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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 10.5months (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 percent. Both time to resolution and recidivism among program participants compared favorably with those reported elsewhere for the industry.

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 68.6 percent by the fourth quarter of 2003 (U. S. Census Bureau 2004). In recent years, because of concerns over the long term viability of these efforts, attention has expanded to include mechanisms to enhance the ability of buyers to remain in their homes over time.

National statistics indicate that mortgage foreclosures are a growing problem. For all mortgage types, the foreclosure rate for the third quarter of 2002 was 1.15%, the highest ever (Collins 2003). In some jurisdictions, rates were even higher. Places like California and Chicago had significantly higher rates of default than the nation as a whole. For instance, Chicago may have experienced foreclosures at a rate as high as 4.7% at the end of 2002, and the rate may have been higher in many of its neighborhoods (Collins 2003). Typically, the foreclosure rates of sub-prime, subsidized, and adjustable rate mortgages are higher than the rate for the market as a whole (GAO 2002). With the economic slowdown of recent years, there is concern that these rates will rise even more.

Increased attention to what happens after home purchase is understandable. Moderate and low income borrowers 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 to keep these borrowers in 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 borrowers who lose their homes and negatively affect their future opportunities. It is costly to communities when property taxes are not collected due to abandonment. It is also costly to communities when foreclosure is 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

homeowners who experience an involuntary inability to meet their mortgage obligations. Many of the alternatives allow homeowners to remain in their homes. 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, borrowers may be given other options that terminate the mortgage obligation but also require the borrower to leave the home. These include deed-in-lieu of foreclosure, a short sale, short payoff, pre-foreclosure sale, or a workout mortgage assumption.

On the basis of newly developed tools, loan servicers can estimate the desire and ability of borrowers 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 delinquent borrowers (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 some things are known about 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 portfolio lenders frequently partner with community-based agencies to offer these services. Those agencies, in turn, may provide services to borrowers unlikely to benefit from the systems put in place by major players, including borrowers who have been victims of predatory lending practices.

For borrowers, servicers acting as loss mitigation counselors are apt to be perceived differently than community-based agencies that offer foreclosure prevention services. Servicers may be regarded as attempting to balance two goals. On one hand, they gauge the willingness and ability of delinquent borrowers to meet their mortgage obligations while trying to get lenders to accept less than full performance, increasing the likelihood that some borrowers can remain in their homes. On the other hand, they are trying to minimize losses for industry players that have a stake in loan repayment. Thus, servicers are agents of other industry players, but, by acting as counselors, they are also attempting to represent the interests of borrowers, a situation that may

raise principal-agent and conflict of interest issues. In contrast, community-based agencies involved in foreclosure prevention initiatives represent exclusively the interests of the borrowers.

The different goals and the related issues arising from them complicate any examination of cost-effectiveness of foreclosure prevention/loss mitigation interventions. In order to balance their potentially conflicting goals, servicers may use different approaches and seek different outcomes than community-based agencies which have only one goal, which is to protect the interests of the borrowers. Those differences may result in different costs and outcomes, which would directly impact any assessment of cost-effectiveness.

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 a mortgage foreclosure prevention program (MFPP) currently administered by the Home Ownership Center of Minnesota. 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 four 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 MFPP. In the final section of the paper, we present the findings and conclusions.

Foreclosure Prevention and Loss Mitigation

Throughout this paper, the term foreclosure prevention counseling refers to the work a non-profit organization does to prevent borrowers from involuntarily losing their homes. The term loss mitigation refers to the 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 number of options to assist a borrower in default to avoid foreclosure. As the name implies, however, the goal is to minimize the losses associated with default.

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). As the name implies, on-going post-purchase training is offered to homeowners after they purchase the home. Post-purchase training includes a range of programs offered to households to enhance the ownership experience. These activities typically include courses on maintenance, repair, budgeting, predatory lending, and other such areas to maximize the long term viability of the purchase. These programs can not be considered default mitigation initiatives in themselves. However, it is logical to predict that they are 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 2003).

Mortgage foreclosure prevention counseling is offered to homeowners who fall behind in their mortgage obligations. In general, the primary goal of these community-based initiatives is to allow homeowners to keep their homes, or, if that is impossible, to assist them in resolving the situation in the borrowers' best interest. The emphasis is to see the situation from the perspective of troubled borrowers.

