THE COST-EFFECTIVENESS OF COMMUNITY-BASED FORECLOSURE PREVENTION

Roberto G. Quercia
University of North Carolina at Chapel Hill
Quercia@email.unc.edu

Spencer M. Cowan
University of North Carolina at Chapel Hill
spencer2@email.unc.edu

Ana B. Moreno
Consultant to Family Housing Fund, Minneapolis, MN
ana.moreno@comcast.net

December 8, 2005

The authors would like to thank the Family Housing Fund in Minneapolis, Minnesota, and the Ford Foundation for support in undertaking this research. The authors would like to acknowledge Jon Toppen for his contribution to an earlier version of this paper.

Abstract –

In this paper, we examine the cost-effectiveness of community-based foreclosure prevention interventions using two proxy measures: time to resolution and the rate of recidivism. We examine these issues with data from over 4,200 borrowers who received intense case-management, post-purchase counseling and/or assistance loans through the Mortgage Foreclosure Prevention Program in Minneapolis/Saint Paul.

Overall, our findings suggest that community-based foreclosure prevention services are cost effective. With regard to time to resolution, the time to outcome for borrowers served by the program was on average 11 months. With regard to the rate of recidivism, about one quarter of borrowers who avoided foreclosure reported being delinquent again 12 months after program intervention. The rate increased to about one third after 36 months. Households that did not receive an assistance loan as part of the intervention had a higher incidence of recidivism over time, about 45 percent. Both time to resolution and recidivism among program participants compared favorably with those reported elsewhere for the industry. Finally, our findings identify several borrower, loan and program factors to be associated with shorter time to resolution, lower recidivism, and an overall higher likelihood of avoiding foreclosure. Consistently, the receipt of pre-purchase counseling is found to be favorably associated with the measures of cost-effectiveness examined.

Introduction

The 1990s were characterized by the aggressive promotion of home ownership to populations traditionally considered underserved, including subprime borrowers. As a result, the home ownership rate reached an all time high of 69.1 percent by first quarter of 2005 (U. S. Census Bureau 2005). At the same time, national statistics indicate that mortgage foreclosures are a growing problem. For all types, the foreclosure rate as of June 2002 was 1.15 percent, the highest ever (Collins 2003). The rates, however, vary significantly by type. For prime conventional mortgages, the rate was 0.27 percent as of June 2002. For subprime mortgages, the rate was 6.4 percent, with rates over 12.5 percent for C, CC, and D rated loans (Cutts and Van Order 2004). In some jurisdictions, rates were also even higher than average. Places like California and Chicago had significantly higher rates of default than the nation as a whole. Chicago, for example, may have experienced foreclosures at a rate as high as 4.7 percent at the end of 2002, and the rate may have been higher in many of its neighborhoods (Collins 2003).

Typically, the foreclosure rates of subprime, subsidized, and adjustable rate mortgages are higher than the rate for the market as a whole (GAO 2002), often as high as 20 percent (Quercia, Stegman, and Davis 2005). With the economic slowdown of recent years, there is concern that these rates will rise even more. Of particular concern is the tendency for foreclosure rates to have increased most in neighborhoods with substantial concentrations of low-income and low-wealth minority households (Apgar and Calder 2005). In recent years, because of concerns over the long-term viability of efforts to increase homeownership rates among minority and low-income households, attention has expanded to include mechanisms to enhance the ability of those buyers to remain in their homes over time.

The increased attention to what happens after home purchase is understandable, particularly for moderate- and low-income borrowers who have fewer financial resources. When confronted with a drop in income or unexpected expenses due to employment, family, or health problems, these borrowers may have to choose between making a mortgage payment and paying for other basic necessities, such as food or medicines. Understanding and managing default risks may be crucial if these borrowers are to keep their homes (Capone and Metz 2003).

Increased attention to managing default risks is also understandable because of the high costs associated with foreclosure. Foreclosure is costly to everybody involved. It is costly to the borrower who loses his/her home and negatively affects his/her future opportunities. It is costly to communities when property taxes are not collected due to abandonment. It is also costly to communities when foreclosures are concentrated in small geographic areas because that may lead to neighborhood decline. Obviously, foreclosure is costly to mortgage insurers, investors, secondary market institutions, servicers, and lenders.

Major industry players have put in place mechanisms to manage and minimize default and foreclosure risks. Typically, these mechanisms provide alternatives to foreclosure for a homeowner who experiences an involuntary inability to meet his/her mortgage obligations. Many of the alternatives allow the homeowner to remain in his/her home. Those alternatives include partial reinstatement, short-term forbearance (up to six months), long-term forbearance (12 months to reinstate), loan modification, and partial claim workouts. In addition, a borrower may be given other options that terminate the mortgage obligation but which also require the

borrower to leave the home. These alternatives include deed-in-lieu of foreclosure, a short sale, short payoff, pre-foreclosure sale, or a workout mortgage assumption.

Using recently developed tools, loan servicers can estimate the desire and ability of a borrower to cure a mortgage delinquency (Stegman, Quercia, and Davis 2003). These new technologies include credit score servicing tools that allow delinquent accounts to be risk-ranked to identify the loans most likely to benefit from early intervention and scripting tools that help servicers find an optimal workout in the quickest manner when they contact a delinquent borrower (Cutts and Green 2003). Scripting tools allow loan servicers to act, in effect, as loss mitigation or default counselors.

As a result of all these initiatives, about half of all problem loans are resolved with workout alternatives to foreclosure (Cutts and Green 2003). Although researchers have examined the mechanisms and tools put in place by major players (Cutts and Green 2003; Capone and Metz 2003; Lacour-Little 2000), little is known about the initiatives that portfolio lenders use to mitigate losses. This is a serious shortcoming because many loans made to lower-income homeowners are held by portfolio lenders, and they frequently partner with community-based agencies to deal with delinquent and defaulting borrowers, including those who have been victims of predatory lending practices.

In addition, borrowers are apt to view loan servicers acting as mitigation counselors differently than community-based agencies that offer foreclosure prevention services. Borrowers may regard servicers as pursuing potentially conflicting goals. On one hand, they are supposed to help the homeowner remain in his/her home and convince lenders and investors to accept less than full performance. On the other, they are trying to gauge the willingness and ability of the delinquent borrower to meet his/her mortgage obligations and minimize losses for the lenders and investors who have a stake in full repayment. Servicers may be seen as counselors representing the interests of the borrower while, at the same time, they also appear to be acting as agents of the lenders and investors seeking to further their interests. Community-based agencies do not have that potential conflict because they are only concerned with helping the borrower.

The fact that servicers and community-based agencies have different priorities for their mitigation/foreclosure prevention efforts complicates any examination of those programs. Servicers may use different approaches and seek different outcomes to balance their potentially competing objectives than community-based agencies, which are only trying to protect the interests of the borrower. The different approaches and goals may result in a different allocation of costs and produce different outcomes, depending on which organization is working with the borrower. If that is the case, those differences may directly impact any assessment of the cost-effectiveness of mitigation/foreclosure prevention interventions.

In this paper, we examine the cost-effectiveness of community-based foreclosure prevention interventions. We discuss the difficulties of developing a comprehensive measure of successful intervention or cost-effectiveness that would reflect the interests of all stakeholders under all scenarios. We also discuss the unavailability of the data required to empirically examine such comprehensive measure, if it were possible to construct it. Using two narrow measures, time to resolution (foreclosure or foreclosure alternative) and recidivism, we examine the cost-effectiveness of the Mortgage Foreclosure Prevention Program (MFP Program) currently

administered by the Center. We also identify borrower, loan, and programmatic factors that are associated with these two measures and the overall likelihood of avoiding foreclosure. These are important issues to address because they are at the core of policies promoting affordable homeownership, especially among subprime borrowers.

The remainder of this paper is divided into five sections. In the first section, we define and contrast loss mitigation and foreclosure prevention initiatives. We also provide an overview of what community-based organizations are doing in the area of foreclosure prevention. Then, we discuss the conceptual difficulties when trying to examine both the effectiveness and cost of foreclosure prevention interventions in all their complexity. In the next section, we present the methodology and data used to assess the cost-effectiveness of foreclosure prevention interventions using two narrow variables, time to resolution and recidivism, as a way to simplify the overall data requirements. In this section, we also introduce our empirical analysis and the data from the MFP Program. In the fourth section of the paper, we present the findings and conclusions. We end the paper with some recommendations for the MFP Program and others and propose areas of further research.

Foreclosure Prevention and Loss Mitigation

Throughout this paper, the term foreclosure prevention counseling refers to the work that community-based non-profit agencies do to help a homeowner avoid involuntarily losing his/her home and, if that is not possible, to minimize the harm to the owner. The term loss mitigation refers to initiatives put in place by the lending industry in an effort to reduce the number and/or cost of foreclosures. These initiatives give servicers a variety of options to assist a borrower in default avoid foreclosure. The main goal, however, is to minimize losses associated with default to the industry. The key difference between the two is how the cost savings are allocated. Foreclosure prevention counseling seeks to minimize the costs to the homeowner; mitigation tries to minimize the cost to the lender.

Broadly defined, community-based organizations offer two types of post-purchase services: on-going post-purchase training (also called sustainable homeownership programs) and mortgage foreclosure prevention counseling (Gorham, Quercia, and Rohe 2003). On-going post-purchase training is offered to homeowners after they purchase the home to enhance the ownership experience. This training may include courses on maintenance, repair, budgeting, predatory lending, and other such areas to maximize the long term-viability of the home purchase. While this training can not be considered a default mitigation initiative in itself, it is logical to predict that it is likely to reduce default risks in the long run for two reasons: 1) better informed homeowners are likely to make better decisions, and 2) the ongoing contact between program staff and homeowner may result in promptly addressing mortgage repayment problems should they occur (Gorham, Quercia, and Rohe). Mortgage foreclosure prevention counseling, on the other hand, is offered to homeowners who fall behind in their mortgage obligations. In general, the primary goal of these community-based initiatives is to allow the homeowner to keep his/her home, or, if that is impossible, to assist him/her in resolving the situation in the borrower's best interest.

Most post-purchase foreclosure prevention interventions start when a delinquent borrower is referred to or approaches the community-based organization for assistance. Table 1 lists the services that foreclosure prevention initiatives ought to provide.

Table 1. **Elements in Foreclosure Prevention Counseling**

1. Counseling
    - Detecting delinquency early
    - Ensuring that households respond to notices
    - Assessing reasons for delinquency
    - Managing the crisis
    - Managing finances
2. Budgeting
    - Providing financial training
    - Prioritizing spending
3. Advocacy
    - Participating in and supporting client's negotiations with lender/servicer
4. Financial Assistance
    - Providing financial assistance to make mortgage payments or meet financial emergencies
5. Referral Network
    - Providing referrals to other organizations

From: Federal Reserve Bank of Philadelphia. *Home Ownership Education and Counseling (2001)*

Individual counseling is a core component of foreclosure prevention initiatives, and it can be provided either by phone or in person. Most community-based organizations offer that kind of individualized help. The goal of counseling is to help the borrower comprehend the consequences of mortgage default, to ensure that he/she understands and responds to bank correspondence, and to help him/her budget expenses in order to continue making payments. Counseling can influence the borrower's decisions about how to deal with the default by helping him/her understand the costs involved. It may also help the borrower learn to make better money decisions, and to keep making payments in the event of a crisis (Quercia and Wachter 1996).

Often, a major role for counselors is to serve as an intermediary between the borrower and lender (Quercia et al. 1998). A lender will often grant forbearance if a delinquent borrower enters a foreclosure prevention program and receives the necessary counseling and assistance (Quercia et al. 1998). A borrower who is in default may feel more comfortable talking to a counselor than to a loan servicer representative. Unlike servicers acting as loan counselors, the staff person in a community-based organization may be regarded as a person who wants to help and who does not have a financial stake in the outcome. The counselor may also make referrals to other services that will help the borrower to manage his/her finances or life circumstances, such as legal service providers and credit counseling agencies.

