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GET SICK, GET OUT: THE MEDICAL CAUSES OF HOME MORTGAGE FORECLOSURES

*Christopher Tarver Robertson, Richard Egelhof, & Michael
Hoke^{†‡}*

INTRODUCTION AND SUMMARY

In recent years, there has been national alarm about the rising rate of home foreclosures, which now strike one in every 92 households in America, and which contribute to even broader macroeconomic effects.¹ The handy explanation for the rise in foreclosures is that irresponsible borrowers have been using exotic loan products to purchase homes they cannot in reality afford.² Moreover, these buyers allegedly

[†] Please direct correspondence to Christopher Tarver Robertson at crobertson@post.harvard.edu. The authors thank Elizabeth Warren for extensive advice and guidance on this project. We also thank Dean Elena Kagan for generously funding the project; Einer Elhauge and the Petrie-Flom Center for Health Law Policy, Biotechnology and Bioethics for financial support; Kimberly Breger, Roger Bertling, Michael Collins, Deborah Thorne, Katherine Porter, Ken Carson, Heidi Williams, and the Fellows of the Petrie Flom Center for providing insights at various stages of the project; and Kathy Paras, Kathy Goldstein and especially Jane Wagner for extensive administrative support. We also thank the many Harvard Law School students who assembled the survey packages and called those who had not yet responded.

[‡] All survey data referenced in this article is on file with the authors. Please direct inquiries regarding survey data to Christopher Tarver Robertson at crobertson@post.harvard.edu.

¹ Press Release, RealtyTrac, More Than 1.2 Million Foreclosure Filings Reported in 2006 (Jan. 25, 2007), <http://www.realtytrac.com/ContentManagement/pressrelease.aspx?ChannelID=9&ItemID=1855&accnt=64847> (stating that foreclosure struck 1 in 92 households in 2006); Associated Press, *Early Gains Give Way to Small Loss*, N.Y. TIMES, Aug. 14, 2007, at C4 (“Defaults among subprime mortgage holders — borrowers with weak credit — began the chain of events that led to the turmoil on Wall Street and other stock markets in recent weeks.”); See David Cho, *Huge Mortgage Lender Files for Bankruptcy*, WASH. POST, Apr. 3, 2007, at A1.

² See *Home Wreckers: Who Is To Blame For America's Soaring Mortgage Foreclosure Rate?* CHICAGO SUN TIMES, Mar. 18, 2007, at B2 (“Last week, the Mortgage Bankers Association reported that mortgage foreclosures hit a record high, and late mortgage payments hit a 3-year high. The culprits? Risky, nontraditional loans, high interest rates, unworthy borrowers and predatory lenders in the ‘subprime mar-

relied on optimistic projections for the housing market, and low interest rates, which have not panned out.³ Commentators have also pointed to lax lending standards and aggressive practices by brokers as contributing to the increase of high-risk, non-traditional loans that are more likely to foreclose.⁴ These factors – loose lending, irresponsible borrowers, a flat real estate market, and rising interest rates – have together become the “standard account” of home foreclosure.

Policymakers and scholars may be surprised to learn that even in the midst of this spike, one of the largest causes of home foreclosures was none of the above. We studied homeowners going through foreclosure in four states and found that medical crises contribute to half of all home foreclosure filings. If these patterns hold nationwide, medical causes may put as many as 1.5 million Americans in jeopardy of losing their homes each year.⁵ If these findings are accurate, they

ket.”); David Streitfeld, *The Mortgage Meltdown: Foreclosure Pace Nears Record High*, L.A. TIMES, Apr. 17, 2007, at C1 (“Most of the loans going into default now were made at the peak of the housing boom in 2005, when some thought the good times would continue forever and lending standards were lax. Nearly 80% . . . had adjustable rates, a record high. Many of these mortgages required the borrowers to put little or no money down, and lenders took their word for whatever income they said they made. For a moment, everything was fine. Then housing prices stopped going up – meaning that many of these borrowers did not have enough equity or income to refinance to a new loan. Others in foreclosure may be able to afford the payments, but have chosen not to make them because their homes are worth less than they paid.”); *Alternative Mortgage Products: Testimony Before the Subcomms. on Housing and Transportation and Economic Policy, S. Comm. on Banking, Housing, and Urban Affairs*, 109th Cong. 1, 7 (2006) [hereinafter *Alternative Mortgage Products*] (statement of Orice M. Williams, Director, Financial Markets and Community Investments), available at http://banking.senate.gov/_files/ACF84D8.pdf (describing the increasing incidence of alternative mortgage products (AMPs) that allow buyers “to purchase homes that might otherwise be unaffordable”).

