

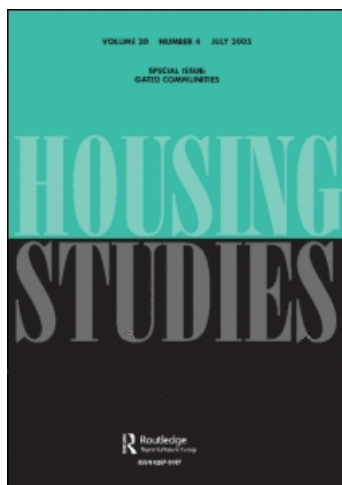
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The Impacts of Community-based Foreclosure Prevention Programs

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ABSTRACT *This paper examines the impact of community-based foreclosure prevention interventions using two proxy measures: time to resolution and rate of recidivism. These issues are examined with data from over 4200 borrowers who received intense case-management, post-purchase counseling and/or assistance loans through the Mortgage Foreclosure Prevention Program in Minnesota. Overall, the findings suggest that these interventions have a positive impact. With regard to time to resolution, the time to outcome for borrowers served by the program was on average 10.5 months (315 days). With regard to the rate of recidivism, about one-quarter of borrowers who avoided foreclosure reported being delinquent again 12 months after program intervention, and about one-third were delinquent again 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 per cent. Both time to resolution and recidivism among program participants compared favorably with those reported elsewhere for the industry.*

KEY WORDS: Homeownership, housing finance

Introduction

In the United States, the 1990s were characterized by the aggressive promotion of homeownership to populations traditionally considered underserved, including sub-prime borrowers. As a result, the homeownership rate reached an all time high of 69.1 per cent by first quarter of 2005 (US 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 per cent, the highest ever (Collins, 2003), and that rose further to 1.28 per cent at the end of the first quarter of 2007 (MBA, 2007). Typically, the foreclosure rates of sub-prime, subsidized and adjustable rate mortgages are higher than the rate for the market as a whole, often as high as 20 per cent (Quercia *et al.*, 2005). For prime conventional mortgages, the rate was 0.27 per cent as of June 2002. For sub-prime mortgages, the rate was 6.4 per cent, with rates over 12.5 per cent for C, CC, and D rated

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loans (Cutts & Van Order, 2004). Places such as 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 per cent at the end of 2002, and the rate may have been higher in many of its neighborhoods (Collins, 2003).

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 & 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 understanding and managing default risks, which may be crucial if these borrowers are to keep their homes (Capone & Metz, 2003).

Increased attention to managing default risks is also understandable because of the high costs associated with foreclosure. Foreclosure 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.

This paper examines the performance of one type of program to manage default risk, community-based foreclosure prevention interventions. It discusses the difficulties of developing a comprehensive measure of successful intervention or cost-effectiveness that would reflect the interests of all stakeholders under all scenarios. The study also discusses 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, the performance of the Mortgage Foreclosure Prevention Program (MFP Program) currently administered by the Minnesota Home Ownership Center (the Center) is examined. The paper also identifies 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 sub-prime borrowers.

The remainder of this paper is divided into five sections. The first section defines and contrasts loss mitigation and foreclosure prevention initiatives. An overview is provided of what community-based organizations are doing in the area of foreclosure prevention. The second section discusses the conceptual difficulties when trying to examine both the effectiveness and cost of foreclosure prevention interventions in all their complexity. The next section presents the methodology and data used to assess the performance of foreclosure prevention interventions using two narrow variables, time to resolution and recidivism, as a way to simplify the overall data requirements. This section also introduces the empirical analysis and the data from the MFP Program. The fourth section of the paper presents the findings and conclusions. The paper ends with some recommendations and proposes areas of further research.

Loss Mitigation and Foreclosure Prevention

Typically, the mechanisms to manage and minimize default risk provide alternatives to foreclosure. Some of the alternatives, such as partial reinstatement, short-term forbearance (up to six months), long-term forbearance (12 months to reinstate), loan modification and

partial claim workouts, allow the homeowner to remain in his/her home. Other options, such as deed-in-lieu of foreclosure, a short sale, short payoff, pre-foreclosure sale or a workout mortgage assumption, terminate the mortgage obligation but also require the borrower to leave the home. As a result of all these initiatives, about half of all problem loans in the US are resolved with workout alternatives to foreclosure (Cutts & Green, 2004).