Many programs also include different forms of financial assistance to help the borrower make payments in emergency situations. These may include making a few payments for the borrower from a revolving fund, providing "silent" second mortgages, or granting new, lower interest rate

loans to pay off the previous loan (Quercia and Wachter 1996). Unlike pre-purchase homeownership counseling which usually conforms to standard models, foreclosure prevention counseling programs vary widely in content, focus, intensity, and duration (Gorham, Quercia, and Rohe 2003).

Difficulties in Evaluating Foreclosure Prevention Programs

Effectiveness of the Prevention Interventions

Efforts to estimate the cost-effectiveness of loss mitigation and foreclosure prevention interventions span thirty years. Uniformly, all efforts to assess the effectiveness of those interventions have been complicated by a number of issues.

One problem has been the lack of a standard definition of what constitutes "successful" intervention. Most community-based foreclosure prevention initiatives define success as preventing a foreclosure that would otherwise have happened if not for the program. However, in some cases, a borrower may be better served by giving up his/her house, or the counseling may focus on how to prosecute a lender that used illegal or predatory lending practices.

More importantly, lack of data has made it difficult to isolate the impacts of interventions. An improvement in a borrower's circumstances may frequently be the primary reason he/she is able to cure a mortgage delinquency—for example, when the borrower is able to find a new job or is able to return to work after an illness. For a borrower who experiences such an improvement, participating in a foreclosure prevention program may give him/her time to get back on his/her feet. However, it is difficult to get reliable information on such occurrences. Similarly, factors such as a person's temperament or the willingness of a family member to help may be hard to identify, measure, and record in a data set, yet they may be central to curing a delinquency. The way these personal characteristics interact with the reason for default, whether it is a short term or structural problem, is also likely to affect the outcome of any foreclosure prevention intervention.

Lack of data on service providers also makes any examination difficult. Differences in outcomes may be affected by factors the organization determines, such as eligibility requirements, whether borrower participation is voluntary, when in the delinquency process the foreclosure prevention service is received, types of materials used, and the skills and experience of the actual staff person or counselor. The overall level of services offered by community-based organizations is also likely to affect the outcome of interventions, as is the relationship between the reason for the default and the services that the organization provides (Gorham, Quercia, and Rohe 2004).

Addressing the data limitations may prove difficult. There are few data sources that combine borrower, program and account history information, and so these data must be collected from different sources and linked together. A study attempted by the American Homeowner Education and Counseling Institute (AHECI) reveals strong legal obstacles to releasing borrower information. Furthermore, many data are difficult to quantify but critical to determining the efficacy of foreclosure prevention initiatives.

Moreover, due to the cost, time, and expertise required to maintain a comprehensive database, many community-based providers do not make the effort to collect much data on their own foreclosure prevention efforts. When they do, these databases tend to be incomplete or poorly maintained. Lenders may be unwilling to share data on their customers and their lending practices for business reasons, as well as because of legal restrictions. As a result, available data are not likely to be adequate to perform a thoroughly rigorous study of counseling, and so new data will need to be gathered before a definitive study can be performed (Quercia and Wachter 1996).

The task of compiling the requisite data is complicated by the fact that information is needed over a long enough period of time to draw reliable conclusions. Most foreclosures occur within three to five years after loan origination (Quercia and Wachter 1996). Evidence shows that, even if a borrower can stave off foreclosure once, he/she may face difficulties again several years later (Moreno 1994, 1995). Thus, a long-term perspective is needed to determine if foreclosure prevention interventions are successful. Unfortunately, most community-based foreclosure prevention agencies do not serve a large enough number of borrowers, which is necessary to allow for attrition over the study period, and so obtaining a sufficiently large sample from any such agency has been, and will continue to be, difficult.

Even if the overall lack of data is addressed, a final complexity is the difficulty of examining the delinquency cure rate of comparable borrowers not receiving foreclosure prevention services. Ideally, controlling for the factors that may affect a borrower's mortgage repayment behavior after receiving these services requires a control or comparison group. Borrowers who were referred for services could be compared with those who were not referred, and the outcomes differentiated between those who received services (by type) and those who did not. Although methodologically ideal, this approach would raise both ethical and practical complications.

The Costs Associated With Foreclosure Prevention

The estimation of costs associated with foreclosure prevention is complicated by the number of stakeholders. Generally speaking, studies have examined only two types of costs related to foreclosure prevention (Moreno 1995): the costs involved in the provision of foreclosure prevention services and the average savings to all stakeholders of a delinquency resolution in lieu of a foreclosure. Estimating the former is more straightforward than the latter. That is because the former only involves the costs of the service provider, while all stakeholders save when a delinquency is resolved: loan servicers, insurers, the mortgage holder (secondary market institutions and investors), and even the delinquent borrower.

Expressed differently, foreclosure costs everyone involved. Servicers lose the stream of income that comes from servicing a loan. Insurers may be called upon to cover part of the loss not covered by the equity in the home (after expenses). This may be particularly costly after a lengthy period of inadequate maintenance. Secondary market institutions lose an income stream if they have securitized and sold the loan or the asset if they have kept the loan in portfolio. Depending on the type of security, investors may lose the income derived from the mortgage-backed security containing that loan. Obviously the family that loses its home is impacted in several ways, including the loss of wealth and credit opportunities at reasonable rates. Finally, the neighborhood is affected because of the impact of a foreclosed property on nearby houses

(neighborhood decline, harder for others to sell their homes) (Capone and Metz 2003). Table 2 presents the cost implications for different stakeholders resulting from foreclosure.

Table 2. **Foreclosure Implications for Stakeholders**

Stakeholders	Foreclosure Implications
Homeowners	Loss of stable housing. Legal, financial, and tax consequences.
Public and private lenders	Unreimbursed expenses, losses beyond insured portion of loans
Loan servicers	Loss of income stream from servicing fees
Public and private mortgage insurers	Claims paid
Secondary market	Losses/expenses beyond insurance proceeds
Cities	Costs to cities if property becomes vacant and boarded. Erosion of property tax base
Neighborhoods	Negative neighborhood image and resulting decline in property values

Moreno 1995, p. 4

According to Focardi (2002), cited in Cutts and Green (2003), problem loans that go through the full foreclosure process cost an average of $58,000 and take 18 months to resolve compared with loans that involve a voluntary transfer of title, which cost an average of $44,000 and take 12 months to resolve. Those are significantly more costly than problem loans that go through a workout solution; they cost an average of $14,000 and are resolved in an average of six months. Similarly, Moreno (1995) estimates that a workout solution, as the one offered by the Mortgage Foreclosure Prevention Program, in Minneapolis-Saint Paul, saves an average of $16,000 per avoided foreclosure. In those studies, the amount saved through program intervention has been used as a proxy measure for the cost-effectiveness of foreclosure prevention. That approach is correct to the extent that the allocation of those savings is not an issue.

The allocation of costs, however, is central to resolving a default in most cases. What both mitigation and foreclosure prevention efforts do is try to achieve a resolution with an allocation of costs that differs from what would occur in a foreclosure. The savings are only relevant to any specific stakeholder if they reduce the costs to that stakeholder. The effectiveness of community-based foreclosure prevention "needs to be measured according to the perspective of different stakeholders in the process: homeowners, lenders, loan servicers, mortgage insurers, post-purchase services providers, neighborhoods and wider communities, and local governments" (Gorham, Quercia, and Rohe 2003, pp. 3-4). Therefore, the question of cost-effectiveness needs to be qualified by "from whose perspective" and "under what circumstances." The existing evidence simply reinforces the commonly held view that it is better to have a friendly resolution than a lengthy legal battle to resolve loan defaults.

To better understand these points, we simplify the presentation in the section below and focus on the costs associated with two stakeholders: the cost to community-based organizations of

providing foreclosure prevention and the cost to lenders/investors resulting from foreclosure in the remainder of this section.

The Organizational Costs of Foreclosure Prevention

Ideally, estimating the actual expenses of a community-based foreclosure prevention initiative should be straightforward. The costs of staff time, materials, marketing, outside resources, and emergency monies are the primary expenses. If a program has funds specifically designated for foreclosure prevention, and these funds are used exclusively for that purpose, it may be feasible to take these total costs and divide them by the number of "successful" interventions to determine the cost per participant. In other cases, where foreclosure prevention costs are paid from other restricted funds, a more specific itemization of costs will be necessary (Table 3).

Table 3. **Organizational Costs of Foreclosure Prevention Counseling**

Type of Cost	Measure
Staff time	Salaries of staff and how much time staff allocate to foreclosure prevention
Facility and overhead	Actual expenses allocated by time (such as telephone) or area (facility space)
Management time	Amount of time allocated to foreclosure prevention
Materials	Actual expenses
Promotion and marketing costs	Actual expenses
Partnerships	Actual expenses
Emergency funds	Actual expenses
Opportunity costs of not being able to use funds for other purposes	Depends on whether the funds are restricted to use in foreclosure prevention, in which case the opportunity cost is 0, or if the funds are unrestricted

From the perspective of community-based organizations, the costs associated with the foreclosure prevention service provided is likely to depend on the overall level of services provided by the organization. Gorham, Quercia, and Rohe (2003) identify a hierarchy of services and implementation levels for an ideal community based foreclosure prevention program. These services include effective early notification of delinquency; high quality budget management services; high quality debt management services; financial assistance for qualified borrowers; the ability of counseling staff to negotiate successfully with loan servicers; a source of legal assistance; and loan products to use to refinance borrowers out of predatory loans. Organizations may offer some or all of these services in-house or through partnerships with local, regional, or national entities. Different levels of services and partnerships are likely to be reflected in different cost structures. These costs may or may not be correlated with the level of services required to address the individual situation of a problem borrower.

The Costs of Foreclosures for Industry Stakeholders

Investors in mortgage loans, insurers, servicers, and other industry stakeholders face a variety of costs when a foreclosure occurs (Table 4). Studies have consistently shown that the costs depend on the type of loan and how the borrower reacts to the default and pending loss of the home, as well as other factors beyond the control of the industry stakeholders (Capone 1996). In all cases, however, one of the most significant factors in foreclosure costs is time (Pence 2003; Pennington-Cross 2004). The time from default to foreclosure affects costs both directly and indirectly.

Table 4. **Foreclosure Costs, by Type, for Industry Stakeholders**

Type of Cost	**Cost**	**Comments**
Legal	Lawyers' fees and others	Higher in judicial foreclosure states
Administrative	Collection costs and staff time to initiate and manage foreclosure process	
Financial	Loss of accrued interest/principal after sale of property	Mortgage insurance, especially if public, will cover much of this cost. A delinquency judgment may reduce or eliminate this cost
	Opportunity cost of delays in court	This may be a benefit - if current interest rates are higher than the rate of the initial loan, the lender may profit from re-lending the funds
Property related	Management of foreclosed property	Includes property management staff
	Repair and maintenance costs	Properties obtained through foreclosure often require significant repairs before the lender can resell them
	Property taxes and insurance	
	Administrative costs	
	Selling costs	These include closing costs, realtors' fees, and in some states, a real estate transfer tax

Toppen (2003), p. 13

Lost principal and interest from the time of default is the most obvious cost to the stakeholders. These costs include not only what is lost from the original loan, but also the opportunity costs incurred because the funds can not be re-lent to someone who will pay on time. Prevailing

interest rates can increase costs if the proceeds from the foreclosure sale have to be re-lent at a lower interest rate than that of the foreclosed loan.

Industry stakeholders also incur costs in owning the property. Once a borrower realizes that he/she will lose his/her home, he/she often ceases performing needed maintenance on the property. A house may be neglected and vacant for months before the lender can obtain title. As a result, substantial repairs are usually necessary before the house can be sold. There are additional costs to owning and managing the property, including routine maintenance, insurance, and taxes. Of course, the longer the lender owns the property before sale, the higher these costs become. Finally, there are the costs for actually selling the property and transferring ownership, such as sales commissions, auctioneers fees, deed stamps, and transfer taxes.

State foreclosure laws can add to the costs. While there are many variations in the details of foreclosure laws in the fifty states, there are three key elements of those laws that affect foreclosure costs: 1) whether the lender can sell the property without having to get court approval; 2) whether the borrower has an opportunity to redeem ownership for a period of time after foreclosure; and 3) whether the lender is allowed to pursue a deficiency judgment for the difference between the proceeds of the foreclosure sale and the full amount the borrower owes, including accrued interest and allowable costs (Pence 2003). Two different studies have found that some or all of those elements have a significant impact on the costs of foreclosure (Pennington-Cross 2004; Phillips and Rosenblatt 1997).

