures as part of its Community Advantage™ (SHCA) Home Loan Secondary Market Program. SHCA is the result of a partnership of the Ford Foundation; the Center for Community Self-Help, a North Carolina community-based organization; and Fannie Mae. Under the program, lenders can sell their nonstandard community reinvestment loans in the secondary market. By demonstrating that these community lending products perform at acceptable levels of risk, the Ford Foundation hopes to encourage mainstream lenders, secondary market institutions, and housing policymakers to incorporate loan products that feature more flexible underwriting into their core lending business, federal regulations, and national housing policies.

This study is an early evaluation within the larger and longer-term evaluation of SHCA. As such, the investigation is designed to identify baseline patterns and raise questions, not definitively test hypotheses. Models that clarify patterns of causation are not developed. Rather the goal is to examine what is the early performance of a relatively small sample of geographically concentrated community reinvestment loans that meet SHCA's purchasing guidelines. Despite the limited generalizability of the findings, the insights gained in this study will constitute the basis for future modeling efforts that will ultimately serve as guideposts to market participants and policymakers alike.

The remainder of this chapter is divided into six sections. First, barriers to homeownership, especially among underserved populations, are identified. Next is a description of how mortgage industry participants are attempting to address these barriers by developing mortgage products characterized by increasingly flexible underwriting guidelines. The authors' current knowledge of the risks in community lending and other affordable products is briefly discussed, and the need for further research is emphasized. This is followed by a description of the methodology and data used in the study to assess the early loan performance of community lending products. Empirical findings are presented next in three parts. First there is a comparison of the underwriting flexibility in selected SHCA community lending products and the GSEs' affordable products. Next is a description of the characteristics of SHCA loans with regard to demographic and other characteristics of the borrowers, as well as four risk factors: credit scores, loan-to-value ratios, back-end ratios, and reserve requirements. Third,

the results of a multivariate proportional hazard model used to assess the impacts of underwriting flexibility on loan performance (the incidence of ninety-day delinquencies) are presented. In the final section, findings are summarized and future research directions are identified.

Barriers to Homeownership

For many Americans, especially low- and moderate-income households, the equity in a home represents an important form of accumulated wealth. Homeownership represents a unique opportunity for families to build economic security. Unfortunately, homeownership is an unfulfilled dream for many Americans. The national homeownership rate in 2000 reached an all-time high of 67.7 percent, surpassing the end-of-administration goal set by President Clinton in 1995. There are now 71.6 million homeowners in the United States. Yet although 72 percent of white households own their homes, only 48.2 percent of minority households and 51.9 percent of central city residents do so. Similarly, only 53.3 percent of households headed by females, 52.2 percent of households earning less than the median family income, and 61.0 percent of young married couples (35 years of age or younger) own a home (U.S. Department of Housing and Urban Development 2000).

Reasons for these differences are complex, including household, financial, and supply considerations. Many underserved renters lack a relationship with mainstream financial and other institutions. For instance, 44 percent of all black renters with incomes below \$40,000 in 1998 had no relationship with a financial institution (were unbanked).¹ Without this relationship, it is difficult for many underserved borrowers to even consider purchasing a home. In addition, many renter households may feel apprehensive and/or may lack information about the possibility of owning a home (Ratner 1996). Apprehension and lack of knowledge may even discourage renters with the financial resources from believing that they can purchase a home. To make matters worse, many low-income and minority loan applicants are unable to meet standard mortgage underwriting guidelines. The inability to meet underwriting guidelines may be the result of blemished or no credit; insufficient cash for a down payment, closing costs, reserves, and other fees; or high housing- and debt-burden ratios due to a low income.

Data from the 1999 Home Mortgage Disclosure Act (HMDA) support this last contention. HMDA indicates that the conventional home purchase loan denials rate among white loan applicants (15.1 percent) was less than half that of African American applicants (37.1 percent), and about 60 percent that of Hispanic applicants (24.9 percent). Key reasons for loan denial are consistent

1. Authors' calculations using data from the 1998 Survey of Consumer Finances (Board of Governors of the Federal Reserve System, 1988).

across groups. High debt-to-income burdens and blemished credit histories are the two most important reasons for mortgage application denials. However, the incidence of these reasons differed greatly across groups. Among conventional loan applicants, only 5.2 percent of rejected white applicants were rejected because of credit problems, whereas almost half of all rejected African American applicants were rejected for such problems (46.0 percent) (Federal Financial Institutions Examination Council 2000).

There is also evidence that a lack of appropriately priced homes prevents many renter households that could qualify for a loan from purchasing a home (Stegman, Quercia, and McCarthy, 2000). For instance, in seventeen metropolitan areas, Stegman, Quercia, and McCarthy estimate that 200,000 working renter families could afford to purchase a three-plus-bedroom house priced between \$50,000 and \$75,000, yet only 30,000 homes in that price range were available in the market in 1997–98.² As expected, the lack of adequately priced supply varies greatly from place to place. In San Francisco, about 2,500 working renter families could purchase a \$75,000–\$100,000 home, but when the 1998 American housing survey was conducted in that city, there were no houses for sale in this price range. In Boston, this potential demand was more than thirteen times larger than the number of houses that were available for sale in early 1998. Thus many face the prospect of a lifetime of renting because there are no affordable homes to buy. Unfortunately, typical efforts to expand homeownership opportunities to underserved populations have focused on addressing household and financial barriers almost exclusively.

Addressing Barriers to Homeownership

To expand lending to minority, low-income, and other nontraditional borrowers, mortgage industry participants have put in place a number of strategies. These include special marketing activities, requiring homeownership education and counseling, and the use of flexible underwriting guidelines. Special marketing activities commonly include outreach to community and religious organizations that are active in targeted markets, and home buyer education fairs or seminars to reach targeted groups (Quercia, 1999).

As a rule, homeownership education and counseling (HEC) is required for all affordable products. HEC is believed to fulfill several roles in the promotion of affordable homeownership. First, although little empirical evidence is available to date, HEC is believed to compensate for the potentially higher risk inherent in the use of nontraditional or flexible underwriting guidelines (Hirad and Zorn, this volume). Before purchase, lenders require borrowers to complete a home buyer education program and to undergo individualized credit counseling (pre-

2. These families were assumed to qualify under an affordable mortgage product such as Fannie Mae's Alt 97 or Freddie Mac's Flex 97.