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 a bank representative. Unlike servicers acting as loan counselors, the staff person may be regarded as a person who wants to help and who does not have a financial stake in the outcome.

Most post-purchase foreclosure prevention interventions start when delinquent borrowers are referred to or approach the community-based organization for assistance. Table 1 lists the services of an ideal foreclosure prevention initiative.

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, either by phone or in person. Community-based organizations can provide that kind of individualized help. The goal of counseling is to help borrowers appreciate their situation, to ensure that they understand and respond to bank correspondence, and to help them budget their expenses to continue making payments. Counseling can influence the default decision by helping the borrower understand the costs involved. It may also help homebuyers learn to make better decisions with their money, 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 borrowers and lenders (Quercia et al. 1998). They also may refer borrowers to other services they need to manage their finances or life circumstances, such as legal service providers and credit counseling agencies.

Many programs 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, there are no standard models for foreclosure prevention counseling. These 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. Throughout all these years, efforts to assess the effectiveness of these interventions have been complicated by a number of issues.

One problem is 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 counseling may focus on how to prosecute a lender that used illegal or predatory lending practices.

Another problem is that other factors such as factor-agent relationships and data limitations make it difficult to isolate the impacts of interventions. An improvement in a borrower's circumstances is probably frequently 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 borrowers who experience such improvements, participating in a foreclosure prevention program may give them time to get back on their feet. However, these are difficult factors to get reliable information on. 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 any foreclosure prevention intervention.

The level of services offered by community based organizations is also likely to affect outcomes they achieve as well. For instance, offering financial assistance to a borrower may reduce the need for other foreclosure prevention interventions. In her examination of the cost-effectiveness of the Mortgage Foreclosure Prevention Collaborative in Minneapolis/St. Paul, Moreno's (1994) study, 95% of all borrowers who received financial assistance avoided foreclosure. Similarly, 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.

Data and methodological considerations also contribute to the difficulties in trying to isolate the effectiveness of foreclosure prevention interventions. Data limitations have been one of the main reasons for the limited reliability and generalizability of past studies. There are few data sources that combine both program and account history, 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 database, many community-based providers do not collect much data on their own foreclosure prevention efforts. When they do, these data may be incomplete or poorly maintained. Lenders may be unwilling to share data on their customers and their lending practices for business reasons. 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 study can be performed (Quercia and Wachter 1996).

The need for 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 many borrowers, even if they can stave off foreclosure once, may face difficulties again several years later (FPC

1994, Moreno 1995). Thus, a long-term horizon 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 above difficulties are 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 the costs associated with foreclosure prevention is also complicated by a number of issues as a result of 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 is costly to 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, page 4

According to Focardi (2002), cited in Cutts and Green (2003), problem loans that go through a workout solution cost an average of $14,000 and take 6 months less to resolve that loans that do not go through a workout ($44,000 and 12 months compared with $58,000 and 18 months without alternatives to foreclosure). Similarly, Moreno (1995) estimates that a workout solution, as the one offered by the Mortgage Foreclosure Prevention Program (MFPP) Minneapolis-Saint Paul, save industry players an average of $16,000 per avoided foreclosure.

Thus, as a rule, the amount saved through program intervention has been used as a proxy measure for the cost-effectiveness of foreclosure prevention. This approach may be correct as long as the allocation of benefits is pro-rated to reflect what it would have been in the absence of the intervention (the foreclosure alternative). This is obviously not always the case.

The allocation of costs is central to finding a solution to a default situation. Therefore, 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).

The existing evidence reinforces the commonly held view that it is better to have a friendly resolution than a lengthy legal battle to resolve loan defaults. However, it does not take into account the complexity of the workout solutions with regard to who wins and who loses, or the actual costs of default to the different players involved in a mortgage termination. Thus, the question of cost-effectiveness needs to be qualified by "from whose perspective" and "under what circumstances."