³ See *supra* note 2 and accompanying text. This account is consistent with the “option theory” of mortgage default in the scholarly literature. See *infra* notes 39-43 and accompanying text.

⁴ See Streitfeld *supra* note 2; *Alternative Mortgage Products*, *supra* note 2, at 9 (“[S]ome lenders combined AMPs with less stringent income and asset verification requirements than traditionally permitted for these products or lent to borrowers with lower credit scores and higher debt-to-income ratios.”); JOINT ECON. COMM., 110TH CONG., SHELTERING NEIGHBORHOODS FROM THE SUBPRIME FORECLOSURE STORM I (Apr. 11, 2007), available at <http://www.jec.senate.gov/Documents/Reports/subprime11apr2007revised.pdf> (Sen. Charles E. Schumer, Chairman of the Joint Economic Committee, issued this special report that declared, “Over the past several months, it has become increasingly clear that irresponsible subprime lending practices have been contributing to a wave of foreclosures that are hitting homeowners and rattling the housing markets.”).

⁵ See Press Release, RealtyTrac, *supra* note 1; U.S. Census Bureau, Households and Families: 2000, http://factfinder.census.gov/servlet/QTTable?_bm=y&-geo_id=01000US&-qr_name=DEC_2000_SF1_U_QTP10&-

help explain the bulk of home foreclosures, which have been occurring with stubborn frequency for a quarter century.⁶

From the social policy perspective, it is critical that we get the story straight, as mortgage foreclosure may be one of the most significant legal devices, striking millions of Americans,⁷ with dramatic consequences for each one. For individuals, the purchase of a home is often the largest financial decision they ever make, and the transaction costs of getting into, and then out of, a mortgage can be onerous. Indeed, foreclosure can wipe out the homeowners' savings and leave them owing debt on homes they no longer own.⁸ A foreclosure also has pernicious effects for the borrowers' families, neighborhoods, and local communities.⁹ Foreclosures are expensive for lenders, reducing returns to investors in the secondary mortgage market and increasing costs to borrowers *ex ante*.¹⁰ Finally, foreclosures frustrate the national goal of home ownership.¹¹

ds_name=DEC_2000_SF1_U (last visited Oct. 11, 2007) (noting Table QT-P10 lists the average household size as 2.59). The 1.2 million foreclosures multiplied by an average household size of 2.59, yields 3.108 million persons who were subject to foreclosure filings. The 1.5 million figured is derived by multiplying 3.108 million by 49%, which is the percentage of respondents in our study who self-identify as having one of the four core medical causes. *See infra* Part IV. There is some controversy over the RealtyTrac numbers. *See* Greta Guest, "RealtyTrac Data Disputed", DETROIT FREE PRESS, available at <http://www.freep.com/apps/pbcs.dll/article?AID=/20070723/BUSINESS04/707230357/1002/BUSINESS> (July 23, 2007) (critics, including the Mortgage Bankers Association, argue that RealtyTrac's numbers are inflated due to counting multiple filings for the same property).

⁶ *See, e.g.*, U.S. DEP'T OF HOUS. & URBAN DEV., PROVIDING ALTERNATIVES TO MORTGAGE FORECLOSURE: A REPORT TO CONGRESS, at vii (1996), available at <http://www.huduser.org/publications/hsgfin/mortgage.html> ("The percentage of U.S. homeowners with serious delinquency problems has been at chronic levels since 1983. . . . On the dark side, the statistics of the past 15 years represent 3 million American families who not only faced the financial and emotional specter of being forced from their homes, but who also suffered loss of access to credit.").

⁷ *See* calculations *supra* note 5.

