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Loan Modifications as a Response to the Foreclosure Crisis: An Examination of Subprime Loan Outcomes in Maryland and Surrounding States

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Baltimore Homeownership
Preservation Coalition

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Foreword

The Baltimore Homeownership Preservation Coalition (BHPC) is a four-year old coalition of more than 60 organizations that share a growing concern about the impact of foreclosures on wealth creation and neighborhood stability in Baltimore City. Since its inception, BHPC has engaged in marketing and outreach to borrowers; action-oriented data collection and analysis; and support for front-line organizations, such as housing counseling and legal services organizations. For more information about BHPC's extensive accomplishments, as well as information about how to join, visit www. preservehomeownership.org.

This is the first of two reports aimed at better understanding what tools are truly effective at helping people avoid foreclosure. Because of the recent emphasis on the Obama Administration's Home Affordability Modification Program, BHPC decided that a focus on loan modifications made sense. BHPC plans to publish an additional report in 2010 that focuses more directly on the role of housing counselors in this crisis.

This report provides some interesting findings that will help guide our work going forward:

- In the data analyzed, loan modifications in Maryland in June 2009 were more likely to reduce the size of monthly mortgage payments, primarily by reducing the interest rate charged to borrowers than modifications made in November 2008.
- Loans held by servicers covered by the Maryland servicer reporting requirements and the Maryland servicer agreement are less likely than loans in other states with the same servicer to go into foreclosure. (The researchers controlled for differences in state housing markets and borrowers characteristics to reach this conclusion.)
- Two-thirds of loans modified in November 2008 were current in June 2009. Ten percent were seriously delinquent.
- Neighborhood composition and borrower income play a statistically significant but extremely small role in determining the likelihood of receiving a modification.

As one of the first local coalitions to form around the current crisis, BHPC has been fortunate to receive attention and support from national funders and partners. This report would not have been possible without the generous support of the Open Society Institute, which has provided a two-year grant to BHPC to fund research, staffing, and outreach. In addition to the financial support provided, we would like to acknowledge and thank our OSI program officer Solomon Greene for the guidance and invaluable information he has provided during this process. We would also like to thank our researchers, Chris Herbert and Michael Collins, for their responsiveness to our comments and to the impact of the changing economy and federal programs on this study.

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Executive Summary

As mortgage foreclosures have increased in the last two years, federal, state, and local agencies have all struggled with an appropriate response. One barrier to crafting more effective outreach, counseling and other interventions is a lack of information about the incidence of foreclosure at the local level and the provision of alternatives to foreclosure by financial firms. Privately-securitized subprime mortgages are of particular concern as these loans are both at high risk for foreclosure and outside the purview of federal agencies that regulate, guarantee, or insure much of the mortgage market. The advent of the federal Making Home Affordable program has introduced an additional factor to the mortgage servicing system. While only recently implemented, this program has the potential to result in greater use of loan modifications as alternatives to foreclosure. Understanding the current context of loan defaults and the response by financial institutions in this changing context is critical. There are also earlier innovative policies that were implemented by states such as Maryland that may provide important evidence as to how strategies designed to address the still growing problem of foreclosures have fared.

This study examines two types of data. The first type includes public data issued by federal agencies and private organizations on delinquencies, foreclosures, and loan workouts (including modifications) at an aggregate level for both the nation and individual states, with the emphasis of this report on the State of Maryland and its surrounding states in the Mid-Atlantic region. These data show that mortgage foreclosure is a growing problem, loan modifications are relatively rare but increasing in use, and the form of modifications has changed since the federal Making Home Affordable program was implemented. The second data source is a unique dataset developed for investors in subprime securities that provides information on 280,000 subprime, privately-securitized (non-agency) mortgages. The data provide detailed loan-level information on the status of these loans, originated between 2000 and 2008, at two points in time: November 2008 and June 2009. The data are used to assess differences in loan performance and the incidence of modifications at the community level, as well as provide insights into the effects of some of Maryland's innovative policies on lender behavior.

Overall the loan level analysis suggests foreclosures remain widely used by lenders in the region with loss mitigations and modifications much less frequently pursued. There remain large variations in foreclosures and modifications by servicing firm, suggesting the potential for an increase in modifications as institutions develop further capacity—or inclination—to pursue this approach to avoiding foreclosures. Modifications made in 2009 are more likely to lower payments, which should also facilitate better chances that borrowers will succeed in repaying these loans. However, many modifications still result in an increase in the principal balance owed, which remains a caution for future performance of these loans, especially if interest rate reductions expire in the coming years.

There is no evidence that modifications and loss mitigation tend to be disproportionately provided to higher income or lower risk borrowers, nor is there evidence of disparate outcomes by neighborhood racial composition. Local market factors play a statistically significant but small role.

Maryland's servicer agreement and database both appear to be associated with lower rates of foreclosure on loans covered by these provisions. The effects range from about 14 percent to 36 percent lower foreclosure rates. These provisions are not associated with more loan modifications, however, and may represent delays in decisions for foreclosure rather than more aggressive use of alternatives to foreclosure.

Introduction

The current foreclosure crisis has generated heated discussion at all levels of government about appropriate responses. The mortgage foreclosure crisis stems from a range of causes—from lax underwriting during the height of the housing boom followed by rapid declines in home values, to high consumer debt levels and a devastating loss of jobs in many markets. Given the array of factors involved, addressing rising foreclosures is a complex task. Since the start of 2009 a variety of federal programs have been developed and implemented, but many of the early innovations in approaches to the foreclosure problem occurred at the state level. Despite carefully designed approaches in many communities, there is little publicly available evidence on the extent of the foreclosure problem, the extent that alternatives to foreclosure are being used by lenders, and the impact of existing state efforts.

This report seeks to provide information on mortgage foreclosures and alternatives with a special emphasis both on the use of loan modifications as an alternative to foreclosure and on the experience to date in Maryland. The first half of the report provides an overview of efforts to promote loan modifications both at a national level and within Maryland using data reported by the Hope Now initiative, the Office of the Comptroller of the Currency, and the Treasury Department. These data provide a unique snapshot of both national and state level activity, but do not permit a closer look at the factors associated with foreclosures and alternatives to foreclosures either at the borrower level, by geographic areas below the state level, or for specific servicers. Using a unique loan level dataset, the second half of this report then illustrates factors that are associated with loan foreclosure and the incidence of alternatives such as loan modifications in the first half of 2009 in Maryland and neighboring states. The data provide a number of insights into mortgage loan delinquencies and modifications during a period of rapid policy and regulatory changes at the federal level.

This study makes use of publicly-available data on a large portfolio of subprime loans serviced by more than a hundred servicers for states in the mid-Atlantic region to compare outcomes of loans in Maryland with surrounding states. Specifically, the study analyzes information on the status of about 280,000 loans originated between 2000 and 2008 as of two points in time: November 2008 and June 2009. This is a period when a rising proportion of loans in the region were entering delinquency and foreclosure. Modifications of loans remained relatively rare, with foreclosure still a likely outcome. Rates of loan modifications varied significantly by locality and particularly by lender.

While the effects of the federal Making Home Affordable program are not fully observable, given the program's incremental implementation as of June 2009, there is evidence that the pace of modifications is rising in recent months and the nature of modifications is more likely to lower monthly payments for borrowers. Thus, it will be important to keep monitoring trends in the response to the foreclosure crisis in the months to come.

Review of Efforts to Date to Promote Loan Modifications and Other Borrower Workouts

Initial Efforts to Promote Loan Modifications

Beginning near the end of the 2006, the share of mortgages nationally starting the foreclosure process began to skyrocket. According to information reported by the Hope Now Alliance, in 2008 lenders started foreclosure on 2.2 million mortgages across the country (Exhibit 1). Initially, much of the rise in foreclosures was attributable to subprime mortgages. But as the economy entered a deep recession in late 2008, foreclosures spiked among prime mortgages so that these loans came to account for a majority of new foreclosures. Compared to the first half of 2008, the rate of foreclosure starts increased by 33 percent in the first half of 2009, with foreclosure proceedings initiated on 1.75 million mortgages in the first seven months of the year alone. This unprecedented flood of foreclosures is impacting not just individual homeowners, but also surrounding communities and the economy as a whole.

Of course, the high rate of foreclosures among subprime loans is not a new phenomenon. As early as 1999, the National Training and Information Center (NTIC) in Chicago called attention to a significant rise in foreclosures in minority and low-income neighborhoods of Chicago linked to the growth of the then-new subprime mortgage market. This was followed by a series of similar studies in other market areas finding further evidence that subprime loans were pushing up foreclosures in neighborhoods where this lending was concentrated.[1] A recent study of foreclosures in Baltimore and Maryland by The Reinvestment Fund illustrates how foreclosures were also high in the early part of this decade before declining somewhat.[2] But data from Hope Now show that since 2007 foreclosures have risen sharply in Maryland along with national trends (Exhibit 1). In fact, since the second half of 2008, foreclosures have gone up faster in Maryland than in the U.S. as a whole.

Since 2007, when the mortgage crisis began to attract significant attention from policy makers and the mortgage industry, one of the main approaches that has been suggested as a means of stemming the tide of foreclosures has been for lenders to offer loan modifications to distressed borrowers. Modifications to loan terms offer the possibility of addressing either of the two fundamental drivers of mortgage default: a borrower's inability to afford their monthly payments or unwillingness to make these payments given that the value of their home has fallen to well below the mortgage debt. With rapidly declining home values, lenders were also facing significant financial losses from foreclosures. A successful loan modification that resulted in reliable stream of mortgage payments thus also offered the potential for better financial outcomes for lenders as well. Finally, surrounding communities could also benefit by reducing the number of vacant homes that were creating blight and depressing property values. Thus, loan modifications held the potential for borrowers, lenders, and communities to all benefit.

However, loan modifications can be used for a variety of purposes and can take many forms. A common form of loan modification is for lenders to add delinquent payments and fees to the loan's

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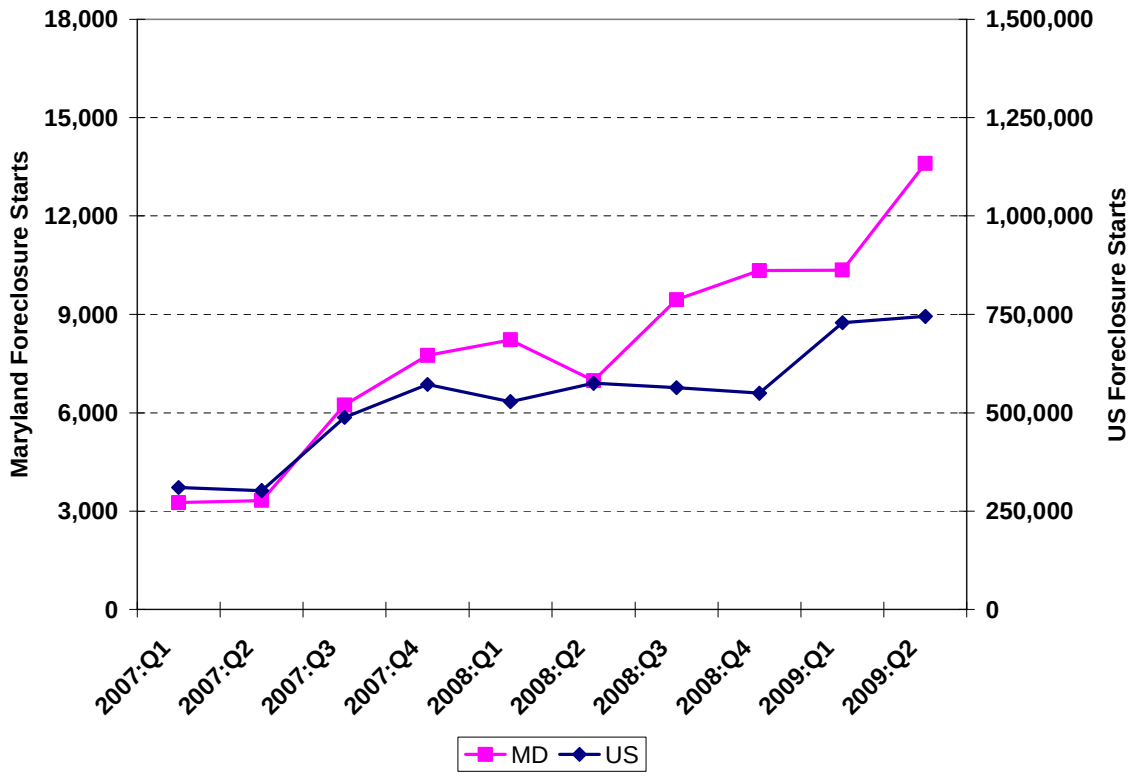
[1] See for example Harold L. Bunce, Debbie Gruenstein, Christopher E. Herbert, and Randall M. Scheessele, *Subprime Foreclosures: The Smoking Gun of Predatory Lending*, presented at HUD conference Housing Policy in the New Millennium, October 2000.

[2] TRF, *Mortgage Foreclosure Filings in Maryland*, February 2008.

outstanding balance when borrowers are unable to pay these accumulated debts. In this case lenders are seeking to avoid any losses, simply deferring missed payments until the mortgage is repaid. But this type of modification actually increases both monthly payments and the outstanding balance and thus exacerbates the factors that led to the delinquency in the first place. Other common modifications are intended to mitigate payment shocks from adjustments in interest rates by freezing the interest rate for a period of time at the current rate. These modifications may help avoid a worsening of a borrower's ability to meet their mortgage obligations, but does nothing to address any existing inability to pay or the loss of equity that reduces the incentive to make mortgage payments.

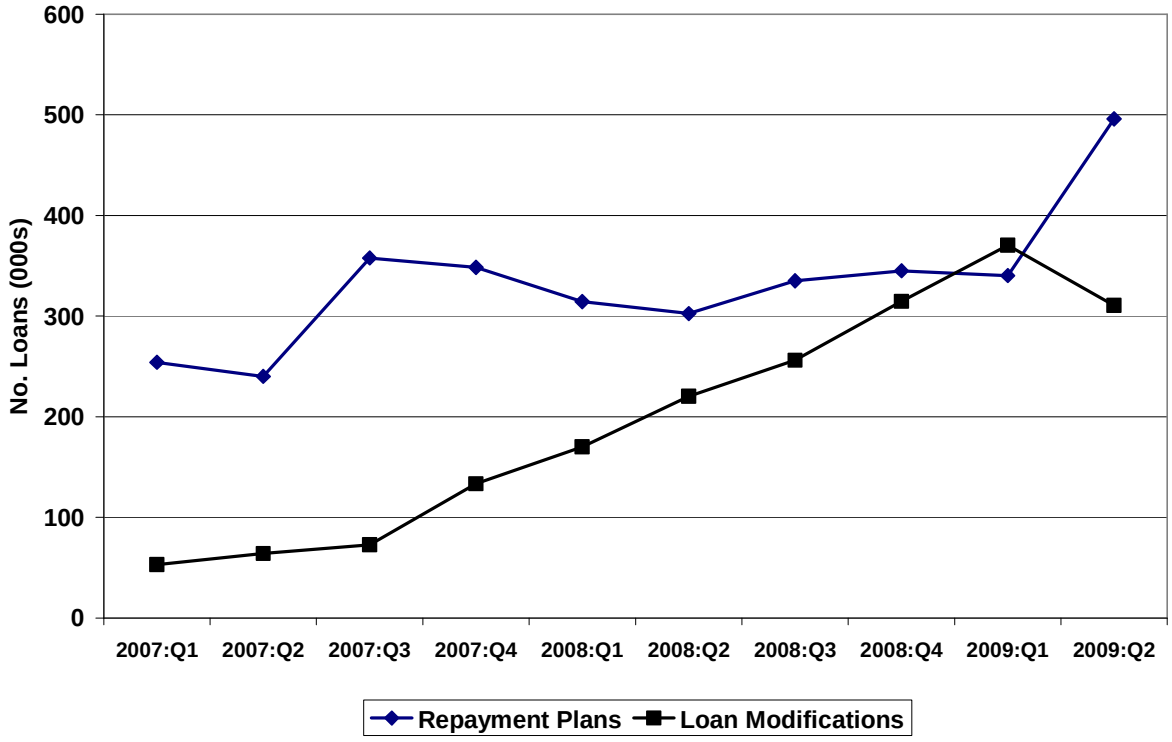
Exhibit 1. Trends in Foreclosure Starts in the U.S. and Maryland Since 2007



Source: Hope Now Alliance, State Loss Mitigation Data, June 2009 and National Data July07 to July09.