To better understand these points, we focus on the costs associated with two stakeholders: the cost 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 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 time and how much time they allocate to foreclosure prevention
Facility and overhead	Actual expenses, allocated by time (such as phone) or square feet (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 cost of not using these funds for other purposes	Depends on whether 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 all or just some 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 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 numerous costs when a foreclosure occurs (Table 4). Costs are likely to depend on the type of loan and borrower, as well as other factors beyond the control of key stakeholders. In all cases, however, the most significant factor in foreclosure costs is time. Time affects costs both directly and indirectly. The effect of time is discussed under the description of specific costs below.

Table 4: Foreclosure costs for industry stakeholders

Type Of Cost	Cost	Comments
Legal	Lawyer's 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 costs 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), page 13.

Types of costs. Lost interest and principal is one cost to industry stakeholders. Not only do they lose these costs upon foreclosure, but also, with the passing of time during the foreclosure process, these costs accrue because they cannot re-lend these funds to someone who will pay on time. Prevailing interest rates can increase these costs. That is, costs may be greater when the proceeds of a foreclosure sale have to be re-lent at a lower rate than that of the foreclosed loan.

Industry stakeholders also incur costs in owning the property. Once borrowers realize they will lose their house to foreclosure, they often cease performing needed maintenance on the house. Properties may be vacant for months before the lender can obtain title. Therefore, repairs are usually required before the house can be resold. There are additional costs in managing the property, insurance and taxes, and selling costs. Of course, the longer the lender owns the property before a sale, the higher these costs become. Selling costs may include a realtor's commission and a real estate transfer tax in some locations.

There are a number of factors that affect the sale of the house. In a down economy, foreclosures may increase due to a loss of jobs, potentially causing a large number of foreclosures in certain neighborhoods or regions. In this case, the real estate market may become depressed and reduce the liquidity and the sale proceeds of properties obtained through foreclosure (Springer and Waller 1993). In most cases, properties are sold at foreclosure auctions, usually to private investors that specialize in rehabilitating and reselling these properties. A house that has faced foreclosure often faces a stigma in the marketplace, often discounting the sale by five percent. This reduces the price that these private investors are willing to bid at auction and therefore reduces the proceeds of the foreclosure sale. The result is that houses usually do not sell at market value at foreclosure (Capone 1996).

Legal considerations. Foreclosure laws vary widely by state. While there are many variations, there are three types of statutes and regulations that affect foreclosure costs: the legal method of transferring the title to the lender, the right to redeem, and the availability of deficiency judgments. A study by Philips and Rosenblatt (1997) determined that the three have a significant effect on the costs of a foreclosure. When foreclosure costs are lower, it may decrease the willingness of industry stakeholders to risk a workout plan with a borrower; conversely, if costs are higher, the lender may be eager to pursue workout options to avoid the expense of foreclosure (Philips and Rosenblatt 1997).

Different states have different procedures to transfer the title to the lender. One is judicial and the other is “power of sale.” Briefly, the judicial process requires court approval to take possession of the house. In a “power of sale” system, a trustee takes possession of the title and sells it. Judicial process foreclosures take much longer than power of sale foreclosures because lenders must go through lengthy court proceedings, which increase costs (Philips and Rosenblatt 1997).

In some states, a borrower has a “right of redemption” period. This gives the borrower a fixed amount of time after the foreclosure is approved to pay all the principal, accrued interest, and lender costs and get back title to the property. The time allowed varies widely by state and can be as long as 12 months. Philips and Rosenblatt found that the longer this period, the greater the costs (Philips and Rosenblatt 1997.)

The availability of a deficiency judgment also affects costs. A deficiency judgment allows industry stakeholders the right to collect additional funds from the borrower's assets if the proceeds from the sale of the foreclosed property fail to cover the remaining principal and accrued costs. Where allowed, borrowers have increased risk from foreclosure and thus industry stakeholders may be less motivated to pursue a workout plan (Philips and Rosenblatt 1997).

In addition, bankruptcy law creates another potential complication. Borrowers facing foreclosure may file for bankruptcy, which creates a stay on collection efforts, meaning that industry stakeholders must cease all collection efforts, including foreclosure proceedings, until the bankruptcy court gives its approval (Springer and Waller 1993). The bankruptcy laws may also allow the borrower to keep some of the proceeds from the sale of the mortgaged property or force the lender to write off part of the loan.

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. Thus, time to resolution can be used to proxy the costs associated with the foreclosure and foreclosure alternatives.