⁸ Michael H. Schill, *An Economic Analysis of Mortgagor Protection Laws*, 77 VA. L. REV. 489, 493-94 (1991) ("One of the primary objectives of mortgage foreclosure law is to have the sheriff, judge, or trustee sell the property for a price that equals its fair market value. For several reasons, however, this rarely occurs. . . . When the foreclosure sale price is less than the debt owed to the mortgagee, the mortgagee may proceed against the borrower for a deficiency judgment in the amount of the shortfall if the terms of the loan allow such an action.").

⁹ *See* JOINT ECON. COMM., *supra* note 4, at 16 (citing studies that show every new home foreclosure can cost stakeholders up to \$80,000, when adding up the costs to homeowners (\$7,200), lenders (\$50,000), neighbors (\$1,508), and local governments (\$19,227)).

¹⁰ *See* Desiree Hatcher, *Foreclosure Alternatives: A Case for Preserving Homeownership*, PROFITWISE NEWS AND VIEWS, Feb. 2006, at 2, 2 (in 2003, lenders

To explore the causes of home foreclosure, we conducted a survey of homeowners on the brink of foreclosure, those who have (allegedly) defaulted on their loans and whose lenders have initiated legal foreclosure proceedings.¹² Most fundamentally, we simply asked homeowners what factors contributed to their defaults, but we supplemented this data with additional questions about their objective situations and with publicly-accessible data about their homes.

This preliminary study reveals that the standard account is, at best, an inadequate understanding of the causes of mortgage defaults.¹³ We found homeowners that tended to have significant equity in their homes and reasonable ratios between their income and their mortgage debt burdens. Few reported that their loans were unaffordable and only about a third said increasing mortgage payments were a factor in their defaults. From the surface, these respondents appear to be able to afford their homes and have no reason to walk away from them. So why are they in default?

Our evidence suggests that medical disruptions are a major contributor to mortgage default, often striking in combination with other factors. Half of all respondents (49%) indicated that their foreclosure was *caused* in part by a medical problem, including illness or injuries (32%), unmanageable medical bills (23%), lost work due to a medical problem (27%), or caring for sick family members (14%). We also examined objective indicia of medical disruptions in the previous two years, including those respondents paying more than \$2,000 of medical bills out of pocket (37%), those losing two or more weeks of work because of injury or illness (30%), those currently disabled and unable to work (8%), and those who used their home equity to pay medical bills (13%). Altogether, we found that about 7 in 10 of our respondents either self-reported a medical cause of foreclosure, or experienced one of these indicia of medical disruptions in the years before foreclosure. In many cases, homeowners were hit with a perfect storm of factors – a few thousand dollars of medical bills, a few weeks of

incurred approximately \$25 billion in foreclosure-related costs).

¹¹ See I.R.C. § 163(h)(2)(D) (2000) (allowing deduction from taxable income of interest paid on acquisition and home equity indebtedness on a qualified residence, which effectively reduces the interest rate on the mortgage by as much as the taxpayer's marginal federal income tax rate); J. COMM. ON TAX'N, SELECTED DATA RELATED TO THE FEDERAL TAX SYSTEM, JCX-11-07, at 8 tbl.5 (2007), available at <http://www.house.gov/jct/x-11-07.pdf> (The mortgage interest deduction will cost the Federal government \$402.7 billion over the five-year period from 2006 to 2010).

¹² See *infra* Part II for a full discussion of the research methodology.

¹³ See *infra* Part III for a full discussion of the findings.

missed work, and perhaps a divorce or rising interest rate – all combined to push them over the edge into foreclosure.

Our findings provide a more textured account of the reality of home foreclosure, and provide new evidence of middle class financial insecurity. If these findings can be replicated by more comprehensive future studies, they will suggest broad policy reforms and reassessment of the narrowly-focused legal regime that lenders use to facilitate foreclosures. In addition to the current focus on structural adjustments, which force people out of homes they cannot afford, policymakers should consider insurance-related interventions, which could help homeowners bridge temporary difficulties caused by medical crises. We also present a legal proposal for staying foreclosure proceedings during verifiable medical crises, as a way to protect homeowners and to minimize the negative externalities of foreclosure.