Both loan servicers and community-based organizations use those alternative resolution mechanisms while working with borrowers in default. Servicers and community-based agencies may, however, have different priorities in seeking a resolution. Servicers may be more interested in minimizing losses associated with default to the industry (loss mitigation), while community-based agencies may be more interested in helping the homeowner avoid involuntarily losing his/her home and, if that is not possible, to minimize the harm to the owner (foreclosure prevention). Because the different priorities between the two types of service providers may result in a different allocation of costs among the affected parties, the performance of servicers may differ substantially from that of community-based organizations.

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 *et al.*, 2003). On-going post-purchase training is offered to homeowners after they purchase the home to enhance the ownership experience. 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.

Individual counseling is a core component of most community-based foreclosure prevention initiatives, and it can be provided either by phone or in person. The goal of this type 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 & Wachter, 1996).

Frequently, 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). 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 & 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 *et al.*, 2003).

Difficulties in Evaluating Foreclosure Prevention Programs

Effectiveness of the Prevention Interventions

Efforts to estimate the success or cost-effectiveness of loss mitigation and foreclosure prevention interventions span thirty years. Uniformly, all of those efforts 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 foreclosure. However, in some cases, a borrower may be better served by giving up his/her house.

More importantly, lack of data has made it difficult to isolate the impacts of interventions. Individual circumstances, such as finding a new job after being laid off, may be crucial in curing a delinquency, and participating in a foreclosure prevention program may simply buy time. Factors such as a person's temperament or the willingness of a family member to help may be important, but they are hard to identify, measure and record in a dataset. 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 complicates the analysis. Differences in outcomes may be affected by factors, 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 *et al.*, 2003).

Addressing the data limitations may prove difficult. Few data sources combine borrower, program and account history information, and so these data must be collected from different sources and linked together. 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, few community-based programs maintain a comprehensive database on their own foreclosure prevention efforts. 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, new data will almost certainly need to be gathered before a definitive study can be performed (Quercia & Wachter, 1996).

The data must also be compiled over a period of years in order to draw reliable conclusions (Mallach, 2001). Most foreclosures occur within three to five years after loan origination (Quercia & 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.

Even if the overall lack of data is addressed, an additional 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 (Mallach, 2001).

Prior Research on the Cost-effectiveness of Foreclosure Prevention

Generally speaking, studies have examined only two categories of costs related to foreclosure prevention (Moreno, 1995): (1) the costs involved in the provision of foreclosure prevention services; and (2) the average savings to all stakeholders of a delinquency resolution in lieu of a foreclosure. According to Focardi (2002), cited in Cutts & Green (2004), 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 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.

However, using average cost-savings has two significant shortcomings. The first is that average savings are a function of the cost of foreclosure, which is affected by state foreclosure laws in the US (Pence, 2003). Two different studies found that state laws have a significant impact on the cost of foreclosure (Pennington-Cross, 2004; Phillips & Rosenblatt, 1997). Therefore, the average cost varies between each of the 50 states, and a separate analysis of cost-savings is necessary for each of the states to account for the differences in their foreclosure laws.

The second shortcoming with the cost-savings analysis approach is that it does not consider the allocation of those savings. However, the allocation of costs is central to resolving a default in most cases. The savings are only relevant to any specific stakeholder if they reduce the costs to that stakeholder. The effectiveness of 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 *et al.*, 2003, pp. 3–4)

Therefore, the question of cost-effectiveness, if it is to be addressed, 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.

Measuring the Performance of Community-based Foreclosure Prevention

Instead of trying to measure cost-effectiveness without considering the allocation of costs, an alternative approach can examine program performance in terms of the impact on 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 measure of performance in addressing one key contributor to costs associated with the foreclosure and foreclosure alternatives.

The performance of community-based foreclosure prevention interventions can also be measured by examining 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 further intervention in the future.

The next section describes the MFP Program in Minneapolis/Saint Paul. Data from this program are used to examine the time to default resolution and the incidence of recidivism as measures of the performance of community-based interventions. The borrower, loan and program factors associated with these two measures are also identified and with the overall likelihood of avoiding foreclosure.

Mortgage Foreclosure Prevention Program

The MFP Program was established in 1991 with funding from the Northwest Area Foundation and support from the Family Housing Fund in Minneapolis, MN, which administered and coordinated the MFP Program from 1991 to early 1999. Since then, the Center has performed that function. The Center administers the MFP Program, which is delivered through a partnership of three community organizations: Northside Residents Redevelopment Council, serving the northern half of Minneapolis, Twin Cities Habitat for Humanity, serving the southern half of Minneapolis, and the City of Saint Paul's Department of Planning and Economic Development, serving 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 no-interest loans. These loans must be paid back upon transfer of title to the house.

