

**Foreclosure Mitigation Counseling: An Analysis of the Households participating in the
National Foreclosure Mitigation Counseling
Program in Louisville**

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Executive Summary

Problem Statement

Since 2006 the number of housing foreclosures has increased significantly. This increase is taking a toll on many communities across the nation, including Louisville, Kentucky. The percentage of delinquent mortgage loans in the Commonwealth of Kentucky has risen sharply, jumping nearly 3.5% since 2006, while the percentage of delinquent loans entering foreclosure has risen just as sharply according to the Kentucky Office of the Courts. The number of foreclosed properties proceeding to Master Commissioner sale has more than tripled between 2002 and 2008, to over 3000 foreclosures scheduled to take place. The number of foreclosures is negatively impacting the local, state and federal governments. Kentucky is expected to lose up to \$3.4 million between 2007 and 2009 in property tax revenue due to the increases in foreclosures. Many homeowners are searching for a way to relieve their delinquent payments and the Federal Government is making many efforts to assist them. The National Foreclosure Mitigation Counseling program is one of those efforts.

Research Strategy

The research will utilize the regression model and a multinomial logit model to assess the foreclosure mitigation counseling program from the Housing Partnership, Inc.

- Does the number of days delinquent impact mitigation success?
- What role does the reason for default play in predicting when a household seeks assistance?
- How is the National Foreclosure Mitigation Counseling program being marketed, including outreach efforts?
- Are there any addition undetermined factors that could influence when a household contacts the Housing Partnership for assistance?

Major Findings

The findings from the regression model and the multinomial logit model suggests the foreclosure mitigation counseling program does not appear to be targeting or assisting the types of households who would most need foreclosure mitigation counseling assistance.

Recommendations

It is recommended that the Housing Partnership redefine its outreach efforts for the program to attract households before it is too late to avert foreclosure. It is also recommended that policy makers seek further analysis of the National Foreclosure Mitigation Counseling program to determine the true effectiveness. A further multinomial logit model should be estimated to

determine the impact on different demographics of the households who seek foreclosure mitigation counseling assistance.

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Problem Statement

This paper offers a preliminary evaluation of the Housing Partnership, Inc.'s National Foreclosure Mitigation Counseling program in Louisville. The research will consider the characteristics of the households that are seeking housing foreclosure mitigation counseling assistance from the Housing Partnership and determine if the program should be adjusted to increase effectiveness. No evaluation has been conducted of the program to date; the program continued through December 2009. The research will test the following hypotheses:

1. The characteristics of a household type, household's lien position, lien holder type, the type of mortgage term, and the days late on a mortgage payment will likely affect a household's reason for default.
2. The type of household, the lien position, lien holder type, the type of mortgage term, and the days late on a mortgage payment influence the interest rates of households seeking foreclosure mitigation counseling assistance.

The following are some research questions that I will utilize to assist in reaching answers to the hypotheses stated above.

1. Does the number of days delinquent impact mitigation success?
2. What role does the reason for default play in predicting when a household seeks assistance?
3. How is the National Foreclosure Mitigation Counseling program being marketed, including outreach efforts?
4. Are there any additional factors that influence when a household contacts the Housing Partnership for assistance?

The National Foreclosure Mitigation Counseling program has guidelines established by the Neighborhood Reinvestment Corporation Act, signed into legislation on December 26, 2007,¹ that determines the program structure to be used when a local agency is provided funds from the Housing Partnership Network national agency was already provided by. The structuring of the program fell upon the NeighborWorks America non-profit organization to provide the guidelines and tracking of the data. Like many Federal programs, NeighborWorks America had to establish guidelines to disseminate the funds across the nation as quickly as possible. To disseminate the funds as quickly as possible, NeighborWorks America held a competitive grant process to distribute the dollars to the areas of greatest need. In addition, NeighborWorks had to establish a method for capturing the data as quickly as possible, which is why they turned to Counselor Max, a pre-designed reporting system organized by the Housing Partnership Network. The program provided quick predetermined answers to many data intake fields in the

¹ Neighborhood Reinvestment Corporation Act (42 U.S.C. 8101-8107)

data collection instrument, allowing for uniform responses across the nation and easy tracing by NeighborWorks America.

The predetermined data fields have led to one of the first problems with the foreclosure mitigation counseling program. The predetermined fields have a tendency to provide inconclusive answers for households, compared to manual entry of data by the program administrators from the Housing Partnership, Inc. Due to the uniform structure of the program, nationwide results can be recorded as consistently as possible for similar data fields. Utilizing the predetermined fields, this study will attempt to see what role the current mortgage interest rate plays in households that seek foreclosure mitigation counseling assistance.

Literature Review

Foreclosure Background

To effectively understand the need for foreclosure mitigation counseling services in Louisville, it is important to understand the foreclosure situation in Louisville. Due to Louisville and Jefferson County being a merged City-County government, the Housing Partnership works throughout Jefferson County and the City of Louisville. A mortgage is a conveyance of or a lien against property (for securing a loan) that becomes void upon payment or performance according to stipulated terms². Foreclosure is a legal proceeding that bars or extinguishes a mortgager's right of redeeming a mortgaged estate³. When a property owner has a mortgage they are typically contractually obligated to make mortgage payments every 30 days to the lien holder on that property. If a mortgage payment is late, the payment becomes delinquent. If a borrower is unable to make a mortgage payment after 90 days, the mortgage is typically considered to be in default. Once a mortgage is in default, the mortgage holder may begin a foreclosure process on the property⁴. The foreclosure process in the United States is not a uniform procedure. The foreclosure process is structurally different in all 50 states throughout the nation.

The Kentucky foreclosure process is a judicial only process with varying timelines for the process of a foreclosure proceeding. The primary security instrument in the Commonwealth of Kentucky is a mortgage held in the form of a lien on the property. The foreclosure process also offers a right of redemption, which is a strict guideline process that allows the foreclosed property owner to reclaim their property, and Kentucky offers a deficiency judgment with