Table 12-1. *Standard and Affordable Underwriting Guidelines*

<i>Guideline</i>	<i>Standard</i>	<i>Affordable</i>
Down payment	20 percent	3 percent
Back-end ratio (ratio of mortgage principal and interest payment, property taxes, insurance, and other nonhousing debt to household income)	33 percent	Greater than 38 percent
Credit history	High credit scores (unlikely to allow less than 620)	Low or no credit scores
Cash reserves	Two months	Waived or reduced
Mortgage insurance	Required if down payment less than 20 percent	Waived or reduced
Layering of risk factors	Not allowed	Allowed

Source: Quercia (1999).

purchase counseling). After purchase, lenders may also use enhanced servicing techniques, such as phone contact with delinquent borrowers, to determine the cause of the delinquency and to establish a plan to rectify the situation. Finally, the lenders may establish default prevention targeted to borrowers with serious delinquency problems (postpurchase counseling) (Quercia, 1999).

The most distinguishing characteristic of affordable lending efforts is the use of nontraditional flexible underwriting guidelines (see table 12-1). Affordable lending products allow higher loan-to-value ratios, higher debt burden limits, little or no cash reserves, low credit scores, and alternative evidence of creditworthiness. Flexible underwriting guidelines are important because they help address barriers to homeownership among nontraditional borrowers. For instance, high loan-to-value (LTV) products allow cash-poor borrowers to meet underwriting guidelines without the need for a large down payment.

Initially, institutions made marginal changes to one or more of their standard underwriting guidelines to offer somewhat more flexible and affordable loans. For instance, in the early 1990s, the GSEs started offering mortgage products that required lower down payments (higher LTV ratios) than previous products. These new mortgage products became standardized and replaced the earlier (pre-early 1990s), less-flexible products. Currently, these products are referred to as GSE standard mortgages. Over time, industry participants have introduced a number of even more flexible and affordable products than the now standard mortgages (Listokin and others, 2000). These mortgages are often referred to as affordable lending products (Quercia, 1999). They include Fannie Mae's widely available Community Home Buyers Program (CHBPs).

In addition to expanding standard underwriting guidelines, institutions have developed a number of unique programs that are specifically designed for non-traditional borrowers. These more experimental products offer the most flexible

Table 12-2. *Selected Fannie Mae Affordable Lending Guidelines: Community Home Buyer's Program (CHBP) and Other Similar Products*

	CHBP	CHBP 3/2	Fannie 97	Community 100
Minimum down payment from borrower's own funds	5 percent	3 percent	3 percent	0 percent, but 3 percent closing costs required from borrower or other sources
Maximum LTV ^a	95 percent	95 percent	97 percent	100 percent
Maximum CLTV ^b	105 percent	105 percent	105 percent	105 percent
Minimum credit score	None	None	None	660
Reserves	None	None	One month	Two months
Ratios	33/38	33/38	28/36	28/36
Geographic	National	National	National	Pilot program

Source: Self-Help Ventures Fund Second Annual Summit Meeting, Atlanta, Georgia, September 12, 2000.

a. LTV = loan-to-value ratio.

b. CLTV = combined LTV.

guidelines but have limited availability. For instance, they may allow borrowers to make no down payment (100 percent LTV) but are being tested only in the Chicago market. The GSEs have introduced a number of such pilot products. Fannie Mae's Community 100 Program offers loans with no down payment, with 3 percent closing costs required from the borrowers or other sources (the maximum allowed combined LTV, or CLTV, is 105 percent). Additional requirements include a minimum borrower credit score of 660, a two-month reserve requirement, and 28/36 percent front-end and back-end ratios. Pilot products, such as the Community 100, are referred to as GSE emerging affordable mortgages.³ The expectation is that the GSEs will bring these pilot products into mainstream lending efforts once the risk of the products is known. A description of the underwriting guidelines in selected Fannie Mae affordable products is presented in table 12-2.

It should be noted that none of the GSEs' affordable products permit lenders to liberalize all the applicable underwriting criteria at the same time. A loan product may allow for higher debt-to-income ratios, but it is likely to require standard credit scores. Thus the extent to which affordable loan products allow the layering of risk factors is a distinguishing characteristic. As a rule, the GSEs are more reluctant than portfolio lenders to allow for layering of risk factors (Temkin, Quercia, and Galster, 2000). This is due to the belief that loans underwritten using multiple nontraditional guidelines are at significantly greater risk of delinquency and default (Quercia, 1999).

3. These pilot products are not sold in capital markets as part of mortgage-related mortgages.

Primary lenders also have developed a number of experimental products to reach nontraditional borrowers. Frequently, these loans are held in portfolio because they contain features that fall outside of the GSEs' purchasing guidelines. These products may allow for lower down payments (with no mortgage insurance), and higher front- and back-end ratios than do the GSEs' affordable guidelines. In addition, many of these affordable portfolio products allow underwriters to qualify borrowers who would not meet the GSEs' guidelines defining an acceptable credit history (Temkin, Quercia, and Galster, 2000). In many instances, the inability to sell these portfolio products in capital markets limits the amount of community lending that primary institutions offer. A description of the underwriting guidelines in selected portfolio products is presented in table 12-3.

A word on the use of credit scores is warranted. Because of its predictive power, the industry has embraced the use of credit scores, such as the one developed by Fair, Isaac and Company (FICO), as a powerful underwriting tool. Unfortunately, the use of credit scores in underwriting has been the subject of intense debate. Credit scores evaluate previous credit performance, current level of indebtedness, the length of credit history, the types of credit in use, and the pursuit of new credit (Roche, 2000). Credit scoring can assess risks without considering age, race/ethnicity, or marital status of the loan applicant. Credit scoring is a very important part of computer-based or automated underwriting. Automated underwriting is considered by some to be fairer and faster than manual underwriting and to provide a more precise evaluation of risk (Roche, 2000), thus providing greater access to mortgage credit for minority and other underserved mortgage applicants.

In contrast, critics contend that although credit scoring is able to predict the percentage of applicants at or below any score who are likely to go into default, it is not able to precisely identify which individuals will default (Bradford, 2000). For instance, even if 100 percent of loans predicted to default have credit scores below, say, 620, not all loans with scores below 620 will default. In fact, most will not. If minorities are more likely to have lower scores, as evidence suggests they do, then rejecting low-credit-scoring applications will result in rejecting a disproportionately greater share of low-scoring minority applicants who are in fact a good risk. Thus a higher rejection of low-scoring loan applicants is likely to have a differential impact on minorities. Unfortunately, data to empirically test these contentions are proprietary and have not been made available to researchers.⁴

4. Both Fannie Mae and Freddie Mac have stated that loan applications should not be denied only on the basis of low credit scores. Despite these statements, there is a perception among some portfolio lenders that the GSEs will not purchase loans with credit scores below 620 (Temkin, Quercia, and Galster, 2000). See Berry (2000) for perspectives on potential disparate impacts that may result from undue reliance on credit scores.