We begin in Section I by providing a primer on foreclosure law and a review of some of the literature on financial distress. In Section II, we outline our research methodology, and we present our results in Section III. We conclude with some thoughts on policy reforms and future research possibilities.

I. FORECLOSURE LAW AND THE LITERATURE ON FINANCIAL DISTRESS

In general terms, a mortgage foreclosure occurs when a borrower breaches the contract with his or her lender, who then invokes state laws that culminate in the sale of the property in order to recoup at least some of the balance on the loan.¹⁴ Although all states allow a lender to bring an action in court that would lead to such an eventual sale, most states allow for a lender to sell the property without involving a court whatsoever, as long as the borrower agreed to such a procedure in the loan contract *ex ante*.¹⁵ We chose the four states we surveyed – Florida, New Jersey, California and Illinois -- in part to reflect a diversity of state law foreclosure proceedings, and to ensure that there would be enough time for the surveys to reach participants before their homes were sold. See Table 1.

¹⁴ See Debra Pogrud Stark, *Facing the Facts: An Empirical Study of the Fairness and Efficiency of Foreclosures and a Proposal for Reform*, 30 U. MICH. J.L. REFORM 639, 643 (1997) (explaining the consequences of defaulting on mortgage payments and discussing the basic features in statutory schemes of state foreclosure laws). See Karen M. Pence, *Foreclosing on Opportunity: State Laws and Mortgage Credit*, 88 REV. ECON. & STAT. 177 (2006), for a complete discussion on the relationship between state law and foreclosure.

¹⁵ Schill, *supra* note 8, at 492-93.

Table 1: Summary of Foreclosure Laws By State

	Primary Type	Time to Conclusion	Must Pay Accelerated Debt to Reinstate?
California	Non-judicial	Up to 4 months	No
Florida	Judicial	4 to 6 months	Yes
Illinois	Judicial	9 months to 2 years	No
New Jersey	Judicial	8 to 12 months	No

Foreclosures in California can be either judicial or non-judicial.¹⁶ A judicial foreclosure is required if the mortgagee seeks a deficiency judgment, but the process is slower and more costly than non-judicial foreclosure.¹⁷ When the mortgagee uses judicial foreclosure to seek a deficiency, the mortgagor receives a right of redemption effective for one year following sale, which does not exist for non-judicial foreclosures.¹⁸ For these reasons, almost all mortgage foreclosures are non-judicial, and typically take less than four months.¹⁹ Under California law, a mortgagee must file a notice of default with the county recorder, who mails the affected parties at least 110 days before the sale, and notice of the sale must be published at least 20 days before the sale.²⁰ The mortgagor has a right to reinstate his mortgage up until five days before the sale by paying the amount in default plus costs associated with foreclosure.²¹ Although most mortgage contracts include an “acceleration clause” whereby the entire amount of the mortgage comes due upon default, in California, the mortgagor is not re-

¹⁶ MICHAEL T. MADISON, JEFFREY R. DWYER & STEVEN W. BENDER, *THE LAW OF REAL ESTATE FINANCING* § 17:9.

¹⁷ A deficiency judgment is a claim against the borrower personally for the unsecured portion of the debt, which remains after the collateral exhausted.

¹⁸ CAL. CIV. CODE § 726(e) (West Supp. 2007).

¹⁹ ANDREA LEE NEGRONI, JOHN P. KROMER & MARY M. PFAFF, *RESIDENTIAL MORTGAGE LENDING: STATE REGULATION MANUAL WEST, CALIFORNIA MORTGAGE LENDING* § 2:19 (Aug. 2007) available at RML-SRW CA s 2:19 (Westlaw).

²⁰ CAL. CIV. CODE §§ 2924(a), 2924f (West 1993 & Supp. 2007).

²¹ §§ 2924c(a), (e).

quired to pay the accelerated debt in order to reinstate the mortgage.