Pennington-Cross (2004) examined the impact of those variations in state law on the discount in the selling price, a measure of the costs to the lender, of foreclosed properties to which the lender had taken title. He found the discount higher in states requiring court approval for the sale, which he attributed to the added administrative burdens of working through the court system. Phillips and Rosenblatt (1997) also found that requiring court approval increased the costs of foreclosure, linking the increased cost to the additional time it takes the lender to work through the court system.

Pennington-Cross (2004) found that allowing redemption periods had no significant effect on the selling price, which he suggested was because lenders waited until the redemption period had run before selling. This explanation, however, did not take into account his finding that the discount increased the longer the lender held title. The fact that the law allowed redemption may not have had an impact, but waiting until the period had expired did. Phillips and Rosenblatt (1997) noted that there was wide variation in the length of the redemption period, from 10 days to 12 months, among the states that have one. They found that the longer the redemption period, the higher the costs to the lender.

Finally, both studies found that the availability of deficiency judgments lowered costs for the lender. Pennington-Cross (2004) reasoned that a borrower would be more apt to maintain the property if that would reduce his/her potential liability, which would have to be satisfied out of other assets. Phillips and Rosenblatt (1997) suggest that costs to the lender are lower because the borrower will be more likely to agree to a quicker resolution, short of a foreclosure sale, in exchange for the lender releasing its right to seek a deficiency judgment.

In addition to foreclosure laws, there are also state bankruptcy laws, which vary from state to state and add another potential complication to the analysis. A borrower facing foreclosure may file for bankruptcy, which automatically stays any collection efforts, including foreclosure proceedings, until the Bankruptcy Court lifts the stay (Springer and Waller 1993). State law may allow the borrower to keep some of the proceeds from a foreclosure sale of the mortgaged property, and the lender may be forced to write off part of the loan if there is negative equity. While recent changes to bankruptcy laws may make them less of a factor in resolving mortgage defaults, they will still present the potential for adding to the cost of foreclosure for the industry stakeholders.

Measuring the Cost-Effectiveness of Foreclosure Prevention

Any definition of successful foreclosure prevention intervention needs to reflect the complexity described above. Unfortunately, the full complement of data required to undertake a definitive analysis is not, and is unlikely to become, available. An alternative approach is needed to empirically determine the cost-effectiveness of community-based interventions.

Instead of using the traditional method of trying to estimate the average cost to all parties through the foreclosure process as a whole, an alternative approach can examine cost factor impacts—which interventions are most effective in reducing the factors that add most to the costs/harms that foreclosure causes. There seems to be some consensus that the most significant cost factor is time (Pence 2003; Pennington-Cross 2004). Thus, time to resolution can be used as a proxy for the costs associated with the foreclosure and foreclosure alternatives.

If success for community-based foreclosure prevention initiatives is defined as achieving final resolution of the default incident on terms that are more favorable to the borrower in the long run than foreclosure, then examining the time to resolution is the central consideration. For example, a deed-in-lieu with a waiver of deficiency would serve the borrower by reducing the potential for additional liability, while reducing the cost to the lender by accelerating the recapture of capital, and preserving the maximum asset value. Similarly, one of the cost considerations is the deterioration that occurs while the owner remains in the house unable or unwilling to pay the mortgage or for repairs and maintenance. This situation costs lenders in lost interest, both lenders and borrowers in the reduction in the eventual sale price of the unit, and the city in the decreased tax revenue from the property. An agency intervention that either maintains the property or that speeds up the transfer to a new owner who can and does maintain the property might be highly cost-effective, even though the delinquent borrower may have to move. Again, time is of the essence.

In a similar manner, we can use a proxy measure to gauge the effectiveness of community-based foreclosure prevention interventions. The measure should show how well the intervention addressed the underlying reason(s) why the borrower went into default, which can be reflected in the rate of recidivism among the borrowers receiving foreclosure prevention services. If the intervention is effective, then a borrower who manages to avoid losing his/her house should not need any further intervention in the future.

In the next section, we describe the Mortgage Foreclosure Prevention Program in Minneapolis/Saint Paul. We use data from this program to examine the time to default resolution and the incidence of recidivism as measures of cost-effectiveness of community-based interventions. We also identify the borrower, loan, and program factors associated with these two measures and with the overall likelihood of avoiding foreclosure.

Mortgage Foreclosure Prevention Program

The Mortgage Foreclosure Prevention Program (MFP Program) was established in 1991 with funding from the Northwest Area Foundation and administrative support from the Family Housing Fund in Minneapolis, MN. The program has three objectives: to stabilize homeowners at risk of losing their homes to foreclosure, to stabilize neighborhoods by preventing vacant and boarded-up houses, and to save public and private dollars by preventing foreclosure related losses. The data on the MFP Program activities used in the present analysis were collected by the Wilder Research Center, the research arm of the Amherst H. Wilder Foundation.
The Family Housing Fund, a non-profit housing intermediary in the Twin Cities Metropolitan Area, administered and coordinated the MFP Program from 1991 to early 1999. Since then, the Minnesota Home Ownership Center (the Center) has performed that function. Created in 1993, the Center provides pre-purchase education, loan counseling, post-purchase support, and foreclosure prevention through a community-based, statewide network of service delivery organizations. The Center's integrated approach is expected to result in more comprehensive information and services being made available to homeowners.

The Center administers the MFP Program, which is delivered through a partnership of three community organizations: Northside Residents Redevelopment Council (NRRC), Twin Cities Habitat for Humanity (TCHFH), and the City of Saint Paul's Department of Planning and Economic Development (Saint Paul PED). NRRC is a neighborhood non-profit organization that provides MFP Program services to homeowners living in the northern half of the City of Minneapolis. TCHFH is a local affiliate of the national non-profit organization that provides MFP Program services in the southern half of the city of Minneapolis. Saint Paul PED is a city government agency that provides comprehensive housing services to residents of the city of Saint Paul.

To achieve its objectives, the MFP Program offers a variety of services to low-income homeowners. These include in-depth counseling to address financial and personal issues that affect the homeowner's ability to make mortgage payments; intervention and advocacy with mortgage servicers or lenders; referrals to community services; and assistance in accessing funds from other programs that can contribute to a homeowner's financial stability.

In addition, the MFP Program can provide emergency financial assistance in the form of a no-interest loan to help homeowners facing foreclosure become current with their mortgage arrears. The Center manages the MFP Program revolving fund. These loans must be paid back upon transfer of title to the house. The three MFP Program agencies have the authority to make loans to homeowners from the revolving fund based on a set of criteria designed to assess the homeowner's ability to sustain homeownership in a successful way. These criteria include: (1) the financial problem is the result of circumstances beyond the borrower's control (e.g., health problems, job loss, divorce, etc.); (2) the problem must be solvable and the borrower must be

willing to work with program staff; and (3) the borrower must be at least 60 days behind in his/her mortgage payments.

Overview of the MFP Program

The MFP Program served more than 8,000 households from its inception in mid-1991 through June 2003, the program years covered in this study (Table 5). About half of these households, 4,074, received information and referral services only, while the other half, 4,274, received more intensive case-management, counseling and/or financial assistance. Roughly the same percentage of all households, about half, received the more intensive level of services over the first nine years that the program operated and over the past three years, but the workload has increased dramatically. The program has provided the more intensive level of services to about 530 borrowers annually over the three years beginning in 2001, an increase of more than 75 percent over the average of about 300 households per year for the first nine years. Foreclosures prevented have also increased, from an average of 131 per year for the first nine years, to an average of over 190 per year more recently. On the other hand, the program has reduced the number of loans it makes to households, from an average of 83 in earlier years to an average of less than 70 per year. However, the average amount loaned has increased by almost 50 percent.

Table 5. **Selected Program Characteristics, by Period**

	7/1/1991 - 6/30/2003	**7/1/1991 - 6/30/2000**	**7/1/2000 - 6/30/2003**
Number of households served	8,348	5,019	3,329
Average number of households served per year	696	557	1,110
Number of households receiving intensive case-management, counseling, and/or financial assistance	4,274	2,688	1,586
Average number of households receiving intensive case-management, counseling, and/or financial assistance per year	356	299	529
Foreclosures prevented	1,756	1,177	579
Average number of foreclosures prevented per year	146	131	193
Number of households receiving loans	957	750	207
Average number of households receiving loans per year	80	83	69
Average amount of loan	$3,187	$2,952	$4,363

Table 6 shows the profile of the borrowers who received the more intensive services from the MFP Program over the life of the program and in the past two and a half years, and how they differ from households in Minneapolis and Saint Paul, Minnesota. Historically, 78 percent of the

households the program served have had minor children, a figure which has increased to an average of 87 percent for the past three years. This is significantly higher than the Minneapolis/Saint Paul average of only about 28 percent of households having minor children.[1] The percentage of single-parent households has increased, but only slightly, from 31 to 37 percent, which is well above the two central cities average of less than 12 percent. The difference, however, is mostly explained by the fact that households with children are vastly over-represented in the population of households served by the MFP Program. If households with children constituted 78 percent of the Minneapolis/Saint Paul households, as they do households served by the MFP Program, then 34 percent of households in the two cities would have been single-parent households with minor children. In other words, the MFP Program households were much more likely to have children than households in Minneapolis and Saint Paul as a whole; but, among households with children, they were no more likely to be a single-parent household.

Table 6. **Demographic Characteristics of Households Receiving Intensive Services, by Period**

	7/1/1991 - 6/30/2003	7/1/1991 - 6/30/2000	7/1/2000 - 6/30/2003	2000 Census
Households with minor children	77.6%	73.3%	86.9%	27.7%
Percent single parent households with minor child(ren)	32.8%	30.9%	36.8%	11.8%
Percent non-White householder	56.2%	59.3%	48.0%	23.8%
Average household income	$23,575	$22,807	$27,535	$54,420
Percent of adults employed full-time	53.6%	54.6%	51.7%	57.6%
Percent of adults employed part-time	14.6%	14.0%	15.6%	19.0%
Percent of adults unemployed, looking for work	13.6%	13.2%	14.4%	5.7%
Percent receiving public income assistance	19.4%	21.8%	11.7%	†

† The census does not compile the data using the same categories as the MFP Program; therefore, no comparable statistic is available.

[1] Data from the 2000 Decennial Census, SF1, Table P19, accessed July 25, 2005, at www.census.gov.

The households in the MFP Program differ from the general population in Minneapolis and Saint Paul in other ways, based on comparison of the data for the past three years with data from the 2000 Decennial Census. First, roughly half of the households using the program have a minority head of household, compared with less than a quarter of all households in those two cities. The average household income for households using the program is about half the average for Minneapolis and Saint Paul. Even allowing for the disproportionate percentage with a minority head of household, and the fact that minority-headed households have a lower average income, $36,500, than the average of $51,400 for Minneapolis and Saint Paul, the MFP Program average household income, at less than $28,000 over the past three years, is low.[2] The adults in the households also seem less likely to be working full- or part-time, and more likely to be unemployed than adults in the two cities generally. Most of these findings are predictable, since households in the lowest income categories and with the least stable employment will more likely have difficulty staying current with their mortgage.

Other characteristics of borrowers, however, have changed noticeably over the life of the program. The proportion of households receiving public income assistance, for example, has decreased by almost half. Over the first nine years of the program almost 22 percent of households received some form of assistance, including AFDC, SSI, or Food Stamps, but that has declined to just under 12 percent more recently. These trends may reflect larger changes in the way the national government has treated assistance rather than changes that are more directly related to the households in the program.

The data on the financial characteristics of mortgages and properties of households in the MFP Program, grouped in twelve-month increments, reveal a discouraging trend. The data show that the average mortgage payment has increased in all but one twelve month period (Figure 1), but that the rate of increase has accelerated substantially in recent periods (Figure 2). While the average payment has increased, the debtors appear to have waited slightly longer, on average, to seek help through the MFP Program in more recent years (Figure 3), leading to an increase in the average amount past due at the time the household sought help (Figure 4). While the average arrearage increased by over 70 percent between 1991 and 2003, the average household income of the MFP Program clients increased modestly, only 5.7 percent, suggesting that households seeking help have been relatively worse off when they come to the program in recent years.