Table 12-3. Selected Community Lending Guidelines

	<i>Lender 1</i>	<i>Lender 2</i>	<i>Lender 3</i>	<i>Lender 4</i>	<i>Lender 5</i>
Minimum down payment from borrower's own funds	The greater of 1 percent or \$500	\$500	1 percent	\$0	\$500
Maximum LTV ^a	97 percent	97 percent	97 percent	100 percent	100 percent
Maximum CLTV ^b	103 percent for half of deliveries; 100 percent for others	100 percent; 103 percent on case-by-case basis	105 percent	105 percent	103 percent
Minimum credit score	600	580 unless there is no layering of risk	580	640	None
Reserves	None	None	None	Two months	One month
Ratios	33/42	33/42	30/45	40/40	38/38, but up to 45/45 with offsets
Geographic coverage	National	National	National	National	North Carolina flood counties

Source: Self-Help Ventures Fund 2d Annual Summit Meeting, Atlanta, Ga., September 12, 2000.

a. LTV = loan-to-value ratio.

b. CLTV = combined LTV.

Evidence on the Default Risk of Community Lending Products

Ideally, the use of flexible underwriting guidelines need not pose greater risks than the use of traditional or standard guidelines if risk-mitigating mechanisms (such as HEC) are also used. Unfortunately, nothing is known conclusively about the performance of affordable loans in general or the effectiveness of HEC as a risk-mitigating mechanism in particular.

With regard to the overall performance of affordable lending products, the evidence is mixed at best. Several studies have reported positive experiences, others have reported negative experiences, while some studies have reported both positive and negative experience, depending on the institution examined.⁵ There may be several reasons for the conflicting evidence, including differences across institutions in composition and management of both affordable and standard portfolios as well as differences in the way risks are assessed and managed (Board of Governors of the Federal Reserve System, 1993). On this basis alone, it would be reasonable to expect differences in risks associated with the affordable and standard products serviced, held, insured, or purchased by different institutions. To make matters more difficult, the data needed to assess the riskiness of affordable loans are proprietary and thus not generally available to researchers. In general, researchers have been forced to rely on qualitative information, proxy measures, and/or statistical techniques to fill the data void.

With regard to determinants of risk, there seems to be some consensus, especially among secondary market institutions, that four factors are important. These include borrower credit scores, size of down payment (loan-to-value ratio), indebtedness (back-end ratio), and availability of cash reserves. The layering of these four factors is important as well.

Methodology and Data

In this study, the data limitations of prior work are addressed and an analysis undertaken of the early performance of affordable community lending products using longitudinal loan-level data from mortgage loans purchased by Self-Help Ventures as part of the Community Advantage demonstration. The performance of these loans is examined by risk factors and the extent to which layering of risks affects payment performance. Given the current industry practices, particular attention is paid to the role that credit scores play in predicting payment performance by minority borrowers. The preliminary nature of the study and the fact that the data are from a very small number of lenders operating in targeted geographic areas (urban/rural) must be stressed. For these reasons, the study is designed to identify baseline patterns and raise questions, not definitively test hypotheses.

5. See Quercia (1999) for a review of the literature and evidence, and Board of Governors of the Federal Reserve System (2000) on the performance and profitability of CRA lending.

Under SHCA, Self-Help Ventures purchases nonconforming, Community Reinvestment Act (CRA)-type mortgages from selected mortgage lenders and then securitizes these loans with Fannie Mae.⁶ Because Self-Help retains full recourse for any credit losses, Fannie Mae can purchase loans that are outside its standard guidelines. Fannie Mae and Self-Help have committed to purchase and securitize \$2 billion of such loans over a five-year period (1998–2003). The Ford Foundation provided capital to support Self-Help's recourse obligations. In addition to generating an expected 35,000 loans to underserved borrowers, this effort will enable Fannie Mae to measure and better understand the risks associated with nontraditional mortgages. In the long term, this could increase the liquidity of nonstandard community lending loans by permanently expanding the secondary mortgage market.

To date, Self-Help has established partnerships with more than two dozen lending institutions. Through these partnerships, Self-Help has already purchased more than \$635 million in loans. A summary of the partnerships is presented in table 12-4.

Underwriting Flexibility in Community Lending Products

SHCA enables Fannie Mae to measure and better understand the risks in mortgages underwritten with guidelines that are more flexible and aggressive than those used in its affordable products (see tables 12-2 and 12-3).⁷ Consistently, the SHCA product guidelines meet or exceed those of Fannie Mae's affordable products.⁸ SHCA products allow for higher LTV, CLTV, and front-end and back-end ratios, and less-stringent or alternative evidence of creditworthiness, such as a good rent payment record for twelve months before mortgage application. Moreover, they also allow for the layering of risk factors. For instance, Fannie Mae's emerging products, such as Community 100, are clearly the most aggressive GSE products. These products may require no borrower cash for

6. The SHCA demonstration relies on the participating lenders to design loan programs and to market, originate, underwrite, and service the loans. Self-Help acquires seasoned portfolios of loans (portfolio products) as well as newly originated mortgages on a "flow" basis (flow products). When a lender sells a portfolio of previously originated loans to Self-Help, the lender commits to relend the same amount to similar borrowers under similar loan programs. When Self-Help acquires seasoned loans, the loans must have a record of on-time payments for the prior nine months (or twelve months depending on CLTV). Similarly, when selling new originations to Self-Help on a flow basis, the lenders indemnify Self-Help against any defaults occurring in the first nine (or twelve) months. Other than the early term defaults, Self-Help bears the full risk of loss for ten years.

7. Table 12-3 shows only selected SHCA flow products. SHCA flow products are the central focus of the program and will eventually constitute the bulk of transactions. However, the descriptions and comparisons are based on information on both flow and portfolio products to date.

8. Both SHCA products and Fannie Mae affordable products require borrowers to receive homeownership counseling. Also, both have in place an enhanced servicing component. Finally, both product types also allow for the consideration of factors to compensate for deficiencies in one or more underwriting criteria.

Table 12-4. *Self-Help Community Advantage ACTIVE Partnerships*
Millions of dollars

<i>Lender</i>	<i>Commitment</i>	<i>Actual</i>
Bank of America	500 (100/year)	102.0
Bank One	250 (50/year)	11.6
BB&T	n.c.	102.2
Cambridgeport	20 (10/year)	0
Centura	50/year	71.6
Chase	250 (50/year)	7.7
Citizens Bank	15 (5/year)	0
Countrywide	250	0
First Citizens	n.c.	45.3
First South	5	0.2
FirstMerit	75 (25/year)	4.6
Flagstar Bank	24 (12/year)	0
GMAC	200 (67/year)	9.2
Huntington Bank	24 (8/year)	0
Local Government Employees FCU	n.a.	0.9
National City Bank	500 (100/year)	16.3
Sky Financial Group	n.c.	1.2
State Employees' Credit Union	n.c.	212.4
Union Planters	n.c.	50.1
Total		635.6

Source: Self-Help Community Advantage (SHCA) as of Dec. 31, 2000.