All foreclosures in Florida are accomplished through judicial proceedings without a jury,²² and usually take three to six months.²³ There is no notice required prior to the filing of court proceedings, but the court may require that the lender effectuate personal service on the borrower.²⁴ The sale of property usually occurs between twenty to thirty-five days following judgment.²⁵ Generally, the mortgagor has a right to redeem the property any time before the filing of a certificate of sale by paying the entire amount due under the judgment or under the security interest plus any other amounts due including acceleration and costs including attorney's fees.²⁶ Otherwise there is no right of redemption.²⁷

All foreclosures in Illinois occur through judicial proceedings,²⁸ and usually take nine months, but can take up to two years if a mortgagor mounts a defense.²⁹ For three months after receiving a foreclosure notice, a mortgagor can prevent foreclosure through reinstatement by curing all defaults.³⁰ For this right to be invoked, the mortgagor does not have to pay any accelerated indebtedness, but must pay the portion of the principal that was due at the time of the default plus additional accumulated expenses needed to make the account current.³¹ A residential homeowner also has a right of redemption for

²² FLA. STAT. ANN. § 702.01 (West 1994) .

²³ MADISON ET AL. *supra* note 16 at § 20:2.

²⁴ “The requirement of personal service on the borrower sometimes entails extraordinary efforts to locate the borrower.” ANDREA LEE NEGRONI, ET AL., RESIDENTIAL MORTGAGE LENDING: STATE REGULATION MANUAL SOUTH EASTERN, FLORIDA MORTGAGE LENDING, § 2:19 (Nov. 2007), *available at* RML-SRSE FL s 2:19 (Westlaw).

²⁵ Although Florida law does not mandate any procedure, it does provide a procedure that can be used, and courts generally follow those procedures. FLA. STAT. ANN. §§ 45.031 (West 2006). *See* MADISON ET AL *supra* note 16 at § 20:2.

²⁶ § 45.0315.

²⁷ NEGRONI, ET AL., *supra* note 19 at § 2:19.

²⁸ Illinois Mortgage Foreclosure Law, 735 ILL. COMP. STAT. ANN. 5/15-1102 (West 2003). In certain circumstances where the lenders are willing to forgo a deficiency judgment claim and the mortgagor waives her rights to reinstatement and redemption, a mortgagee and mortgagor can agree to a “consent foreclosure” which accelerates the process. *See* 735 ILL. COMP. STAT. ANN. § 5/15-1402 (West 2003).

²⁹ *See generally* Illinois Mortgage Foreclosure Law, 735 ILL. COMP. STAT. ANN. 5/15-1101 to -1706 (West 2003); ILLINOIS ATTORNEY DESK REFERENCE MANUAL, HOUSING LAW: MORTGAGE FORECLOSURE (2003), *available at* http://www.illinoislegalaid.org/index.cfm?fuseaction=home.dsp_content&contentID=327. (last visited Nov. 18, 2007).

³⁰ 735 ILL. COMP. STAT. § 5/15-1602. This right is only available once every five years. § 5/15-1602.

³¹ ANDREA LEE NEGRONI, ET AL., RESIDENTIAL MORTGAGE LENDING: STATE

seven months after she receives notice, or three months after the date of entry of a judgment of foreclosure, whichever is later.³² In order to redeem property, the mortgagee must pay all of the remaining principal due, plus costs and fees. There are additional protections for high-risk home loans, most importantly a one time per loan opportunity for a mortgagor to delay foreclosure for 30 days by seeking credit counseling.³³

All foreclosures in New Jersey occur via judicial proceedings,³⁴ usually a public sale,³⁵ and typically take eight to twelve months.³⁶ New Jersey law requires that the mortgagee provide a notice of intention to foreclose thirty days prior to commencement of proceedings, or acceleration.³⁷ The mortgagor can reinstate their loan by paying the entire amount in default plus court costs and attorneys' fees. The mortgagor does not need to pay accelerated indebtedness to invoke the reinstatement right. The right to reinstate exists at any time up to the entry of final judgment, usually 10 days after the sale.³⁸

Much has been written about mortgage default, medical debt, and families in financial distress, but there is surprisingly little borrower-reported data regarding medical crises as trigger events for mortgage foreclosure. Most theoretical discussion of mortgage default is founded on the theory that borrowers have the option of whether to make the mortgage payment, refinance the loan, or default on the loan

REGULATION MANUAL NORTH CENTRAL, ILLINOIS MORTGAGE LENDING, § 2:19 (Aug. 2007), available at RML-SRNCN IL s 2:19 (Westlaw).