Overview of the MFP Program

The MFP Program served more than 8000 households from its inception in mid-1991 to June 2003, the program years covered in this study (Table 1). Approximately half of these households, 4074, received information and referral services only, while the other half, 4274, received more intensive case-management, counseling and/or financial assistance. As Table 1 shows, the level of activity in the MFP Program has increased dramatically in recent years. Comparing the last three years of operation with the first nine, the program has provided the more intensive level of services to many more clients annually and the average number of foreclosures prevented¹ annually has also increased. On the other hand, the program has reduced the number of loans it makes to households, although the average amount loaned has increased by almost 50 per cent.

Table 2 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. Households receiving services are roughly twice as likely to have a minority head of household, and 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. The adults in the households also seem less likely to

Table 1. Selected program characteristics, by period

	1 July 1991–30 June 2003	1 July 1991–30 June 2000	1 July 2000–30 June 2003
Number of households served	8348	5019	3329
Average number of households served per year	696	557	1110
Number of households receiving intensive case-management, counseling, and/or financial assistance	4274	2688	1586
Average number of households receiving intensive case-management, counseling, and/or financial assistance per year	356	299	529
Foreclosures prevented	1756	1177	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	\$3187	\$2952	\$4363

Sources: MFP Program data, authors' calculations.

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.

The data on the financial characteristics of mortgages and properties of households in the MFP Program, grouped in 12-month increments, reveal a discouraging trend. The average mortgage payment has increased in all but one 12-month period, with the rate of increase accelerating substantially in recent periods (Figure 1). Debtors also appear to have waited slightly longer, on average, to seek help through the MFP Program in more recent years (Figure 2), leading to an increase in the average amount past due at the time

Table 2. Demographic characteristics of households receiving intensive services, by period

	1 July 1991–30 June 2003	1 July 1991–30 June 2000	1 July 2000–30 June 2003	2000 Census
Per-cent non-white householder	56.2%	59.3%	48.0%	23.8%
Average household income	\$23 575	\$22 807	\$27 535	\$54 420
Percentage of adults employed full-time	53.6%	54.6%	51.7%	57.6%
Percentage of adults employed part-time	14.6%	14.0%	15.6%	19.0%
Percentage of adults unemployed, looking for work	13.6%	13.2%	14.4%	5.7%

Sources: US Census Bureau, MFP Program data, authors' calculations.

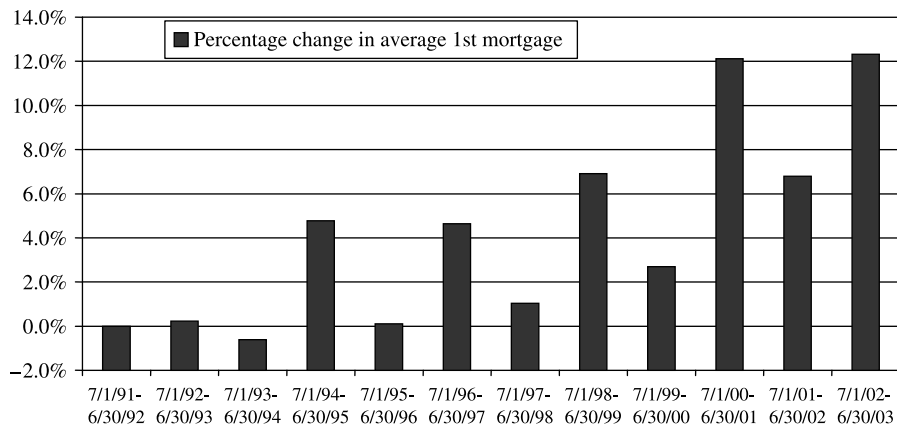


Figure 1. Change in average first mortgage payment, by period. *Sources:* MFP Program data, authors' calculations.

the household sought help (Figure 3). While the average arrears increased by over 70 per cent between 1991 and 2003, the average household income of the MFP Program clients increased modestly, only 5.7 per cent, suggesting that households seeking help have been relatively worse off when they come to the program in recent years.