If success 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 which 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 crucial.

In a similar manner, a proxy measure can be used to gauge the effectiveness of community based foreclosure prevention interventions. The effectiveness of foreclosure prevention interventions should vary depending on how structural the reason for default happens to be, whether a one-time/short-term difficulty or a long-term lack of sufficient resources. Effectiveness needs to be measured relative to how well the reason for default is addressed. This can be reflected in the incidence of recidivism among delinquent borrowers receiving foreclosure prevention services.

In the next section, we describe the Mortgage Foreclosure Prevention Program in Minneapolis/St. 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.

Mortgage Foreclosure Prevention Program

The Mortgage Foreclosure Prevention Program (MFPP) was established in 1991 with funding form 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 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 administered and coordinated the MFPP from 1991 to early 1999. Since then, the Home Ownership Center (HOC) has performed that function. Created in 1993, the HOC provides pre-purchase education, loan counseling, post-purchase support, and foreclosure prevention through a community-based network of service delivery organizations. The HOC's integrated approach is expected to result in more comprehensive information and services being made available to homeowners.

HOC administers the MFPP, 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 MFPP 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 MFPP services in the southern half of the city of Minneapolis. Saint Paul HED is a city government agency that provides residents of the city of Saint Paul with comprehensive housing services, including MFPP.

To achieve its objectives, the MFPP 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 MFPP 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 HOC manages the MFPP revolving fund. These loans must be paid back upon transfer of title to the house. The three MFPP agencies have the authority to make loans to homeowners from the MFPP 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 Program

MFPP has served more than 8,000 households since its inception in 1991 (Table 5). About half of these households received information and referral services only (4,074), while the other half received intensive case-management, counseling and/or financial assistance (4,274). About 957 households received assistance loans. On average, these households received $3,187 in loans. Overall, we estimate that 1,756 foreclosures were prevented, i.e., outcomes include now

current (delinquency cured), loan restructuring/loan modification, forebearance/loan repayment, not foreclosed because the back taxes were paid, or not foreclosed for other reasons. In recent years, MFPP has served about 500 borrowers annually.

Table 5: Households by services provided and outcome by period

	7/1/91 - 6/30/03	1/1 - 12/31/01	1/1 - 12/31/02	1/1 - 6/30/03
Number of households served[1]	8,348	985	1,165	624
Number receiving information and referral services only[2]	4,074	408	612	373
Number of households receiving intensive case-management, counseling and/or financial assistance[3]	4,274	577	553	251
Number of households receiving loans[4]	957	64	89	26
Average amount of loan	$3,187	$4,262	$4,565	$4,411
Foreclosures prevented[5]	1,756	186	227	95

1. Based on the household (Form 2) listing, using intake date.
2. Difference between number served and number receiving intensive services.
3. Number of non-duplicate households for whom outcome recorded, using intake date.
4. Loans made at either 1st or 2nd interventions.
5. Final outcome either Current, Restructure/Loan Modification, Forebearance/Repayment Loan, Not Foreclosed/Back Taxes Paid, or Not Foreclosed/Other Reasons.

Table 5 also shows trends that seem to have emerged over the last few years. Since 2001, the proportion of households receiving just information and referral services has increased, while the proportion of households receiving intensive services has decreased. Similarly, the proportion of households receiving assistance loans has decreased while the average loan, not adjusted for inflation, has increased to $4,565 in the 2002 and $4,411 in the first six months of 2003 (probably reflecting larger loans on more expensive homes).

Table 6 shows the profile of delinquent borrowers who received intense case-management services and/or financial assistance (4,274 borrowers). Over time, the program has served a larger proportion of households with children, reaching a maximum of 88 percent of households in 2002. Three other characteristics also changed greatly over the life of the program.