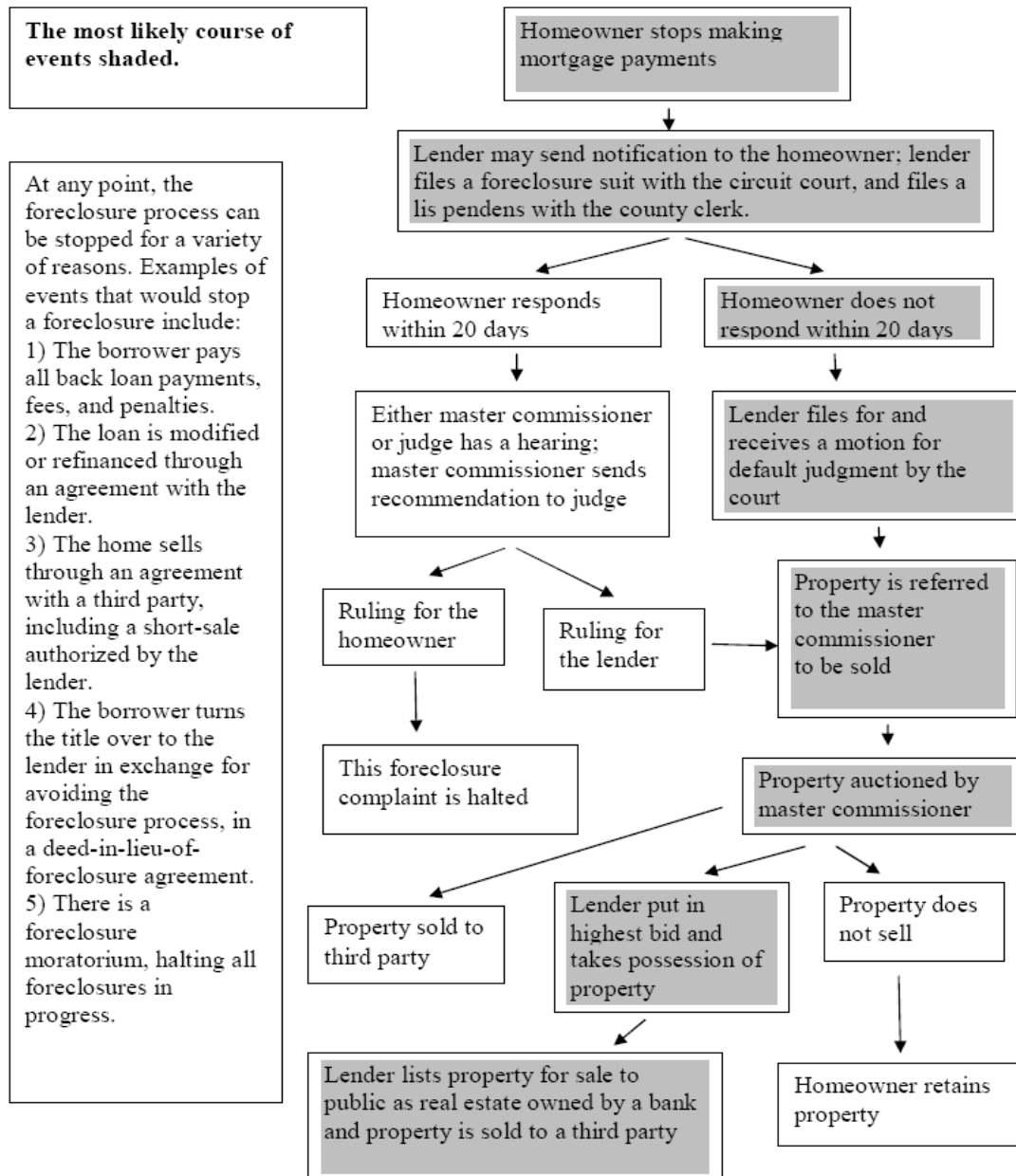
² Merriam-Webster Online Dictionary, "mortgage", <http://www.merriam-webster.com/dictionary/mortgage>

³ Merriam-Webster Online Dictionary, "foreclosure", <http://www.merriam-webster.com/dictionary/foreclosure>

⁴ Housing Foreclosures in Kentucky, Program Review and Investigations Committee, Legislative Research Commission; Emily Spurlcok, Colleen Kennedy, Carlos Lopes, and Mike Clark, Ph.D., Frankfort, Kentucky; July 9, 2009.

restrictions⁵. The following flow chart (Figure 1) explains a foreclosure process in Kentucky, with the gray shaded blocks as the typical foreclosure path.

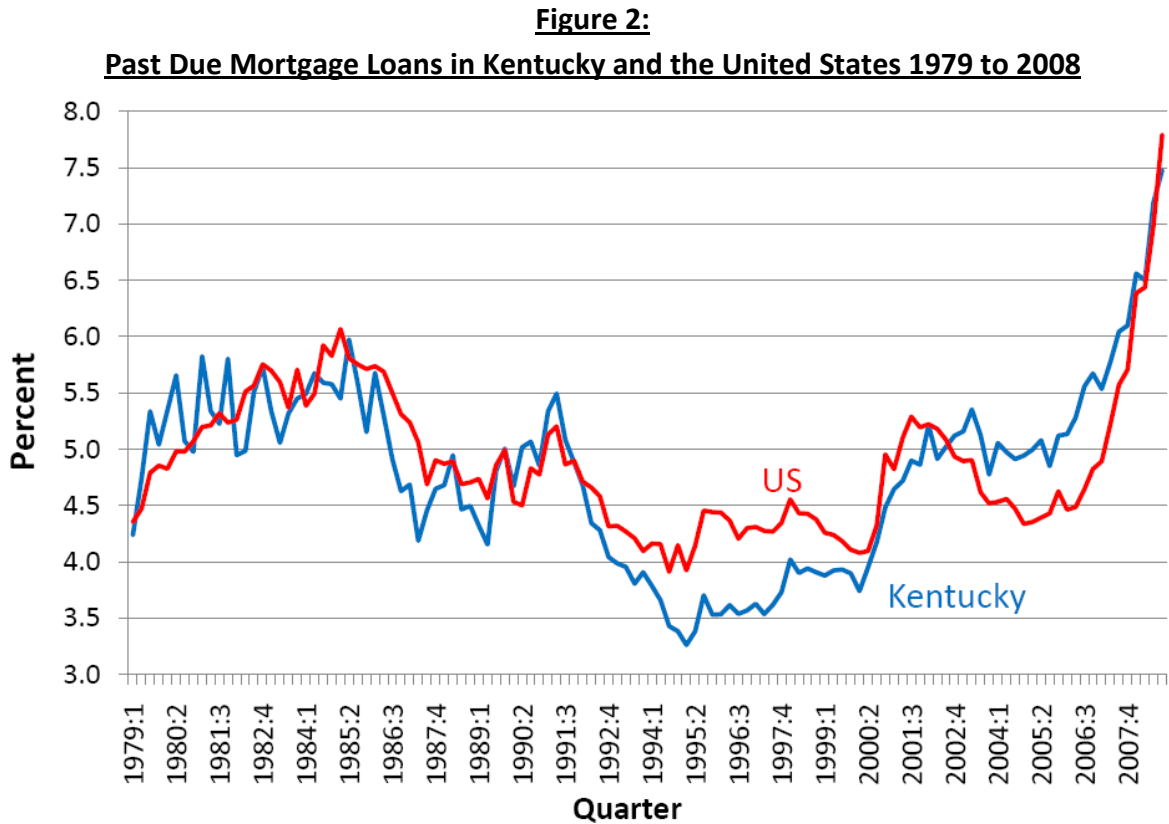
**Figure 1:
The Foreclosure Process in Kentucky**



Source: Housing Foreclosures in Kentucky, Program Review and Investigations Committee, Legislative Research Commission; Emily Spurlcok, Colleen Kennedy, Carlos Lopes, and Mike Clark, Ph.D., Frankfort, Kentucky; July 9, 2009.

⁵ Kentucky Foreclosure Law Summary[®] Quick Facts, http://www.foreclosurelaw.org/Kentucky_Foreclosure_Law.htm

Now that the foreclosure process in Kentucky has been defined, it is important to understand the foreclosure situation in Kentucky, which includes Louisville. Since a foreclosure cannot begin until a borrower becomes delinquent on their mortgage payments, we must first look at the delinquent loan situation of Kentucky. The following graph (Figure 2) depicts the number of delinquent mortgages in Kentucky and the United States as gathered with data reported on a quarterly basis from the Mortgage Bankers Association, National Delinquency Survey between 1979 and 2008 second quarter.