Among the earliest efforts to respond to the crisis was the establishment of the Hope Now Alliance in October 2007 as a cooperative effort of the public and private sectors. The Alliance emphasized voluntary efforts by lenders to enter into repayment plans—that is, a schedule for borrowers to catch up on missed payments over a few month period—or loan modifications to help borrowers avoid losing their homes. Initially, data released by the Alliance showed that a large majority of lenders' interventions consisted of repayment plans rather than loan modifications (Exhibit 2). But the number of loan modifications has grown steadily over time, while the number of repayment plans has remained fairly steady at between 300,000 and 350,000 per quarter. By the first quarter of 2009 the number of loan modifications exceeded the number of repayment plans for the first time. The number of reported repayment plans shot up in the second quarter of 2009 while the number of modifications declined sharply. Hope Now believes this reversal of trends in the second quarter reflects the activities of loan servicers to begin implementing the U.S. Treasury's Making Home Affordable, Home Affordable Modification Plan (HAMP), which will be discussed more below.

Exhibit 2. Total Loan Workouts Reported by Hope Now Alliance



Source: Hope Now Alliance, National Data, July07 to July09.

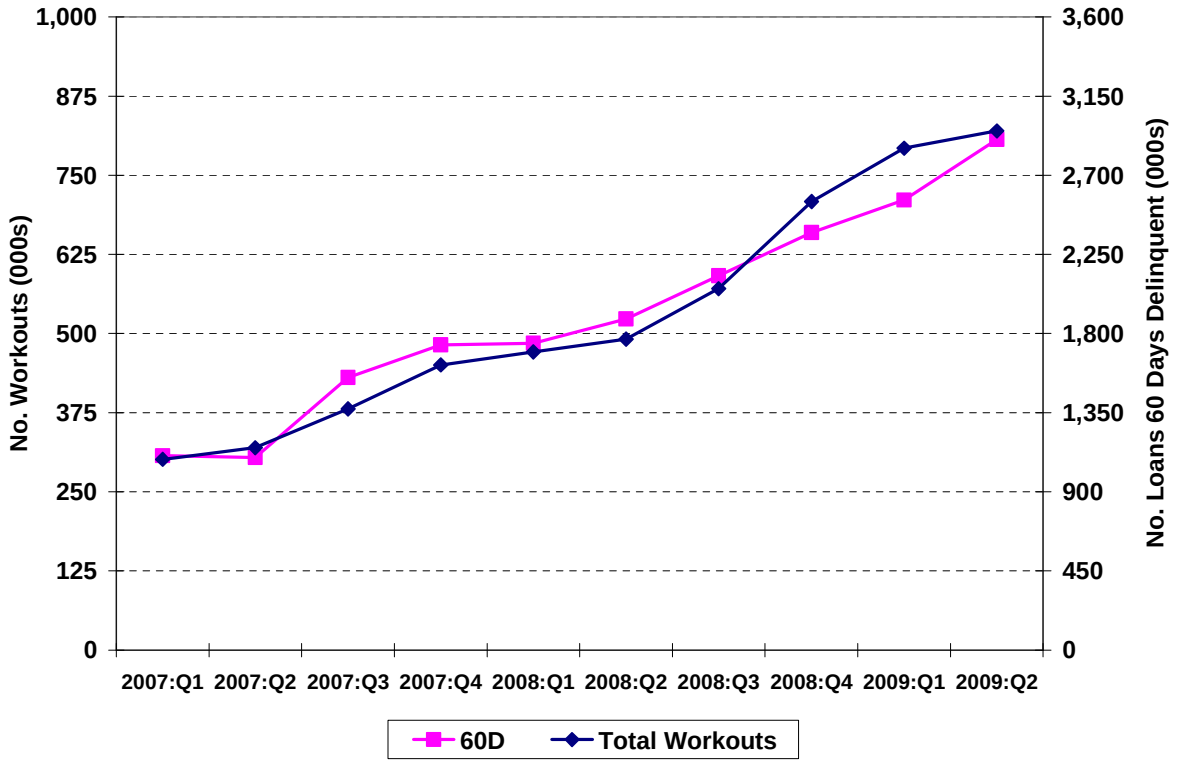
For two key reasons, the rise in loan modifications did little to stem the foreclosure problem. First, the increase in the total number of workouts extended to borrowers was only just keeping pace with the increase in the number of loans that were 60 days or more delinquent (Exhibit 3). Perhaps more importantly, as the volume of loan modifications grew, a variety of studies found that a relatively small share of these modifications resulted in reduced payments for borrowers, and only a tiny fraction reduced the principal amount owed. For example, an analysis by the Center for Responsible Lending in April 2008 found that only in about one in five cases did modifications result in a reduction in loan payments.[3] Other significant information on this issue was presented by Alan White of Valparaiso University in a paper that made use of publicly available data on subprime loans for which Wells Fargo serves as Trustee—which are the data that are also analyzed in this study.[4] This pool of more than 3.5 million mortgages covers a broad range of servicers and so provides fairly good representation of subprime loans generally. White found that voluntary loan modifications of subprime borrowers completed through August 2008 typically increased a borrower's principal debt and virtually none involved a reduction in principal owed. Finally, data collected by the Maryland Office of Financial Regulation from state-supervised loan servicers also found that as of August and

[3] Center for Responsible Lending, "Solution to Housing Crisis Requires Adjusting Loans to Fair Market Value through Court-Supervised Modifications," *CRL Issue Brief*, April 1, 2008.

[4] Alan M. White, "Deleveraging the American Homeowner: The Failure of 2008 Voluntary Mortgage Contract Modifications," forthcoming 2009, in the *Connecticut Law Review*.

September 2008 over 60 percent of loan modifications resulted in unchanged or increased monthly payments for borrowers.[5]

Exhibit 3. Trends in Number of Workouts Compared to Number of Loans 60 Days Delinquent



Source: Hope Now Alliance, National Data, July07 to July09.

Among the more detailed studies on this topic is an analysis by Rod Dubitsky of Credit Suisse using data on subprime loans from LoanPerformance.[6] He found that the volume of loan modifications increased sharply over the course of 2008, with about half of these modifications consisting of what he refers to as "reset" modifications where the interest rates are frozen in anticipation of a reset, and so essentially keep payments unchanged. Another quarter of modifications consist of capitalization of arrearages that result in higher payments for borrowers. About a fifth consisted of modifications that result in lower payments for borrowers, while a very small fraction include reductions in the principal balance. Dubitsky finds that a large share of principal reduction modifications are actually accounted for by two large servicers, with other servicers rarely if ever offering this type of modification.

Dubitsky's work is important because he also documents the redefault rate of modified loans. Consistent with the common perception that the redefault rate among modified loans has been very

[5] Letter from the State Foreclosure Prevention Working Group to John C. Dugan, Comptroller of the Currency, February 2, 2009.

[6] Rod Dubitsky, Larry Yang, Stevan Stevanovic, and Thomas Suehr, *Subprime Loan Modifications Update*, Credit Suisse, Fixed Income Research, October 2008.

high, he finds that modifications that result in an increase in the amount owed and no reduction in monthly payments have redefault rates in excess of 40 percent 8 months after the modification is executed. Reset modifications perform much better, with redefault rates of 15 percent, but in large part this better performance reflects the fact that 90 percent of these borrowers were current on their mortgage at the time of the modification. Encouragingly, he finds that principal reduction modifications also have relatively low redefault rates (23 percent) even though 80 percent of these mortgages were delinquent prior to modification. Dubitsky's findings are corroborated by Quercia, Deng, and Ratcliffe (2009) who, analyzing the same data as White over differing time periods, also find that the risk of default is much lower among modified loans that reduce the monthly payments.[7]

A number of studies have examined why lenders have failed to offer either a significant number of loan modifications or to offer modifications that reduce monthly payments. A number of barriers to loan modifications have been identified in the loan servicing process. Eggert (2007) provides a detailed review of these barriers.[8] To begin with, servicers have contractual relations with investors that can limit their ability to offer loan modifications, although recent investigations suggest that these may not be as restrictive as once thought.[9] Servicers have also been concerned that a significant volume of loan modifications might trigger investor lawsuits questioning whether servicers are fulfilling their fiduciary obligation to maximize financial returns for investors. But few, if any, lawsuits had been filed by investors prior to a filing in December 2008 attempting to block Countrywide (now part of Bank of America) from following through on a commitment with 11 state attorneys general to modify thousands of loans.[10]

But perhaps one of the most important barriers may be the structure of servicers' financial incentives for pursuing workouts relative to foreclosures. As Eggert (2007) and White (2009) have both pointed out, servicers are reimbursed by investors for missed payments and actions taken in pursuit of a foreclosure, but not for costs associated with loss mitigation activities.[11] The additional effort required to negotiate a loan modification can easily be $500 or more, which can be a significant disincentive for servicers to pursue this path. In recognition of these costs, Fannie Mae, Freddie Mac, and the Federal Housing Administration have long offered servicers incentive payments to encourage servicers to pursue these remedies, but investors in private label mortgage backed securities do not

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7 Roberto Quercia, Lei Deng, and Janneke Ratcliffe, 2009. *Loan Modifications and Default: An Examination of Short-term Impact*. University of North Carolina, Center for Community Capital, Working Paper March 2009.

8 Kurt Eggert "Comment: What Prevents Loan Modifications?" *Housing Policy Debate* 18(2):79-297, 2007.

9 See, for example: Larry Cordell, Karen Dynan, Andreas Lehnert, Nellie Liang, and Eileen Mauskopf, "The Incentives of Mortgage Servicers: Myths and Realities," Finance and Economics Discussion Series, Divisions of Research & Statistics and Monetary Affairs, Federal Reserve Board, Working Paper 2008-46; and John P. Hunt, "What do Subprime Securitization Contracts Actually Say about Loan Modification?: Preliminary Results and Implications," University of California, Berkeley Center for Law, Business, and the Economy, Working Paper. Note presentations by the American Securitization Forum (HOPI Chicago September 14, 2009) cite that most purchase and sale agreements on private (non-GSE) securities for first lien loans have no formal provisions limiting modifications.

10 "Countrywide Loses Ruling in Loan Suit," New York Times, August 19, 2009.

11 An added financial cost for servicers is that since they are responsible for forwarding missed payments to investors, to the extent that a loan modification capitalizes these missed payments into a new mortgage, servicers will not be reimbursed for these costs until the loan is paid off.

provide such incentives. The lack of income from loss mitigation activities may also lie behind the fact that many servicers lack the capacity to handle the workload associated with elevated requests for loan workouts. Absent incentive payments, servicers do not have a financial incentive for adding to their organizational capacity for these functions.

Researchers at the Federal Reserve Bank of Boston have recently argued that many of the perceived barriers to loan modifications may not be the principal reasons why so few loan modifications have been executed.[12] They present an analysis comparing the incidence of loan modifications among loans held in securities versus loans held in lenders' portfolios. They find that securitized loans are no less likely to be modified and, in some cases, actually have a higher rate of modification compared to loans held in lenders' own portfolios. Instead, they argue that the high rates of self-cure among delinquent loans and re-default among modified loans mean that lenders are generally financially better off not incurring the costs of pursing loan modifications. However, they admit that it may still be the case that the level of modifications is below the socially optimal level given the social costs of foreclosures. They suggest that financial incentives to investors or borrowers to avoid foreclosure may be socially optimal. This paper is also based on cure rates from earlier this decade—a period which may not represent current real estate market conditions or loan servicing practices. For example the cure rates used in that analysis are not as viable today as in prior years. Likewise the severity of losses has increased.

Maryland's Efforts to Respond to the Foreclosure Crisis

Through 2008, the Federal government largely remained committed to encouraging voluntary efforts by lenders and servicers to extend repayment plans and loan modifications to distressed borrowers through efforts led by the Hope Now Alliance.[13] In this context many states began to take action to help borrowers find alternatives to foreclosures. While states' ability to exert influence over banks and other financial institutions is significantly constrained by federal pre-emption of state jurisdiction over institutions that are governed by federal regulators, many states have pursued multipronged efforts to respond to the crisis in areas where they can have an influence. Maryland has been particularly active in pursuing a range of responses to the crisis, including working to connect borrowers with housing counselors and pro bono attorneys, enacting changes in the legal process governing foreclosures to give borrowers additional time to seek resolution, and taking steps to encourage lenders to offer distressed borrowers loan workouts, including loan modifications.[14]

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[12] Manuel Adelino, Kristopher Gerardi, and Paul S. Willen. "Why Don't Lenders Renegotiate More Home Mortgages? Redefaults, Self-Cures, and Securitization." Federal Reserve Bank of Boston, Public Policy Discussion Paper No. 09-04.

[13] There were also efforts to extend FHA-insurance to refinance distressed borrowers into more affordable loans. The first of these was the FHA Secure program, announced in October 2007, which was intended to help borrowers whose default was caused by interest rate resets on adjustable loans by refinancing them into more affordable long-term fixed rate loans. However, there was very little demand for this program. The Housing and Economic Recovery Act enacted in July 2008 then created the Hope for Homeowners program to assist distressed borrowers by providing FHA-insured refinance loans. Once again, there was very little use of this program in large part because lenders were generally required to reduce the outstanding principal on the loan to meet the required maximum 90 percent loan-to-value ratio.

[14] For a thorough review of state efforts to respond to the foreclosure crisis, see "Emerging Trends: State Actions to Tackle the Foreclosure Crisis," Stephanie Casey Pierce, National Governors Association Center for Best Practices, February 2009.

Perhaps the most important set of responses by the State of Maryland have focused on efforts to conduct outreach to borrowers and to support the availability of counseling and legal assistance. Among these efforts are the "Mortgage Wait/Don't Wait" multi-media campaign to get consumers to reach out for help. The state has also established a Maryland-based hotline so that state residents had a local alternative to the national HOPE hotline. Maryland has provided nearly $5 million to thirty housing counseling agencies and five nonprofit legal service providers, which collectively assisted nearly 30,000 households in a two-year period. The Foreclosure Prevention Pro Bono Project trained more than 700 volunteer lawyers to assist distressed owners either at public events, through counseling agencies, or directly with clients. The state has also helped sponsor more than 200 public workshops over this period attended by about 25,000 households.

Taken together these efforts appear to have contributed to a successful effort to extend counseling to the state's residents. A June 2009 report by NeighborWorks America on the volume of counseling delivered through the National Foreclosure Mitigation Counseling effort shows that Maryland ranked fourth in the country in the number of counseling sessions held—despite the fact that the state ranked 14th in the share of mortgages that were 60 days or more delinquent. While Virginia and Indiana had similar numbers of delinquent borrowers, Maryland had 2.4 and 4.4 times more counseling sessions than each of these states, respectively.

Aside from support for outreach and counseling, Maryland also undertook several other actions to encourage servicers to improve the loss mitigation process. The first of these steps was the Maryland Emergency Servicer Reporting Regulation (ESRR), which was announced in January 2008. This regulation required mortgage servicers regulated by the State of Maryland to submit monthly reports beginning in February 2008 on their servicing portfolios and loss mitigation activities. The regulation was intended to shed light on whether servicers were offering loan workouts to distressed borrowers and to help the state engage in a more data-driven dialogue with servicers. With greater public scrutiny of servicers' activities, there was a potential for servicers to be more aggressive in pursuing workout options with borrowers. However, since many of the largest loan servicers are not regulated by the state due to federal preemption, less than 38 percent of outstanding loans in the state were included in the servicing portfolios of affected servicers.