---

[2] Data from the 2000 Decennial Census, SF3, Tables P52, P54, and P153A, accessed July 25, 2005, at www.census.gov.

Figure 1. **Average First Mortgage Payment, by Period**

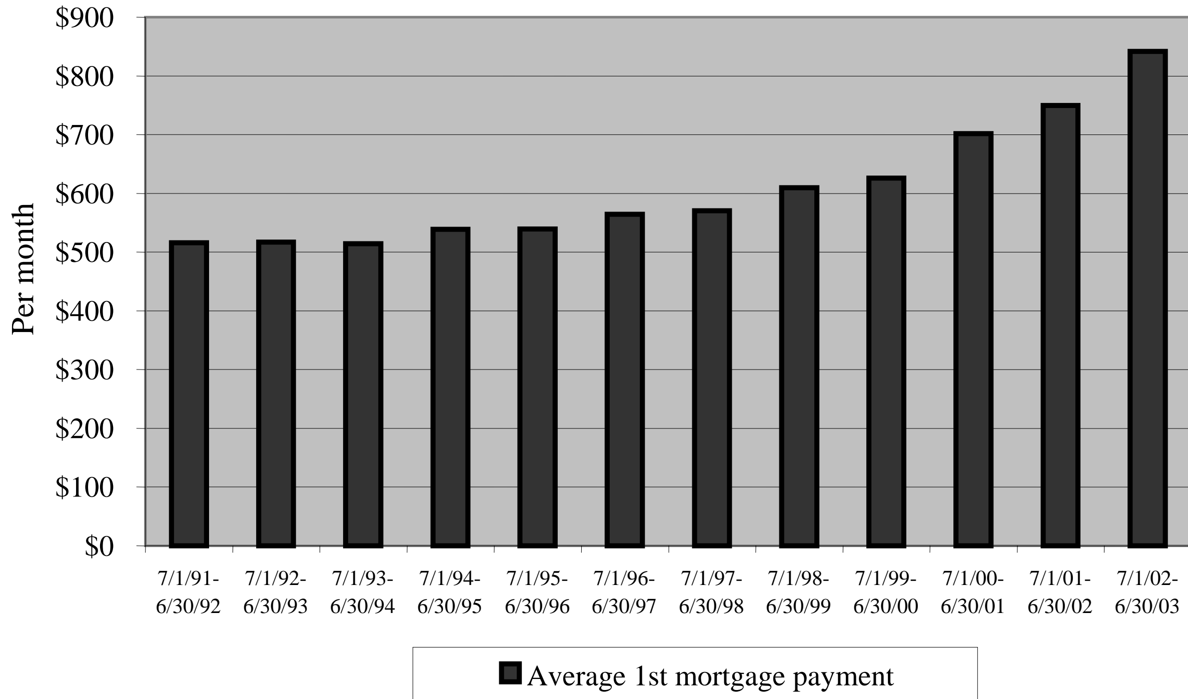
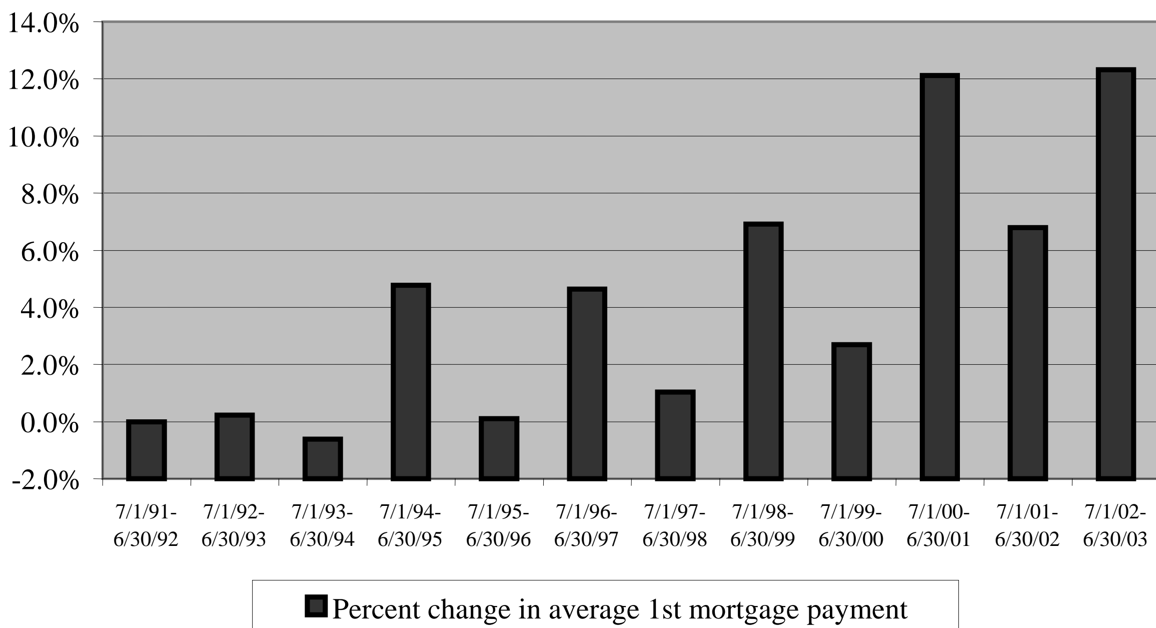


Figure 2. **Change in Average First Mortgage Payment, by Period**



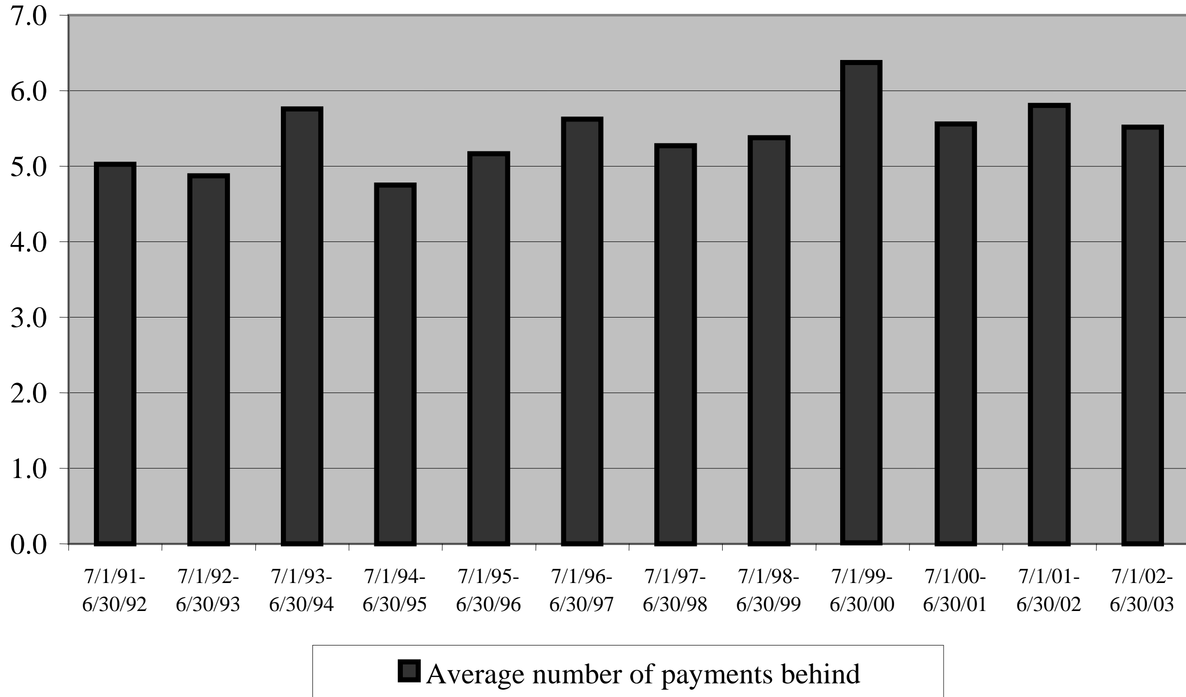


Figure 3. **Average Number of Payments Behind, by Period**

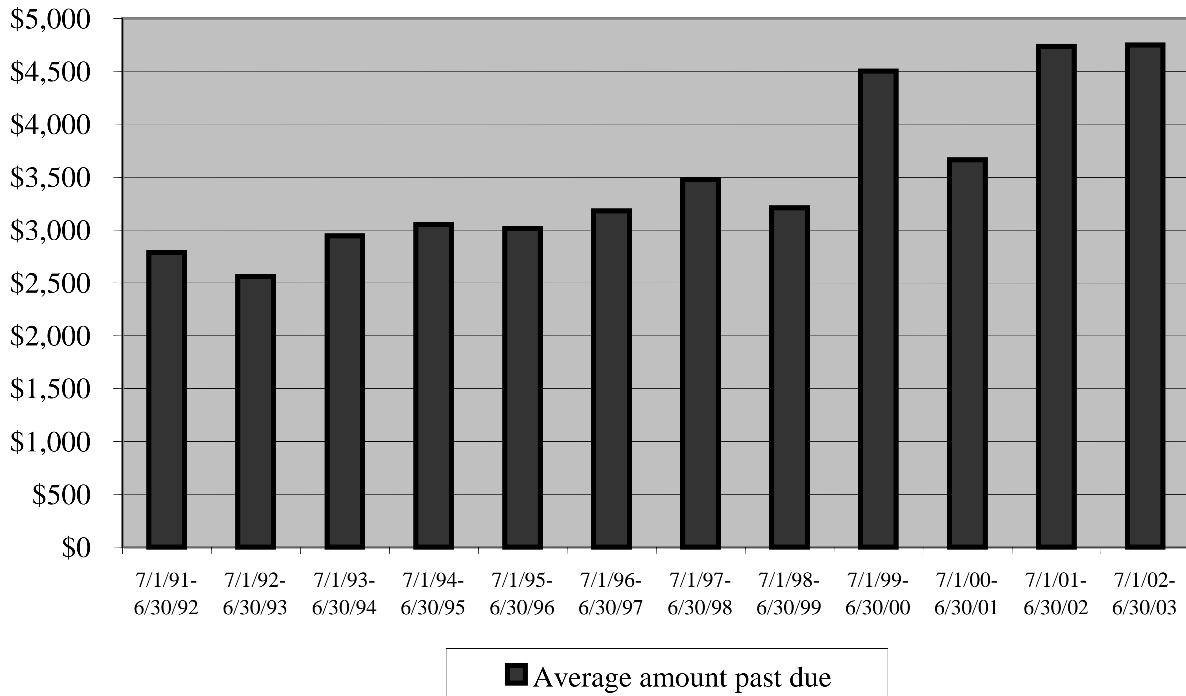
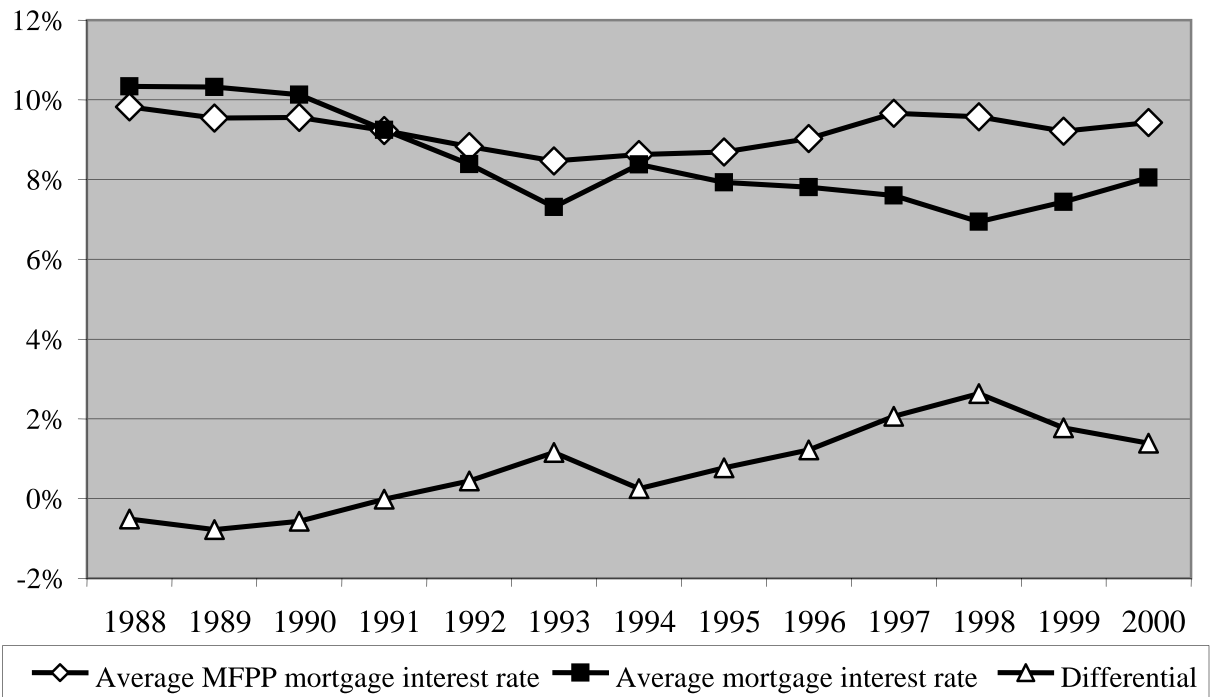