³² 735 ILL. COMP. STAT. § 5/15-1603. If the mortgagee is the purchaser at the sale and the sale price was less than the amount previously required to redeem the property, the mortgagor can redeem for an additional 30-day period after the date the sale is confirmed by paying to the mortgagee the sale price plus all related costs, expenses, and interest. § 5/15-1603.

³³ Residential Mortgage License Act of 1987, ILL. ADMIN. CODE tit. 38, § 1050.1280 (2007); NEGRONI, ET AL., *supra* note 31 at § 2:19.

³⁴ Although other types of foreclosure may still be "theoretically possible," judicial foreclosures are the only type of foreclosure method used in practice. 5 BAXTER DUNAWAY, THE LAW OF DISTRESSED REAL ESTATE § 76:19 (14th release 2006).

³⁵ A mortgagee can initiate an optional procedural where the mortgage debt is deemed satisfied without sale when the residential property has been abandoned, has no equity, or where the lender takes a deed in lieu of foreclosure. N.J. STAT. ANN. § 2A:50-63 (2000). It is anticipated that the use of this procedure will not be widespread. 5 DUNAWAY, *supra* note 34, § 76:25.

³⁶ ANDREA LEE NEGRONI, ET AL., RESIDENTIAL MORTGAGE LENDING: STATE REGULATION MANUAL NORTH CENTRAL, ILLINOIS MORTGAGE LENDING, § 2:19 (Aug. 2007), available at RML-SRNCN IL s 2:19 (Westlaw).

³⁷ N.J. STAT. ANN. §§ 2A:50-56 (2007).

³⁸ A mortgagee can reinstate a particular loan only once every 18 months. § 2A:50-57.

and allow the lender to take the property.³⁹ Much of the academic debate has centered on whether the choice made by the borrower under the “option theory” is “ruthless” with only the value of the mortgage and the fair market value of the home considered,⁴⁰ or whether the choice includes other borrower-related issues such as loss in income or medical crisis.⁴¹ Despite the significant economic literature on the subject, further empirical research is needed to study “trigger events, such as divorce and death” and whether “some defaults [are] driven by a sudden drop or loss of income caused by unemployment or job loss or by a sudden increase in expenses, such as medical or legal fees[.]”⁴²

There is some empirical data on borrower-level crisis and mortgage default, and in recent years this data has shed some doubt on the “option theory” account. Quercia, McCarthy, and Stegman analyzed data from Farmers Home Administration borrowers and found that contemporaneous net equity had no effect on default rates whereas income to payment ratios and the existence of crisis events had a significant effect on default.⁴³ In another study, Quercia, Cowan, and Moreno analyzed data from 4,200 borrowers who received credit counseling in Minneapolis-Saint Paul between 1991 and 2003. The researchers found that while health problems were a cause of foreclo-

³⁹ For a comprehensive (though now dated) review of the traditional literature of mortgage default, see Roberto G. Quercia and Michael A. Stegman, *Residential Mortgage Default: A Review of the Literature*, 3 J. HOUSING RES. 341 (1992); see also Kerry D. Vandell, *How Ruthless is Mortgage Default? A Review and Synthesis of the Evidence*, 6 J. HOUSING RES. 245 (1995) (analyzing a variety of models and theories and determining that the “frictionless option-theoretic models” are the most useful); see also Stark, *supra* note 14, at 640 n.3 (describing law review literature that discusses preliminary empirical studies of foreclosures in various locations).

⁴⁰ See James B. Kau, Donald C. Keenan & Taewon Kim, *Default Probabilities for Mortgages*, 35 J. URB. ECON. 278, 278 (1994) (suggesting that transaction costs play little or no role in mortgage default decisions); See also Gordon W. Crawford & Eric Rosenblatt, *Efficient Mortgage Default Option Exercise: Evidence from Loss Severity*, 10 J. REAL EST. RES. 543 (1995).