Note: n.a., not available; n.c., no commitment

down payment or closing. However, the credit scores required generally are higher (660) than those required for other affordable products.

In contrast, several SHCA products allow for less-stringent requirements in all the criteria. They may combine high LTV and high front-end/back-end ratios with low up-front buyer cash and less-stringent credit and employment histories. For instance, one such product has a maximum LTV of 100 percent, CLTV of 105 percent, and front-end/back-end ratios of 45 percent/45 percent and requires only one month's reserves from the borrower. It also allows a soft second mortgage and has relatively lenient credit and employment history requirements.

Underwriting Flexibility and the Promotion of Homeownership

As a result of underwriting flexibility, SHCA loans are able to reach underserved populations more effectively than the GSEs. As of December 31, 2000, Self-Help had purchased more than 5,500 loans with a combined principal of \$637 million under the SHCA program. A large portion of these loans were made to

traditionally underserved borrowers. About 42 percent of the loans went to minority borrowers, including almost 27 percent to blacks and 11 percent to Hispanics (see table 12-5). Almost 42 percent of the loans were made to female borrowers and about 41 percent to rural borrowers. The typical borrower was relatively young—about one in every four borrowers was over 40 years of age. The median gross income for all borrowers was just \$2,245 per month or about \$26,940 a year. About half had incomes at or below 60 percent of area median income (AMI). Most of the remaining borrowers had incomes between 60 percent and 100 percent of AMI.

Borrower credit scores appear to be evenly distributed across credit score ranges.⁹ About one in five borrowers have credit scores below 620 (20.1 percent), and another one in four have scores between 621 and 660 (23.5 percent). Fewer than three in every four borrowers were first-time home buyers. Slightly more than half the SHCA borrowers had a down payment of less than 5 percent (in comparison, 2.2 percent of Fannie Mae and 0.6 percent of Freddie Mac borrowers had a down payment of less than 5 percent).

As indicated earlier, credit scores are key criteria in mortgage underwriting. Borrower characteristics by credit score are presented in table 12-6. Race and ethnicity exhibit the strongest relationship with credit scores. White and black borrowers are about equally represented among loans with scores less than or equal to 620 (43.0 and 44.8 percent, respectively). As scores go up, whites become increasingly more represented in the population. More than three out of four white borrowers, but only one in ten black borrowers, had scores above 720. About 29 percent of all white borrowers, but only 10 percent of blacks, had credit scores of 720 or higher (see table 12-7). Conversely, whereas 5 percent of white borrowers had credit scores below 620, this was true for one-third of all black borrowers.

There is also a relationship (though weaker) between borrower income (as a percentage of AMI) and urban/rural location. Lower-income and rural borrowers are more likely to have lower scores. Finally, there is no substantively important relationship between credit scores and gender, age of borrower, or whether the borrower is a first-time home buyer.¹⁰

9. Borrower credit scores were available from either the time of loan origination, time of loan purchase by Self-Help, or the time of securitization (often three months after purchase). In this sample, 67.3 percent of credit scores come from the time of securitization, 21.5 percent come from the time of purchase, and 11.2 percent from the loan origination. Analyses (not presented here) indicate that the findings are consistent regardless of when the borrower credit scores were obtained. Credit scores adjusted for the age of the loan at the time the credit score was obtained were calculated, and it was found that these adjusted credit scores had a correlation of .99 with the unadjusted credit scores.

10. Most of these and other differences reported elsewhere are statistically significant in bivariate tests of association because of the relatively large sample size and the power of the chi-square and similar tests. Thus this presentation focuses on substantively important differences.

Table 12-5. *Characteristics of SHCA Borrowers*
Percent

<i>Characteristic</i>	<i>Self-Help's Community Advantage (N = 5,566)</i>	<i>Fannie Mae (1997 N = 945,181)</i>	<i>Freddie Mac (1997 N = 603,383)</i>	<i>Federal Housing Administration</i>	<i>Conforming market</i>
<i>Race/ethnicity</i>					
White	58.2	83.0	86.6	—	—
Black	26.9	3.4	3.5	14.6	5.4
Hispanic	10.9	5.0	3.9	19.3	7.1
Other	4.0	7.9	6.8	—	—
<i>Gender</i>					
Women	41.5	15.7	14.6		
<i>Age</i>					
Under 30	40.5	13.8	13.4		
30-39	31.4	35.4	35.6		
40 and over	28.1	50.8	51.0		
<i>Income</i>					
≤60 percent of area median income (AMI)	49.0	10.1	7.5	20.1	16.4
61-100 percent of AMI	47.9	27.2	26.1	47.0	39.0
>100 of AMI	3.1	62.7	66.4	32.9	44.6

<i>Other characteristics</i>			
Urban borrower	58.8	—	—
Metro (vs. nonmetro)	—	87.3	85.1
First-time home buyer	70.6	34.5	28.4
<i>Loan-to-value (LTV) ratio</i>			
LTV over 95 percent	56.8	2.2	0.6
LTV 80–95 percent	37.2	28.9	29.2
LTV <80 percent	6.0	68.9	70.2
<i>Borrower credit score</i>			
No score available	5.7		
≤620	20.1	NA	NA
621–660	23.5	NA	NA
661–720	28.8	NA	NA
≥720	22.0	NA	NA

Source: Except for race/ethnicity figures, Fannie Mae and Freddie Mac data are from Paul B. Manchester, 1996–97 (tables 5 and 6B). Race and ethnicity figures for Fannie Mae, Freddie Mac, FHA, and the conforming market are from Harold Bunce, 2000 (table 1). Age and LTV are reported for home purchase and refinance loans combined; other variables are for home purchase loans only. The Fannie Mae and Freddie Mac data report loans to “women only,” so the entry for Self-Help is the percentage of loans to women with no co-borrower. FHA and conforming market data are from Harold Bunce and Randall M. Schessele 1998 (table 2). The conforming market consists of loans below the 1997 conforming loan limit of \$214,600.

Note: AMI = area median income. SHCA data are as of Dec. 31, 2000.