Figure 4. **Average Amount Past Due, by Period**

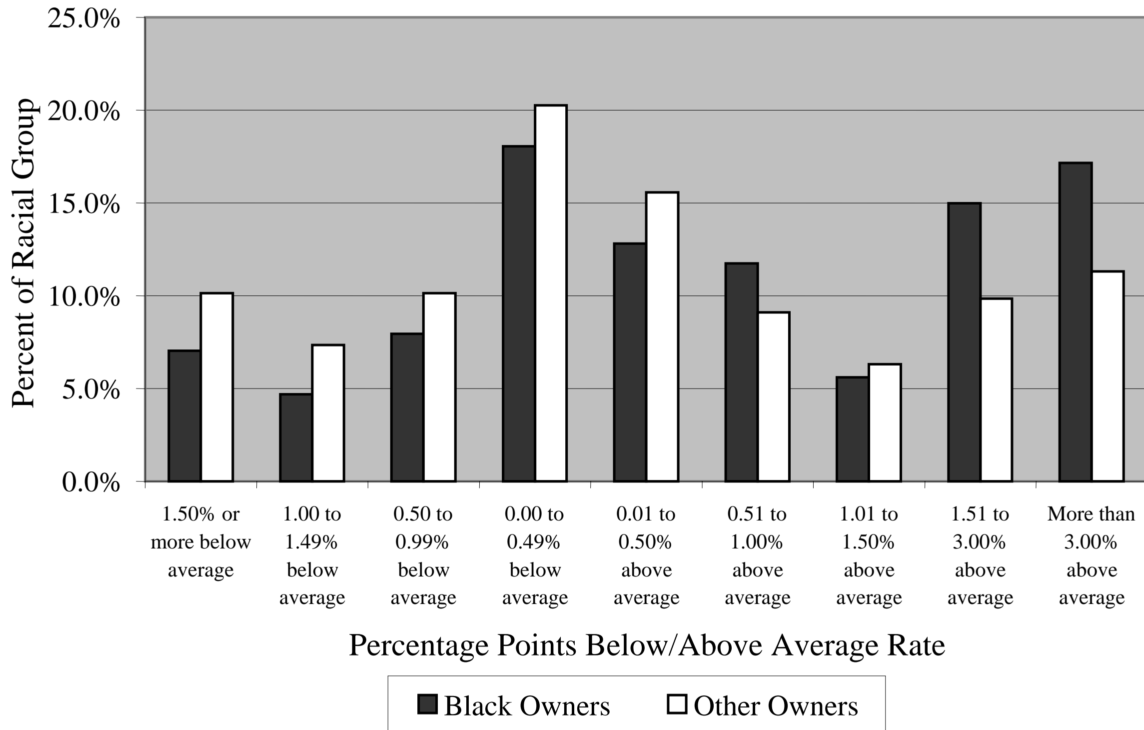
Not only are the homeowners using the MFP Program getting relatively further in arrears, they appear to have become increasingly disadvantaged in terms of the interest rates on their mortgages. Figure 5 shows a comparison of the average interest rate on mortgages for owners seeking help through the program with prevailing interest rates for 30-year fixed-rate mortgages generally, based on the year the property was purchased. The data are for units purchased between 1988 and 2000, and includes data on at least 100 properties in each year. Households in the MFP Program actually had a lower than average mortgage interest rate through 1991. From 1992 on, however, the average mortgage interest rate for program households has been higher than the prevailing rate, by as much as 2.6 percent in 1998.

Figure 5. **First Mortgage Interest Rates, by Year of Origination**



The disadvantage is not distributed equally among all groups of borrowers, however, as shown in Figure 6. A comparison of the interest rate on the first mortgage with the average first mortgage interest rate for the year of origination, broken down by the race of the borrower, shows that a higher percentage of Black homeowners have mortgages with interest rates substantially above the average rate. Almost a third of Blacks had mortgages with an interest rate 1.5 percent or more higher than the average, while just over one fifth of the other-race borrowers paid that much of a penalty. The situation is also disadvantageous for Black homeowners at the other end of the spectrum, where less than 20 percent of them had mortgages with an interest rate lower than 1 percent below the average rate, compared with almost 28 percent of other-race borrowers.

Figure 6. **Interest Rate Differential, by Race**



Finally, the households coming to the MFP Program may be becoming worse off with respect to their equity. The data indicate that the average equity, the difference between the market value of the home and what the owner owes on the mortgage, was positive between July 1991 and June 1999. Between July 1999 and June 2002, however, homeowners coming to the program had negative equity, that is, the outstanding principal balance on the mortgage(s) exceeded the market value of the property (Figure 7). One contributing factor was the almost seven percent drop in the average market value of homes owned by MFP Program clients between the twelve-month period ending in June 1999 and the one ending in June 2000, a year later. When that drop was coupled with a concurrent four percent increase in the average principal balance, the result was that the program clients, on average, owed more than their properties were worth. Only with the enormous 27 percent jump in average property values in the July 2002 to June 2003 period did the situation change back to positive equity. Even then, the average outstanding principal balance increased by over 18 percent among program client households.

Not only do Black homeowners in the sample pay higher interest rates than others, they also have less equity than other owners, as shown in Figure 8. Over half of the Black owners reported having negative equity, with more than 27 percent owing over $10,000 more than the value of the house. Less than 40 percent of other-race owners had negative equity, with only 15 percent having a deficit of $10,000 or more.

Figure 7. **Average Value, Debt, and Equity, by Period**

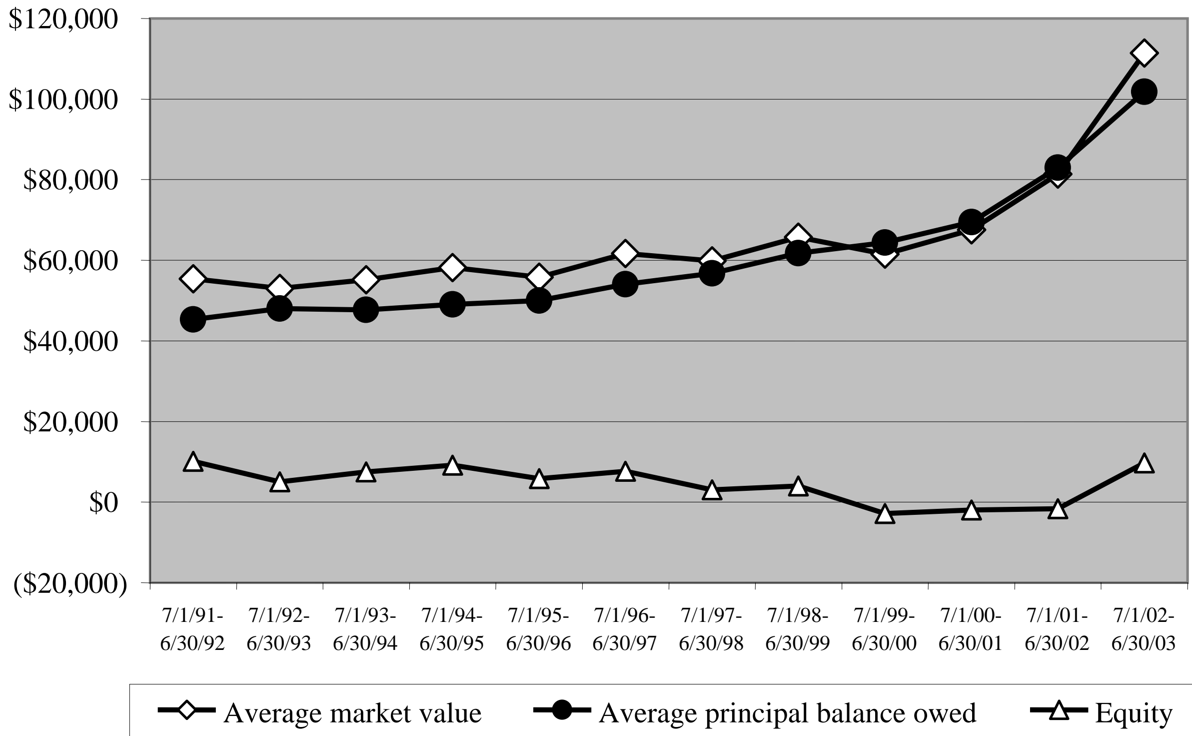
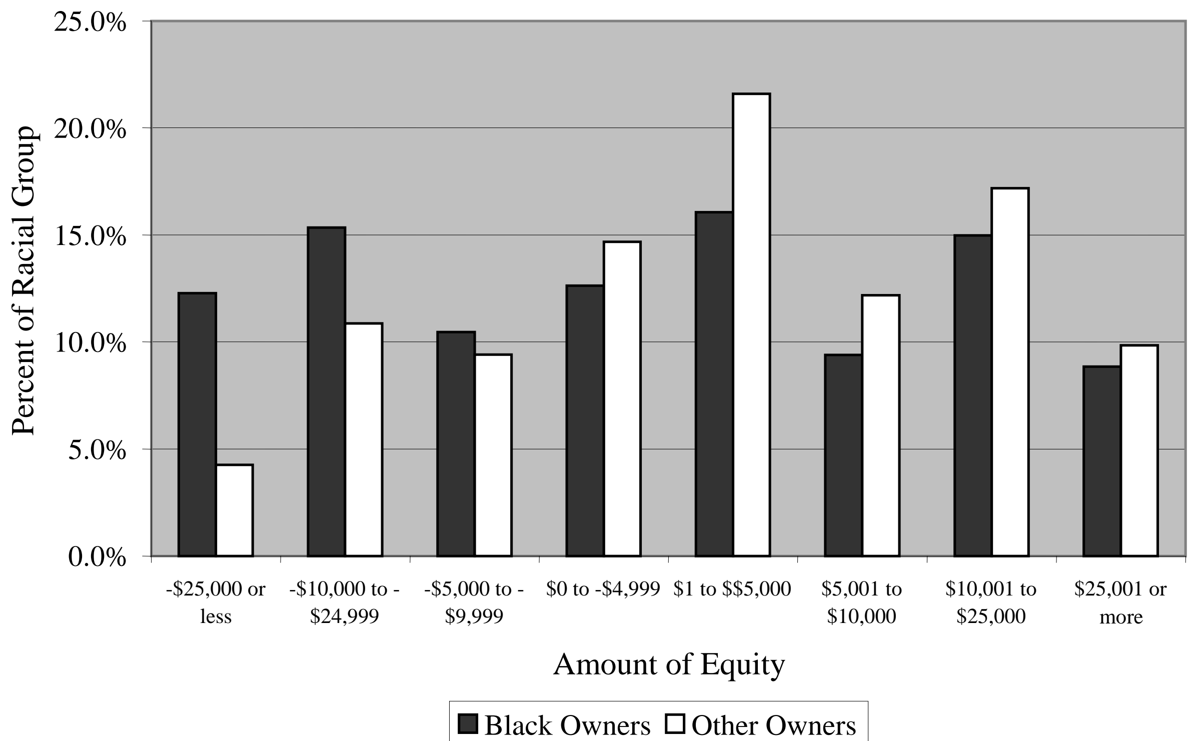


Figure 8. **Equity Differential, by Race**



Consistently since 1991, about 35 percent of borrowers reported experiencing a cut in pay or income reduction as a contributing factor in their default. Some of the other reported reasons behind borrowers' repayment difficulties, however, seem to have changed in importance over time (Table 7). Two factors appear to have become more common. About 25 percent of borrowers have reported losing their jobs as a reason for their inability to meet mortgage obligations over the first nine years of the program. In the last three years, however, the proportion of such borrowers has increased to over 36 percent. The proportion of borrowers who report money management problems has shown a similar increase. Over the first nine years of the program, about 17 percent of borrowers reported excessive debt and other money management problems as reasons for default. This proportion more than doubled to over 37 percent in more recent years. In contrast, marital disruption and other domestic issues seem to have declined in importance. About 13 percent of borrowers reported marital disruption as an issue in the last three years, a 35 percent decrease over the rate for the first nine years. Health problems, which may result in lower incomes or higher expenditures, have also declined as a reason for default. About 22 percent of all borrowers reported health problems as a reason in the last three years, compared with over 30 percent before then.