The percent of unemployed borrowers looking for work jumped to 13.5 percent in the first half of 2003 from a low of about 9 percent in 2002. Similarly, the proportion of non-white borrowers jumped to 68.5 percent in 2003 from about 55 percent in 2002 and 53 percent in 2001. The proportion of households on public assistance also changed over time. Fewer households now rely on public assistance compared to the earlier years of the program (about 8 percent in 2002 and 2003). Two other characteristics remained relatively constant through 2002 but changed dramatically in the first few months of 2003. These characteristics include household income, which jumped from an average of about $24,000 in 2002 to over $30,000 in the first six months of 2003, and the proportion of single parents, which decreased from about 38 percent in 2002 to about 30 percent in 2003. These figures suggest that, compared with earlier years, the households served by the programs are more likely to be minority borrowers, single parents, have fewer children, have higher incomes, rely less on public assistance, and, probably reflecting the economic turndown, be unemployed and looking for work

Table 6: Demographic characteristics of households receiving intensive services by period

	7/1/91 - 6/30/03	1/1 - 12/31/01	1/1 - 12/31/02	1/1 - 6/30/03
Percent with children[1]	76.1%	87.6%	88.0%	84.6%
Average number of children	2.41	2.39	2.44	2.27
Average income[2]	$21,609	$20,976	$23,967	$30,046
Single parent households[3]	36.0%	39.6%	38.7%	30.2%
Percent employed full time[4]	46.0%	46.8%	42.1%	42.0%
Percent employed part time[4]	12.4%	13.1%	14.2%	12.7%
Percent unemployed, looking for work[4]	11.6%	11.7%	9.1%	13.5%
Percent non-white[5]	62.9%	53.4%	55.0%	68.5%
Percent receiving public assistance[6]	15.3%	9.4%	7.8%	8.0%

1. Based on the number of households reporting whether they had children, N=3,726.
2. Based on the number of households reporting income, N=3,298.
3. Based on the number of households reporting the number of adults and whether they had children, N=3,726.
4. Based on the number of adults reporting employment status, N=3,477.
5. Based on the number of adults reporting race, N=3,225.
6. Based on the number of adults reporting source of income from AFDC, General Assistance, or Food Stamps, N=4,248.

Table 7 shows loan characteristics at the time borrowers entered the program. On average, borrowers were between 5 and 6 months behind in payments. As expected because of the general appreciation in house prices over time, the average purchase price increased steadily to $82,501 in the first half of 2003, increasing by about 17 percent since 2001. Average market values of properties were also significantly higher, about $123,000 in the first half of 2003. This represents a 71 percent increase since 2001. The increase reflects the rapid appreciation in house prices in the Twin Cities market in the last few years. Interestingly, there has also been a steady increase in the number of years a mortgage is outstanding before borrowers confront difficulties. In the first half of 2003, the average number of years a loan was outstanding before entering the program was over 7, a 37 percent increase in the number of years since 2001 (5.2 years in 2001, 6 years in 2002).

Table 7: Mortgage, default, and property characteristics by period

	7/1/91-6/30/03	1/1 - 12/31/01	1/1 - 12/31/02	1/1 - 6/30/03
Avg. 1st mortgage payment	$614	$734	$790	$847
Avg. amount past due[1]	$3,537	$4,368	$5,074	$4,350
Avg. payments behind[2]	5.4	5.7	6.2	4.9
Avg. purchase price	$62,687	$70,700	$79,808	$82,501
Avg. market value	$65,957	$71,837	$97,683	$123,145
Avg. years owned	5.8	5.2	6.0	7.1
Avg. 1st mortgage interest rate	9.23	9.49	9.08	8.53

1. Based on amounts past due for 1st and 2nd mortgages. There were 3,395 first mortgages and 433 second mortgages for which an arrearage amount was reported.
2. Based on sum of months behind on 1st and 2nd mortgages. There were 3,144 first mortgages and 424 second mortgages for which the number of months behind was reported.

Some of the reported reasons behind borrowers' repayment difficulties seem to have changed in importance over time (Table 8). Relatively consistent since 1991, about 35 percent of borrowers reported experiencing a cut in pay or income reduction, although the percentage increased somewhat during the first half of 2003. In contrast, marital disruption and other domestic issues seem to have declined in importance. About 8 percent of borrowers reported marital disruption as an issue in the first six months of 2003, a 45 percent decrease since 2001,

and less than half the percentage since 1991. Health problems, which may result in lower incomes or higher expenditures, have also declined as a reason for default. About one fifth of all borrowers reported health problems as a reason since 2001, compared with over a quarter since 1991. Two factors appear to have become more important. About 30 percent of borrowers have reported losing their jobs as a reason for their inability to meet mortgage obligations over the life of the program. In the last few years, the proportion of such borrowers has increased to between 36 and 38 percent. The proportion of borrowers who report money management problems has shown a similar increase. Over the life of the program, about 25 percent of borrowers reported excessive debt and other money management problems as reasons for default. This proportion increased to approximately 40 percent in more recent years, peaking at 42.6 percent in the first six months of 2003.