Table 12-6. Borrower Characteristics by Credit Score

Characteristic	≤620	621-660	661-720	>720	Missing score	Total
<i>Race/ethnicity</i>						
White	478 (43.0)	649 (49.8)	1,046 (65.4)	940 (77.2)	118 (37.3)	3,231 (58.2)
Black	498 (44.8)	482 (37.0)	319 (19.9)	146 (12.0)	45 (14.2)	1,490 (26.9)
Hispanic	98 (8.8)	114 (8.8)	168 (10.5)	92 (7.5)	132 (41.8)	604 (10.9)
Other	38 (3.4)	58 (4.4)	67 (4.2)	40 (3.3)	21 (6.7)	224 (4.0)
Total	1,112 (100)	1,303 (100)	1,600 (100)	1,218 (100)	316 (100)	5,549 (100)
<i>Gender</i>						
Men	555 (50.2)	684 (53.1)	926 (58.2)	671 (55.2)	211 (67.0)	3,047 (55.2)
Women	551 (49.8)	605 (46.9)	665 (41.8)	545 (44.8)	104 (33.0)	2,470 (44.8)
Total	1,106 (100)	1,289 (100)	1,591 (100)	1,216 (100)	315 (100)	5,517 (100)
<i>Age</i>						
Under 30	399 (37.8)	464 (37.8)	650 (45.5)	414 (42.6)	100 (31.9)	2,027 (40.5)
30-39	353 (33.5)	419 (34.1)	416 (29.1)	278 (28.6)	104 (33.1)	1,570 (31.4)
40 and over	303 (28.7)	346 (28.1)	364 (25.4)	280 (28.8)	110 (35.0)	1,403 (28.1)
Total	1,055 (100)	1,229 (100)	1,430 (100)	972 (100)	314 (100)	5,000 (100)
<i>Income</i>						
≤60 percent of area median income (AMI)	577 (53.2)	662 (52.0)	722 (46.2)	523 (43.9)	173 (56.2)	2,657 (49.0)
61-100 percent of AMI	481 (44.3)	571 (44.9)	797 (51.0)	612 (51.4)	134 (43.5)	2,595 (47.9)
>100 percent of AMI	27 (2.5)	39 (3.1)	44 (2.8)	56 (4.7)	1 (0.3)	167 (3.1)
Total	1,085 (100)	1,272 (100)	1,563 (100)	1,191 (100)	308 (100)	5,419 (100)
<i>Urban/rural</i>						
Urban	673 (61.7)	774 (60.6)	860 (54.8)	645 (54.0)	249 (79.6)	3,201 (58.8)
Rural	417 (38.3)	503 (39.4)	709 (45.2)	550 (46.0)	64 (20.4)	2,243 (41.2)
Total	1,090 (100)	1,277 (100)	1,569 (100)	1,195 (100)	313 (100)	5,444 (100)
<i>First-time home buyer</i>						
Yes	706 (68.4)	823 (69.5)	957 (68.6)	727 (75.3)	243 (77.4)	3,456 (70.6)
No	326 (31.6)	362 (30.5)	438 (31.4)	239 (24.7)	71 (22.6)	1,436 (29.4)
Total	1,032 (100)	1,185 (100)	1,395 (100)	966 (100)	314 (100)	4,892 (100)

Source: SHCA data and authors' calculations.

Note: Numbers in parentheses are column percentages. All characteristics are statistically significantly different across credit score categories ($p < .05$).

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Table 12-7. *Race/Ethnicity by Credit Score*

<i>Characteristic</i>	≤ 620	621-660	661-720	> 720	<i>Missing score</i>	<i>Total</i>
<i>Race/ethnicity</i>						
White	478 (14.8)	649 (20.1)	1,046 (32.4)	940 (29.1)	118 (3.6)	3,231 (100)
Black	498 (33.4)	482 (32.4)	319 (21.4)	146 (9.8)	45 (3.0)	1,490 (100)
Hispanic	98 (16.2)	114 (18.9)	168 (27.8)	92 (15.2)	132 (21.9)	604 (100)
Other	38 (17.0)	58 (25.9)	67 (29.9)	40 (17.8)	21 (9.4)	224 (100)
Total	1,112 (20.0)	1,303 (23.5)	1,600 (28.8)	1,218 (22.0)	316 (5.7)	5,549 (100)

Note: Numbers in parentheses are row percentages.
Source: SHCA data and authors' calculations.

Borrower characteristics by loan-to-value ratio are presented in table 12-8. Although not strong, there are relationships between some demographic characteristics and low LTV loans (≤ 89 percent). A higher presence of minority, women, older, and lower-income borrowers is found among low LTV loans than among higher LTV loans. Also, a higher presence of higher-income, and non-first-time home buyers are found among high LTV loans (≥ 100 percent) than among low LTV loans. It is interesting to note that less than one of three high LTV loans was made to first-time home buyers.

Borrower characteristics by total debt burden (back-end ratio) are presented in table 12-9. There is no clear relationship between most borrower characteristics and whether a loan had a high back-end ratio (≥ 39 percent).¹¹ There is a weak relationship between back-end ratios and two characteristics: urban/rural location and first-time home buyers. Urban borrowers are more likely to have high ratios. About 64 percent of all loans with back-end ratios equal to or greater than 39 percent were made to urban borrowers. About three of four loans with ratios less than 39 percent were made to first-time home buyers (73.3 percent).

Borrower characteristics by cash reserves requirement are presented in table 12-10. A strong relationship can be found between two borrower characteristics and whether cash reserves are required. Urban borrowers and first-time home buyers were more likely to be required to have at least one-month reserves at closing than other borrowers. About 68 percent of all loans made with at least one-month reserves were made to urban borrowers. Similarly, more than four in five loans that required at least one-month reserves were made to first-time home buyers (82.9 percent). Alternatively, more than half of all first-time home buyers (1,151 of 2,239) were required to have cash reserves at closing.

11. The cutoff for back-end ratios was chosen based on guidelines for GSE affordable products. The highest allowable back-end ratio in a GSE affordable product is 38 percent.