The other key action taken in Maryland to improve efforts by servicers to engage in loss mitigation efforts was an agreement reached in November 2008 with six large servicers to create a more streamlined and transparent loss mitigation process for distressed borrowers in the state. The six servicers (HSBC, Ocwen, GMAC ResCap, Litton Loan Servicing, AmeriNational Community Services, and Citi) accounted for 23 percent of outstanding loans in the state. The agreement called for a five-point framework that servicers agreed to follow to provide greater opportunities for borrowers to avoid foreclosure. Among the main elements of the framework was a pledge to abide by a predetermined timeline for loss mitigation that would ensure homeowners have an answer within 75 days from the time they submit a loss mitigation package. During that time, the servicer also agrees to halt foreclosure actions and to stop accruing penalties. The servicers agreed to designate representatives, known as "Team Maryland" to serve as the direct points of contact for counseling agencies in Maryland working with distressed homeowners and to engage in marketing and outreach efforts to help reach distressed borrowers. The servicers also agreed to establish or continue internal policies that offer staff incentives for loan modifications, and to refrain from offering incentives that encourage foreclosures. While voluntary, the Maryland Servicer Agreement has the potential for

increasing the number of borrower workouts—and thereby reducing foreclosures—by addressing concerns about a lack of servicer engagement in the loss mitigation process.

Finally, another step taken by the state was the passage in April 2008 of legislation that extended the foreclosure timeline to give borrowers more time to seek resolutions short of foreclosure. With this change, lenders were required to provide borrowers with 45-days to respond to a notice of default before initiating foreclosure proceedings. In addition, the foreclosure sale cannot occur until at least 45 days after foreclosure is initiated by serving the borrower with court papers. The extended foreclosure timeline in essence created a type of foreclosure moratorium during the second quarter of 2008 that is evident in Exhibit 1 as a noticeable dip in the number of foreclosures started.
Of course, Maryland was not alone among the states in taking steps to help borrowers avoid foreclosure. Of note are efforts by neighboring states, as elsewhere in this paper we use these states as points of comparison with Maryland. Delaware, for example, has engaged in a variety of outreach efforts to distressed borrowers, including sending postcards to borrowers who missed four payments, sponsoring public events to connect borrowers with counselors and legal assistance, and training community leaders to help them understand the foreclosure process to help their constituencies connect with the resources they might need. New Jersey has also hosted housing fairs and other educational events for the public and created a web-based compendium of information on resources to assist borrowers. Like Maryland, Virginia also enacted changes in the laws governing the foreclosure process to allow borrowers additional time to seek resolutions short of foreclosure.

One of the more significant efforts by neighboring states is a statewide foreclosure mediation program in New Jersey enacted in October 2008 and operational by early 2009. The program mandated mediation for all cases where borrowers contested a foreclosure action and also informed borrowers in uncontested cases of the availability of mediation. In conjunction with this program, New Jersey also allocated $12.5 million to support counseling and mediation services.

Initial Experience with the Home Affordable Modification Program

With the advent of Obama administration, the federal government took a more aggressive stance toward promoting loan modifications through the Making Home Affordable, Home Affordable Modification Program (HAMP). HAMP was announced in March 2009, with implementation beginning by late May. The program was modeled after efforts by the FDIC to modify loans formerly held by IndyMac to reduce monthly payments to affordable levels for distressed borrowers. The program implements a standard waterfall process to reduce monthly payments on modified loans to 31 percent of gross income by first reducing interest rates, then extending the term, and finally reducing the outstanding principal. Unlike previous efforts that relied purely on voluntary participation by lenders, participation in HAMP was mandatory for lenders that had benefited from federal assistance through the Financial Stability Plan. In addition, the program offered financial payments to servicers and investors for implementing loan modifications, but companies were only eligible to receive these payments if they agreed to abide by the program's guidelines for offering modifications to all eligible borrowers. With many of the largest loan servicers required to participate, the HAMP program covers more than 85 percent of outstanding mortgages in the country. With such wide coverage and clear guidelines for the approach to be used to modify loans, HAMP has great potential for overcoming the most significant barriers to more widespread loan modifications.

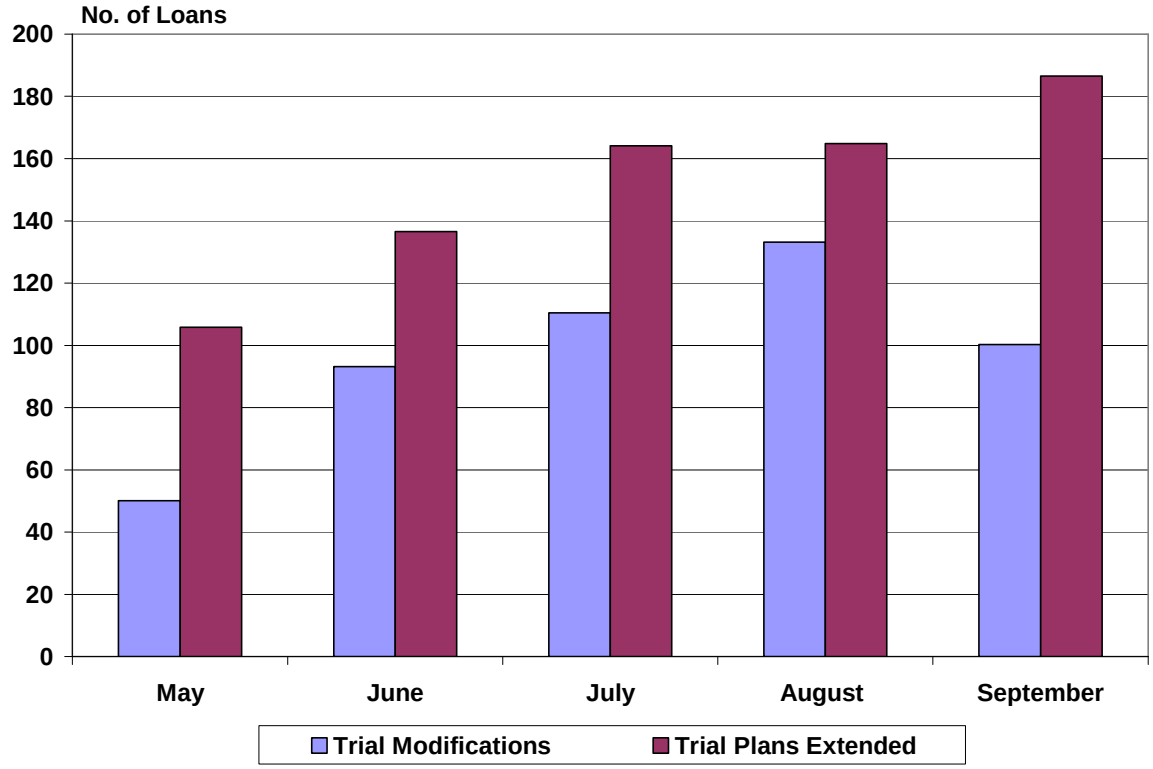
Before a servicer, borrower or investor can receive compensation through HAMP for completing a modification, the program requires that a borrower go through a trial period of three months making payments at the level to be required by the modification to demonstrate the modified loan will truly be affordable. In the initial months of the program, the key statistic is thus the number of trial modifications. It may be for this reason that the statistics on repayment plans and modifications reported through Hope Now and shown in Exhibit 2 above show a spike in repayments and a decline in modifications as of the second quarter of 2009. Servicers may also have been holding off on finalizing loan modifications during this period while waiting for formal acceptance into the HAMP program in order to be eligible to claim the HAMP program's incentive payments for completing loan modifications.

HAMP modifications include two key steps. The lender must analyze a borrower's 'net present value' (NPV) for modification versus foreclosure. The NPV calculation includes borrower payment history and credit score to predict how likely a borrower will cure or foreclose, as well how much the loan will lose in the case of foreclosure based on MSA and statewide real estate trends and loss severities. The other key step is that borrowers complete HAMP application forms, including an IRS form to request 2 years of tax forms, pay stubs and a narrative hardship affidavit. Some lenders will offer verbal modifications—referred to as "extending" a trial plan—starting the 3 month trial and collecting paperwork in the interim if the NPV is positive. Others request a HAMP application package first, review the materials and then run the NPV, making the trial period contingent only on regular payments. Lenders may provide non-HAMP modifications in any case, but generally seek out HAMP subsidized modifications first.

The initial report on the program in July 2009 from the U.S. Treasury was disappointing as the number of trial modifications was significantly below expectations. As of the end of May 2009, only a small number of trial modifications had been started (Exhibit 4). By June, the program had begun to achieve a pace of nearly 100,000 trial modifications per month, and increased to a rate of 110,000 per month in July.

The Treasury Department has also been tracking the number of trial plans extended to borrowers but not yet executed pending the submission of formal documentation by borrowers (Exhibit 4). The pressure by the administration on servicers in the later half of the summer had a noticeable effect on the number of trial plans *extended* to borrowers, increasing from 137,000 in June to 187,000 in September. However, while the number of plans extended has continued to increase, the number of trial modifications fully executed declined in September to 100,000. It is not clear why the number of modifications executed is falling even as the number of trial plans extended has continued to increase.

Exhibit 4. HAMP Trial Modifications and Trial Plans Extended

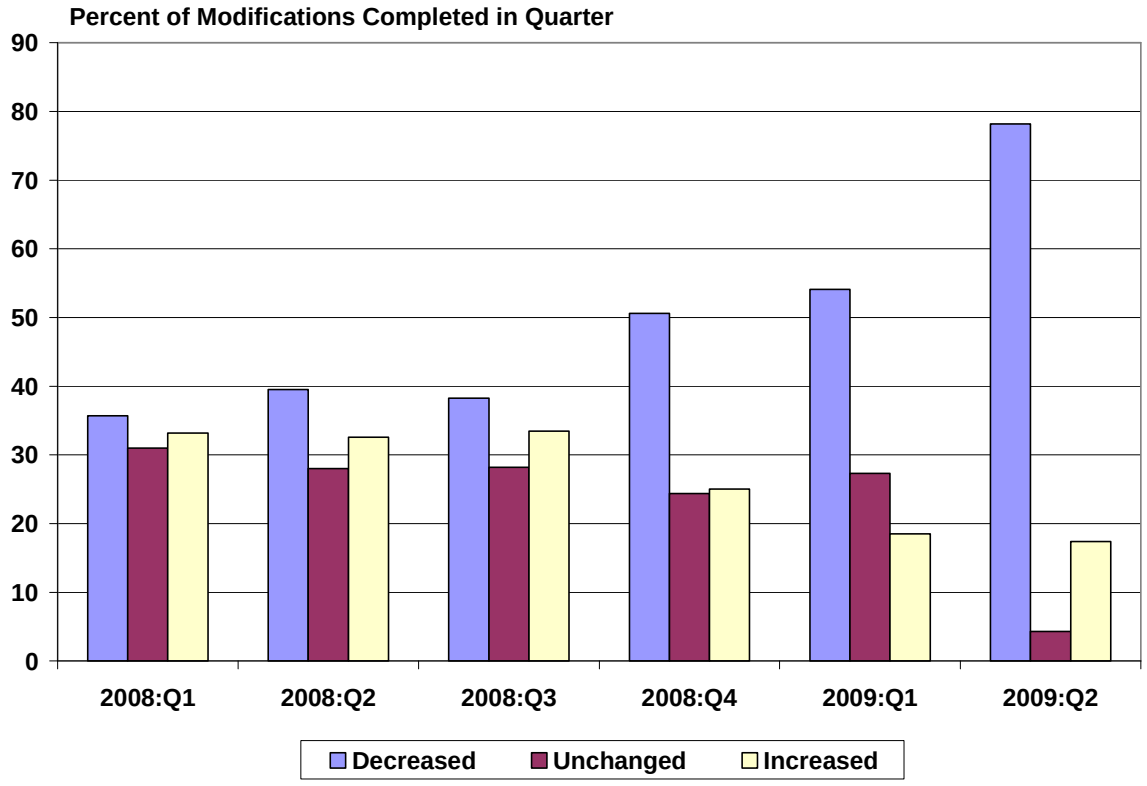


Source: Making Home Affordable Servicer Performance Report Through September 2009

Of particular note is the fact that there has been tremendous variation across the participating servicers in the estimated share of eligible loans at least 60 days delinquent and eligible for the program that were modified. As of July, while the most active servicers had modified 20 percent or more of these loans, many servicers had modified fewer than 10 percent, and half of the largest servicers had modified fewer than 5 percent. Overall, 9 percent of eligible loans had a trial modification in place. This led the administration to increase pressure on specific servicers to redouble their efforts to modify loans through public reports of their performance and direct appeals to leading managers of these firms. By the end of August the pace of modifications had increased further to more than 130,000 a month. By September many more servicers were reported to have trial modifications in place for more than 10 percent of eligible loans, so that overall 16 percent of eligible loans had a trial modification in place.

There is evidence that loan modifications are increasingly resulting in reduced payments for borrowers. According to data reported by Hope Now, the share of modifications that result in reduced payments for borrowers has increased from less than half to nearly 80 percent between the third quarter of 2008 and the second quarter of 2009, with the sharpest increase coming in the last quarter (Exhibit 5). The larger jump in this last quarter may reflect the impact of the HAMP program in directing servicers to execute modifications that result in reduced payments.

Exhibit 5. Share of Modifications by Whether Monthly Payment Decreased, Increased, or Was Unchanged



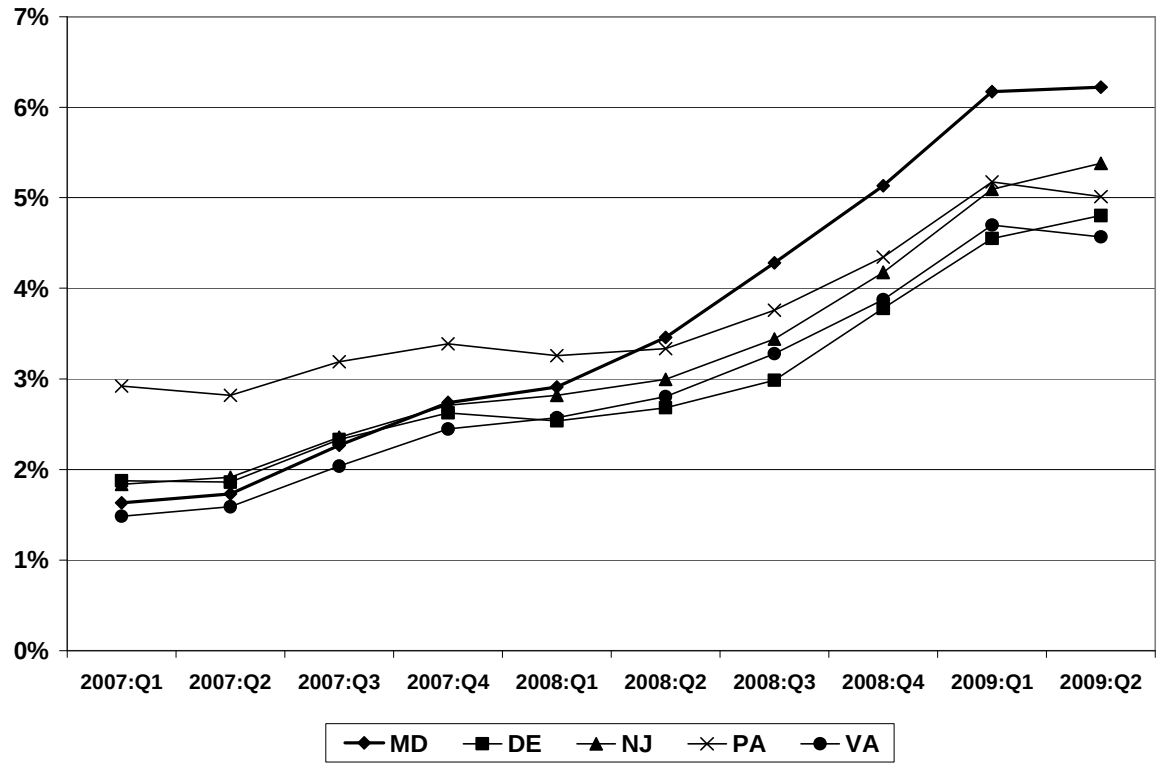
Source: OCC and OTS Mortgage Market Metrics, First Quarter 2009 and Second Quarter 2009

State Trends in Delinquencies, Foreclosures and Loan Modifications

In the next section of this report, we present an analysis of loan-level data for a large pool of securitized subprime loans. This analysis includes information on loans in four neighboring states as a point of comparison with the experience of borrowers in Maryland. To help place that analysis in context, this section presents trends in delinquencies, foreclosures, and loan modifications in these same states based on data reported by Hope Now. According to Hope Now estimates, these data cover a much broader segment of the mortgage market than the subprime loan-level data to be analyzed, including about 70 percent of prime loans and nearly all of the subprime market.