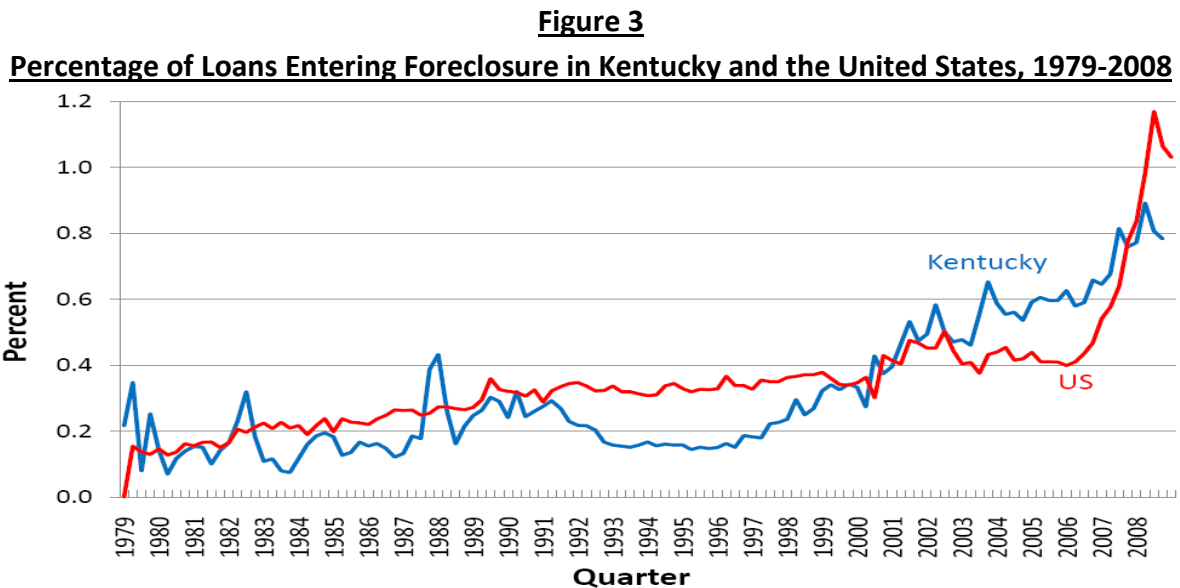
Note: Seasonally Adjusted

Source: Housing Foreclosures in Kentucky, Program Review and Investigations Committee, Legislative Research Commission; Emily Spurlcok, Colleen Kennedy, Carlos Lopes, and Mike Clark, Ph.D., Frankfort, Kentucky; July 9, 2009.

You will notice the sharp climb between third quarter 2007 and second quarter 2008 for both the United States and the State of Kentucky. The delinquency rate in the United States has risen to a seasonally adjusted rate of 9.64 percent for third quarter 2009, which this graph does not extend to, while the current percent for Kentucky is unavailable⁶.

⁶ Mortgage Bankers Association. "Delinquencies Continue to Climb in Latest MBA National Delinquency Survey.", November 19, 2009, <http://www.mortgagebankers.org/NewsandMedia/PressCenter/71112.htm>

Not all borrowers that are delinquent on their mortgage payments have a property that enters the foreclosure process. However, as expected with the rise in delinquent mortgage loans, there is a rise in the percentage of loans that enter foreclosure in Kentucky. Figure 3 depicts the percentage of loans entering foreclosure in Kentucky and the United States between 1979 and 2008, as gathered from data produced by the Mortgage Bankers Association, National Delinquency Survey.



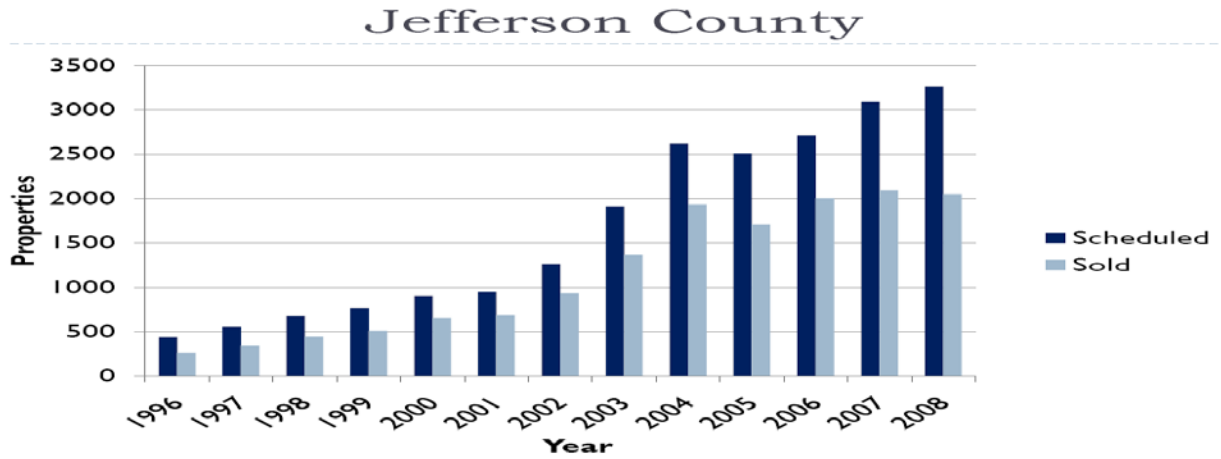
Source: Jefferson Circuit Court, Office of the Master Commissioner⁴

Between the years 2000 and 2007 Kentucky had a higher percentage of foreclosures than the United States, however by 2008 first quarter the United States had a higher percentage of foreclosures than Kentucky by approximately 0.22%. By 2008 the percentage of foreclosures in Kentucky had begun to decrease while the percentage of delinquent mortgage loans increased, this is likely due to the sheer number of delinquent loans, which could be too much for the Kentucky foreclosure process to handle therefore lenders are not beginning the foreclosure process after the typical 90 day period⁴.

Once a lender has filed for and received a motion for default judgment by the court, the property is referred to the master commissioner of Louisville/Jefferson County to be sold at auction. With the rise in delinquent borrower mortgage payments and the percentage of foreclosures in Kentucky, the Master Commissioner of Louisville/Jefferson County has seen a spike in the number of properties that are scheduled to be sold and are sold through the master commissioner sale auctions. The following graph (Figure 4) depicts the number of properties scheduled for sale and sold in Louisville through the Master Commissioner sales auction.

Figure 4

Number of Properties Scheduled for Sale and Sold Through Master Commissioner 1996-2008



Source: Jefferson Circuit Court, Office of the Master Commissioner⁴

While the number of sold properties for the Master Commissioner auction sale in Louisville have remained fairly constant since 2004, the number of scheduled for sale continues to climb to the most recent data from 2008. The data for the properties scheduled for sale and sold through Master Commissioner sale in 2009 for Jefferson County are not yet available. This data could indicate that many lenders or local tax commissioners are holding off on initiating the foreclosure process on a mortgage loan because the Master Commissioner cannot handle the volume of sales required to date, due to lack of resources to sell that many properties and a possible lack of qualified buyers.

Trends Leading to Foreclosure in Kentucky

While there has been wide speculation about the factors that have contributed to the foreclosures in Louisville, Kentucky, and around the United States, the Commonwealth of Kentucky Legislative Research Commission has determined these three factors to have “fed” the foreclosure crisis⁴.

The reasons are:

1. Change in the Real Estate Finance Market
2. Home Prices and Interest Rates
3. Weak Labor Market

Again, these reasons have not been defined as the sole reasons for the foreclosure situation in Louisville and Kentucky, however just identified as three key contributors.

The change in the real estate finance market was influenced by the mistaken perception that less risk was associated with government-backed securities being issued by organizations such as Fannie Mae, Freddie Mac, Ginnie Mae, and private nongovernment agencies, or banks. Investment analysts had always assumed that government-back securities were more secure than typical mortgage backed securities, and analysts still perceive that government-backed securities are less risky⁷. Another factor contributing to the change in the real estate market was the incentive for lenders to not fully screen potential borrowers at the time of origination of the loan. Keys, Mukherjee, Seru, and Vig argued that lenders did not fully disclose to investors the different levels of risk associated with the security backing of different types of mortgages issued to different borrowers. Many investors bought the risky pooled securities without knowing what they were truly purchasing⁸. Finally, the increased use of innovative mortgage products, such as hybrid adjusted rate mortgages, contributed to the change in the real estate markets. Hybrid adjusted rate mortgages included 2/28 or 3/27; the first number refers to the number of years with a fixed rate and the second number the number of years remaining at an adjusted rate⁹.