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 4 shows a comparison of the average interest rate on mortgages for owners seeking help through the program with prevailing interest rates in the US for 30-year fixed-rate mortgages generally, based on the year the property was purchased. Households in the MFP Program actually had a lower than average mortgage interest rate through 1991. However, from 1992 on, the average mortgage interest rate for

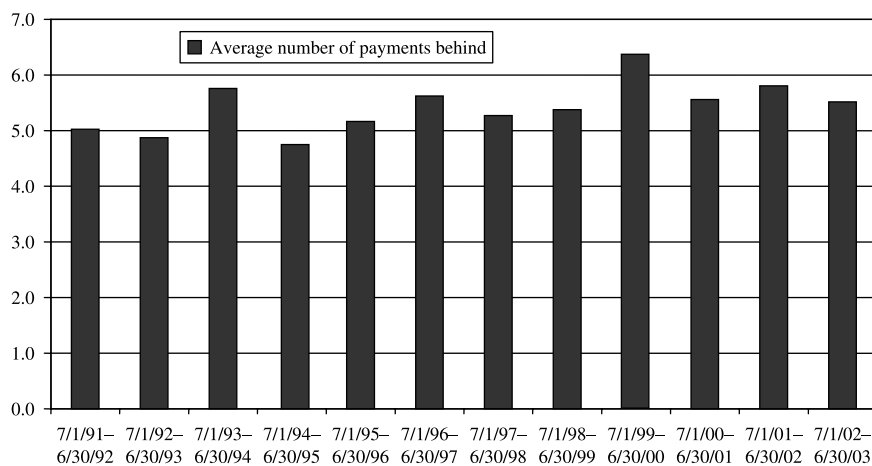


Figure 2. Average number of payments behind, by period. *Sources:* MFP Program data, authors' calculations.

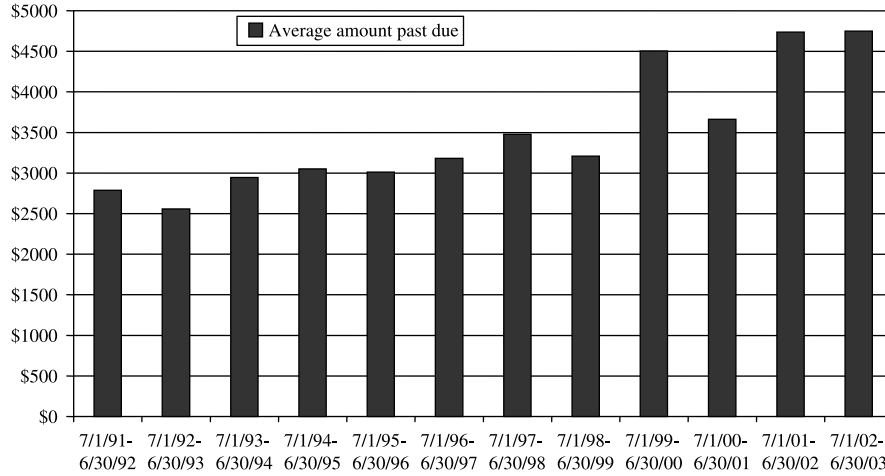


Figure 3. Average amount past due, by period. Sources: MFP Program data, authors' calculations.

program households has been higher than the prevailing rate, by as much as 2.6 per cent in 1998.

The disadvantage is not distributed equally among all groups of borrowers, however, as shown in Figure 5. 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 one-third of blacks had

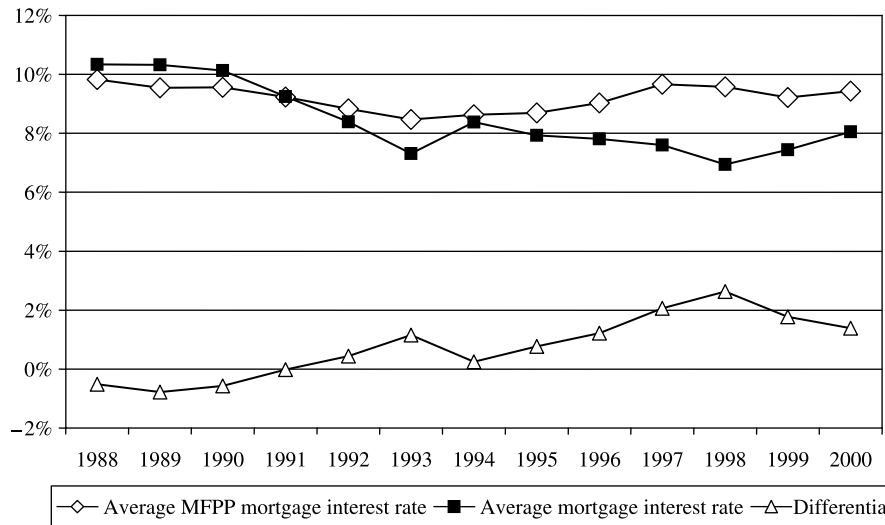


Figure 4. First mortgage interest rates, by year of origination. Sources: Freddie Mac Primary Mortgage Market® Survey, MFP Program data, authors' calculations.