Exhibit 6 compares trends in the share of loans 60-days delinquent for Delaware, Maryland, New Jersey, Pennsylvania and Virginia. As of early 2007, Pennsylvania had a notably higher 60-day delinquency rate of about 3 percent compared to between 1.5 and 2 percent in the other states shown. As the mortgage crisis worsened, delinquency rates rose sharply in all of these states. However, the increase was sharpest in Maryland, while Pennsylvania experienced the smallest increase. By the end of the second quarter of 2009 Maryland had the highest 60-day delinquency rate of these states at more than 6 percent, with other states ranging between 4.5 and 5.5 percent. Thus, the growth in loan delinquencies has been somewhat more significant in Maryland compared to its neighbors.

Exhibit 6. Share of Loans 60-Days Delinquent

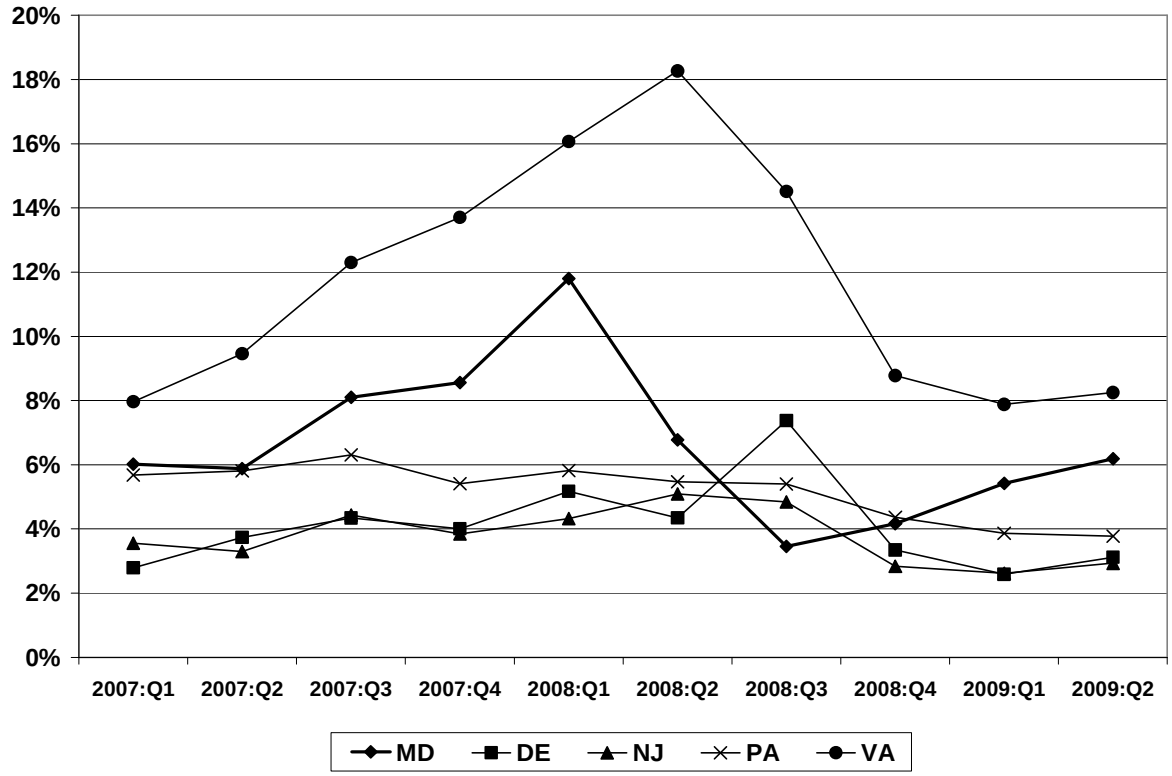


Source: Hope Now Alliance, State Loss Mitigation Data, June 2009.

The Hope Now data also reports a count of the number of foreclosures completed (Exhibit 7). Foreclosures completed are presented as a ratio to the number of loans 60-days delinquent in order to provide some control differences across states in the extent of mortgage delinquencies. As shown, Virginia stands out as having a much higher foreclosure rate than other states. In part this may reflect the fact that Virginia's non-judicial foreclosure process has one of the shortest foreclosure timelines among these states. Researchers at Freddie Mac present estimates of typical foreclosure timelines by state (Cutts and Merrill, 2008). According to this report, a foreclosure in Virginia can be completed in 186 days from the time a mortgage payment is missed. Maryland also has a much higher foreclosure rate than the other states, and is estimated to also have a relatively fast foreclosure timeline at 189 days. Among the other three states, the estimated time to foreclose is 289 days in Delaware, 321 days in Pennsylvania, and 410 days in New Jersey.

The data in Exhibit 7 do show a significant decline in foreclosure completions in Maryland in the second quarter of 2008. This likely reflects a change in state laws governing the foreclosure process that went into effect in April 2008. As a result of this law, a foreclosure cannot be completed any earlier than 135 days after default, whereas previously foreclosures could be completed in as little as 15 days. The change in the law in essence created a foreclosure moratorium that significantly reduced the foreclosure completion rate in Maryland in the second and third quarters of 2008 so that Maryland then had the lowest foreclosure rate of the five states shown. Since then the foreclosure rate has slowly increased again so that the state once again ranks second behind Virginia. But the foreclosure rate has also fallen sharply in Maryland, so that as of the second quarter of 2009 there was much less difference across these five states than was evident in early 2008.

Exhibit 7. Foreclosures Completed as Share of 60-Day Delinquencies

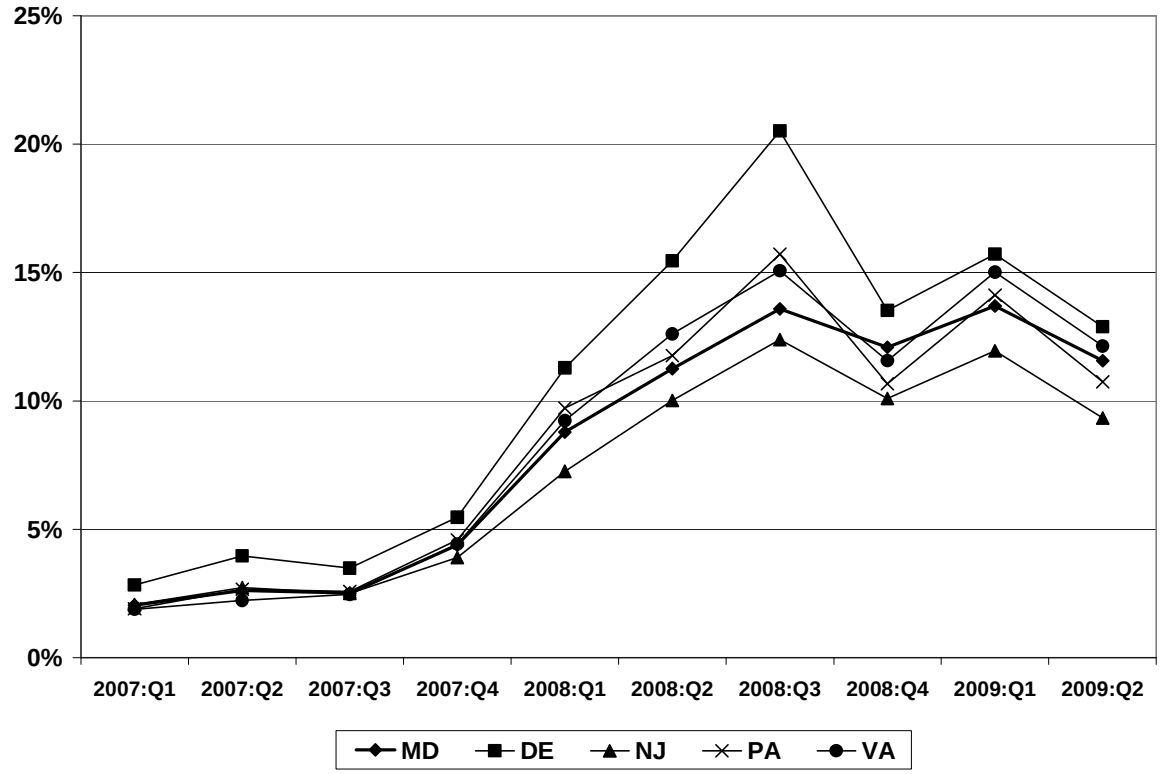


Source: Hope Now Alliance, State Loss Mitigation Data, June 2009.

Exhibit 8 presents trends in the incidence of loan modifications among these five states, again expressed as a ratio to the number of loans 60-days delinquent. As shown, the incidence of loan modifications relative to the volume of delinquencies has generally been highest in Delaware and lowest in New Jersey. Maryland has generally been in the middle of the range. All five states show very similar patterns in the incidence of loan modifications, increasing fairly significantly beginning in early 2008, declining in the 4th quarter of 2008, increasing slightly in the first quarter of 2009, before declining again in the second quarter. In general, differences in loan modifications rates have narrowed over time. Maryland has seen some slightly larger increases and so now ranks slightly ahead of Pennsylvania.

That Maryland has slightly higher volumes of foreclosures for some periods reflects differences in housing markets and the risk factors of borrowers in the state. Unfortunately examining trends using aggregated data is complicated by these unobserved differences. A better approach is to use loan level data which permits controlling for risk factors, loan types and servicer. The next section details one attempt to perform such an analysis.

Exhibit 8. Loan Modifications as Percent of 60-Day Delinquencies



Source: Hope Now Alliance, State Loss Mitigation Data, June 2009.

Loan Level Analysis of Borrower Outcomes in Maryland and Surrounding States

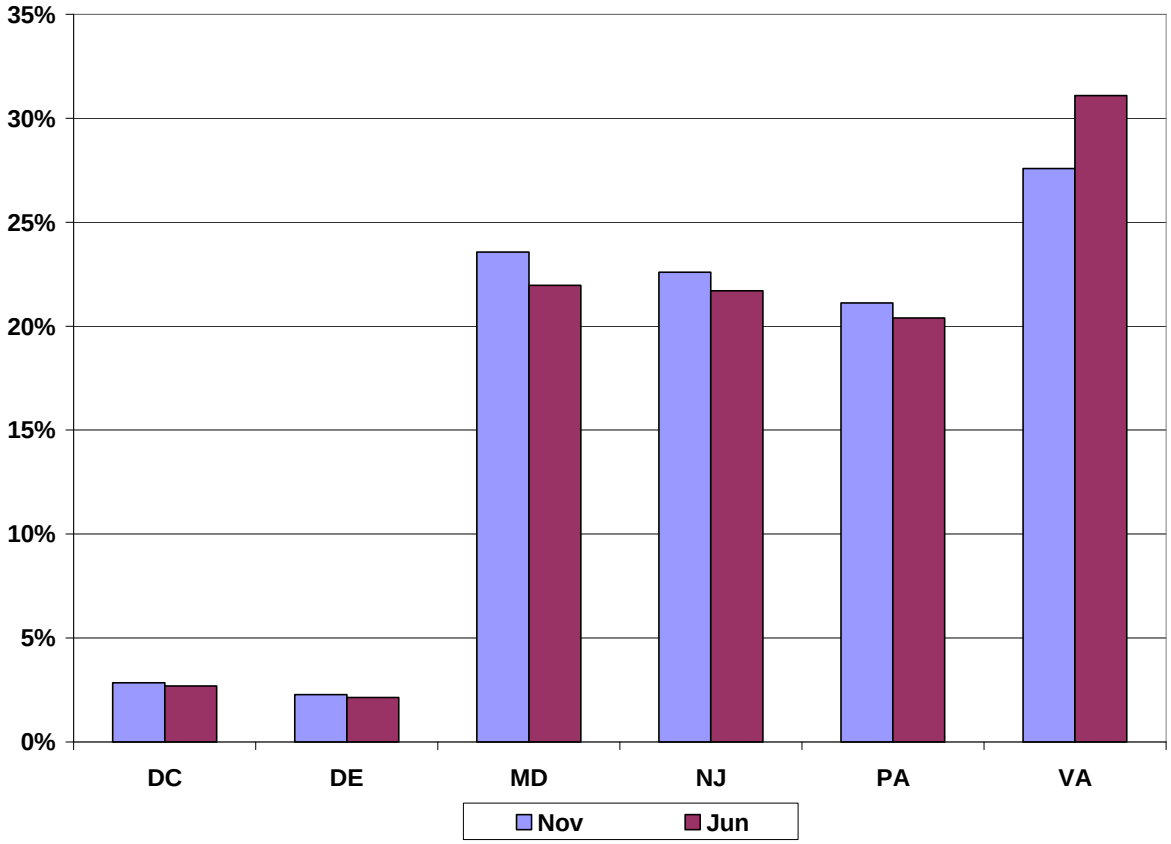
In order to explore in more detail the factors associated with borrowers obtaining loan modifications or other means of avoiding foreclosures, this section presents an analysis of loan-level data on a large pool of subprime loans. Specifically, the data selected for this analysis are drawn from the Columbia Collateral File distributed through the Corporate Trust Services (CTS) platform provided by Wells Fargo. Wells Fargo serves as the trustee for 3.5 million securitized privately-placed mortgages originated predominately between 2000 and 2008 and placed into mortgage-backed securities. Although Wells Fargo originated a small portion of loans in the data and services about 15 percent of the loans in the data, most loans were made by other lenders and serviced by other servicers. More than 100 lenders/servicers are represented in the data. Data are distributed via the internet primarily so that investors in mortgage backed securities can monitor the underlying value of the loans comprising various securitized pools.

The data, which we refer to as the CTS data, provide a monthly snapshot of the status of all loans in the subprime securities for which Wells Fargo is the Trustee. The data are made available in the third week of each month to report on the prior month. Data for this analysis were downloaded for November 2008 and June 2009, and thus provide a snapshot of the status of these loans as of these two points in time. The earlier period represents the first month in which detailed data on loan modifications became available (CTS does offer updates of prior periods but with little detail). Recall November 2008 also represents a period in which foreclosure moratoria were not uncommon and there was no large scale federal effort yet in place. A second snapshot of data was downloaded to capture June 2009 data, a period after the implementation of HAMP under the Making Home Affordable initiative.

The records on individual loans were matched between the two time periods to create a two-period panel dataset. A small portion of loans (less than 10 percent) were not able to be linked or were missing key variables. The status of the loan for the current month and the previous twelve months is included in each period, as well as the date of any foreclosure, pay off, modification, REO or other action. Data on the original loan is also available such as loan amount and term, as well as current information on the balance owed, current interest rate and credit score. The final dataset contains 280,000 loans which are matched in each period, although some records are missing individual variables which may result in lower numbers of observations in some tables.

Data were downloaded for five states and Washington, DC. (For ease of reference, we will refer to these areas as comprising six “states” although Washington, DC is obviously not a state.) Maryland represents about 20 percent of the total, a similar proportion to Pennsylvania and New Jersey. Virginia is the largest pool of loans in the dataset, representing about 30 percent of the total. DC and Delaware each account for less than 3 percent of the total, as shown in Exhibit 9.

Exhibit 9. Loan Distribution by State in CTS Dataset Nov 2008 & June 2009



Source: CTS data linked November 2008 and June 2009 Dataset

In general the loans in these data represent similar borrowers and loan types across all the states included. Exhibit 10 shows interest rates, FICO credit scores, loan-to-value ratios and other factors are similar across states. Loan balances vary significantly, however, consistent with variations in local housing markets. In general about 2 percent of loans in the data are coded as being modified.