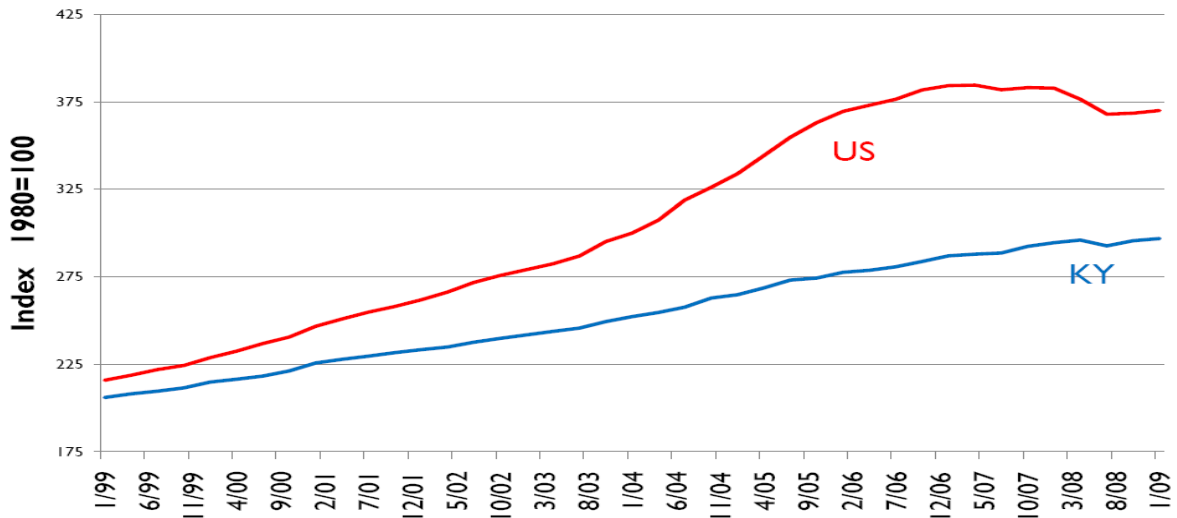
The second reason cited for the increase in the number of foreclosures was the constant changing in the interest rates of the loan, such as an adjusted rate mortgage. According to the Freddie Mac 21st Annual ARM Survey, many of the ARM loans were started with low interest rates to entice borrowers, and then the interest rate would steadily climb⁹. The second factor influencing this reason was the decline in house prices across the nation and in Kentucky. The LRC concludes that the change in housing prices were a result of a weakening housing market demand, perhaps due to the increase in interest rates. The following graph (Figure 5) illustrates the changes in housing price index for the U.S. and Kentucky between 1999 and 2009. The graph shows a steady climb in the housing price index for the nation and the state between 1999 and mid-2008, while between mid-2008 and 2009 prices have begun to drop sharply, while slightly leveling off again in 2009.

⁷ Zendrian, Alexandra. "Invest in...Mortgage Backed Securities?" *Forbes.com* September 9, 2009, <http://www.forbes.com/2009/09/08/mortgage-backed-securities-intelligent-investing-spreads.html>

⁸ Keys, Mukherjee, Seru, and Vig. "Did Securitization Lead to Lax Screening? Evidence From Subprime Loans 2001-2006." January 2008, http://faculty.london.edu/vvig/index_files/securitize.pdf

⁹ Freddie Mac News Release. "Freddie Mac Releases Results of it's 21st Annual ARM Survey.", January 5, 2005, http://www.freddiemac.com/news/archives/rates/2005/20050105_04armsurvey.html

Figure 5
Changes in House Prices
House Price Index for U.S. and Kentucky, 1999 to 2009

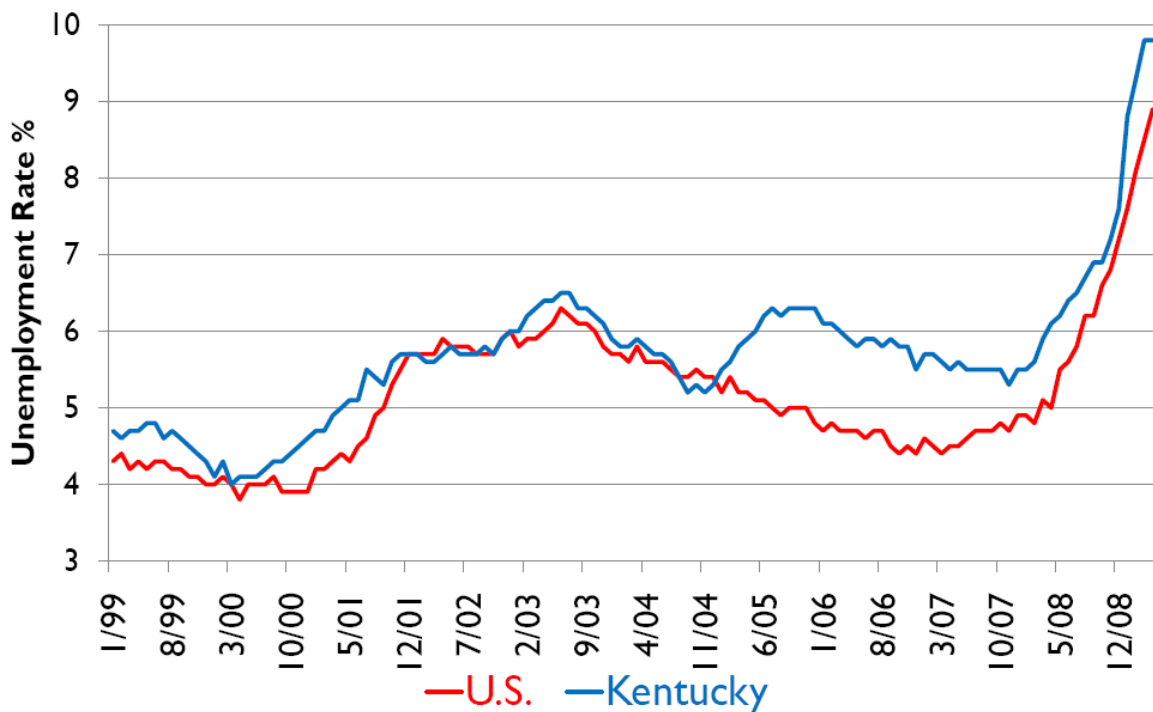


Source: Federal Housing Finance Agency⁴

The final reason cited for the rise in foreclosures in Kentucky is a weakening of the labor market in Kentucky. The unemployment rates for the United States and Kentucky have risen sharply between March 2008 and January 2009, from approximately 5% to 10%. The graph (Figure 6) below shows the changes in unemployment rates for the United States and Kentucky between 1999 and 2009. The Louisville unemployment rate reached a 10-year high in 2008 at 6.4%¹⁰.