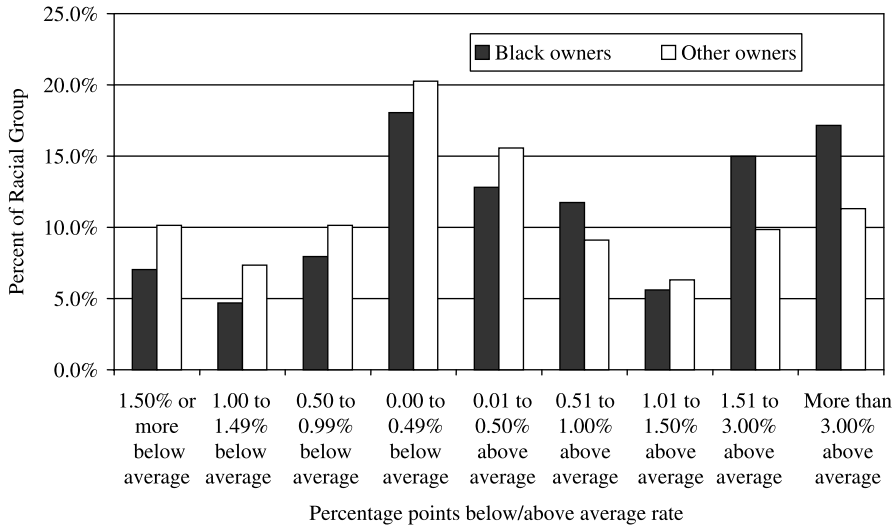


Figure 5. Interest rate differential, by race. Sources: Freddie Mac Primary Mortgage Market® Survey, MFP Program data, authors' calculations.

mortgages with an interest rate 1.5 per cent or more above the average, while just over one-fifth of the other-race borrowers paid that much of a penalty.

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 was positive between July 1991 and June 1999. However, between July 1999 and June 2002 homeowners coming to the program actually had negative equity (Figure 6). The average market value of homes owned by MFP Program clients dropped by almost 7 per cent between the 12-month

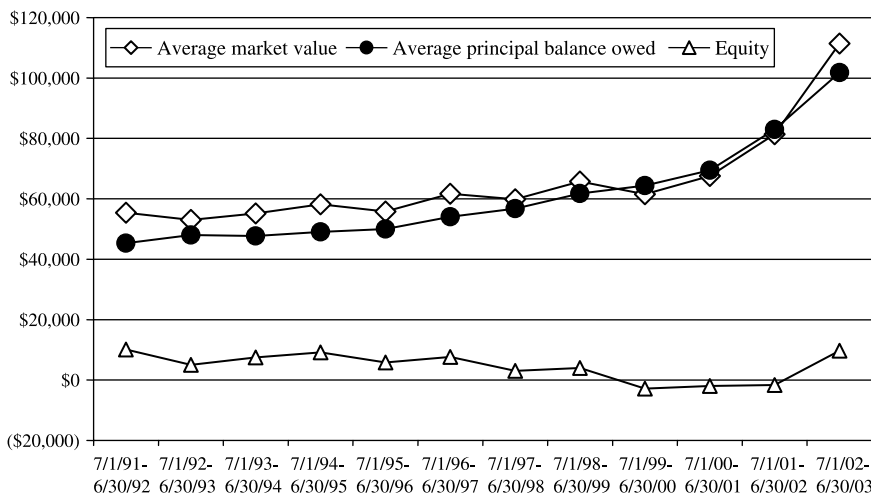


Figure 6. Average value, debt, and equity, by period. Sources: MFP Program data, authors' calculations.

period ending in June 1999 and the one ending in June 2000, a year later, while the average principal balance increased by 4 per cent. As a result, program clients, on average, owed more than their properties were worth. Only with the enormous 27 per cent jump in average property values in the July 2002 to June 2003 period did the situation change back to positive equity.