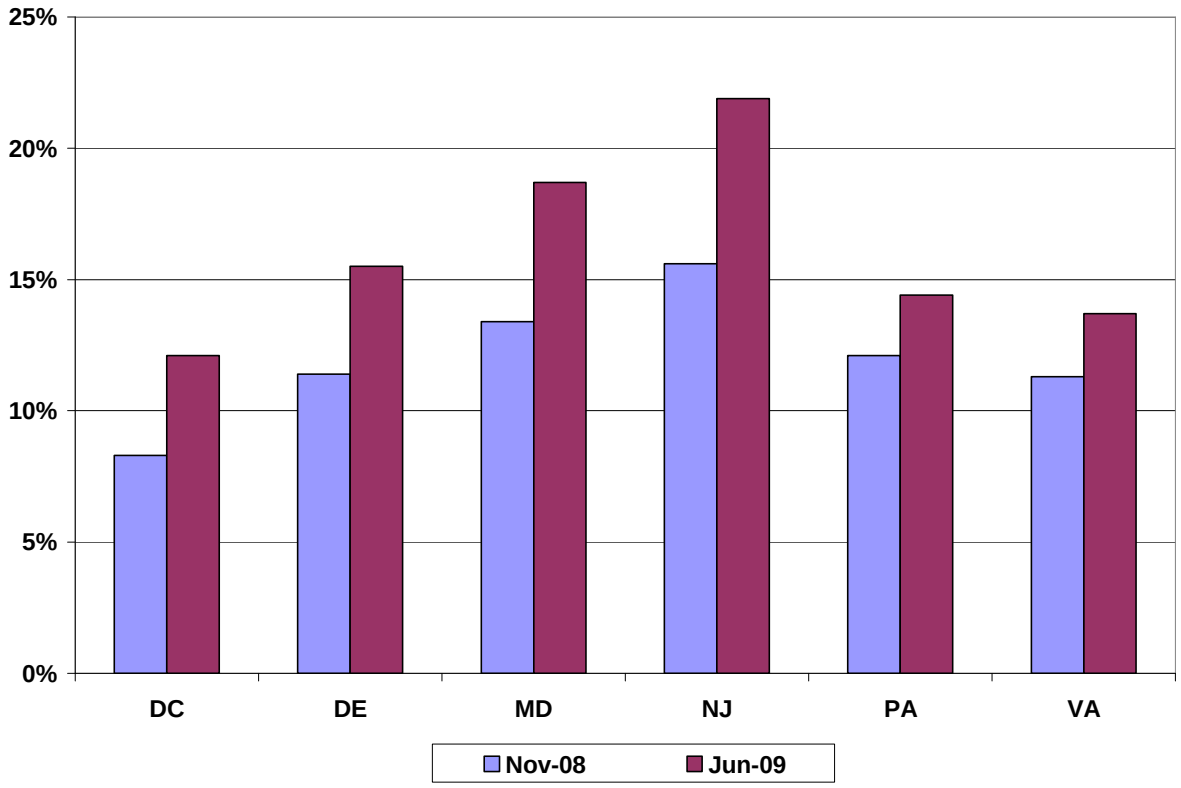
Exhibit 10. Loan Characteristics by State in June 2009

State	Interest Rate	Original Loan Balance	FICO Score	Loan to Value	% second lien	% ARM	% Modified as of June 09
DC	6.5	$ 414,786	701	76.7	3.9%	53.1%	0.9%
DE	7.1	$ 230,868	666	81.9	8.6%	44.3%	1.8%
MD	6.9	$ 310,877	678	82.5	8.4%	50.1%	1.9%
NJ	7.0	$ 335,280	674	78.8	6.2%	51.5%	1.9%
PA	7.8	$ 161,704	649	82.4	7.8%	40.2%	2.0%
VA	6.6	$ 329,025	692	81.4	5.3%	52.8%	1.5%
Total	**7.0**	**$ 292,427**	**676**	**81.2**	**6.7%**	**49.2%**	**1.8%**

Source: CTS data June 2009 Dataset

Between November 2008 and June 2009, there were clear signs of an increase in borrowers' financial distress as the economic recession deepened. Exhibit 11 shows the share of loans by state that were at least 90-days delinquent at these two points in time. Overall about 13 percent of loans in the dataset were 90 days or more delinquent in November 2008, which increased to about 17 percent by June 2009. All states in the dataset experienced an increase in serious delinquencies (defined as 90 days or more behind) between November 2008 and June 2009. The trends in overall serious delinquency rates by state remained consistent over time however, with New Jersey displaying higher rates than other states in the region, while Maryland ranked second. Note that there is a difference in state rankings in this exhibit compared to Exhibit 6 above reflecting the fact that the CTS data is only for a subset of subprime loans in each state.

Exhibit 11. Percent 90+ Days Past Due by State Nov 2008 and Jun 2009



Source: CTS data linked November 2008 and June 2009 Dataset

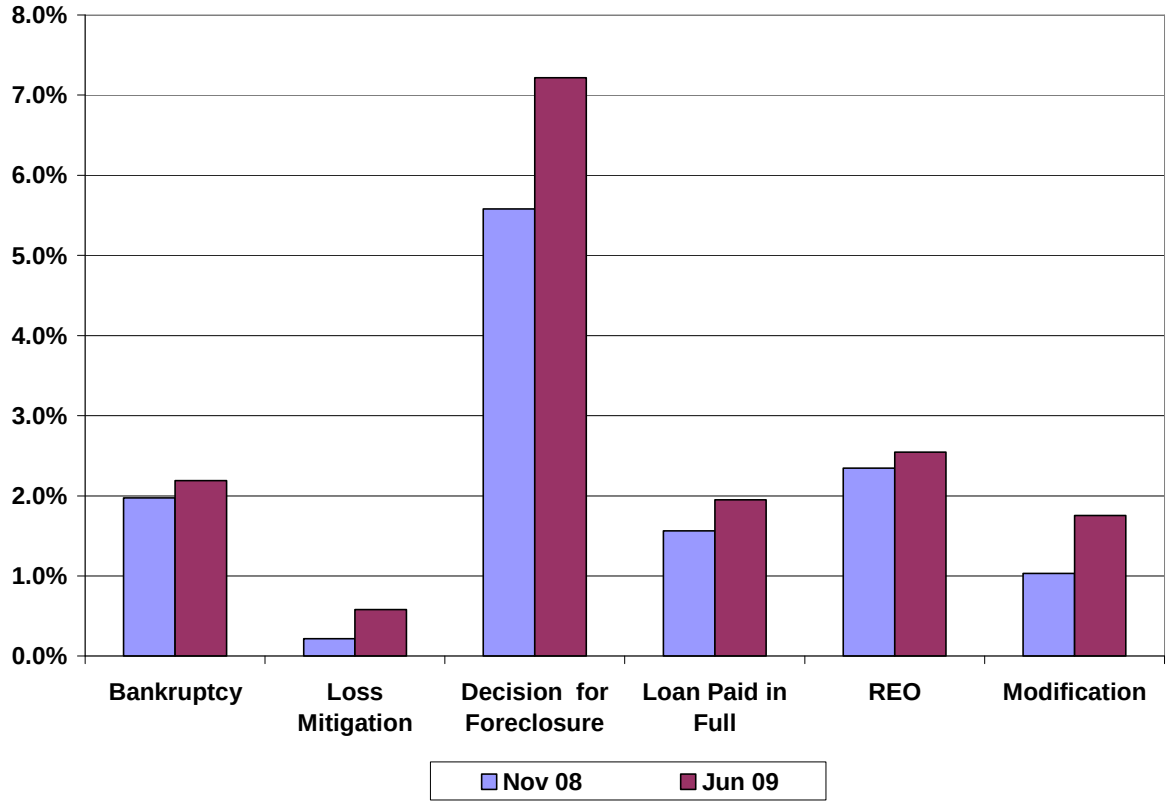
The CTS data also provides information on current "lender actions" on each loan, which include borrower in bankruptcy (generally meaning lender contact with the borrower is restricted), decision for loss mitigation, a decision for foreclosure, paid in full, REO (Real-estate-owned, or bank ownership) or no action has been taken, the majority of which are current.[15] The decision for

[15] "Lender action" is a term used in the CTS data, although the actions obviously include steps taken by the borrower (such as bankruptcy and loan pay off) as well as the lender (such as foreclosure initiation and REO).

foreclosure represents the servicers attempt to reposses the property rather than further pursue an alternative such as a modification or other loss mitigation. Modfications represent more formal restructuring of loan terms. Loss mitigation includes shorter term forbearance or other temporary measures. REO indicates that a foreclosure has been completed and the lender has taken ownership of the property and is beginning the process of liquidating the property in the local housing market.

Exhibit 12 shows the distribution of loans by lender action in November 2008 and June 2009 in the data analyzed. Consistent with the signs of deterioration in the status of loans shown in Exhibit 11, Exhibit 12 shows a large increase in the share of loans where the lender has decided to pursue a foreclosure filing. In November 2008 about 5.6 percent of loans in these 6 states in this dataset were in the foreclosure process; by June more than 7 percent of loans in the data were in this category.

Exhibit 12. Loan Actions for Mid Atlantic Region
(Percent of All Loans November 2008 and June 2009)

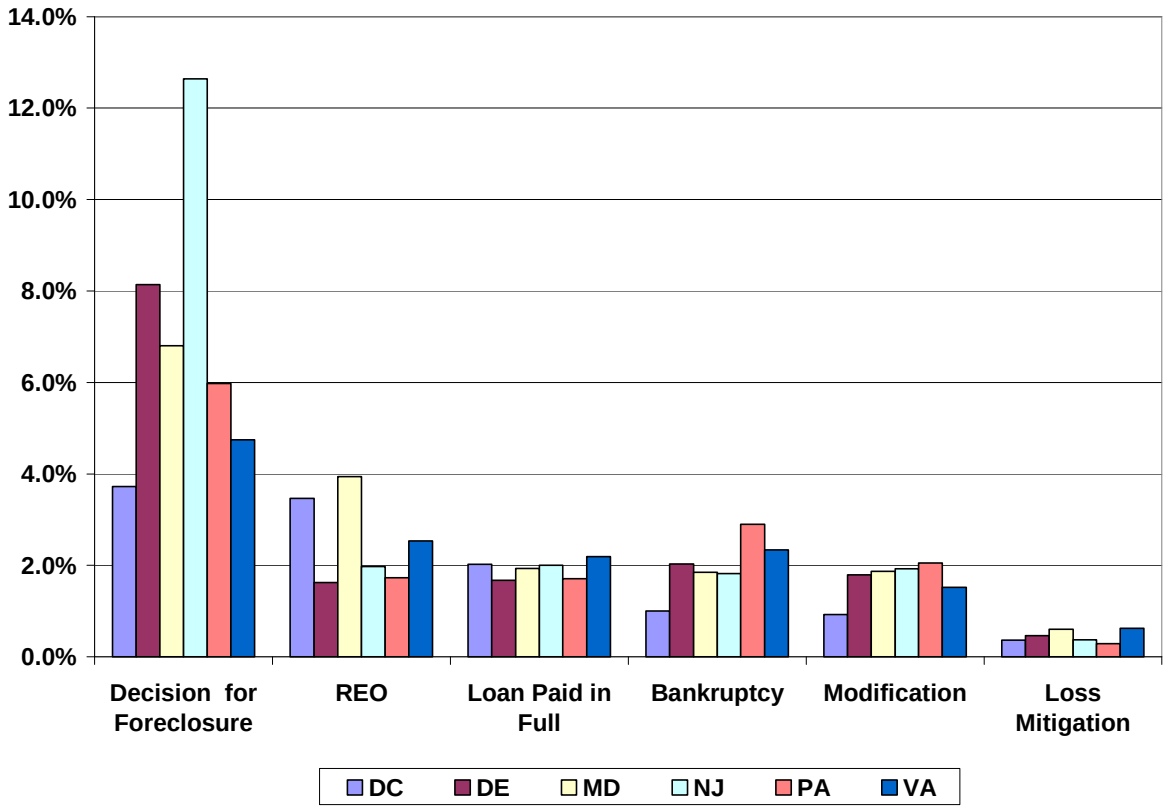


Source: CTS data linked November 2008 and June 2009 Dataset

Exhibit 13 shows the variation in lender actions across the six states. In general, there is fairly large variation in the share of loans entering foreclosure that mirrors the shares of loans that are delinquent shown in Exhibit 11 above. There is a much higher share of loans entering foreclosure in New Jersey, which has the highest delinquency rates of the group, and a much lower share in the District of Columbia, which has the lowest delinquency rate. Interestingly, while Maryland has the second highest delinquency rate among these areas, it ranks third among the group in foreclosure rates. There is also significant variation across states in the share of loans in REO, which likely reflects differences in market conditions in these states that determine how long properties are owned by

lenders. There is much less variation in the share of loans in other categories, particularly loan modifications. Most states have about 2 percent of loans that have been modified, with slightly lower rates in the District of Columbia and Virginia.

Exhibit 13. Loan Actions by State, % of all loans as of June 2009



Source: CTS data linked November 2008 and June 2009 Dataset

An important question is how borrowers who were in trouble in November 2008 fared as of June 2009. Some borrowers may cure and others may fall further behind. Lenders may seek foreclosure or some alternative. Exhibit 14 shows the status of loans in the 6 state region as of June 2009 based on each loan's November 2008 status. Of loans in the most serious delinquency status (90 days or more) as of November 2008, more than half were either in foreclosure (35 percent) or had a foreclosure completed and had entered the REO status (20 percent) by June 2009. One quarter (25 percent) had no action taken. The remaining borrowers avoided foreclosure either by filing for bankruptcy (11 percent), having their loan modified (3.3 percent), engaging in other loss mitigation (1.6 percent), or managing to pay off their loan (3.9 percent). Loans that were 30 days or 60 days behind in November were both generally somewhat less likely to have entered foreclosure than loans 90 days or more behind, and were slightly more likely to have had a modification (with both categories at 4.1 percent versus 3.3 percent for 90 day delinquencies).

Exhibit 14. Lender Action by June 2009 by Loan Status in November 2008

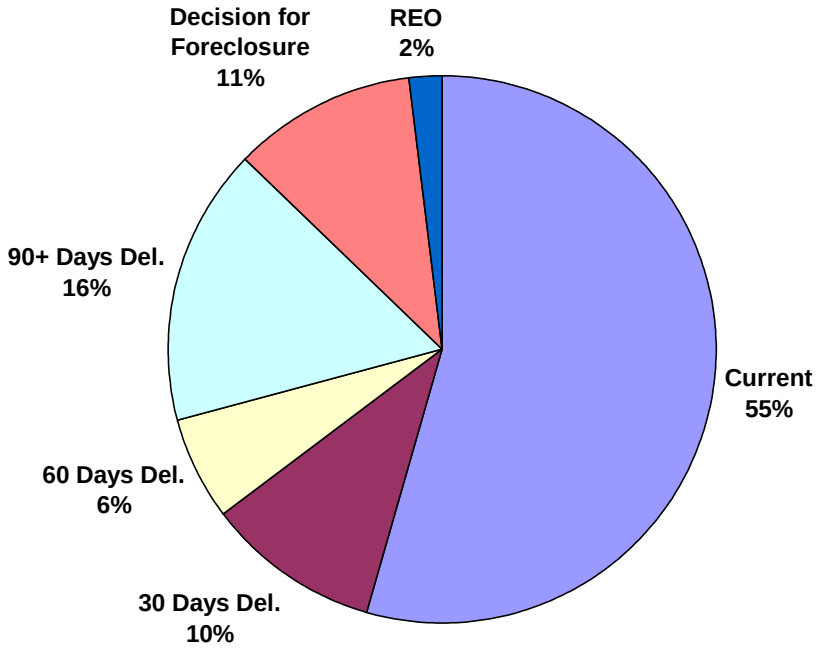
Action as of June 2009	Loan Status in November 2008				
	Current	30 day	60 day	90+ day	All Loans
No Action	93.0%	69.6%	56.8%	25.0%	83.5%
Bankruptcy	0.8%	4.9%	5.9%	10.9%	2.2%
Loss Mitigation	0.3%	1.3%	1.7%	1.6%	0.5%
Decision for Foreclosure	2.6%	17.9%	27.1%	35.1%	7.4%
Loan Paid in Full	1.7%	0.9%	1.2%	3.9%	1.9%
REO	0.1%	1.4%	3.3%	20.2%	2.6%
Modification	1.5%	4.1%	4.1%	3.3%	1.9%

Source: CTS data linked November 2008 and June 2009 Dataset

Information on Loan Modifications in CTS Data

A total of 4,675 loans in the CTS dataset in these 6 states are flagged as having had a loan modification as of November 2008, while 7,308 were flagged as modified as of June 2009. Given the large pool of loans 90 days or more past due (66,000 in November), modifications remain relatively rare. As of June 2009, 55 percent of loans modified as of November 2008 were still current. While only 2 percent went to REO, 11 percent moved to foreclosure and 16 percent were seriously delinquent (Exhibit 15).