Table 7. **Reasons for Default, by Period**

Reason	**7/1/1991 - 6/30/2003**		**7/1/1991 - 6/30/2000**		**7/1/2000 - 6/30/2003**	
Cut in pay/income reduction	1,471	(34.4%)	929	(34.5%)	542	(34.3%)
Laid off	1,252	(29.3%)	682	(25.4%)	570	(36.0%)
Money management	1,059	(24.8%)	467	(17.4%)	592	(37.4%)
Domestic problems	731	(17.1%)	528	(19.6%)	203	(12.8%)
Health problems	1,166	(27.3%)	817	(30.4%)	349	(22.1%)
Other	1,639	(38.4%)	1,274	(47.4%)	365	(23.1%)

On one hand, the figures in Table 7 seem to emphasize the importance of broader economic and personal conditions on mortgage repayment patterns. Lay-offs, reductions in borrower's pay, health problems, and marital disruption are conditions that are often beyond a borrower's control. On the other hand, the increasing importance of money management issues suggests that some of the problems underlying delinquency situations are preventable.

There seems to have been a shift in outcomes after program intervention over time, and the changes are consistent with the financial data indicating that households coming into the program over the past three years have been relatively worse off than in earlier years (Table 8). Fewer borrowers became current on their payments than in the earlier years of the program. Over the first nine years of the program, almost 40 percent of borrowers caught up with their loan payments. This proportion decreased in recent years to about 32 percent, a drop of almost 20 percent.

Table 8. **Results of Interventions, by Period**

Results of Interventions	7/1/91 - 6/30/02[1]		7/1/91 - 6/30/00		7/1/00 - 6/30/02[1]	
Current	1,139	(37.5%)	899	(39.3%)	240	(31.8%)
Restructure/loan modification	116	(3.8%)	72	(3.2%)	44	(5.8%)
Forbearance/repayment agreement	222	(7.3%)	146	(6.4%)	76	(10.1%)
Current with Chapter 13	147	(4.8%)	110	(4.8%)	37	(4.9%)
Still delinquent	584	(19.2%)	427	(18.7%)	157	(20.8%)
Foreclosure proceeding	303	(10.0%)	230	(10.1%)	73	(9.7%)
Foreclosed	303	(10.0%)	252	(11.0%)	51	(6.8%)
Sold/selling house	85	(2.8%)	39	(1.7%)	46	(6.1%)
Other	140	(4.6%)	110	(4.8%)	30	(4.0%)
N =	3,039		2,691		1,053	

1. The results do not include clients coming to the program after 6/30/2002 to avoid potential bias in the analysis from a disproportionate number of clients who had not had time to complete the intervention by the data cut-off date of 6/30/2003. In addition, the results do not include clients for whom results were not determined or clients with whom the program lost touch.

Increasingly, borrowers are going through a loan restructuring or modification, 5.8 percent in recent years, compared with only 3.2 percent for the earlier years, or negotiating forbearance or a repayment agreement, 10.1 percent over the past two year period, up from 6.4 percent for the first nine years. Reflecting this increasing reliance on alternative outcomes, fewer borrowers are experiencing foreclosure. About 11 percent of the clients were foreclosed over the first nine years of the program. The comparable figure for the last two years is 6.8 percent, a drop of almost 40 percent. The fact that the average borrower entering the program during the more recent period had negative equity may have contributed to these trends, along with the fact that Minnesota does not permit creditors to collect deficiency judgments. The confluence of the two factors would put the creditor in the position of losing money if he/she foreclosed, making re-negotiation of the loan terms or forbearance the more attractive alternatives.

Despite the fact that the percentage of clients being foreclosed declined in more recent years, the proportion of borrowers in foreclosure proceedings has remained relatively stable over time. One possible reason for that phenomenon may be that creditors might initiate foreclosure proceedings as a way of making sure they can foreclose as quickly as possible, while the parties continue to negotiate at the same time. Interestingly, the percentage in Chapter 13 has also remained relatively stable, indicating that borrowers are not more likely to file for bankruptcy to deal with foreclosure pressures, even when more had negative equity.

Finally, more borrowers are selling or trying to sell their houses as a way to resolve the delinquency. Over the first nine years of the program, the proportion of borrowers selling or trying to sell was 1.7 percent, substantially lower than the 6.1 percent for the more recent years.

This could be because of the significant appreciation in the average house value during that period, compared with relatively flat appreciation over the first nine years of the program. The market value of homes in the program increased by an average of only 1.3 percent per year over the first nine years of the program (Figure 6). For the period between 7/1/2000 to 6/30/2002, the average annual increase was just over 15 percent.

A potentially troubling sign is the share of borrowers who are listed as "lost contact" in the data. Over the first nine years, only about 15 percent of the clients ended up as lost contact. For the more recent two-year period, that outcome has almost doubled, to over 28 percent of clients. If those clients stopped contacting the program because they lost their houses or gave up trying to avoid foreclosure, the trend would suggest increasing troubles for an already troubled group of clients. However, if they lost contact because they no longer needed the services—they had managed to get current or had resolved the default—then the trend would not be so worrisome.

Time to Resolution

As with the outcomes, we limited our analysis of the time to resolution to those households which had intake dates before 7/1/2002 to reduce the potential for bias from including households which disproportionately achieved resolution in shorter than average time. Over the life of the program, the average time from initial intake to final outcome for those households has been 165 days (Table 9). Adding the average number of payments borrowers were behind when they entered the program, 5.4 months, increases the average total time from default to final resolution to 337 days, or 11 months. This result compares favorably with the figure of 12 months reported by Focardi (2002) and cited in Cutts and Green (2003).

An encouraging trend is that the time to resolution has shortened in recent years. The time from default to resolution was about 354 days (11.8 months) over the first nine years of the program (average 5.3 months behind at intake, plus 191 days to resolution). In the last two program years, it took significantly less time. The time from default to resolution was 288 days (9.6 months), including 114 days for program intervention for borrowers who were 5.7 months behind in their payments, on average, when entering the program. This represents a savings of over two months in achieving a resolution for all stakeholders. Significantly, the time to resolution decreased even as the debtors being served were in relatively worse financial condition.

The fact that the reduction in the number of days is consistent across individual outcomes suggests that the MFP Program organizations and lenders may be determining which resolution is mutually acceptable more quickly than before. Technology, familiarity with each other's ways of handling issues, and a better understanding of the options may all contribute to the trend.

Table 9. **Time from Intake to Resolution, by Period**

Resolution	**7/1/91 - 6/30/02**	**7/1/91 - 6/30/00**	**7/1/00 - 6/30/02**
Current	150	162	103
Restructure/loan modification	250	309	155
Forbearance/repayment agreement	183	214	124
Current with Chapter 13	241	273	144
Still delinquent	122	130	99
Foreclosure proceeding	185	202	132
Foreclosed	202	223	98
Sold/selling house	224	290	168
Other	279	337	65
Average days to resolution	172	191	114
Average number of days behind	165	163	174
Total number of days from default to resolution	**337**	**354**	**288**

Recidivism

Our second proxy measure of cost-effectiveness is the extent of recidivism among borrowers 12 and 36 months after receiving program assistance (Table 10). The one- and three-year all household data are, respectively, from 3,745 households with intake dates before 7/1/02, and 2,692 households with intake dates before 7/1/00. Approximately 60 percent of households that reported the status of their mortgages were current both one and three years after intake. This compares favorably to the cure rates reported in Cutts and Green (2003). They found that only 32 percent of loans that were 120 or more days delinquent, which is comparable to the overall average 5.4 months late in our sample, reported as cured 12 months after entering their sample. Just under 57 percent of the 120-or-more-days-late borrowers in the Cutts and Green sample lost their properties within the same 12-month interval.

The results are even better for households that avoided foreclosure or received loans as part of the foreclosure prevention intervention. Over 70 percent of reporting households, 917 that avoided foreclosure and 548 that received an emergency loan reported being current one year after intake. Although the percentage of households that were current dropped as of the three-year report for both groups, it still remained higher than for all households generally.

The results for those households that were still delinquent after completion of the program were not as favorable in the short term as for all households generally. Almost half of the reporting households in that group were delinquent a year later. While the results appear to improve over

time, with over 66 percent reporting their mortgages current three years after intervention, the low percentage of households reporting raises doubts about the accuracy of the figure.

Table 10. **Recidivism by Outcome of Intervention**

Category of Household[1]	Percent Reporting[2]		Percent Current		Percent Delinquent	
	1 year later	3 years later	1 year later	3 years later	1 year later	3 years later
All households	53.3	33.5	59.2	61.8	40.8	38.2
Avoided foreclosure	59.3	59.6	72.5	63.5	27.5	36.5
Were "still delinquent"	63.0	27.9	53.0	66.4	47.0	33.6
Received loan	64.9	62.3	71.0	66.0	29.0	34.0
Did not receive loan	49.9	23.0	54.8	57.7	45.2	42.3

1. The percentages for each category are based on the number of households with intake dates one or three years, respectively, before the closing date of our dataset, which was 6/30/03. Therefore, households included in the 1-year data all have intake dates before 7/1/02, and households included in the 3-year data all have intake dates before 7/1/00.

2. The percent reporting is the number of households reporting the status of their mortgages as either "current" or "delinquent," divided by the total number of households in the category. Households that completed the survey without reporting either "current" or "delinquent" are not included.

The results for the households that did not receive loans suggest that the loans have an impact on longer-term outcomes. The percentage of households that did not receive a loan and that were subsequently current was lower than the overall average of both the one- and three-year reports. The percent of households current improved as of the three-year report, but, as with the "still delinquent" households, the low percentage of households reporting makes the figure questionable.

Although we lack a benchmark, Table 10 seems to suggest that community-based interventions are cost-effective. We estimate that about 1,756 borrowers avoided foreclosure through the services offered by the MFP Program, about 41 percent of all households receiving services. The time to reach a resolution of the default is about one month less than what has been reported in Focardi (2002) and cited in Cutts and Green (2003). Recidivism over time is substantially lower among program participants than among the sample studied by Cutts and Green (2003).

Identifying Borrower, Loan, and Program Factors Associated with Cost-Effectiveness

Although avoiding foreclosure is not always possible, nor is it always the "best" outcome for the client, it is still an outcome that community-based foreclosure prevention programs seek when they first start working with a client. Therefore, we examined the data to determine which factors positively or negatively impacted whether the client avoided foreclosure. Finally, we also ran models to identify factors associated with recidivism and time to resolution.