¹⁰ Kentucky Cabinet for Economic Development, Unemployment Rate (%) for Kentucky Counties: Annual Averages, <http://www.thinkkentucky.com/EDIS/Deskbook/files/UIRatesCty.PDF>

Figure 6
Unemployment Rate for Kentucky and United States, 1999 to 2009



Source: U.S. Dept. of Labor. Bureau. Labor; U.S. Dept. of Labor. Bureau. Local.⁴

The Effects on Government

The number of foreclosures has led to many negative effects on mortgages, borrowers, servicers, governments, and investors. Some of the associated costs from foreclosures fall on the governments in Louisville, the State of Kentucky, and the federal government; such as the upkeep of vacant properties, the loss of tax revenue, and declining property values in a community. For example, the U.S. Joint Economic Committee indicated that the foreclosure crisis due to subprime lending would cause Kentucky to lose an estimated \$3.4 million dollars in property tax revenue between third quarter 2007 and fourth quarter 2009¹¹. When the

¹¹ Congressional Joint Economic Committee. "The Subprime Lending Crisis: The Economic Impact on Wealth, Property Values, and Tax Revenues, and How We Got Here." October 2007,

government and the communities of the nation began to suffer from the foreclosure crisis, the federal government stepped in to offer assistance, in programs such as the National Foreclosure Mitigation Counseling Program.

Research Design

The National Foreclosure Mitigation Counseling program was authorized by the Neighborhood Reinvestment Corporation Act (NRC) (42 U.S.C. 8101-8107). This program made grants available to counseling intermediaries approved by the Department of Housing and Urban Development (HUD) or the NRC to provide mortgage foreclosure mitigation assistance to high need areas like Louisville, Kentucky. The program is targeted towards the subprime housing market to help eliminate the default and foreclosure of mortgages of owner-occupied single-family homes. In addition to granting to states and areas of greatest need, the Act authorizes grants to be provided to approved counseling intermediaries based on geographic analysis of the nation by the NRC which determines where there is a prevalence of subprime mortgages that are risky and likely to fail. Any HUD or NRC approved counseling intermediary must meet certain mortgage foreclosure mitigation assistance counseling requirements set forth by the NRC and approved by HUD¹².

The following regulations from the Act authorized NRC funds to be spent with the National Foreclosure Mitigation Counseling program:

- i. The foreclosure mitigation assistance is to be made only to home-owners of owner-occupied homes with mortgages in default or in danger of default.
- ii. Funds used by approved counseling intermediaries and State Housing Agencies shall involve a reasonable analysis of the borrower's financial situation.
- iii. The NRC funds must be awarded to States and areas of greatest need within 60 days of enactment.
- iv. The NRC or HUD-approved counseling entities and State Housing Finance Agencies receiving funds must demonstrate a capacity and experience in working with financial institutions as well as borrowers facing default, delinquency and foreclosure as well as documented counseling capacity, outreach capacity, past successful performance and positive outcomes with documented counseling plans, loan workout agreements and loan modification agreements.
- v. Up to \$5,000,000 of the NRC funds may be made available to mortgage foreclosure and default mitigation counseling capacity of counseling intermediaries through NRC

http://jec.senate.gov/index.cfm?FuseAction=Reports.Reports&ContentRecord_id=c6627bb2-7e9c-9af9-7ac7-32b94d398d27&Region_id=&Issue_id=

¹² Neighborhood Reinvestment Corporation Act (42 U.S.C. 8101-8107),
<http://www.nw.org/network/nfmcpc/documents/nrcappropriation.pdf>

training courses with HUD or NRC-approved counseling intermediaries and their partners.

- vi. Up to 4% of the NRC was eligible to be used towards administrative expenses to carry out the activities.
- vii. The NRC funds may be used for outreach and advertising.
- viii. The NRC must report biannually to the House and Senate Committees on Appropriations as well as the Senate Banking Committee and House Financial Services Committee on its efforts to mitigate mortgage default. To date, two bi-annual reports have been submitted to the above referenced agencies.

Upon signing of the Act by President George W. Bush, NeighborWorks America was selected, as part of the Act, to serve as the administrating agency for the National Foreclosure Mitigation Counseling Program. The Act directed NeighborWorks to distribute the \$180 million in funds to the areas that were defined as “areas of greatest need” and based upon areas that were determined to have the highest priority. The “areas of greatest need” are defined as the areas where the rates of subprime lending, delinquent loans, and foreclosures are at their highest. To disseminate the NFMC funding, NeighborWorks America created a competitive grant process to be used in awarding grants in subsequent rounds of funding to HUD-approved Housing Counseling Intermediaries and State Housing Finance Agencies to provide housing foreclosure counseling. Of the \$180 million, \$130 million was allocated by February 2008. On February 1, 2008 the Housing Partnership Network, a HUD-Approved Housing Counseling Intermediary, was awarded \$7,429,993 to be spread throughout the nation among their network partners¹. The Housing Partnership, Inc., as a member of the Housing Partnership Network, was provided a total of approximately \$1,700,000 of the \$7,429,993 to provide foreclosure counseling assistance to the residents of Louisville, Kentucky. The Housing Partnership Network submitted an application to NeighborWorks America seeking funding for the foreclosure mitigation counseling program containing identified MSA’s from the list of Areas of Greatest Need in the National Foreclosure Mitigation Counseling Program Funding Announcement¹³. Louisville was the only identifiable area of greatest need in Kentucky for foreclosure mitigation counseling and strategies. The criteria for determining the areas of greatest need are:

1. Number of delinquent loans (30-90 days)
2. Percent of loans delinquent (30-90 days)
3. Percent of loans in foreclosure process or REO (Real Estate Owned)
4. Percent of loans that are subprime

The Housing Partnership, Inc. received its funds from the Housing Partnership Network central offices in the spring of 2008. Upon receiving their funding amount, HPI began immediately

¹³ NeighborWorks America, National Foreclosure Mitigation Counseling Program Funding Announcement, January 15, 2008.

marketing its program to the residents of Louisville in order to expend its funds in a timely manner and effectively gauge the current foreclosure situation. According to the Foreclosure Mitigation Counseling program funding announcement, all entities that received funds through the initial funding cycle were to have all funds expended by December 31, 2009. The Housing Partnership, Inc. is approximately 100% expended.

The Housing Partnership Network received their funding of \$7,429,993 from NeighborWorks America on or about March 1, 2008. Shortly after this date, the funds were made available to the recipients of the NeighborWorks America grants. The Housing Partnership, Inc. received approximately \$1,700,000 through two funding cycles from the Housing Partnership Network¹⁴. Throughout the program period the Housing Partnership Network has been required to provide quarterly progress reports to NeighborWorks America in regards to their current expenditure of funds and clients served. Due to the Housing Partnership Network being a national organization, they had to rely upon their network members, like HPI, to provide these quarterly progress reports to the Network, which were then relayed to NeighborWorks America. The quarterly progress reports allowed NeighborWorks America to accurately determine which funding recipients were expending their funds in a timely manner and met the December 31, 2009 expenditure date. Any funds not allocated in a timely and effective manner were open to recapture from NeighborWorks America. The recaptured funds were then distributed to funding recipients who were able to spend their funding amounts in a timely manner according to their funding agreement with NeighborWorks America.

The Housing Partnership, Inc. remained on schedule and had nearly all of its funds expended by the December 31, 2009 deadline. As of October 1, 2009 the Housing Partnership, Inc. has been able to provide foreclosure mitigation counseling assistance to 1,619 households in Louisville.

The Housing Partnership, Inc.'s (HPI) mission is to create, sustain and promote access to affordable housing opportunities in Louisville. The Housing Partnership is a non-profit private corporation with a board of directors who oversee policy and housing operation initiatives. The current President of HPI is Mr. F. Lynn Luallen and he has a staff of 58 employees to assist with housing efforts¹⁵.