Table 12-8. Borrower Characteristics by Loan-to-Value Ratio

Characteristic	≤89	90-95	96-97	98-99	100+	Total
<i>Race/ethnicity</i>						
White	321 (47.1)	1,029 (60.0)	1,207 (58.0)	412 (61.1)	262 (66.4)	3,231 (58.2)
Black	303 (44.4)	431 (25.1)	402 (19.3)	241 (35.8)	113 (28.6)	1,490 (26.9)
Hispanic	41 (6.0)	178 (10.4)	364 (17.5)	13 (1.9)	8 (2.0)	604 (10.9)
Other	17 (2.5)	77 (4.5)	109 (5.2)	8 (1.2)	12 (3.0)	223 (4.0)
Total	682 (100)	1,715 (100)	2,082 (100)	674 (100)	395 (100)	5,548 (100)
<i>Gender</i>						
Men	290 (42.5)	940 (55.1)	1,208 (58.5)	393 (58.4)	216 (55.5)	3,047 (55.2)
Women	393 (57.5)	767 (44.9)	856 (41.5)	280 (41.6)	173 (44.5)	2,469 (44.8)
Total	683 (100)	1,707 (100)	2,064 (100)	673 (100)	389 (100)	5,516 (100)
<i>Age</i>						
Under 30	171 (29.2)	595 (40.4)	869 (41.8)	305 (46.7)	87 (41.2)	2,027 (40.5)
30-39	209 (35.7)	451 (30.7)	648 (31.2)	199 (30.4)	63 (29.9)	1,570 (31.4)
40 and over	206 (35.1)	426 (28.9)	560 (27.0)	150 (22.9)	61 (28.9)	1,403 (28.1)
Total	586 (100)	1,472 (100)	2,077 (100)	654 (100)	211 (100)	5,000 (100)
<i>Income</i>						
≤60 percent of AMI	429 (63.6)	809 (48.1)	997 (49.9)	294 (44.0)	128 (32.5)	2,657 (49.0)
61-100 percent of AMI	209 (30.9)	803 (47.7)	993 (49.7)	357 (53.4)	233 (59.1)	2,595 (47.9)
>100 percent of AMI	37 (5.5)	70 (4.2)	10 (0.5)	17 (2.5)	33 (8.4)	167 (3.1)
Total	675 (100)	1,682 (100)	2,000 (100)	668 (100)	394 (100)	5,419 (100)
<i>Urban/rural</i>						
Urban	394 (59.6)	1,012 (59.5)	1,373 (68.1)	277 (40.9)	145 (37.3)	3,201 (58.8)
Rural	267 (40.4)	688 (40.5)	642 (31.9)	401 (59.1)	244 (62.7)	2,242 (41.2)
Total	661 (100)	1,700 (100)	2,015 (100)	678 (100)	389 (100)	5,443 (100)
<i>First-time home buyer</i>						
Yes	392 (68.1)	1,047 (76.4)	1,377 (66.2)	574 (87.6)	66 (31.3)	3,456 (70.6)
No	184 (31.9)	324 (23.6)	702 (33.8)	81 (12.4)	145 (68.7)	1,436 (29.4)
Total	576 (100)	1,371 (100)	2,079 (100)	655 (100)	211 (100)	4,892 (100)

Source: SHCA data and authors' calculations.

Note: Numbers in parentheses are column percentages. All characteristics are statistically significantly different across LTV categories ($p < .05$).

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Table 12-9. Borrower Characteristics by Back-End Ratios

Characteristic	<39		≥39		Total	
<i>Race/ethnicity</i>						
White	2,099	(61.0)	1,121	(53.5)	3,220	(58.2)
Black	898	(26.1)	591	(28.2)	1,489	(26.9)
Hispanic	315	(9.2)	289	(13.8)	604	(10.9)
Other	128	(3.7)	94	(4.5)	222	(4.0)
Total	3,440	(100)	2,095	(100)	5,535	(100)
<i>Gender</i>						
Men	1,937	(56.7)	1,098	(52.7)	3,035	(55.2)
Women	1,478	(43.3)	984	(47.3)	2,462	(44.8)
Total	3,415	(100)	2,082	(100)	5,497	(100)
<i>Age</i>						
Under 30	1,240	(41.5)	786	(39.1)	2,026	(40.5)
30-39	905	(30.3)	664	(33.1)	1,569	(31.4)
40 and over	844	(28.2)	558	(27.8)	1,402	(28.1)
Total	2,989	(100)	2,008	(100)	4,997	(100)
<i>Income</i>						
≤60 percent of area median income (AMI)	1,580	(46.8)	1,069	(52.5)	2,649	(49.0)
61-100 percent AMI	1,648	(48.9)	944	(46.4)	2,592	(47.9)
>100 percent of AMI	144	(4.3)	23	(1.1)	167	(3.1)
Total	3,372	(100)	2,036	(100)	5,408	(100)
<i>Urban/Rural</i>						
Urban	1,888	(56.1)	1,303	(63.6)	3,191	(58.9)
Rural	1,477	(43.9)	746	(36.4)	2,223	(41.1)
Total	3,365	(100)	2,049	(100)	5,414	(100)
<i>First-time home buyer</i>						
Yes	2,160	(73.3)	1,290	(66.6)	3,450	(70.6)
No	786	(26.7)	648	(33.4)	1,434	(29.4)
Total	2,946	(100)	1,938	(100)	4,884	(100)

Source: SHCA data and authors' calculations.

Note: Numbers in parentheses are column percentages. All characteristics, except age, are statistically significantly different across back-end ratio categories ($p < .05$).

Table 12-10. *Borrower Characteristics by Reserve Requirement*

<i>Characteristic</i>	<i>At least one month's mortgage in reserve</i>		<i>No reserves</i>		<i>Total</i>	
<i>Race/ethnicity</i>						
White	1,545	(57.2)	1,535	(59.0)	3,080	(58.1)
Black	600	(22.2)	858	(33.0)	1,458	(27.5)
Hispanic	436	(16.2)	146	(5.6)	582	(11.0)
Other	118	(4.4)	64	(2.4)	182	(3.4)
Total	2,699	(100)	2,603	(100)	5,302	(100)
<i>Gender</i>						
Men	1,512	(55.9)	1,401	(54.1)	2,913	(55.0)
Women	1,193	(44.1)	1,187	(45.9)	2,380	(45.0)
Total	2,705	(100)	2,588	(100)	5,293	(100)
<i>Age</i>						
Under 30	1,067	(39.6)	861	(41.9)	1,928	(40.6)
30-39	817	(30.3)	663	(32.2)	1,480	(31.1)
40 and over	813	(30.1)	533	(25.9)	1,346	(28.3)
Total	2,697	(100)	2,057	(100)	4,754	(100)
<i>Income</i>						
≤60 percent of area median income (AMI)	1,393	(52.7)	1,114	(43.9)	2,507	(48.4)
61-100 percent of AMI	1,246	(47.1)	1,264	(49.8)	2,510	(48.4)
>100 percent of AMI	5	(0.2)	159	(6.3)	164	(3.2)
Total	2,644	(100)	2,537	(100)	5,181	(100)
<i>Urban/rural</i>						
Urban	1,831	(67.9)	1,194	(47.0)	3,025	(57.8)
Rural	865	(32.1)	1,344	(53.0)	2,209	(42.2)
Total	2,696	(100)	2,538	(100)	5,234	(100)
<i>First-time home buyer</i>						
Yes	2,239	(82.9)	1,151	(59.1)	3,390	(73.0)
No	459	(17.0)	796	(40.9)	1,255	(27.0)
Total	2,698	(100)	1,947	(100)	4,645	(100)

Source: SHCA data and authors' calculations.

Note: Numbers in parentheses are column percentages. All characteristics are statistically significantly different across reserve categories ($p < .05$).