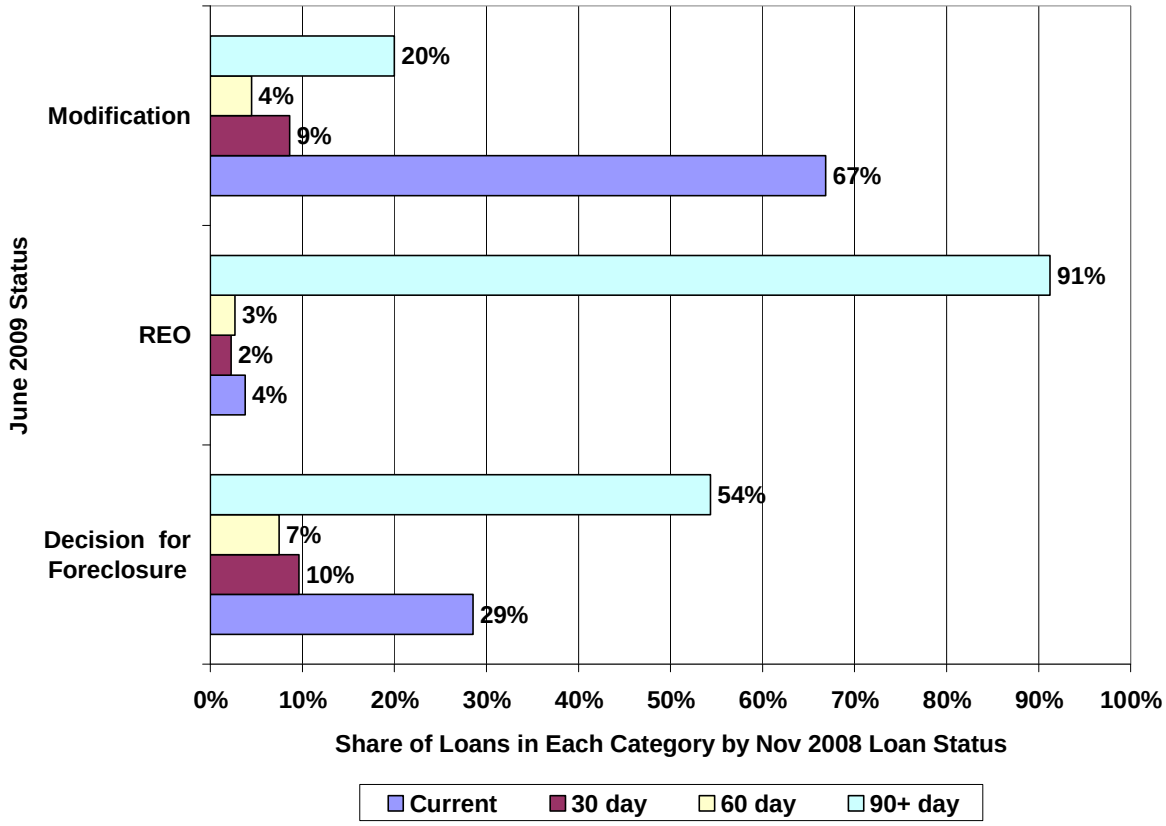
Exhibit 15. June 2009 Status of Loans Modified as of Nov 2009



Source: CTS data linked November 2008 and June 2009 Dataset

A related issue is which loans receive a modification versus a decision for foreclosure. Exhibit 16 shows the payment status as of November 2008 of loans that were modified as of June 2009. This shows how loans may move from delinquency to various outcomes. Two-thirds (67 percent) of loans that were modified as of June 2009 were current in November 2008 while only 20 percent were seriously delinquent (90 days or more past due) at that time. In comparison, loans in foreclosure or REO in June 2009 were much more likely to have been seriously delinquent in November 2008.

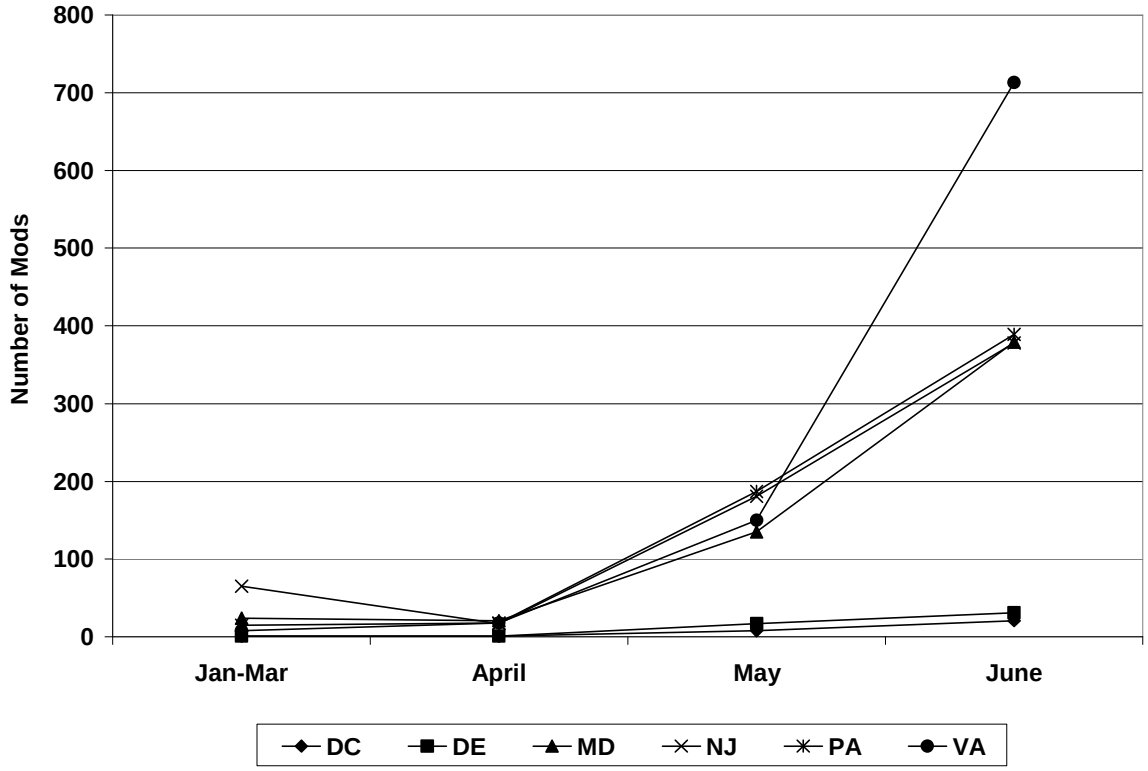
Exhibit 16. Nov 2008 Status of Loans by Lender Decision as of June 2009



Source: CTS data linked November 2008 and June 2009 Dataset

Data from the CTS suggests that an increase in loan modifications in 2009 has largely occurred in the wake of the launch of HAMP in March. As shown in Exhibit 17, the number of loan modifications began to increase in May and exhibited a noticeable spike in June—the month that these data were downloaded from the CTS. The extent to which these modifications are eligible for financial incentives under HAMP is not known, but volume clearly increased sharply at this point.

Exhibit 17. Loan Modifications in 2009 by Month (Jan-June)



Source: CTS data linked November 2008 and June 2009 Dataset

Consistent with information from Hope Now shown in Exhibit 5, the CTS data show there has been a remarkable shift in the type of modifications made in 2009 compared to 2008. In 2008 only about one in three modifications lowered monthly payments. In 2009 more than seven out of ten did. Since modified loans with reduced payments have been found to have lower risk of default, this trend suggests that the performance of modified loans may improve over what is evident in Exhibit 15. Examining the CTS data for these 6 states, 58 percent of 2008 loan modifications where the payment went up or was unchanged were current as of June 2009, compared to 75 percent of those with lowered monthly payments.

The primary mechanism for reducing payments appears to be through a reduction in interest rates (Exhibit 18). The average modified loan has a balance larger than the original balance of the loan when it was first originated, including more than $13,000 in capitalized fees and past due payments. Just over half have some capitalized amount.

Exhibit 18. Characteristics of Loans Modified in 2009 by State

	Average Original Balance	Average Current Balance	Average Total Capitalized Amount	Share with Capitalized Amount	Share with Reduced Payment	Share With Interest Rate Reduction	Change in Interest Rate Nov 2008 to June 2009 (%)
DC	308,878	314,028	15,362	32%	81%	87%	-3.83
DE	182,075	187,348	10,412	60%	72%	76%	-2.70
MD	269,541	276,423	13,237	49%	75%	79%	-3.61
NJ	280,722	291,205	20,657	54%	65%	69%	-3.47
PA	134,596	140,312	10,432	59%	65%	68%	-3.14
VA	245,923	249,713	9,368	47%	84%	86%	-4.38
All	**232,837**	**239,713**	**13,138**	**52%**	**73%**	**76%**	**-3.72**

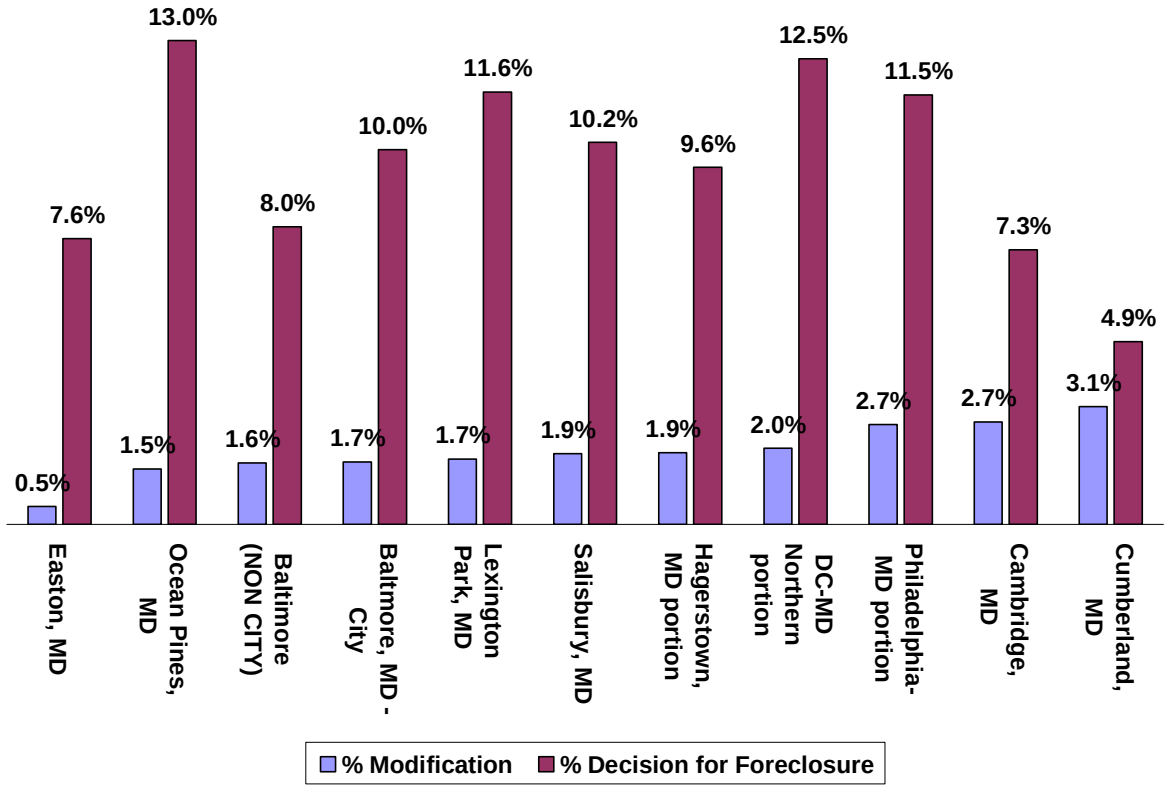
Source: CTS data linked November 2008 and June 2009 Dataset

The HAMP program specifies that services follow a specific "waterfall" process in modifying loans to achieve a target monthly payment of 31 percent of borrower income, which requires that servicers first lower the interest rate, then, if needed to reach the payment target, extend term and, finally, if still needed to achieve the target, reduce the principal balance. The table below suggests rate reductions remain the primary tool for lowering borrowers' payments. Exhibit 18 shows rate reductions are widely used and typically reduce interest rates by one-third to one-half of the rates listed in November 2008 among loans modified in 2009 with rate reductions.

Variation within Maryland in the Incidence of Loan Modifications

Within Maryland there are variations in housing market conditions, employment trends, and borrower characteristics. In markets with weak housing values and dramatic declines in employment, foreclosures are likely to be more prevalent. Exhibit 19 shows the share of loans on which lenders have decided to foreclose and the share of loans lenders have decided to modify. These rates vary across Maryland's Core Based Statistical Areas (CBSA) as defined by the US Census Bureau. As expected, the share of loans in the foreclosure process varies quite a bit across market areas, from a low of about 5 percent in the Cumberland CBSA (Allegany County) to a high of 13 percent in the Ocean Pines CBSA (Worcester County). The rate of modifications as a share of all loans also varies across markets, but not nearly as much. Most areas have modification rates of 1.5 and 2.0 percent, with two of the areas with the highest share of modified loans having the lowest level of loans in foreclosure.

Exhibit 19. Percent of All Loans in June 2009 in Modification or Decision for Foreclosure by CBSA



Source: CTS data linked November 2008 and June 2009 Dataset

Exhibit 20 provides a more tangible metric of modifications controlling for the performance of loans in each sub-area. For each geographic area, the table shows the number of loans modified as of June 2009, the number of loans 90 days or more delinquent as of November 2008, and the ratio of these two loan counts. The ratio provides an indication of how common loan modifications are relative to the extent of severely distressed loans in each area. Most areas fall within a relatively small range of between 14 and 19 percent. The lowest ratio is in Baltimore City at 12 percent while the highest ratios are above 20 percent in the Cambridge CBSA (Dorchester, Caroline, Garrett and Kent counties) and the Cumberland CBSA.

Exhibit 20
Variation in the Incidence of Loan Modifications Across Markets in Maryland

	Number of Modified Loans as of June 2009	Number of Loans 90 Days Delinquent or More as of November 2008	Ratio of Modified Loans to 90+ Day Delinquent Loans
Baltimore, MD - City	187	1,524	12%
Hagerstown, MD portion	26	199	13%
DC-MD Northern portion	952	6,680	14%
Salisbury, MD	12	84	14%
Ocean Pines, MD	24	155	15%
Easton, MD	3	19	16%
Baltimore (NON CITY)	408	2,426	17%
Philadelphia-MD portion	21	120	18%
Lexington Park, MD	18	95	19%
Cambridge, MD	9	42	21%
Cumberland, MD	12	39	31%

Source: CTS data linked November 2008 and June 2009 Dataset

Variations in the Incidence of Loan Modifications by Servicer

As has been found in other studies, the CTS data reveals a great deal of variation in the incidence of loan modifications across servicers. Exhibit 21 shows patterns of the ratio of 60 day delinquencies by insititution (the metric used by the US Treasury) to loans modified in the state, focused only on the 20 insitutitions that service at least 1,000 loans in the CTS data. (The names of the servicers are not shown as the subset of loans included in the CTS may not be representative of the servicers' overall loan portfolio.) As shown, the ratio ranges from 0 percent to 30 percent. In general, a small number of servicers account for a large share of the modifications that have been executed. The top five servicers in terms of loan modification rate account for 58 percent of all Maryland modifications in the CTS data but only account for 28 percent of 60 day delinquencies.