As a recipient of funds for the National Foreclosure Mitigation Counseling (NFMC) program, HPI is looking to determine what impact was made on the housing market around Louisville.

¹⁴ Julie VanShuren, Housing Partnership, Inc., Interview conducted on October 22, 2009.

¹⁵ The Housing Partnership Inc., About Us, http://www.housingpartnershipinc.org/default.asp?q_areaprimarid=4

Data Research and Analysis

The Housing Partnership, Inc. was able to provide a data set consisting of the following data items as explained below. The data were summarized from a data bank collected for the National Foreclosure Mitigation Counseling program by the Housing Partnership. The variables in the data set provided were:

1. Household Type
2. Default Reason Type
3. Lien Holder Name
4. Payment Status Type
5. Lien Holder Type
6. Lien Position
7. Term Type
8. Current Mortgage Interest Rate

As of October 2009, 1,619 households had sought foreclosure mitigation counseling services from the Housing Partnership.

Household Type:

The National Foreclosure Mitigation Counseling program allows for the identification of eight (8) different household types. The chart below identifies the eight different household types. The largest category of households seeking foreclosure counseling assistance was married households with children, at 28.3% of all households reporting. The next two largest amount households seeking assistance are female-headed single-parent households at 22.1%, followed by single adult households at 20.4%. The three largest categories reporting categories seeking assistance represent 70.7% of the total reported household types.

Figure 7:
Types of Households Requesting Foreclosure Mitigation Counseling Assistance,
Louisville, Kentucky, 2008-09

Household Type	Frequency	Percent
Married with children	458	28.3
Female-headed single-parent household	357	22.1
Single adult	330	20.4
Married without children	193	11.9
Other	158	9.8
Male-headed single-parent household	90	5.6
Two or more unrelated adults	27	1.7
Unknown	6	0.4
Total	1,619	100.0

Default Reason Type:

A critical component in determining the level of counseling to provide a household seeking foreclosure mitigation counseling assistance is the reason for default in the household, or the reason for potential default if the household is current on payments. The National Foreclosure Mitigation Counseling program provided a listing of ten reasons for default. The two most common reasons for payment defaults from a household are loss of income and reduction in income. Loss of income was listed by 36.0% of households seeking assistance, while reduction in income represents 30.3% of households seeking assistance, combined the two reasons make-up 66.2% of the default reasons from households seeking assistance. The chart below summarizes the categories of reason for default.

Figure 8:
Types of Default Reasons from Households Requesting Foreclosure Mitigation Counseling Services 2008-09

Default Reason	Frequency	Percent
Loss of income	582	36.0
Reduction in income	490	30.3
Increase in Expense	109	6.7
Medical Issues	95	5.9
Divorce/Separation	91	5.6
TOTAL	1619	100.0

Lien Holder:

The Housing Partnership required households to identify their lien holder name, whether that institution was a bank, mortgage lender, private individual, etc. The lien holder data generated over 140 different names of lien holders used by households seeking foreclosure mitigation counseling assistance. With too many different lien holders to identify, the two most common lien holders identified were Countrywide at 11.1%, a mortgage lender, and Wells Fargo at 9.8%, a banking institution.

Payment Status:

To provide the relevant course of counseling to households who are late on their mortgage payments, the Housing Partnership needed to determine the current payment status of each household that was seeking assistance. The National Foreclosure Mitigation Counseling program allowed for five categories for determining current payment status. The five payment status categories were; current on payments , 30-60 days late, 61-90 days late, 91-120 days

late, and 120+ days late, . Of the households contacting the Housing Partnership, the most frequent payment status was households that were in excess of 120 days late on their mortgage payments at nearly 35.27% of all households reporting. The following chart summarizes the remaining breakdown for payment status of households seeking assistance.

Figure 9:
Ranges for Payment Delinquency for Households Requesting Foreclosure Mitigation Counseling Services 2008-09

Payment Delinquency	Frequency	Percent
Current	272	16.8
30-60 Days Late	341	21.1
61-90 Days Late	261	16.1
91-120 Days Late	174	10.8
120+ Days Late	571	35.3
TOTAL	1619	100.0

Lien Holder Type:

The National Foreclosure Mitigation Counseling program required households seeking assistance to identify their type of lien holder. The Housing Partnership indentified five different types of lien holders that households reported when seeking assistance. The two most common types of lien holders indentified were banks at 45.95% and mortgage lenders 52.01%. Households reporting banks and mortgage lenders made up 98.0%. The following chart summarizes all types of lien holders reported.

Figure 10:
Types of Lien Holders used by Households Requesting Foreclosure Mitigation Counseling Services 2008-09

Lien Holder	Frequency	Percent
Mortgage Lender	842	52.0
Bank	744	46.0
Credit Union	22	1.4
Individual (Private)	10	0.6
Insurance Company	1	0.1
TOTAL	1619	100

Lien Position:

The National Foreclosure Mitigation Counseling program required households to identify the type of lien they had on their property. The most common lien type was a first mortgage by a home owner at 88.6% of total households reporting. 11.1% of the households reporting identified as having second mortgages on their property, in addition to their first mortgage on the property they have. According to the American Heritage Dictionary, a second mortgage is defined as a mortgage taken out on property that already has one mortgage, with priority in settlement of claims given to the earlier mortgage¹⁶. The following chart summarizes the different lien positions identified.

Figure 11:
Type of Mortgages Households Requesting Foreclosure Mitigation Counseling Services
Needed Assistance With 2008-09

Mortgage Type	Frequency	Percent
First Mortgage	1435	88.63
Second Mortgage	179	11.06
Third Mortgage	5	0.31
TOTAL	1619	100

Term Type:

The program sought to identify the type of term on the mortgage of each household seeking assistance from the Housing Partnership. The data from the Housing Partnership identified 15 different term types from households reporting. The most frequent term type from households was a 30 year mortgage at 83.8%. The remaining 14 different term types are spread out over the remaining approximate 16%. In addition, there are five (5) households who did not identify their term type from the data set. Although a 30 year mortgage was identified as the most frequent term type, the data do not provide an explanation of whether the mortgage is a fixed rate or an adjustable rate mortgage (ARM).

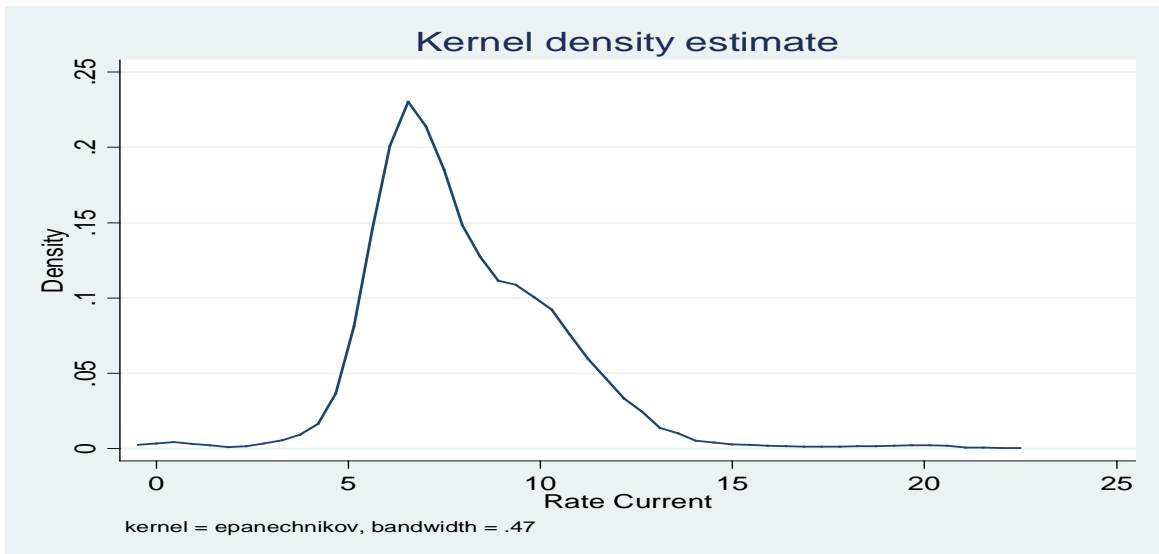
Current Mortgage Interest Rate:

Each of the 1,619 households seeking foreclosure mitigation counseling assistance was required to identify their current mortgage rate at the time of seeking assistance, not what the original term rate was at the time of receiving mortgage. The mortgage interest rates ranged from 0.00 – 22.00%, with the most common interest rate at 6.00%. The First Quartile for the current rate was 6.375%, while the third quartile was 9.49%, making the inter-quartile range 3.1%. The mean current interest rate was determined to be 7.98% with a standard deviation of 2.4. The current rates skewed to the right (coefficient of skewness of 1.08, with kurtosis of 6.97, both

¹⁶ American Heritage Dictionary, Second Mortgage,
<http://education.yahoo.com/reference/dictionary/entry/second%20mortgage>

statistically significantly greater than the values for a normal, 0 and 3). The Kernel density below describes details the current mortgage rate distribution.

Figure 12
Households Requesting Foreclosure Mitigation Counseling Services Current Mortgage Rate Distribution in Louisville, Kentucky 2008-09



Reasons for Default

When a household contacts the Housing Partnership seeking home foreclosure mitigation counseling assistance, one of the important determinations to make is how that household has become late on its payments or why they might become late on their payments if no payments have been missed to date. The following multinomial logit model will assist in understanding the characteristics of the reasons for default by households reporting to the Housing Partnership.

Findings:

Overall, the multinomial logit model proved to be statistically significant ($p=0.0001$). The independent variables varied in their statistical significance between the six reasons for default. There appeared to be no repeating pattern of significance across any of the statistical significance findings between the five reasons for default. Figure 13 below provides the coefficient response for the statistically significant variables with marginal effects.

Figure 13
Households Requesting Housing Foreclosure Mitigation Counseling Services: Effects of
Variables on Reason for Default 2008-09

Predictor Variables	Divorce/ Separation	Increase in Expense	Increase in Loan Payment	Poor Budget Management Skills	Reduction in Income
Current Mortgage Rate	-	-	-0.003	-	-
Lien Position: First Mortgage	-	-0.022	-	-	-0.079
Female-headed single-parent household	0.078	-	-	-	-0.163
Male-headed single-parent household	0.273	-	-	-0.011	-
Married without children	0.054	-	-	-	-
Other	0.048	0.030	-	-	-
Single adult	0.061	0.034	-	-	-
Two or more unrelated adults	0.176	0.157	-	-	-
Lien Holder: Bank	-	0.015*	-	-	-
Lien Holder: Credit Union	-	-	-	-	-
Lien Holder: Individual	-	-	-	-	-
Lien Holder: Insurance Co.	-	-	-	-	-
Term Type: 2/28	-	-	0.061	-	-
30-60 days late	-	-	-0.021	0.002*	-
61-90 days late	-	-	-0.021	-	-
91-120 days late	-	-0.033	-0.025	-	-
120 + days late	-	-	-0.027	0.002*	-

*** Statistically Significant at 90% Confidence Interval**
Unmarked Statistically Significant at 95% Confidence Interval

According to the results of the data, each one percent increase in the current mortgage rate made it 0.3% less likely that the household would cite an increase in loan payments as their reason for default. The higher the current rate, the less likely is an increase to occur, as ARMs are linked to current interest rates in the economy.

Households that have only a first mortgage are .2% less likely to cite increase in payments as the reason for default and are 7.9% less likely to cite reduction in income as their reason for default. Households that do not have only a first mortgage may be more likely to cite increase in payments, as their second and third mortgages probably have high interest rates and these households seeking assistance cannot continue to make payments on the rapidly rising interest rates.

The logit model results suggest that Female-headed households were 7.8% more likely to cite divorce or separation as their reason for default than those households who were married with children; however these households were 16.3% less likely to cite a reduction in income as their reason for default than those households who were married with children. This result supports earlier theories that single headed households, such as female headed households are more likely to be operating on a fairly constant income and therefore are less likely to lose their consistent source of income, and are more affected by divorce. Married with children households are probably dual headed working families that would be susceptible to divorce and reduction in household income. Male headed households, as expected, are 27.3% more likely to report divorce than a married household with children, however these households are 1.1% less likely to report poor budget management as a reason for default. This outcome is difficult to suggest a reason as poor budget management can be broadly interpreted, but one suggestion could be that married with children households are more likely to encounter problems with payments if they have poor management skills. Single adult households (6.1%) and two or more adult households (17.6%) are both more likely to suggest divorce or separation as their reason for default than households who are married with children, this result is expected as married with children households are not currently suffering from divorce currently. In addition, single adult households (3.4%) and two or more unrelated adult households (15.7%) are more likely to list an increase in expenses as their reason for default than married with children households; this can be attributed to a sudden increase due to a divorce or sudden loss in household income by one of the household members.

The results of the logit model suggest that households who have a mortgage loan from a bank over a mortgage loan from a mortgage lender are 1.5% more likely to cite an increase in expenses as their reason for default. This result may be from banks increasing their interest rates, thus increasing the household expenses.

As expected, the model results suggest that households with a 2/28 hybrid mortgage are 6.1% more likely than 30-year mortgage holders to cite an increased in loan payment as their reason for default. This result would have been predicted and is further substantiated by the logit model results.

The final logit results suggest that anybody who is late on their mortgage is less likely to cite an increase in loan payment as their reason for default than those households who are current on their payments. Households which are already late do not have to incur an increase in interest rates to report mortgage payment problems, while households which are current are likely looking forward to problems created by increasing loan payments which have been announced. Households who are 30-60 days late on their mortgage payments are 0.2% more likely to cite poor budget management as a reason for default than those households who are current on their mortgage payments. This result could be anticipated and poor budget management could result in a household that was not in danger of missing payments suddenly unable to make their mortgage payments. Therefore, responsible households that are only 30-60 days late may seek mitigation counseling services due to the unexpected financial situation resulting from poor budget management. However, it is important to note, as stated earlier, poor budget management is a broadly interpreted category that may mean several different situations to several different households. Finally, households that are over 120 days late are 0.2% more likely to cite poor budget management as a reason for default than those households which are current. This result is expected and confirms suggested theories as reason for default.

The data used for the multinomial logit model are somewhat incomplete and omitted many significant variables to accurately determine the effects of each reason for default. However, I do believe the data produced many results that supported common theories for each reason for default.

Multiple Regression Model: Days Late

As the Housing Partnership records the number of days late for a client, it is important to understand what type of households are those that are most likely to become late on their payments.

A regression model indicates that five independent variables at the 95 percent confidence interval and two independent variables at the 90 percent confidence level are statistically significant. The following results in Figure 14 provide the details of the regression model.