Underwriting Flexibility and Loan Performance

As stated earlier, the lack of data has been a key reason for the conflicting findings in the literature on the performance of affordable community lending loans. This section presents the results of an analysis of the incidence of ninety-day delinquencies in affordable loans in SHCA over the first twenty-four months after purchase by Self-Help by four risk factors: credit score, LTV, back-end ratio, and cash reserves.

The data for the performance analysis consist of a subsample of 1,017 loans purchased by Self-Help in September 1998 with available payment histories beginning that month.¹² Borrower and other characteristics of these loans are displayed in table 12-11. In contrast to the borrowers in the full loan database, the borrowers included in this analysis are more likely to be African American and less likely to be Hispanic, slightly younger, less urban, and more likely to be first-time home buyers. These loans are all from North Carolina or Virginia and limited to two lenders.

Of the 1,017 loans, 48 (4.7 percent) ended in a ninety-day delinquency, 114 (11.2 percent) were terminated without a ninety-day delinquency but before twenty-four months (the house was probably sold), and 855 (84.1 percent) went the full twenty-four months without termination or a ninety-day delinquency.

Delinquency rates for different risk factors are shown in table 12-12.¹³ Delinquency rates differ dramatically across credit score categories, with 10.6 percent of loans made to borrowers with credit scores of 620 or lower experiencing a ninety-day delinquency; only 0.5 percent of loans made to borrowers with credit scores higher than 720 experienced delinquency. Somewhat surprisingly, the other risk factors do not show much of a relationship to ninety-day delinquency.

A Cox proportional hazard regression was performed to assess the independent impact of various loan and borrower characteristics on the risk of default.¹⁴

12. Since loans were not delinquent at the time of purchase, the earliest that a loan purchased in September 1998 could be ninety days delinquent was in November 1998. Therefore the analysis covers the twenty-four months of payments from November 1998 through October 2000. It should be noted that there were sixteen other loans for which no credit score was available (as opposed to just missing). Given the small number of loans and that none of the sixteen experienced a delinquency, these loans have not been included in these analyses.

13. None of the loans in this data set required reserves.

14. Time is modeled until first ninety-day delinquency and the explanatory variables are from origination or the time of purchase, which means that there are no time-varying covariates. Each loan contributes a single "spell" to the data, with each spell ending either when the loan goes ninety days delinquent or when the loan leaves the database before experiencing a ninety-day delinquency (for whatever reason.) Since there are no time-varying covariates, parametric hazard/survival models could also have been used. To check the results, models were run under different distributional assumptions. Results were always very similar to the results presented here, and tests among the different distributional assumptions were not significant. The Cox proportional hazard regressions were estimated using SAS® PROC PHREG, with the TIES=DISCRETE option.

Table 12-11. *Ninety-Day Delinquency Analysis: Borrower and Loan Characteristics*
Percent

<i>Characteristic</i>	<i>Self-Help's Community Advantage (N = 1,017)</i>
<i>Race/ethnicity</i>	
White	57.8
Black	38.7
Hispanic	2.2
Other	1.3
<i>Gender</i>	
Women	44.0
<i>Age</i>	
Under 30	45.1
30-39	30.0
40 and over	24.9
<i>Income</i>	
≤60 percent of area median income (AMI)	49.2
61-100 percent of AMI	49.0
>100 percent of AMI	1.8
<i>Other characteristics</i>	
Urban borrower	43.2
First-time home buyer	83.8
Loan-to-value (LTV) ratio	
LTV over 95 percent	78.2
LTV 80-95 percent	17.0
LTV <80 percent	4.8
<i>Borrower credit score</i>	
≤620	18.0
621-660	29.7
661-720	33.1
>720	19.3

Source: SHCA data and authors' calculations.

Note: To make this table consistent with our earlier table comparing SHCA loans with Fannie Mae and others, "women borrowers" are defined women borrowers with no co-borrowers. In the risk models, we look at whether women principal borrowers had a co-borrower or not.

Table 12-12. *Ninety-Day Delinquency Rates for Different Risk Factors*

<i>Risk factor</i>	<i>Number of loans</i>	<i>Ever ninety-day delinquent (percent)</i>
<i>Credit score</i>		
≤620	180	10.6
621–660	297	5.1
661–720	331	3.9
>720	193	0.5
<i>Loan-to-value ratio</i>		
<98 percent	363	5.0
≥98 percent	654	4.6
<i>Back-end ratio</i>		
<39 percent	635	4.4
≥39 percent	371	5.4

Source: SHCA data and authors' calculations.

Note: None of the loans eligible for the delinquency analysis required reserves. The relationship between credit scores and delinquency categories was significant at the .05 level (chi-square = 21.4, df = 3), but LTV and back-end ratios showed no significant association.

Four models are presented in table 12-13: credit scores only (Model 1); all risk factors (Model 2); layered risk, that is, interactions (Model 3); and risk factors with borrower characteristics; all controlling for the age of the loan at the time of purchase (Model 4).

Model 1 shows that credit scores are a strong predictor of performance. Loans to borrowers with credit scores of 620 or less were more than twenty-four times more likely to experience a ninety-day delinquency than those with credit scores over 720 (the comparison group). Loans to borrowers with credit scores between 621 and 660 were almost ten times more likely to experience a ninety-day delinquency than the comparison group.¹⁵

Model 2 adds indicator variables for an LTV greater than 97 and a back-end ratio greater than 38. These additional variables do not significantly improve the model, and the estimates for the credit score groups are only slightly different. Model 3 adds interaction terms between the lowest credit score group and the additional risk factors. These additional parameters are not statistically significant.¹⁶ Additional models were estimated, including interactions between the

15. The parameter estimate for the group with credit scores between 621 and 660 and the parameter estimate for the group with credit scores between 661 and 720 are very close, with the first being statistically significant and the second being on the borderline. The equality of these parameters was tested using a Wald chi-square test (.484, 1 df, p = .49). This leads to the conclusion that there is no significant difference between the groups within the sample. A model combining those two groups showed a statistically significant relative risk of eight times the risk for the >720 group. The results are similar if this is done with the other models.

16. Testing the joint significance of the additional risk factors and the interactions (that is, comparing Model 3 with Model 1) gives a chi-square of 1.12 with 4 df (p = .89).