Exhibit 21
Loan Modifications as a Percentage of 60 Day Delinquencies Among 20 Largest Servicers in CTS Data for Maryland (As of June 2009)

Servicer	60 Day Del +	Mod June 09	Ratio of Modifications as a % of Delinquencies
s-16	1,003	296	30%
s-13	1,464	368	25%
s-6	5,752	1,260	22%
s-5	6,388	1,152	18%
s-3	7,730	1,157	15%
s-8	3,154	382	12%
s-17	806	96	12%
s-7	4,600	374	8%
s-1	14,745	864	6%
s-4	7,109	398	6%
s-15	1,094	71	6%
s-14	1,133	51	5%
s-10	2,174	95	4%
s-2	9,020	265	3%
s-9	2,710	94	3%
s-11	1,911	19	1%
s-12	1,569	18	1%
s-18	786	8	1%
s-20	575	3	1%
s-19	587	2	0%
Remaining Servicers	4,518	345	8%
All Servicers	78,752	7,338	9%

Source: CTS data linked November 2008 and June 2009 Dataset

Modeling Foreclosures, Loan Modifications and Other Workouts

The loan level data available in the CTS provides an opportunity to estimate regression models predicting the likelihood of different borrower outcomes based on the characteristics of the individual borrower, the market where the property is located, and the servicer. Specifically, separate models are estimated to predict the likelihood of a foreclosure being initiated, a loan modification occurring, "other loss mitigation" used, or the loan moving into the lender's REO inventory.

Exhibit 22 shows the means and distribution of these four outcomes, as well as the variables used as controls in the estimated regression models. Overall, 11 percent of loans in the data are in the foreclosure process, 1.9 percent have a modification in place, about a half a percent have loss mitigation reported and 2.7 percent are in the lender's REO inventory as of June 2009.

Exhibit 22 lists a number of control variables used in the models at the loan, zip code and metropolitan statistical area (MSA) levels. Loan level controls include the year the loan was originated. A variety of studies have found that loans made in 2005 through 2007 are associated with a very high risk of default that is not accounted for by other loan characteristics.[16] Overall about 60 percent of loans were made in this period, with most of the remainder made before 2005. Likewise adjustable rate loans might be associated with riskier loans and borrowers, raising the risk of foreclosure, but these loans are also amenable to a 'rate-freeze' loan modification. Loans with private mortgage insurance (PMI) might be associated with a transfer of the risk of a loss to a third party

Exhibit 22
Summary Statistics for Variables Used in Regression Models

	Mean	SD	Min	Max
Dependent Variables				
Decision for Foreclosure	0.111	0.314	0	1
Modification	0.019	0.137	0	1
Other Loss Mitigation	0.006	0.077	0	1
REO	0.027	0.162	0	1
CTS Loan Level Variables				
Origination 2008	0.013	0.113	0	1
Origination 2007	0.135	0.342	0	1
Origination 2006	0.317	0.465	0	1
Origination 2005	0.194	0.396	0	1
ARM (adjustable rate)	0.491	0.500	0	1
Private Mortgage Insurance	0.069	0.254	0	1
Loan Current Nov 2008	0.817	0.387	0	1
Combined Loan to Value Nov 2008	5.814	3.878	0	23.5
FICO Credit Score Nov 2008	674.17	81.81	368	850
Second mortgage in place behind 1st	0.067	0.250	0	1
Log original loan balance	12.328	0.853	0.69	15.34
Borrower in bankruptcy	0.020	0.141	0	1
Zip Level Variables				
HPI % Change 2Q08-2Q09 (zip)	-10.781	3.695	-20.3	21.7
CBP % Change 2006-2007 # jobs (zip)	-0.487	14.770	-100.0	3857.5
2000 Census % owner occupied (zip)	65.205	18.279	0	100
2000 Census % vacant (zip)	5.771	6.228	0	100
2000 Census % White race (zip)	67.867	26.637	0.71	100
2000 Census median HH age (zip)	36.310	4.100	19.7	83
Policy Variables				
Lender in MD Servicer Database	0.390	0.488	0	1
MD Loan by Lender in MD Database	0.098	0.297	0	1
Lender in MD Servicer Agreement	0.161	0.326	0	1
MD Loan by Lender in MD Agreement	0.040	0.189	0	1

Source: June 2009 CTS 2009 data merged to Federal Housing Finance Agency (FHFA) HPI, 2000 Census zip means, 2007 Census County Business Patterns employment. n =279,943

insurer and therefore be less likely for the servicer to pursue alternatives to foreclosure. The payment status of the loan in November 2008, as well as current credit score (FICO) and loan to value ratio (LTV) are other factors that are associated with the probability of default and the severity of losses in the case of a foreclosure. Notably the mean credit score is around 670, a relatively high average for subprime borrowers. Second lien loans present another case where servicers may not be as aggressive in pursuing alternatives to foreclosure since the lender in the second position loan will have a better

[16] See, for example, "Understanding the Subprime Crisis" by Yuliya Demyanyk and Otto Van Hemert, Working paper, Federal Reserve Bank of St. Louis, 2008, and "Juvenile Delinquent Mortgages: Bad Credit or Bad Economy?" by Andrew Haughwout, Richard Peach, and Joseph Tracy, Staff report no. 341, Federal Reserve Bank of New York. 2008.

chance of repayment if the first is modified. Only a relatively small number of second lien loans are in the data, however (7 percent). Original loan balance and the bankruptcy status of the borrower are also key measures to include. The Federal HAMP program includes maximum mortgage amounts that are eligible, limiting modifications for high balance loans. Borrowers in bankruptcy may have restrictions on contact with creditors outside the bankruptcy court proceeding, and therefore be less likely to be pursued for alternatives to foreclosure.

In terms of controls related to the geographic area where the property is located, Federal Housing Finance Agency House Price Index (HPI) data for MSAs provides a level of housing price trends in the broader market, which may influence the servicer's predicted severity of losses in foreclosure as well as the net present value of alternatives to foreclosure. Census County Business Patterns (CBP) at the zip code level provide the trends in local employment from 2006 to 2007, the expectation being in weaker labor markets default are both more likely and harder to resolve. Several demographic factors are included at the zip code level using Census data from 2000. While these data are nearly a decade old, they provide a general level of magnitude regarding neighborhood or community factors which may impact foreclosure and its alternatives. These data are useful in categorizing areas as higher in homeownership, higher in vacant properties, higher in White population and older in terms of median age. All of these Census estimates have likely changed in the last ten years, the relative ranking of neighborhoods in these dimensions tend to be fairly stable over time. Finally a number of 0-1 'dummy' variables are included to indicate a loan being in each state in the analysis, which is intended to capture a variety of state-specific factors, such as differences in foreclosure laws that are not captured by other variables in the model.

A key focus of the regression analysis are dummy variables that are included to indicate whether a servicer is part of the Maryland Servicer Agreement or is required to report information on the status of its loan portfolio in the Maryland servicer database. (Table 1 in the Appendix lists the servicers covered by the Maryland Servicer Agreements and required to report in the Maryland Servicer Database.) These variables are also interacted with the State of Maryland dummy variable to identify loans serviced by these two categories of lender in Maryland rather than other states included in the data used in the analysis. This approach allows for a simple test of the potential impact of these efforts by Maryland to encourage lenders to engage in loss mitigation efforts. In essence, through the interacted dummy variable, outcomes for borrowers whose loans are serviced by these institutions are compared to borrower outcomes in states other than Maryland serviced by these same institutions while accounting for the loan and market characteristics described above. This is a "difference in difference" design and provides a relatively robust measure of impacts.[17] About 10 percent of loans are covered by the Maryland servicer database and about 4 percent by the servicer agreement.

Of note, while other efforts by Maryland to help borrowers avoid foreclosure are arguably more significant—specifically, state support for counseling and pro bono legal assistance—the fact that the servicer agreements and reporting requirements apply only to a subset of lenders in Maryland and were not mimicked by surrounding states provides an opportunity to assess whether these steps by Maryland are associated with any differences in borrower outcomes among the affected servicers. Given that the state's efforts to promote counseling and make pro bono legal assistance available were state wide, there is no natural comparison group available within the state to assess the impact of

[17] Ideally an additional test would be servicer behavior before and after these provisions were implemented. However, modifications in the CTS data were not systematically tracked until November 2008.

these efforts. Of course, if the efforts by Maryland influenced the actions by these servicers in other states as well the analysis will not find any difference in servicer behavior in Maryland. So a finding of no affect of these Maryland efforts does not necessarily mean that there was no effect—just that it is not detectable through this method.

Tables 2, 3 and 4 in the Appendix show the detailed estimation results for linear probability models with robust standard errors. Each table models the same dependent variables: decision for foreclosure, modification, loss mitigation and REO. What differentiates each table is the explanatory variables included. Table 2 includes the indicator for a servicer being included in the Maryland database and then the interaction of an institution being in the database and the loan being in Maryland. This represents the difference in difference effect and may be interpreted as an estimate of the impact of this policy on the institutional practices of the affected servicers. Table 3 includes a similar model for servicers in the Maryland servicer agreement. Table 4 does not include either sets of dummy variables, but instead includes a "fixed effects" dummy variable for each of the largest 20 servicers (defined as number of loans serviced) in the CTS data. This model intends to illustrate the influence of specific servicer practices over and above loan or community level measures.

Most of the explanatory variables produce similar results between the two estimates in Tables 2 and 3. The results for these variables are summarized in Exhibit 23 below. As expected loans made in 2005 to 2007 are more likely to foreclose, as are loans with an adjustable rate. Not surprisingly, a loan in default in November 2008 is more likely to be in the foreclosure process in June 2009. In general, bankruptcy is associated with reduced probability of foreclosure or modification, likely an artifact of restrictions on creditors during this process. House prices, employment and Census demographic measures for the zip code each seems to influence foreclosure decisions as expected, although the results are small and often statistically weak. Modifications appear more likely for newer loans, fixed rate loans, loans with lower FICO scores and loans where a borrower is not in bankruptcy. Overall models of modifications and loss mitigation were not able to explain much of the variation in these outcomes, in part due to the very low incidence of these events in the CTS data. In general, modifications and loss mitigations followed similar patterns, with mitigation more likely for older cohorts of loans

Exhibit 23
Summary of Impacts of Factors Used in Regression Models on Foreclosure and Modifications

Factor	Expected Result	Finding
Year Originated	2005-07 Riskier	Confirmed
ARMs	Riskier	Confirmed
PMI	Riskier; Fewer Mods	Confirmed (small effects)
FICO Score	Riskier; Fewer Mods	Confirmed (small effects)
Loan Current in Nov 08	Less Risky	Confirmed
LTV	Riskier	Confirmed (small effects)
Second Lien	Riskier; Fewer Mods	Less Risk of Foreclosure/REO; Fewer Mods (small effects)
Loan Balance	No prediction	More Mods for Larger Loans
Bankruptcy	Riskier; Fewer Mods	Confirmed
Home Value Changes	Riskier; Fewer Mods	Confirmed (small effects)
Employment Changes	Riskier; Fewer Mods	Mixed (v. small effects)
Homeownership Rate	Less Risky	Less Foreclosure, REO n.s.
Vacancy Rate	Riskier; Fewer Mods	Mixed (v. small effects)
Share White	Riskier; Fewer Mods	Partially confirmed (v. small effects)
Mean Household Age	Less Risky; Fewer Mods	Confirmed (small effects)

Source: Tables 2-3

Table 2 includes the interaction between loans in Maryland and a servicer holding that loan being covered by the servicer database. The results suggest these loans are less likely than loans in other states with the same servicer, controlling for other characteristics, to have a decision for foreclosure. The estimated effect is about 1.4 percentage points lower (given a mean rate of about 10 percent this suggests about a 14 percent marginal effect). This result suggests that the state's reporting requirement may have led servicers to take greater steps to avoid foreclosure. Loans serviced by these lenders in Maryland are less likely to have a modification in place, controlling for other factors, but more likely to institute another form of loss mitigation. These effects are small however. These lenders also appear more likely to move loans to REO, although again small in effect. Servicers in the Maryland database and servicer agreement were more likely to make loan modifications in general.

Table 3 shows a similar model for assessing outcomes associated with Maryland's servicer agreements. The interaction term suggests that relative to nearby states lenders behave differently if covered by the Maryland agreement. Foreclosure is 3.6 percentage points less likely among these lenders in the state than outside of the state. By this estimate, the Maryland agreement thus resulted in about a one-third reduction in foreclosure (from mean rate of 10 percent). The agreements also are found to be associated with fewer loan modifications (although small in magnitude) and have no effect on the use of other loss mitigation steps. The later may be a bit puzzling—if foreclosure is less likely, why are loan modifications and loss mitigation happening less often? One possible interpretation of these results is that lenders are more actively engaged with borrowers and so less likely to initiate foreclosure while alternatives to foreclosure are pursued. In any case lender behavior appears to be different under these provisions. It should be noted that the difference-in-difference test used here compares the behavior of servicers operating in Maryland to the same servicer in the comparison states, as well as lenders in Maryland not covered by Maryland's servicing policies. This is a relatively strong statistical test and suggests there is a difference in foreclosure outcomes in Maryland associated with the Maryland policies and that the same lenders operate differently in other states controlling for borrower and loan characteristics.

Finally, Table 4 shows the same models only with fixed effects for the 20 largest servicers in the CTS database. Of the 19 servicer dummies, 17 were significant (the remaining servicer is used as the reference category for the other servicers and so is not represented by a dummy variable). The average estimated effect of the servicer on foreclosure probability was about 4.5 percentage points, or about half the overall rate of foreclosure of 10 percent. The estimated effects ranged from nearly zero to more than 12 percentage points. The model was better able to explain variation in modifications as measured by the r-squared measure. These estimates all suggest the servicing institution plays a very important role in loan outcomes, controlling for many other factors.

Findings

This report has studied trends in home mortgage foreclosures and its alternatives in the Mid-Atlantic region as of June 2009. Clearly loan modifications have both increased and changed in nature since the Making Home Affordable HAMP program was launched in early 2009, but foreclosure remains widely used by lenders with loss mitigations and modifications much less frequently pursued. There remains large variation in foreclosures and modifications by servicing firm, suggesting potential for an increase in modifications as institutions develop further capacity.

Modifications made in 2009 are more likely to lower payments, which should also facilitate better repayments. Many modifications result in an increase in principal balance owed, however, which remains a caution for future performance, especially if interest rate reductions expire in coming years.

There is no evidence that modifications and loss mitigation tend to be disproportionately provided to higher income or lower risk borrowers, nor is there evidence of disparate outcomes by racial composition of the neighborhood. Local market factors play a statistically significant role but are small in magnitude.

Maryland's servicer agreement and database both appear to be associated with lower rates of foreclosure on loans covered by these provisions. The effects range from about 14 percent to 36 percent lower foreclosure rates. These provisions are not associated with more loan modifications, however, and may represent delay in decisions for foreclosure rather than more aggressive use of alternatives to foreclosure.