The first step was to clean the data to obtain a dataset that contained reliable and complete data for all households for statistical analysis. The original dataset started with 4,274 households that had received intervention through the MFP Program. Of those, 4,176 reported on the outcome of the intervention. We then sorted the data to exclude households that had worked with the program on multiple, separate occasions to ensure that the impact we measured was from a consistent treatment. That left 3,601 households in the sample. Next, we sorted to exclude households with data that were unreliable, improbable, or missing with respect to certain key variables. We eliminated households that reported outstanding principal balances of over $300,000 or less than $2,000, or which reported the value of their home at more than $300,000 or less than $15,000. That left 2,036 households in the sample. We excluded households reporting monthly incomes of over $15,000 or less than $400, and households with less than $500 past due on their mortgage. Finally, we excluded households buying before 1988 or after 2000. The attrition for each criterion is shown in Table 11.

Table 11. **Attrition by Criterion**

Criterion for Exclusion	**Excluded**	***Remaining***
Original dataset of households receiving services		4,274
Not reporting an outcome	98	4,176
Reporting multiple interventions	575	3,601
Reporting more than $300,000 in outstanding principal	8	3,593
Reporting less than $2,000 in outstanding principal, or not reporting any principal outstanding	1,271	2,322
Reporting a house value of over $300,000	169	2,153
Reporting a house value of under $15,000, or not reporting any house value	117	2,036
Reporting less than $500 past due on the mortgage, or not reporting any amount past due	149	1,887
Reporting more than $15,000 per month in income	1	1,886
Reporting less than $400 per month in income, or not reporting income	203	1,683
Reporting buying the house after December 31, 2000	97	1,586
Reported buying the house before January 1, 1988	351	1,235

Factors Associated with Foreclosure Avoidance

Using that dataset of 1,235 households, we ran a series of logistic regression models to determine the impact of various factors on the probability of avoiding foreclosure, using the reported outcome from the MFP Program. The outcomes that were considered as avoiding foreclosure included “Current,” “Restructure/Loan Modification,” “Forbearance/Repayment Loan,” “Not foreclosed/back taxes paid,” and “Not foreclosed/other reasons.” In the dataset, 566 of the

households avoided foreclosure by those criteria, or 45.8 percent, as compared with 42.0 percent in the full dataset. It should be noted that households that did not report one of the outcomes that were included in the avoided foreclosure category might still have avoided foreclosure. For example, a household may have reported that it was "Still delinquent" when it stopped working with the program and, subsequently, may have managed to cure the default.

The final model consists of those variables that most significantly contributed to the probability of avoiding foreclosure through the MFP Program, as shown in Table 12. The model includes variables from four categories: 1) demographics of the homeowner; 2) financial characteristics of the mortgage and default; 3) the reported reasons for the default; and 4) the services provided by the program.

Table 12. **Factors in Avoiding Default through the MFP Program**

Parameter	Estimate	Point Estimate	X^2
Intercept	-1.80		87.53***
Black homeowner (Y/N)	-0.47	0.63	12.65***
Employed full-time (Y/N)	0.36	1.44	7.22**
Ratio of income to amount past due	0.51	1.67	26.84***
High interest, recent mortgage (Y/N)	-0.73	0.48	16.17***
Poor financial management (Y/N)	-0.37	0.69	5.30*
Relationship problems (Y/N)	-0.48	0.62	8.67**
Number of hours with MFPP	0.09	1.10	85.03***
Pre-purchase counseling (Y/N)	0.68	1.97	9.52**
Budget/credit counseling through MFPP (Y/N)	0.72	2.06	28.85***
-2 Log Likelihood: Intercept only = 1703.5	Intercept and Covariates = 1447.8 Pseudo R_2 = 0.15		

* Significant at the 0.05 level
** Significant at the 0.01 level
*** Significant at the 0.001 level

The two demographic factors that most significantly influenced whether the household managed to avoid foreclosure through the MFP Program were whether the householder was Black and whether he/she was working full time. For Black homeowners, the odds of avoiding foreclosure were about 40 percent less than for homeowners of other racial groups. The race of the homeowner, however, may correlate with a number of factors, including total household wealth, which could affect whether the individual is able to recover from a default. For example, the data show that Black owners in the sample pay higher interest rates (Figure 6) and have less equity than other-race owners (Figure 8), both of which could lead to a higher foreclosure rate. Black homeowners were also over 50 percent more likely to have mortgages with two key

indicators of subprime loans, having been originated within two years of default and having an interest rate more than 2 percent higher than the average rate at the time of origination. 21.1 percent of Black owners had such loans, versus only 13.8 percent of other race borrowers.

The data do not, however, indicate the reason for those correlations, which might reflect lower credit scores, slower rates of neighborhood appreciation, or discrimination, among a myriad of possible explanations. Without additional information, therefore, it is not possible to separate the influence of race from the many racially-correlated factors that could also affect the outcome to discern the influence of one versus the other. In addition, the Black homeowners in the MFP Program were disproportionately concentrated in Saint Paul, and so differences in the agencies may also have influenced the apparent impact of the race of the homeowner.

For homeowners with full time employment, the odds of avoiding foreclosure were about 1.4 times the odds for those with other employment situations. Those with full time jobs had substantially higher average and median incomes than those who did not work full time. Full time workers had an average income of $2,300 and median income of $2,100 per month, versus an average of $1,506 and median of $1,315 per month for those not working full time. This result may also reflect the positive effects of attributes of a full time job, including consistent cash flow and fringe benefits to cover expenses such as health insurance, on the ability to cure a default.

One financial factor with the most impact on whether the homeowner avoided foreclosure was the ratio of income to the amount past due. Those with higher incomes relative to the amount past due were more likely to avoid foreclosure. For every unit increase in the ratio, the odds of avoiding foreclosure improved by almost 1.7 times. Since those with the higher ratios would have more income to pay off the past-due amount, this finding is not surprising.

The other significant financial factor was whether the mortgage has two characteristics commonly associated with subprime loans. These were whether the mortgage had been originated within two years of the default and whether it also had an interest rate two or more percentage points above the average mortgage interest rate prevalent for the year of origination. For homeowners whose loans had those two attributes, the odds of avoiding foreclosure were less than half as good as for those whose loans did not have both those characteristics. This finding is consistent with earlier studies of the relationship between predatory loans and foreclosure rates (Apgar and Calder 2005).

As can be expected, the cause that triggers the default is an important consideration. The two reasons that most affected whether the homeowner avoided foreclosure were poor money management and relationship problems. Homeowners who listed money management problems as a reason for being behind on payments had only about 70 percent as much chance of avoiding foreclosure as those who did not cite that reason, while those with relationship problems had only about 60 percent as much chance. Homeowners with poor money management skills should be less likely to avoid foreclosure because the ability to manage money well is precisely what is necessary to cure the default. The particular relationship problems that the MFP Program noted in its intake form, such as divorce, separation, abuse, and abandonment, are those that may directly affect housing costs because they often result in the household going from occupying a

single unit to its needing two separate units. The added expense of the second unit should make it harder for the homeowner to recover from a default.

Finally, three program attributes significantly affected the odds of avoiding foreclosure. The number of hours that the MFP Program worked with the client improved the odds. For every additional hour spent on the case, the odds of avoiding foreclosure increased by about 10 percent. Since the effect is cumulative, spending eight more hours on the case more than double the odds of avoiding foreclosure. Homeowners who had received pre-purchase counseling and education or who received budget/credit counseling through the program were almost twice as likely to avoid foreclosure as those who had not. These findings suggest that working with the program has a very strong, positive effect on the odds that a homeowner will avoid foreclosure.

The single factor with the strongest effect on the odds of avoiding foreclosure was whether the homeowner received an emergency loan from the MFP Program. Loans are interest free and payable at the time of transfer of title or when the first mortgage becomes due. In the model including receiving a loan as a parameter, the parameter estimate was 4.5, the point estimate was over 90, with a Π^2 of over 140. That means that those receiving loans were 90 times as likely to avoid foreclosure as those who did not. We decided not to include loans as a parameter in our model, however, because of the circularity inherent in the decision to make a loan. Loans are given to homeowners who are expected to have the cash flow to resume mortgage payments, and thus most likely to avoid foreclosure. This may lead to a self-fulfilling prophesy.

Factors Associated with Avoiding Recidivism

From the same dataset, we then examined which factors best predicted whether the homeowner would be able to remain current and avoid recidivism. The MFP Program did follow-up surveys of clients approximately one year after they completed the program. Of the 1,235 households in our dataset, 728 indicated whether they were current or had not kept up with their mortgage; 404 were current and 324 had not kept up. We ran a logistic regression to determine which factors most significantly affected whether the household had kept up with its payments, and the results are shown in Table 13.

There are two issues to note with respect to this model. First, not all of those who responded to the survey had a final outcome through the MFP Program that was included in our avoided foreclosure category. For example, some of the households were listed as still delinquent when they last interacted with the program, and yet they managed to avoid foreclosure after participating in the program, not while in it. This is reflected in the fact that they report being current a year later. Second, the relatively low Pseudo-R^2 may be attributable, in part, to the fact that the follow-up survey did not elicit information on events that occurred between the last interaction with the program and the date of the survey. Therefore, events that could affect the ability to remain current and that took place after the client stopped working with the program are not included in the data.

Table 13. **Factors in Avoiding Recidivism**

Parameter	Estimate	Point Estimate	χ^2
Intercept	0.18		1.01
Job loss/drop in income	-0.53	0.59	10.21**
Relationship problems	-0.53	0.59	6.72**
Homeowner's health	-0.36	0.70	4.03*
Pre-purchase counseling and/or budget/credit counseling	0.27	1.32	4.07*
Equity (in $X,000)	0.19	1.21	16.88***
Avoided foreclosure through MFPP	0.89	2.44	30.23***
-2 Log Likelihood: Intercept only = 1000.4	Intercept and Covariates = 927.8 Pseudo $R^2 = 0.07$		

* Significant at the 0.05 level
** Significant at the 0.01 level
*** Significant at the 0.001 level

The results of the regression indicate that losing a job or suffering a drop in income, relationship problems, and problems with the homeowner's health all increase the probability of recidivism. Apparently, all three seem to create longer-term issues for homeowners, leaving them with between 60 and 70 percent the odds of keeping up with their mortgages as homeowners without those problems. On the other hand, receiving pre-purchase counseling and budget/credit counseling improves the odds of remaining current. The findings also show that, for every thousand dollars increase in equity, the odds of remaining current increase by a factor of 1.2. An additional $4,000 in equity would more than double the probability that the homeowner would be able to remain current. Avoiding foreclosure through the MFP Program had the largest effect, increasing the odds of remaining current by a factor of 2.4. This suggests that there is some aspect of the work that the program does in reaching one of the outcomes in the avoiding foreclosure category that has long-term benefits for the homeowner. For example, the program staff may be able to negotiate better loan modifications or restructuring than homeowners who act on their own behalf.

Factors Associated with Time to Resolution

The final component of our data analysis examined factors affecting time to resolution. For this regression, we included variables in four categories. Predicting the direction of impact of any of the variables, however, is problematic. For almost every variable, arguments can be made as to why it should either increase or decrease the time to resolution. For example, if the amount past due is very large, it might take longer to negotiate a loan modification that would allow the debtor to remain in the house. On the other hand, the lender might realize that the borrower could not pay off the outstanding arrearage, and so it might agree more quickly to a restructuring of the debt.

The first variables we included reflect financial considerations. These variables are the total amount past due, the ratio of income to the amount past due, whether the loan has characteristics commonly associated with subprime lending, and the total number of mortgages on the property. The second set of variables captures the reasons the homeowner is in default. They include job loss, a drop in income, relationship problems, and poor money management. The next variables are for the services provided through the MFP Program, including the number of hours working with the client, whether the borrower received pre-purchase, budget/credit, and/or mortgage counseling, whether the program negotiated with the lender, whether the client took part in any program workshops, or whether the client received a loan through the program. The results of the regression are shown in Table 14.