Table 12-13. *Cox Proportional Hazard Models for First-Time Ninety-Day Delinquency within Twenty-four Months of Loan Purchase*

<i>Characteristic</i>	<i>Model 1</i> (<i>N</i> = 1,001)	<i>Model 2</i> (<i>N</i> = 990)	<i>Model 3</i> (<i>N</i> = 990)	<i>Model 4</i> (<i>N</i> = 948)
<i>Credit score</i>				
≤620	3.181** (24.07)	3.185** (24.17)	3.474** (32.26)	3.075** (21.65)
621-660	2.248* (9.47)	2.244* (9.43)	2.251* (9.50)	2.214* (9.15)
661-720	1.984 (7.27)	1.985 (7.28)	2.003 (7.41)	1.967 (7.15)
<i>Other risk factors</i>				
Loan-to-value ratio over 97 percent		.102 (1.11)	.382 (1.47)	.109 (1.12)
Back-end ratio over 37		.017 (1.02)	-.052 (0.95)	-.012 (0.99)
<i>Interactions</i>				
Credit 620*high LTV			-.630 (0.53)	
Credit 620*high ratio			.171 (1.19)	
<i>Borrower characteristics</i>				
Female				-.874** (0.42)
African American				.145 (1.16)
Income (percent of area median income)				-.008 (0.99)
Age				-.017 (0.98)
First-time home buyer				-.449 (0.64)
Loan age	-.015 (0.98)	-.012 (0.99)	-.010 (0.99)	-.008 (0.99)
Model chi-square	23.8**	23.7**	24.7	32.4**
Df	4	6	8	11

Source: SHCA data and authors' calculations.

Note: Numbers in parentheses are relative risk ratios. The comparison groups are credit scores >720, LTV of 97 percent or less, back-end ratios of 38 or less, males, whites, and borrowers who are not first-time home buyers. Model 4 includes data only for white and African American borrowers because of the small number of loans to borrowers of Hispanic origin and other ethnic groups.

** p < .01; * p < .05.

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Table 12-14. *Current Payment Status for Loans Ever Ninety-Day Delinquent within Twenty-four Months after Loan Purchase*

	<i>No longer delinquent</i>	<i>Delinquent less than ninety days</i>	<i>Delinquent more than ninety days</i>	<i>Loan terminated</i>
Overall (48 loans)	14 (29 percent)	8 (17 percent)	12 (25 percent)	14 (29 percent)
<i>Credit score</i>				
≤620 (19 loans)	5 (26 percent)	5 (26 percent)	6 (32 percent)	3 (16 percent)
621-660 (15 loans)	4 (27 percent)	1 (6 percent)	3 (20 percent)	7 (47 percent)
661-720 (13 loans)	4 (31 percent)	2 (15 percent)	3 (23 percent)	4 (31 percent)
>720 (1 loan)	1 (100 percent)	0 (0 percent)	0 (0 percent)	0 (0 percent)

Source: SHCA data and authors' calculations.

other risk factors with the middle credit score groups (not presented), and similarly insignificant results were obtained. Consequently, no evidence could be found that layering of risk factors added to the risk of extended delinquencies in this sample.

Finally, Model 4 adds some basic demographic characteristics of the borrower.¹⁷ The findings with regard to significance of credit scores and the lack of significance of other risk factors and the layering of risks is consistent with those in other models. After controlling for other characteristics, no borrower characteristics other than gender show a significant difference. The ninety-day delinquency risk for women is approximately 40 percent that of men.

It is important to note that even when affordable loans become ninety days delinquent, many are cured (see table 12-14). Overall, fourteen of the forty-eight loans (29.2 percent) that went ninety days delinquent within the first twenty-four months brought their payments up to date. Another eight (16.7 percent) reduced their delinquency to less than ninety days. Twelve (25.0 percent) remained ninety days delinquent or worse, but seven of those are loans that went ninety days delinquent in the last two months of observation, so some cures and improvements here could probably be expected. Finally, fourteen of the forty-eight delinquent loans (29.2 percent) were terminated after becoming more than ninety days delinquent. Table 12-13 shows that borrowers with the lowest credit scores (≤ 620) have a recovery rate as good as borrowers with credit scores between 621 and 660. However, the data are too sparse to allow draw any definitive conclusions about the incidence of cure rates.

17. Because so few loans were made to Hispanics or members of other ethnic groups, this analysis is limited to black and white borrowers (948 loans).

Summary and Future Directions

In this study, the data limitations of prior work were addressed, and an analysis of the early performance of affordable community lending products using longitudinal loan-level data was undertaken. Data were used from mortgage loans purchased by Self-Help Ventures as part of the Community Advantage demonstration (a joint effort between Self-Help, the Ford Foundation, and Fannie Mae), which aims at providing a secondary market outlet for CRA products. Loan performance was examined by risk factors and the extent to which layering of risks affects payment performance. Given the current industry practices, particular attention was paid to the role that credit scores play in predicted payment performance by minority borrowers. This section summarizes key findings and suggests future research directions to assess the extent to which community lending can be used by secondary market institutions to expand homeownership opportunities to underserved populations.

These results show that, among the CRA-type loans purchased by SHCA, credit scores are the only risk factor that significantly affects ninety-day delinquency rates. In relative terms, this impact is quite large. Interestingly, neither loans with extremely high LTV, loans with high back-end ratios, nor the layering of factors displays any greater risk after controlling for credit scores. This may be due to the fact that, as with most affordable loans, loans in the sample have little variation in loan-to-value and back-end ratios (the values are predominantly very high). The lack of variation may explain the lack of significance. Gender is the only borrower characteristic that significantly affects delinquency risk, with male borrowers approximately 2.5 times more likely to experience an extended delinquency than female borrowers. Finally, the cure rate for loans with extended delinquencies is quite high, even among loans with the lowest borrower credit scores.

A word is warranted about findings relative to credit scores and minority status. There is a significant relationship between minority status and credit scores, but no relationship between minority status and loan performance. This indicates that a white borrower with a credit score of 620 has the same likelihood of being ninety days delinquent as a black borrower with a similar credit score. It may be tempting to see these findings as supporting views critical of the use of credit scores in underwriting. Concerns could be raised if low-scoring loan applicants are more likely to be rejected because this would result in rejecting more minority loan applicants when, in fact, minority status by itself has no impact on performance.

The reader should be cautioned against using the results in this manner. This is an early analysis of information from a data collection effort that will not be completed for a few more years. The sample is relatively small and with little

geographic diversity. Thus it is too early in the evaluation to conduct a definitive analysis.

More important, it should be noted that the loans purchased by Self-Help as part of its Community Advantage demonstration are not a random sample of all affordable loans made by portfolio lenders. Loans must meet certain requirements to qualify for purchase (for example, on-time payments for nine months before purchase). This limits the generalizability of the findings. The generalizability of the analysis will be augmented when performance information from a control group is added in the future and loans with greater geographic diversity are added to the sample.

To sum up, community lending products have the potential to help the GSEs in their continued expansion of homeownership opportunities to underserved populations. These products are more flexible than the GSE affordable offerings, and they are more likely to reach women, minorities, and rural borrowers. Future research needs to address this issue of loan performance with a more representative sample, data from a survey of mortgage borrowers, and case studies of servicers, lenders, and others. This will help to explain the true costs of delinquencies and defaults.

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