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 7. Over half of the black owners reported having negative equity, with more than 27 per cent owing over \$10 000 more than the value of the house. Less than 40 per cent of other-race owners had negative equity, with only 15 per cent having a deficit of \$10 000 or more.

Consistently since 1991, approximately 35 per cent of borrowers reported experiencing a cut in pay or income reduction as a contributing factor in their default (Table 3). Two factors appear to have become more common recently, being laid-off and money management problems. In contrast, marital disruption and other domestic issues seem to have declined in importance, as have health problems.

On one hand, the figures in Table 3 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 may be preventable.

The outcomes after program intervention have also changed over time in a way that is 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 4). Fewer borrowers became current on their payments than in the earlier years of the program. Increasingly, borrowers are going through a loan restructuring or modification or negotiating forbearance or a repayment agreement. Reflecting this increasing reliance on

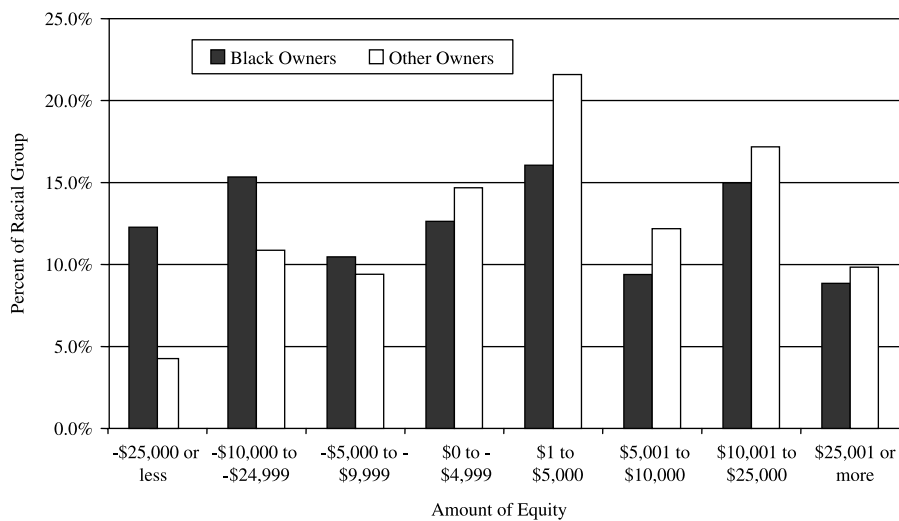


Figure 7. Equity differential, by race. Sources: MFP Program data, authors' calculations.

Table 3. Reasons for default, by period

Reason	1 July 1991–30 June 2003		1 July 1991–30 June 2000		1 July 2000–30 June 2003	
Cut in pay/income reduction	1471	(34.4%)	929	(34.5%)	542	(34.3%)
Laid-off	1252	(29.3%)	682	(25.4%)	570	(36.0%)
Money management	1059	(24.8%)	467	(17.4%)	592	(37.4%)
Domestic problems	731	(17.1%)	528	(19.6%)	203	(12.8%)
Health problems	1166	(27.3%)	817	(30.4%)	349	(22.1%)
Other	1639	(38.4%)	1274	(47.4%)	365	(23.1%)

Sources: MFP Program data, authors' calculations.

alternative outcomes, fewer borrowers are experiencing foreclosure. The fact that the average borrower entering the program during the more recent period had negative equity may have contributed to these trends, together 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 filing for protection under Chapter 13 of the Bankruptcy Code, which stops the foreclosure proceeding and allows the debtor to cure the delinquency over a three to five-year period, has also remained relatively stable. This indicates that borrowers are not more likely to file for bankruptcy to deal with foreclosure pressures, even when more had negative equity.

Table 4. Results of interventions, by period

Results of Interventions	1 July 1991–30 June 2002 ^a		1 July 1991–30 June 2000		1 July 2000–30 June 2002 ^a	
Current	1139	(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%)
<i>N</i>	3039		2691		1053	

Notes: ^aThe results do not include clients coming to the program after 30 June 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 30 June 2003. In addition, the results do not include clients for whom results were not determined or clients with whom the program lost touch. Sources: MFP Program data, authors' calculations.

Finally, more borrowers are selling or trying to sell their houses as a way to resolve the delinquency. 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 per cent per year over the first nine years of the program (Figure 6). For the period between 1 July 2000 to 30 June 2002, the average annual increase was over 15 per cent.