Figure 14

**Regression Model Results: Households Requesting Foreclosure Mitigation Counseling Services
Influences on their Current Interest Rates 2008-09**

Source	SS	df	MS
Model	1043.19605	17	61.364
Residual	8441.13578	1600	5.2757
Total	9484.33183	1617	5.8654

Number of obs	1618
F(17, 1600)	11.63
Prob > F	0.000
R-squared	0.110
Adj R-squared	0.1005
Root MSE	2.2969

Current Interest Rate	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
First Mortgage	-1.9539	0.1851	-10.55	<0.001*	-2.3169	-1.5908
Female-headed Single						
Family Household	-0.3392	0.1626	-2.09	0.037*	-0.6581	-0.0203
Male-headed Single						
Family Household	-0.5457	0.2656	-2.05	0.040*	-1.0668	-0.0247
Married without						
children	-0.3033	0.1978	-1.53	0.125	-0.6912	0.0846
Other	-0.3477	0.2124	-1.64	0.102	-0.7642	0.0689
Single Adult	-0.4612	0.1665	-2.77	0.006*	-0.7878	-0.1346
Two or more adults	-0.0482	0.4566	-0.11	0.916	-0.9437	0.8473
Unknown	-0.2214	0.9457	-0.23	0.815	-2.0763	1.6336
Bank	-0.8361	0.1169	-7.15	<0.001*	-1.0654	-0.6067
Credit Union	-0.6024	0.5001	-1.20	0.229	-1.5834	0.3785
Individual	1.5607	0.7330	2.13	0.033*	0.1230	2.9984
Insur. Company	-0.3441	2.3060	-0.02	0.881	-4.8672	4.1790
2/28 Mortgage	1.1672	0.3663	3.19	0.001*	0.4488	1.8856
30-60 Days Late	0.3627	0.1900	1.91	0.057^	-0.0101	0.7354
61-90 Days Late	0.4414	0.2027	2.18	0.030*	0.0438	0.8390
91-120 Days Late	0.2489	0.2272	1.10	0.274	-0.1968	0.6945
Over 120 Days Late	0.3256	0.1726	1.89	0.059^	-0.0130	0.6642
_cons	10.0491	0.2255	44.57	0.000	9.6068	10.4913

* Statistically Significant at the 95% Confidence Level

^Statistically Significant at the 90% Confidence Interval

The regression model was conducted to determine whether or not there were certain characteristics that influence a household's interest rate. As predicted households with which have only a first mortgage are have an interest rate that 1.95% less than households who would have second and/or third mortgages. In addition, households who received their loans from a bank have interest rates that are approximately .8% less than those who receive their loans from a mortgage lending institution. This result suggests that lending institutions lent more aggressively with possibly adjusted rate mortgages. Finally the model suggested there was very little differences between the amount of time a household seeking assistance was delinquent in their mortgage payments, for example a household that was 30-60 days late had approximately the same higher interest rate as a household that over 120 days late. These results suggest that

households with greater delinquency were struggling to make payments just as much as households who were only two months delinquent. This result could also suggest that it may be difficult to help a delinquent homeowner that is unable to make payments on their current mortgage since their rates are not shown to decrease over time.

Analysis Conclusions

In conclusion, the regression model and the multinomial logit model indicate the following results to the hypothesis:

Hypothesis 1: How do the characteristics of a household type, household's lien position, lien holder type, the type of mortgage term, and the days late on a mortgage payment likely affect a household's reason for default?

Conclusion 1: The arbitrarily pre-determined categories make accurately reporting the reason a household is default on their mortgage payments difficult. Although, the logit model returned results to support many common perceptions, such as female-headed single parent households were more likely to cite divorce or separation as their reason for default than households who were married with children, the model also reported that households who were late on their payments were less likely to report an increase loan payments as their reason for default than households who were not late at all. Results such as these are difficult to interpret because it is hard to explain how a household that is experiencing an increase in loan payments could not be more delinquent on their payments than a household that is current on the mortgage payment. The types of data results stated above support the hypothesis that the pre-determined categories lead households reporting to the Housing Partnership to respond in a manner that may not be reflective of their true financial situation.

Hypothesis 2: The type of household, the lien position, lien holder type, the type of mortgage term, and the days late on a mortgage payment influence the interest rates of households seeking foreclosure mitigation counseling assistance.

Conclusion 2: The regression model indicates there some strong influences on a household's mortgage interest rate. For example, one of the results indicated households who are 30-60 days late or over 120 days late are expected to have the same increased interest rate amounts over those households who are current on their mortgage payments. Assumption could have been made that, the more delinquent a household became on their mortgage payments the higher the interest rates would be due to constant rising of the rates by the banks. However, this is a cautionary sign, as a household that cannot make payments at the higher interest rate at day 60, will probably not be able to make those payments over 120 days late either.

Study Limitations

The two most frequent limitations to the data analysis that was encountered were the categories of data collected and the lack of data on the outcome of the counseling services.

The National Foreclosure Mitigation Counseling program provided the Housing Partnership with a data collecting program that included several data fields with predetermined responses. If a household did not meet one of the predetermined data fields, then they would either select “other” or “unknown”. “Other” and “Unknown” do not accurately reflect the true characteristic of the household seeking assistance and it makes it difficult to understand the statistical significance for the variables associated with these data fields. Approximately 16% of all households seeking assistance selected “other” or “unknown” for their household type. The predetermined data fields proved an easier and uniform response for the collection of data, however for accurately evaluating the effectiveness of the program is difficult to manage due this uniform process.

Another study limitation was the inability of the data collection program to effectively describe the characteristics of a household’s mortgage. For example, the data system may report a household has a 30-year mortgage at 5.0% interest; however the reporting program does not describe whether that mortgage is a fixed rate mortgage or an adjusted rate mortgage. In addition, the data does not provide information regarding what the interest rate was when the household acquired the mortgage, or the year they received their mortgage.

The final study limitation was the lack of data to incorporate into the regression models and the multinomial logit model. The data did not provide key data fields such as; household ethnicity, occupations (if any), level of counseling received, and especially outcomes. Different households probably would not require the same amount or type of foreclosure mitigation counseling assistance from the Housing Partnership; however the data could not provide this information.

If the addresses of the households were included the location of the households may provide insight into the targets of predatory lending and those types of households who were affected by predatory lending techniques. However, due to privacy commitments from the Housing Partnership much of the data regarding ethnicity, names, addresses and other identifiable information could not be included in the data set but is recorded by the Housing Partnership for the national Foreclosure Mitigation Counseling program.

Conclusion and Recommendations

This research paper analyzed the effects of the National Foreclosure Mitigation Counseling program in Louisville as administered and operated by the Housing Partnership, Inc. based in Louisville, Kentucky. The findings in this paper can be provided to the Housing Partnership and policy makers when determining the effectiveness of the program and ways to improve future foreclosure mitigation programs. Although, due to privacy concerns other data characteristics

will be available the evaluators of the National Foreclosure Mitigation Counseling program that were not readily available to this evaluation.

The multinomial logit model attempted to establish a link between the type of household, their characteristics, and their most common reason for default. Policy makers can begin to possibly create programs that are more specifically targeted to reason for default as oppose to a general mortgage default. The Federal Government could create tailored programs such as subsidizing mortgage loans short term for those households who are just experiencing a sudden lost of income, such as a single parent household who just went through a divorce.

Finally, the regression model provided further evidence there are certain variables that can impact a households current interest rate. Policy makers can could results from the regression model to provide insight into potential effectiveness of the program. For example, the regression model results indicated that no matter how late a household was on their mortgage payment it would be unlikely for that household to be able to manage their payments at their current interest rate. Therefore, foreclosure mitigation counseling may not be the answer, rather policy makers may want to examine policies to help subsidize homeowner's mortgages for a defined time period or until household income situation improves.

In closing, this study provides a starting point to policy makers and the Housing Partnership in ways they can operate their program to provide the best and most capable service to their clients.

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