Appendix

Table 1. Lenders Included in Maryland Provisions

MD Servicer Agreement
CITIMORTGAGE, INC.
GMAC MORTGAGE, LLC
HSBC MORTGAGE CORP
LITTON LOAN SERVICING
OCWEN LOAN SERVICING

MD Servicer Database
AMERICAN HOME MORTG
BAYVIEW LOAN SERVICING
CARRINGTON MORTGAGE
CENTRAL MORTGAGE
DOVENMUEHLE MTG CO.
EMC MORTGAGE CORP
FRANKLIN BANK
GMAC MORTGAGE, LLC
GREEN TREE SERVICING
HOMEQ SERVICING CORP
HSBC MORTGAGE CORP
LITTON LOAN SERVICING
LOANCARE SERVICING
MARIX SERVICING
NATIONSTAR MORTGAGE
OCWEN LOAN SERVICING
PHH MORTGAGE CORP
PROVIDENT FUNDING A
SAXON MORTGAGE SERVICING
SELECT PORTFOLIO SERVICING
SPECIALIZED LOAN SERVICING
TAYLOR, BEAN & WHITE
WILSHIRE CREDIT CORP

Table 2
Regression Models Assessing Maryland Servicer Database

	Decision for Foreclosure as of June 2009	Modification in Place as of June 2009	Loss Mitigation in place as of June 2009	Loan in REO as of June 2009
Origination Year 2008	**-0.01947**	**0.01371**	0.00017	**-0.01279**
	-7.076	**5.253**	0.543	**-16.541**
Origination Year 2007	**0.01177**	-0.00076	0.00008	**-0.01102**
	7.043	-0.822	0.194	**-12.018**
Origination Year 2006	**0.01449**	**0.00293**	**0.00609**	**0.00431**
	10.814	**3.882**	**14.953**	**5.396**
Origination Year 2005	**0.01786**	**0.00964**	**0.003**	-0.00149
	13.144	**12.424**	**7.682**	-1.901
Adjustable Rate Loan	**0.02377**	**-0.01012**	**-0.00144**	**0.00619**
	22.176	**-16.315**	**-4.211**	**10.028**
Loan with PMI	0.00283	**-0.00545**	**0.00674**	**0.01929**
	1.361	**-6.132**	**8.13**	**12.959**
Loan Current Nov 08	**-0.43181**	0.00047	**-0.01439**	**-0.14731**
	-180.843	0.45	**-20.174**	**-89.619**
Combined Loan to Value X10	**0.00111**	0.00011	**0.00015**	**0.00058**
	7.716	1.45	**3.454**	**6.755**
FICO Score (file as of Nov 08) X10	**-0.00306**	**-0.00236**	**-0.00013**	**0.00027**
	-37.07	**-48.521**	**-5.489**	**5.549**
Second Lien	**-0.0539**	**-0.00992**	**-0.00355**	**-0.01408**
	-29.365	**-7.337**	**-5.945**	**-15.395**
Log Original Loan Balance	**0.01345**	**0.00436**	**-0.00019**	**0.00417**
	17.798	**10.519**	**-0.871**	**9.286**
Bankruptcy filed as of Nov 2008	**-0.2262**	**-0.01664**	**-0.01237**	**-0.0774**
	-41.63	**-7.879**	**-13.506**	**-25.357**
MSA % Chg Home Prices 2Q2008-2Q2009 HPI	**-0.00221**	**-0.00066**	**-0.00016**	**-0.00022**
	-15.012	**-7.453**	**-3.977**	**-2.68**
Zip % Chg Employment (06-07 CBP)	**-0.00008**	**0.00008**	0.00001	0.00002
	-2.477	**4.504**	1.066	1.247
Zip % Homeownership (2000)	**-0.00069**	0	0.00001	-0.00002
	-17.973	-0.092	1.066	-0.964
Zip % Vacant (2000)	**-0.00082**	0.00003	0.00001	**0.00032**
	-9.682	0.59	0.287	**6.607**
Zip % White (2000)	0.00001	**0.00003**	0.00001	**-0.00013**
	0.435	**2.028**	1.004	**-7.649**
Zip Median HH Age (2000)	**-0.00111**	**-0.00018**	**0.00025**	**-0.00056**
	-7.728	**-2.327**	**5.442**	**-6.798**
DE dummy	**0.0665**	-0.00173	0.0013	**-0.02215**
	13.711	-0.704	0.904	**-7.646**
MD dummy	**0.04569**	**0.00527**	-0.00026	-0.00169
	15.481	**3.917**	-0.305	-0.749
NJ dummy	**0.08966**	**0.00304**	-0.00152	**-0.02315**
	30.532	**2.17**	-1.86	**-10.425**
PA dummy	**0.05086**	0.00098	**-0.00181**	**-0.01467**
	16.307	0.625	**-2.042**	**-6.434**
VA dummy	**0.02805**	**0.00676**	**0.00272**	**-0.00967**
	9.972	**4.964**	**3.245**	**-4.454**
Lender in MD DB	**-0.01317**	**0.02936**	**-0.00205**	**0.00784**
	-10.104	**39.17**	**-5.356**	**10.153**
Lender in MD DB x MD dummy	**-0.01431**	**-0.00311**	**0.00258**	**0.00451**
	-5.875	**-2.152**	**3.524**	**2.713**
Constant	**0.50519**	**0.10978**	**0.01456**	**0.10805**
	49.849	**19.659**	**5.297**	**18.112**
Number of observations	279943	279943	279943	279943
R-squared - Adjusted	0.33993	0.03069	0.00899	0.12911

Source: June 2009 CTS 2009 data merged to Federal Housing Finance Agency (FHFA) HPI, 2000 Census zip means, 2007 Census County Business Patterns employment; November 2008 CTS loan characteristics as controls.

OLS Linear Probability with robust standard errors; Beta / T-statistics; DC as constant state for fixed effects; Pre 2005 as origination date constant; BOLDED significant at 5%.

Table 3

Regression Models Assessing Maryland Servicer Agreements

	Decision for Foreclosure as of June 2009	Modification in Place as of June 2009	Loss Mitigation in place as of June 2009	Loan in REO as of June 2009
Origination Year 2008	**-0.02414**	**0.02207**	-0.00029	**-0.01026**
	-8.822	**8.358**	-1.026	**-13.805**
Origination Year 2007	**0.00968**	**0.00288**	-0.00007	**-0.00985**
	5.815	**3.12**	-0.19	**-10.801**
Origination Year 2006	**0.01387**	**0.00444**	**0.00605**	**0.00486**
	10.39	**5.918**	**14.999**	**6.078**
Origination Year 2005	**0.0182**	**0.00891**	**0.00303**	**-0.00173**
	13.391	**11.473**	**7.773**	**-2.209**
Adjustable Rate Loan	**0.02095**	**-0.0052**	**-0.0017**	**0.00772**
	19.634	**-8.679**	**-4.835**	**12.609**
Loan with PMI	0.00106	**-0.0032**	**0.00659**	**0.01996**
	0.508	**-3.599**	**7.949**	**13.389**
Loan Current Nov 08	**-0.43149**	**-0.00025**	**-0.01437**	**-0.14756**
	-180.807	**-0.242**	**-20.152**	**-89.585**
Combined Loan to Value X10	**0.00103**	**0.00026**	**0.00015**	**0.00063**
	7.241	**3.446**	**3.401**	**7.395**
FICO Score (file as of Nov 08) X10	**-0.00308**	**-0.00239**	**-0.00013**	**0.00026**
	-37.866	**-49.124**	**-5.602**	**5.406**
Second Lien	**-0.05469**	**-0.00587**	**-0.00357**	**-0.0125**
	-30.02	**-4.371**	**-5.873**	**-13.889**
Log Original Loan Balance	**0.01376**	**0.00357**	-0.00016	**0.00392**
	18.209	**8.532**	-0.733	**8.714**
Bankruptcy filed as of Nov 2008	**-0.22798**	**-0.01323**	**-0.0126**	**-0.07645**
	-41.922	**-6.258**	**-13.675**	**-25.061**
MSA % Chg Home Prices 2Q2008-2Q2009	**-0.00228**	**-0.00049**	**-0.00017**	**-0.00017**
	-15.494	**-5.534**	**-4.232**	**-2.07**
Zip % Chg Employment (06-07 CBP)	**-0.00007**	**0.00007**	0.00001	0.00002
	-2.318	**4.132**	1.148	1.196
Zip % Homeownership (2000)	**-0.0007**	0.00001	0.00001	-0.00002
	-18.233	0.681	1.016	-0.73
Zip % Vacant (2000)	**-0.00083**	0.00004	0.00001	**0.00033**
	-9.784	0.898	0.342	**6.78**
Zip % White (2000)	0.00002	0.00002	0.00001	**-0.00014**
	0.633	1.161	1.028	**-7.944**
Zip Median HH Age (2000)	**-0.00111**	**-0.00017**	**0.00025**	**-0.00056**
	-7.724	**-2.185**	**5.377**	**-6.836**
DE dummy	**0.06591**	-0.0014	0.00117	**-0.02234**
	13.59	-0.569	0.819	**-7.712**
MD dummy	**0.04573**	**0.00536**	0.00066	0.00046
	15.724	**3.892**	0.776	0.203
NJ dummy	**0.08871**	**0.00486**	**-0.00167**	**-0.02272**
	30.219	**3.466**	**-2.044**	**-10.249**
PA dummy	**0.05005**	0.00197	**-0.00194**	**-0.01456**
	16.05	1.259	**-2.188**	**-6.394**
VA dummy	**0.0278**	**0.00733**	**0.00269**	**-0.00951**
	9.882	**5.374**	**3.206**	**-4.381**
Lender in MD AGREEMENT	**-0.01255**	**0.0304**	**-0.0018**	**0.00943**
	-6.826	**22.699**	**-3.607**	**8.502**
Lender in MD Agreement x MD Dummy	**-0.03613**	**-0.00638**	-0.00006	-0.00317
	-10.961	**-2.745**	-0.062	-1.358
Constant	**0.50174**	**0.12492**	**0.014**	**0.11272**
	49.988	**21.836**	**5.246**	**19.057**
Number of observations	279943	279943	279943	279943
R-squared - Adjusted	0.34013	0.02696	0.00894	0.12878

Source: June 2009 CTS 2009 data merged to Federal Housing Finance Agency (FHFA) HPI, 2000 Census zip means, 2007 Census County Business Patterns employment; November 2008 CTS loan characteristics as controls. OLS Linear Probability with robust standard errors; Beta / T-statistics; DC as constant state for fixed effects; Pre 2005 as origination date constant

Table 4

Regression Models Assessing Servicer Specific Effects

	Decision for Foreclosure as of June 2009	Modification in Place as of June 2009	Loss Mitigation in place as of June 2009	Loan in REO as of June 2009
Origination Year 2008	-0.00216	0.00631	-0.00006	**-0.00908**
	-0.645	2.309	-0.157	**-7.923**
Origination Year 2007	**0.01114**	**-0.00505**	-0.00057	**-0.00832**
	5.966	**-5.088**	-1.239	**-8.069**
Origination Year 2006	**0.01989**	-0.00031	**0.00596**	**0.0052**
	13.901	-0.386	**14.317**	**6.054**
Origination Year 2005	**0.01637**	**0.01001**	**0.00212**	-0.00127
	11.39	**12.475**	**5.208**	-1.517
Adjustable Rate Loan	**0.02997**	**-0.01321**	**-0.0032**	**0.00743**
	25.408	**-19.244**	**-7.492**	**10.605**
Loan with PMI	**-0.00477**	-0.00134	**0.00567**	**0.01864**
	-2.189	-1.432	**6.661**	**12.284**
Loan Current Nov 08	**-0.43649**	0.00037	**-0.01523**	**-0.14744**
	-175.067	0.35	**-19.973**	**-85.644**
Combined Loan to Value X10	**0.00054**	**0.00024**	**0.00026**	**0.00047**
	3.323	**2.792**	**5.208**	**4.9**
FICO Score (file as of Nov 08) X10	**-0.00246**	**-0.00214**	**-0.00015**	**0.00039**
	-28.04	**-43.123**	**-5.894**	**7.422**
Second Lien	**-0.05979**	**-0.00688**	**-0.00585**	**-0.01257**
	-29.292	**-4.511**	**-8.202**	**-12.575**
Log Original Loan Balance	**0.01637**	**0.00406**	-0.00039	**0.00459**
	20.396	**9.279**	-1.607	**9.631**
Bankruptcy filed as of Nov 2008	**-0.23046**	**-0.01461**	**-0.0144**	**-0.08092**
	-40.558	**-6.719**	**-14.53**	**-25.397**
MSA % Chg Home Prices 2Q2008-2Q2009	**-0.0023**	**-0.0007**	**-0.0001**	**-0.00025**
	-14.827	**-7.71**	**-2.387**	**-2.824**
Zip % Chg Employment (06-07 CBP)	**-0.00008**	**0.00008**	0.00001	0.00003
	-2.498	**4.677**	1.718	1.375
Zip % Homeownership (2000)	**-0.0007**	0	0.00002	-0.00002
	-17.453	-0.07	1.536	-1.037
Zip % Vacant (2000)	**-0.00079**	0	0.00002	**0.00035**
	-8.927	-0.031	0.769	**6.936**
Zip % White (2000)	-0.00001	**0.00007**	0	**-0.00013**
	-0.181	**4.567**	0.274	**-7.319**
Zip Median HH Age (2000)	**-0.00121**	-0.00013	**0.00028**	**-0.00061**
	-8.159	-1.733	**5.709**	**-7.319**
DE	**0.06858**	-0.00332	-0.0003	**-0.02333**
	13.418	-1.333	-0.2	**-7.606**
MD	**0.04297**	**0.00266**	0.00002	-0.00135
	14.337	**1.906**	0.028	-0.564
NJ	**0.08973**	0.00276	**-0.00302**	**-0.02355**
	29.19	1.931	**-3.408**	**-9.947**
PA	**0.05432**	-0.00066	**-0.00359**	**-0.01522**
	16.645	-0.413	**-3.725**	**-6.275**
VA	**0.02834**	**0.00661**	0.00157	**-0.01145**
	9.666	**4.792**	1.75	**-4.962**
Servicer A	**-0.04641**	**0.03196**	**0.0068**	**0.01145**
	-18.601	**21.882**	**7.326**	**6.968**
Servicer B	**-0.02381**	**0.00752**	**-0.00728**	**-0.00985**
	-9.996	**7.674**	**-16.57**	**-7.213**
Servicer C	**-0.0745**	**0.00673**	**0.01682**	**-0.01981**
	-30.632	**8.056**	**14.354**	**-14.575**
Servicer D	**-0.0501**	**0.00259**	**-0.00258**	**-0.00862**
	-32.129	**4.058**	**-6.393**	**-10.739**
Servicer E	**-0.04663**	**0.08171**	**-0.00205**	**-0.01777**
	-7.379	**17.899**	**-3.457**	**-6.305**
Servicer F	**-0.04727**	**0.00549**	**0.00208**	**-0.00685**
	-16.013	**4.53**	**1.989**	**-4.046**
Servicer G	**-0.06132**	**0.00304**	**0.00077**	**-0.00835**
	-16.945	**2.045**	**0.517**	**-4.132**
Servicer H	**-0.06428**	**0.02431**	**-0.00195**	**-0.01302**
	-21.29	**14.85**	**-2.432**	**-7.51**
Servicer I	**-0.02234**	**0.00742**	**0.00841**	0.00144
	-7.913	**6.643**	**6.044**	0.91
Servicer J	**-0.03784**	**0.00403**	**-0.00783**	0.0056

	Decision for Foreclosure as of June 2009	Modification in Place as of June 2009	Loss Mitigation in place as of June 2009	Loan in REO as of June 2009
	-8.183	**2.454**	**-13.271**	1.774
Servicer K	-0.00751	0.00212	-0.00196	**-0.01047**
	-1.538	1.872	-1.716	**-3.907**
Servicer L	**-0.12985**	**0.06994**	**-0.00764**	**0.01741**
	-39.402	**26.884**	**-11.254**	**7.024**
Servicer M	**-0.09461**	**0.01268**	**0.00208**	**-0.00458**
	-39.755	**10.525**	**3.459**	**-4.035**
Servicer N	**-0.04425**	**0.00637**	**-0.00273**	**-0.01062**
	-21.259	**10.603**	**-5.572**	**-9.618**
Servicer O	**-0.02414**	**0.0406**	**-0.00226**	**-0.00006**
	-8.512	**21.594**	**-3.127**	**-0.041**
Servicer P	**-0.05847**	**0.00691**	0.00109	-0.00037
	-27.949	**9.712**	1.508	-0.33
Servicer Q	0.00212	**0.04223**	**-0.00595**	**-0.01577**
	0.513	**17.999**	**-11.443**	**-7.397**
Servicer R	**-0.01822**	**0.00362**	**0.00359**	**-0.0062**
	-4.755	**2.98**	**2.104**	**-3.031**
Servicer S	**-0.06925**	**0.00393**	**-0.00122**	**-0.00906**
	-23.712	**5.788**	**-2.156**	**-5.938**
Constant	**0.4718**	**0.09262**	**0.01974**	**0.10449**
	43.127	**15.485**	**6.386**	**15.995**
Number of observations	257048	257048	257048	257048
R-squared - Adjusted	0.35211	0.04008	0.01639	0.13158

Source: June 2009 CTS 2009 data merged to Federal Housing Finance Agency (FHFA) HPI, 2000 Census zip means, 2007 Census County Business Patterns employment; November 2008 CTS loan characteristics as controls. OLS Linear Probability with robust standard errors; Beta / T-statistics; DC as constant state for fixed effects; Pre 2005 as origination date constant ; Servicer T as constant; Top 25 Servicers in Data only (92% of valid observations).