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 per cent of the clients ended up as lost contact. For the more recent two-year period, that outcome has almost doubled, to over 28 per cent 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 become current or had resolved the default—then the trend would not be so worrying.

Time to Resolution

As with the outcomes, the analysis in the current study of the time to resolution was limited to those households that had intake dates before 1 July 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 172 days (Table 5). 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 & Green (2004).

An encouraging trend is that the time to resolution has shortened in recent years. The time from default to resolution was approximately 354 days (11.8 months) over the first nine years of the program (average 5.3 months behind at intake, plus 191 days to

Table 5. Time from intake to resolution, by period

Resolution	1 July 1991–30 June 2002	1 July 1991–30 June 2000	1 July 2000–30 June 2002
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

Sources: MFP Program data, authors' calculations.

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 MFP Program. This represents a saving 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.

Recidivism

The second proxy measure of performance is the extent of recidivism among borrowers 12 and 36 months after receiving program assistance (Table 6). The one- and three-year all household data are, respectively, from 3745 households with intake dates before 1 July 2002, and 2692 households with intake dates before 1 July 2000. Approximately 60 per cent 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 & Green (2004). They found that only 32 per cent of loans that were 120 or more days delinquent, which is comparable to the overall average 5.4 months late in the sample here, reported as cured 12 months after entering their sample. Just below 57 per cent of the 120-or-more-days-late borrowers in the Cutts & 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 per cent 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.

Table 6. Recidivism by outcome of intervention

Category of household ^a	Per cent reporting ^b		Per cent current		Per cent 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
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

Notes: ^aThe percentages for each category are based on the number of households with intake dates one or three years, respectively, before the closing date of the dataset, which was 30 June 2003. Therefore, households included in the 1-year data all have intake dates before 1 July 2002, and households included in the 3-year data all have intake dates before 1 July 2000. ^bThe percentage reporting is the number of households reporting the status of their mortgages as 'current', divided by the total number of households in the category. Households that completed the survey without reporting 'current' are not included. *Sources:* MFP Program data, authors' calculations.

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 percentage of current households improved as of the three-year report, but the low percentage of households reporting makes the figure questionable.

Although the current study lacks a benchmark, Tables 5 and 6 seem to suggest that community-based interventions perform reasonably well at reducing time to resolution and recidivism. It is estimated that approximately 1756 borrowers avoided foreclosure through the services offered by the MFP Program, about 41 per cent 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 & Green (2004). Recidivism over time is substantially lower among program participants than among the sample studied by Cutts & Green (2004).

Identifying Borrower, Loan, and Program Factors Associated with Avoiding Foreclosure

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, the data were examined to determine which factors positively or negatively impacted whether the client avoided foreclosure. Finally, the study also ran models to identify factors associated with recidivism and time to resolution.

Factors Associated with Foreclosure Avoidance

Using data for 1235 households in the MFP Program, a series of logistic regression models were run to determine the impact of various factors on the probability of avoiding foreclosure, using the reported outcome from the MFP Program (see Appendix). 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 per cent, as compared with 41 per cent in the full dataset.

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 7. 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.

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 per cent less than for homeowners of other racial groups. However, the race of the homeowner 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 5) and have less equity than other-race owners (Figure 7), both of which could lead to a higher foreclosure rate. Black homeowners were also over 50 per cent more likely to

Table 7. Factors in avoiding default through the MFP program

Parameter	Estimate	Point estimate	χ^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 R² = 0.15

Notes: *Significant at the 0.05 level; **Significant at the 0.01 level; ***Significant at the 0.001 level.

have mortgages with two key indicators of sub-prime loans, having been originated within two years of default and having an interest rate more than 2 per cent higher than the average rate at the time of origination. A total of 21.1 per cent of black owners had such loans, versus only 13.8 per cent of other-race borrowers.

However, the data do not 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. Therefore, without additional information 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 \$2300 and median income of \$2100 per month, versus an average of \$1506 and median of \$1315 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 sub-prime 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 & 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 with payments had only about 70 per cent as much chance of avoiding foreclosure as those who did not cite that reason, while those with relationship problems had only about 60 per cent 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 on 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 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 per cent. Since the effect is cumulative, spending eight more hours on the case more than doubled 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 χ^2 of over 140. That means that those receiving loans were 90 times as likely to avoid foreclosure as those who did not. It was decided not to include loans as a parameter in the model for the current study, 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 prophecy.