Table 8: Reasons for default by period

	7/1/91 - 6/30/03	1/1 - 12/31/01	1/1 - 12/31/02	1/1 – 6/30/03
Laid off	1,252 (29.3%)	198 (36.3%)	207 (38.1%)	96 (38.2%)
Cut in pay/income reduction	1,471 (34.4%)	193 (35.3%)	187 (34.4%)	99 (39.4%)
Health problems	1,166 (27.3%)	125 (22.9%)	108 (19.9%)	58 (23.1%)
Domestic problems	731 (17.1%)	80 (14.7%)	60 (11.0%)	21 (8.4%)
Money management	1,059 (24.8%)	203 (37.2%)	214 (39.3%)	107 (42.6%)
Other	1,639 (38.4%)	124 (22.7%)	136 (25.0%)	56 (22.3%)
N =	4,272	546	544	251

On one hand, the figures in Table 8 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 sometimes 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 (Table 9). Fewer borrowers became current on their payments than in the earlier years of the program.

Over the life of the program about 29 percent of borrowers caught up with loan payments. This proportion decreased in recent years (23.5 percent in 2002, 21 percent in 2001) to a low of about 19 percent during the first six months of 2003.

Table 9: Results of interventions by period, number and percentage

	7/1/91 - 6/30/03		1/1 - 12/31/01		1/1 - 12/31/02		1/1 - 6/30/03	
Current	1,248	(29.2%)	121	(21.0%)	130	(23.5%)	48	(19.1%)
Restructure/loan modification	154	(3.6%)	24	(4.2%)	32	(5.8%)	20	(8.0%)
Forebearance/repayment agreement	280	(6.6%)	38	(6.6%)	61	(11.0%)	25	(10.0%)
Current with Chapter 13	168	(3.9%)	24	(4.2%)	19	(3.4%)	10	(4.0%)
Still delinquent	646	(15.1%)	99	(17.2%)	63	(11.4%)	21	(8.4%)
Foreclosure proceeding	339	(7.9%)	43	(7.5%)	35	(6.3%)	20	(8.0%)
Foreclosed	323	(7.6%)	27	(4.7%)	24	(4.3%)	6	(2.4%)
Selling house	104	(2.4%)	24	(4.2%)	25	(4.5%)	23	(9.2%)
House sold	32	(0.7%)	8	(1.4%)	6	(1.1%)	8	(3.2%)
Lost contact	787	(18.4%)	159	(27.6%)	141	(25.5%)	21	(8.4%)
Other	192	(4.5%)	10	(1.7%)	17	(3.1%)	49	(19.5%)
N =	4,273		577		553		251	

Increasingly, borrowers are going through a loan restructuring or modification, 4.2 percent in 2001, 5.8 percent in 2002, and 8 percent in 2003. Reflecting this increasing reliance on alternative outcomes, fewer borrowers are experiencing foreclosure. On average, about 7.6 percent of the clients were foreclosed between 1991 and 2003. The comparable figures for 2001, 2002, and the first half of 2003 were 4.7, 4.3, and 2.4 percent respectively. Interestingly, the proportion of borrowers in foreclosure proceedings has remained relatively stable over time. 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.

More borrowers are trying to sell their houses as a way to resolve the delinquency. Over the life of the program, the proportion of borrowers trying to sell was 2.4 percent, substantially lower than the 4.2, 4.5, and 9.2 percent in 2001, 2002, and 2003 respectively. While the proportion of borrowers trying to sell has increased, the percentage who actually sell their homes has not changed that dramatically over time, although there has been a spike in actual sales in the first six months of 2003 (from 4.5 percent in 2002 to 9.2 percent in 2003). A troubling sign is the share of borrowers who are listed as “lost contact.” The percentages for 2001 and 2002 are

almost 50 percent higher than the overall average, although the data for the first half of 2003 suggest that the trend may have reversed.