The results suggest that six factors are associated with a longer time to reach a resolution. Two, the total amount past due and the number of mortgages, have the largest standardized parameter estimates, meaning they are, relatively, the most significant factors prolonging the case. The impact of the amount past due suggests that the higher the gross dollar amount of the arrearage, the more difficult it is to work out a mutually agreeable outcome. Having more than one mortgage may complicate and extend any negotiations because there are more stakeholders whose interests have to be addressed. Two other factors, the number of hours put into the case by the MFP Program and whether the borrower attended program workshops, also prolong the case, although the standardized estimates suggest that they are relatively less important than the amount past due or the number of mortgages. Putting in more time may indicate that the case was more complicated than most, or it may be that more time was required for negotiation. Attending workshops takes time. Both of these results suggest that more intensive work through the MFP Program extends the time to resolution. Finally, two of the reasons why borrowers are in default, a drop in income and relationship problems, appear to make the case take more time to resolve, although the standardized estimates indicate that their impact is less significant than the other factors that prolong cases.

The results for three of the variables suggest that they shorten the time to resolution. The most significant is the ratio of income to the amount past due. Having more income to apply to paying off the arrearage appears to allow the parties to solve the problem more quickly. Whether the borrower gets an emergency loan from the MFP Program also appears to shorten the time to resolution. As with the income to past due ratio, this indicates that the key to shortening the time to resolve a default is having resources to pay off the arrearage. The third significant factor in shortening the time to resolution is mortgage counseling. One possible explanation for this result is that the mortgage counseling allows the borrower to understand more clearly the potential outcomes and the impact each would have on him/her and his/her household. That understanding may, in turn, make it easier to get the borrower to reach agreement with the lender about how to settle the case.

Table 14. **Factors Affecting Time to Resolution**

Variable	Parameter Estimate	Standardized Estimate	t Value	Prob > | t |
Intercept	79.95		3.64***	0.000
Total past due (in $X,000's)	23.20	0.406	14.74***	0.000
Ratio of income to amount past due	-33.51	-0.123	-4.56***	0.000
Predatory loan (Y/N)	-22.61	-0.046	-1.90	0.057
Number of mortgages	105.66	0.233	9.83***	0.000
Job loss (Y/N)	-5.21	-0.013	-0.52	0.604
Drop in income	24.47	0.064	2.62**	0.009
Relationship problems	29.77	0.065	2.66**	0.008
Poor money management	-9.73	0.022	-0.88	0.379
Number of hours	2.34	0.109	4.16***	0.000
Pre-purchase counseling (Y/N)	3.70	0.006	0.25	0.802
Budget/credit counseling (Y/N)	13.11	0.035	1.40	0.162
Mortgage counseling (Y/N)	-24.66	-0.062	-2.42*	0.016
Negotiation with lender (Y/N)	-15.57	-0.029	-1.02	0.232
Workshops (Y/N)	99.35	0.104	4.20***	0.000
Loan (Y/N)	-37.10	-0.089	-3.39***	0.001
N = 1,235	$R^2 = 0.33$			

* Significant at the 0.05 level
** Significant at the 0.01 level
*** Significant at the 0.001 level

Conclusions

In this paper, we examined the cost-effectiveness of community-based foreclosure prevention interventions using two proxy measures: time to resolution and recidivism. We examined these issues with data from delinquent borrowers who received intense case-management, post-purchase counseling and/or assistance loans through the Mortgage Foreclosure Prevention Program in Minneapolis-Saint Paul. The program provided these services to over 4,200 borrowers since 1991.

Overall, our findings suggest that community-based foreclosure prevention services are cost-effective. With regard to time to resolution, we find that the number of days to outcome in the

program compared favorably with those reported elsewhere for the industry as a whole: 337 days (11 months) for borrowers served by the program versus 365 days (12 months) for the industry. The number of days that it takes to resolve cases once they have entered the program has declined over time, to 114 days over the most recent two-year period. The fact that the borrowers coming into the program are, on average, further behind with larger arrearages, makes the improvement even more significant.

With regard to recidivism, we found that the percentage of households that remained current 12 months after intake was much higher than reported in a study of defaulted loans purchased by Freddie Mac (Cutts and Green 2003). However, about 40 percent of all borrowers in the program, and about 30 percent who avoided foreclosure, reported being late on payments again 12 months after program intervention. We also found that not receiving an assistance loan as part of the intervention seems to be associated with a higher incidence of recidivism, about 45 percent after one year.

We also found several borrower, loan, and program factors to be associated with these measures. Factors that lengthen the time to resolution include the number of mortgages a borrower has when entering the MFP Program, the borrower's participation in a program workshop, and the number of hours served by the program. Probably, these associations reflect the fact that these borrowers are more complicated than the average case. In contrast, we found that borrowers with more resources relative to the amount past due have shorter time to resolution, as do borrowers who have received post-purchase mortgage counseling.

Similarly, we find several factors associated with greater recidivism. Some crisis events seem to have long lasting impacts. These include job and income losses, and relationship and health problems. In contrast, borrowers with more home equity lower the likelihood of recidivism. Also the receipt of pre-purchase counseling increases the odds of staying current over time.

Finally, we examined the factors associated with the overall avoidance of foreclosure. Black borrowers, borrowers with fewer resources relative to what they owe were found to be less likely to avoid foreclosure. (The former finding should be put in context given the fact that important factors, missing from the dataset, may be correlated with both race and foreclosure avoidance making interpretation of the finding difficult.) Also, borrowers with loans originated within two years of the default and with high interest rates were more likely to default on their mortgages. As before, the cause of default is important in determining the final outcome. Borrowers with financial management problems or that have suffered a relationship problem are also more likely to go through foreclosure. In contrast, borrowers who receive more hours of program service and/or an emergency loan from the agency are more likely to avoid foreclosure, as are borrowers who received pre-purchase education and counseling.

Recommendations and Future Research

As discussed earlier in the paper, we lack the full array of data needed to assess directly the cost-effectiveness of community-based foreclosure prevention programs, and so caution is warranted when interpreting all these findings. This leads to two recommendations that are specific to the

MFP Program organizations. First, in addition to the information that the program is trying to collect on an ongoing basis, we recommend that the following data be gathered:

1) type of pre-purchase education and counseling received and by whom;
2) loan fees and points;
3) whether there are prepayment penalties and their characteristics;
4) whether the loan falls under the requirements of the Home Owners Equity Protection Act (HOEPA);
5) the homeowner's credit score (if available);
6) other debt that the homeowner has, such as credit cards and past due utilities; and
7) what other assets the homeowner has that can be liquidated to pay the debt.

Second, the organizations also have to take steps to ensure that the data are entered into the record accurately. Many of the client records were incomplete, lacking even such basic information as the amount of principal outstanding or the amount past due. Whether the data are used to assess organizational performance or simply to provide descriptive profiles of clients, the database needs to be checked for quality and completeness to ensure that the data used for analysis in the future are reliable.

More generally, foreclosure prevention programs need to evaluate the services they are providing to their clients to determine which interventions are most effective. Pre-purchase, budget, and credit counseling all contribute to both avoiding default and reducing recidivism. This suggests that foreclosure prevention programs should encourage or require all of their clients to avail themselves of those services in addition to any other interventions that the program might offer. Not only do they help the homeowner cure the initial default and avoid foreclosure, such counseling also seems to help him/her stay out of trouble over an extended period of time.

Loans are another major factor associated with avoiding foreclosure. While the relationship between the decision whether to lend money to a client and the probability of avoiding foreclosure makes any determination of causation problematic, the extremely strong correlation suggests that foreclosure prevention programs need to be able to lend money when appropriate. The keys to making the loan program work are to have criteria for lending to ensure that the money goes to borrowers whose financial crisis has been solved to the extent that they are expected to be able to sustain future mortgage payments.

Our findings show that these community-based foreclosure prevention programs have shorter time to resolution and lower rates of recidivism than reported in other studies of similar measures for defaulted loans. The organizations should be able to use those findings to argue for continued funding from industry stakeholders because those are the key indicators of how much the programs are saving overall. Whether the stakeholder is the lender, servicer, or insurer, they all benefit from a faster resolution because that eliminates the uncertainty about what the final outcome of the default will be, and they all want to avoid having the borrower default again.

This research shows the impact these community-based agencies have and the importance of counseling in helping borrowers avoid foreclosure. More research is needed to examine the impact of other types of organizations that offer help to borrowers in default. For example, we do not know how well the performance of these organizations compares with consumer credit

counseling services, what the advantages or disadvantages of one type of organization might be over the other, or the potential for partnerships or hybrid models that combines the strengths of both. Nor does this research address the impact of foreclosure prevention programs in other states with different laws about deficiency judgments and the foreclosure process. What works in Minnesota may not be equally effective elsewhere. Future research can look at those questions to present a more complete picture of what can be done to help borrowers avoid losing their homes.

References

Apgar, William, and Allegra Calder. 2005. The Dual Mortgage Market: The Persistence of Discrimination in Mortgage Lending. In X. de S. Briggs, ed., *The Geography of Opportunity: Race and Housing Choice in Metropolitan America*. Washington, DC: Brookings Institution Press.

Capone, Charles A. 1996. Providing Alternatives to Mortgage Foreclosure: A Report to Congress. Washington, DC: U.S. Department of Housing and Urban Development.

Collins, Michael. 2003. Chicago's Homeownership Preservation Challenge: Foreclosure. Unpublished research.

Cutts, Amy Crews, and Richard K. Green. 2003. Innovative Servicing Technology: Smart Enough to Keep People in Their Houses? Paper presented at Building Assets, Building Credit, A Symposium on Improving Financial Services in Low-Income Communities.

Cutts, Amy Crews, and Robert Van Order. 2004. On the Economics of Subprime Lending. Freddie Mac Working Paper #04-01. Downloaded from http://www.freddiemac.com/corporate/reports/subprime_012704.pdf.

Elmer, Peter J. and Steen A. Seeling. 1998. The Rising Long-Term Trend of Single-Family Mortgage Foreclosure Rates. Washington, DC: General Deposit Insurance Corporation, Division of Research and Statistics.

Gorham, Lucy; Roberto G. Quercia; and William M. Rohe. 2003. Effective Practices in Post-Purchase Foreclosure Prevention and Sustainable Homeownership Programs. Prepared for the Fannie Mae Foundation. Center for Urban and Regional Studies, The University of North Carolina at Chapel Hill.

Mallach, Allan. 2001. Home Ownership Education and Counseling. Philadelphia, PA: Federal Reserve Bank of Philadelphia.

Moreno, Ana. 1998. Mortgage Foreclosure Prevention: Program and Trends. Family Housing Fund, Minneapolis, MN.

Moreno, Ana. 1995. Cost Effectiveness of Mortgage Foreclosure Prevention. Family Housing Fund, Minneapolis, MN.

Moreno, Ana 1994. Assessment of Post-Purchase Needs of Low- and Moderate-Income Homebuyers. Family Housing Fund, Minneapolis, MN.

Pence, Karen M. 2003. Foreclosing on Opportunity: State Laws and Mortgage Credit. Downloaded from http://www.federalreserve.gov/pubs/feds/2003/200316/200316pap.pdf.

Pennington-Cross, Anthony. 2004. The Value of Foreclosed Property. Working Paper 2004-022A. Downloaded from http://research.stlouisfed.org/wp/2004/2004-22.pdf.

Phillips, Richard A. and Eric Rosenblatt. 1996. The Legal Environment and the Choice of Default Resolution Alternatives: An Empirical Analysis. Journal of Real Estate Research 13(2)

Quercia, Roberto G., George W. McCarthy; and Sam Leaman. 1998. Homeownership Counseling and Barriers to Homeownership. Unpublished manuscript.

Quercia, Roberto G. and Susan M. Wachter. 1996. Homeownership Counseling Performance: How Can it be Measured? Housing Policy Debate 7(1).

Springer, Thomas M. and Neil G. Waller. 1993. Lender Forbearance: Evidence from Mortgage Delinquency Patterns. Journal of the American Real Estate and Urban Economics Association. Spring 21(1):27-46.

Toppen, Jonathan R. 2003. Measuring the Cost-Effectiveness of Foreclosure Prevention Counseling. Unpublished manuscript. University of North Carolina at Chapel Hill.

HUD - U.S. Department of Housing and Urban Development. 1998. Successful Mortgage Lending Strategies for the Underserved. Washington, DC: Office of Policy Development and Research. .

U. S. Census Bureau. 2005. Housing Vacancies and Homeownership, Table 4 – Homeownership Rates for the U.S.: 1980 – 2005, available from http://www.economicindicators.gov/, accessed June 23, 2005.