Factors Associated with Time to Resolution

From the same dataset, factors affecting time to resolution were then examined. For this regression, variables in four categories were included. However, predicting the direction of impact of any of the variables 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 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 sub-prime 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 8.

The results suggest that six factors are associated with a longer time to reach a resolution. Two factors, 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 arrears, 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

Table 8. Factors affecting time to resolution

Variable	Parameter estimate	Standardized estimate	<i>t</i> value	Prob > <i>t</i>
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
<i>n</i> = 1235	<i>R</i> ² = 0.33			

Notes: *Significant at the 0.05 level; **Significant at the 0.01 level; ***Significant at the 0.001 level

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 arrears 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.

Factors Associated with Avoiding Recidivism

The final component of the data analysis 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 1235 households in the dataset, 728 indicated whether they were current or had not kept up with their mortgage; 404 were current and 324 had not kept up. A logistic regression was run to determine which factors most significantly affected whether the household had kept up with its payments, and the results are shown in Table 9.

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 per cent 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 \$1000 increase in equity, the odds of remaining current increase by a factor of 1.2. An additional \$4000 in equity would more

Table 9. 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 R² = 0.07

Notes: *Significant at the 0.05 level; **Significant at the 0.01 level; ***Significant at the 0.001 level.

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.

However, these findings must be viewed with regard for the relatively low Pseudo-R², which 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.

Conclusions

This paper examined the impacts of community-based foreclosure prevention interventions using two measures: time to resolution and recidivism. These issues were examined with data from delinquent borrowers who received intense case-management, post-purchase counseling and/or assistance loans through the MFP Program in Minneapolis-Saint Paul. The program has provided these services to over 4200 borrowers since 1991.

Overall, the findings suggest that community-based foreclosure prevention services reduce time to resolution. It was found 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 arrears, makes the improvement even more significant.

With regard to recidivism, it was 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 & Green, 2004). However, about 40 per cent of all borrowers in the program, and about 30 per cent who avoided foreclosure, reported being late on payments again 12 months after program intervention. It was 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 per cent after one year.

Several borrower, loan and program factors were discovered 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, it was 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, several factors were found that were 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. The receipt of pre-purchase counseling also increases the odds of staying current over time.

Finally, the factors associated with the overall avoidance of foreclosure were examined. 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.) In addition, 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, the study lacked the full array of data required to assess directly the performance of community-based foreclosure prevention programs, and so caution is warranted when interpreting all these findings. Caution is also warranted because of the potential impact of state foreclosure laws on lender and borrower behavior. While some of the findings may be generalizable to the US as a whole, others may be more significantly affected by variations in state law.

With those caveats, 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 that ensure the money goes to borrowers most likely to be able to sustain future mortgage payments.

The 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, it is not known 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.

Note

- ¹ The number of foreclosures prevented is based on the reported outcomes for MFP clients. Of the 4274 households in the dataset, 1248 reported 'Current', 154 reported 'Loan restructuring/Modification', 280 reported 'Forebearance/Repayment Loan', 5 reported 'Not foreclosed/back taxes paid', and 69 reported 'Not foreclosed/other reason'. Those were the outcomes that constituted foreclosures prevented.

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Appendix

The data for this analysis comes from households that meet the following criteria: (1) report an outcome; (2) only report one intervention; (3) report outstanding principal between \$2000 and \$300 000; (4) report the value of the house between \$15 000 and \$300 000; (5) report an amount past due \$500 or more; (6) report income of \$400 per month or more; (7) bought the house between 1988 and 2000. Of the original dataset of 4274 households, 1235 met all criteria and were included in the final dataset (see Table 1A).

Table 1A. Attrition by criterion

Criterion for exclusion	Excluded	Remaining
Original dataset of households receiving services		4274
Not reporting an outcome	98	4176
Reporting multiple interventions	575	3601
Reporting more than \$300 000 in outstanding principal	8	3593
Reporting less than \$2000 in outstanding principal, or not reporting any principal outstanding	1271	2322
Reporting a house value of over \$300 000	169	2153
Reporting a house value of under \$15 000 or not reporting any house value	117	2036
Reporting less than \$500 past due on the mortgage, or not reporting any amount past due	149	1887
Reporting more than \$15 000 per month in income	1	1886
Reporting less than \$400 per month in income, or not reporting income	203	1683
Reporting buying the house after 31 December 2000	97	1586
Reported buying the house before 1 January 1988	351	1235