An Exploration of Cost-Effectiveness

In this section, we examine two proxy measures of cost-effectiveness: time to resolution and recidivism.

Time to Resolution

Over the life of the program, the average time initial intake to final outcome has been 153 days (Table 10). 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 315 days or 10.5 months. These compared favorably with the figure of 12 months reported by Focardi (2002) and cited in Cutts and Green (2003).

Table 10: Time from intake to resolution by period

	7/1/91 - 6/30/03	1/1 - 12/31/01	1/1 - 12/31/02	1/1 - 6/30/03
Current	144	101	96	65
Restructure/loan modification	207	146	122	58
Forebearance/repayment agreement	159	126	104	65
Current with Chapter 13	220	159	61	65
Still delinquent	118	97	111	70
Foreclosure proceeding	173	159	90	74
Foreclosed	194	90	95	30
Selling house	161	141	124	53
House sold	193	259	163	65
Lost contact	128	85	76	68
Other	214	104	55	37
Average days to resolution	153	110	94	58
Average number of days behind	162	171	186	147
Total number of days to resolution	**315**	**281**	**280**	**205**

An encouraging trend is that the time to resolution has shortened in recent years. Overall, the time from default to resolution was about 280 days in 2001 (average 5.7 months behind at intake, plus 110 days to resolution) and 2002 (average 6.2 months behind at intake, plus 94 days

to resolution). In 2003, it took significantly less time. For the first six months of the year, the time from default to resolution was 205 days, including 58 days for program intervention for borrowers who were 4.9 months behind in their payments, on average, when entering the program. The reduction in the number of days is consistent across individual outcomes. The substantial decrease in time from default to resolution for the first six months of 2003 may, in part, be due to the fact that the data do not include the full time to resolution for some cases opened in 2003, those that are still pending. If the pending cases are those that present the most difficult situations and that take the most time to resolve, then the average time to resolution could be higher than reported here.

The same patterns are observed when examining the number of hours spent per client. For instance, since 1991, the time spent working with each client was 9.24 hours. The corresponding figures for 2001, 2002, and 2003 were 7.04, 6.75, and 6.24 hours respectively.

Recidivism

Our second proxy measure of cost-effectiveness is the extent of recidivism among borrowers 12 and 36 months after receiving program assistance (Table 11). 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 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+ days late, 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 their 120+ day late borrowers in the Cutts and Green sample lost their properties within the same 12 month interval.

Table 11: Recidivism by Outcome or Loan Receipt

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 AStill 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 Acurrent@ or Adelinquent,@ divided by the total number of households in the category. Households that completed the survey without reporting either Acurrent@ or Adelinquent@ are not included.

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

The results for those households that were still delinquent after completion of the program were also 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 percent reporting raises doubts about the accuracy of the figure.

Although we lack a benchmark, Table 11 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 MFPP, about 41 percent of all households receiving services. The time to reach a resolution of the default is about 1.5 months 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).

Conclusion

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: 315 days for borrowers served by the program versus 365 days (12 months) for the industry. The number of days that takes to resolve cases has steadily declined over time (to 205 days in 2003).

However, caution is needed when interpreting these declining figures. On one hand, the figures do seem to indicate that the program has become increasingly more cost-efficient, cutting the time to final outcome from an overall average of 315 to 205 days in 2003. On the other hand, the declining trend may be due to a selectivity effect. If the program is more restrictive to whom they provide intensive services than in the past, i.e., serving the more solvable but easier cases, then we can expect to see the observed pattern of shorter times to outcome. Alternatively, the more recent cases that have specific outcomes may be the ones that are most easily resolved. The harder cases, those that take the most time to resolve, would not have had time to reach a specific outcome. Possibly, a combination of these three factors is at play.

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.

As before, caution is warranted when interpreting these findings. At the moment, it is unclear the extent to which these findings are the result of missing data on borrowers who received program intervention but lack conclusive follow up information 12 and 36 months later. However, when considered in conjunction with other studies demonstrating the cost savings that alternative resolution offers compared to foreclosure, these results suggest that community-based foreclosure prevention programs offer a less expensive option for working out defaults, with quicker resolution and positive long term outcomes

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