⁴¹ John M. Quigley & Robert Van Order, *Explicit Tests of Contingent Claims Models of Mortgage Default*, 11 J. REAL EST. FIN. AND ECON. 99, 100 (1995) (stating that if homeowners are rational, transactions costs, such as reputation costs, are needed to explain default behavior). See also Brent W. Ambrose & Charles A. Capone, *Modeling the Conditional Probability of Foreclosure in the Context of Single-Family Mortgage Default Resolutions*, 26 REAL EST. ECON. 391 (1996) (arguing that trigger events can lead to foreclosure even for borrowers with positive equity, who are unable to raise cash or to sell the property).

⁴² Vandell, *supra* note 39, at 259.

⁴³ Roberto G. Quercia, George W. McCarthy & Michael A. Stegman, *Mortgage Default among Rural, Low-Income Borrowers*, 6 J. HOUSING RES. 349,363 (1995).

tures, those causes were in decline from 25% to 20%, while causes such as job loss or money management had increased.⁴⁴ In 2005, Collins conducted one of the few mailed surveys concerning mortgage foreclosure, surveying 299 predominantly minority, low income households in Chicago, and found that 33% of respondents listed medical problems as a cause for their foreclosure.⁴⁵ And in early 2007, Freddie Mac presented basic analysis on the chief causes of mortgage delinquency from the borrower's perspective, with loss of income the biggest cause, 36% in 2006, and illness ranking second, 21% in 2006.⁴⁶ The Freddie Mac study asks for, and reports, only the "chief" cause of mortgage delinquency for each respondent, and mortgage delinquency is a stage prior to initiation of foreclosure proceedings. Together, these studies suggest that medical crises may account for one quarter to one third of mortgage foreclosures, but none of them have explored the ways that various causes interact, nor explored other medical causes in depth, such as the amounts of un-reimbursed medical bills each respondent paid.

Beyond the context of mortgage foreclosures, medical debt has been studied and linked to a weakening of housing security.⁴⁷ Various studies by nonprofit advocacy organizations have shown that medical debt can lead to housing problems such as difficulty acquiring housing

⁴⁴ Roberto G. Quercia, Spencer M. Cowan & Ana Moreno, *The Cost-Effectiveness of Community-Based Foreclosure Prevention* 21 (Joint Center for Housing Studies of Harvard University, Working Paper, Paper No. BABC 04-18, 2004), available at http://www.jchs.harvard.edu/publications/finance/babc/babc_04-18.pdf.

⁴⁵ J. Michael Collins, *Exploring the Design of Financial Counseling for Mortgage Borrowers in Default*, 28 J. FAM. & ECON. ISSUES 207, 208, 213 tbl.2 (2007). The study was focused on the effectiveness of mortgage counseling. *Id.* at 208. Clients with injuries and medical problems were less likely to use telephone counseling only and more likely to use both face-to-face and telephone counseling. *Id.* at 213 tbl.2.

⁴⁶ See Press Release, Freddie Mac, 2006 Drop in Delinquencies Show Shifting Reasons Behind Single Family Late Payments, Says Freddie Mac (Apr. 25, 2007), http://www.freddiemac.com/news/archives/servicing/2007/20070425_singlefamily.html.

⁴⁷ See, e.g., ROBERT W. SEIFERT, HOME SICK: HOW MEDICAL DEBT UNDERMINES HOUSING SECURITY 1 (The Access Project 2005). See also MICHELLE M. DOTY, JENNIFER N. EDWARDS & ALYSSA L. HOLMGREN, SEEING RED: AMERICANS DRIVEN INTO DEBT BY MEDICAL BILLS 3 (The Commonwealth Fund, 2005), available at http://www.commonwealthfund.org/usr_doc/837_Doty_seeing_red_medical_debt.pdf?section=4039 (analyzing the hardships faced by those unable to pay medical bills including taking out loans against their homes); Cathy Schoen, Michelle M. Doty, Sara R. Collins & Alyssa L. Holmgren, *Insured but Not Protected: How Many Adults are Underinsured?*, W5 HEALTH AFFAIRS 289, 296 (2005), <http://content.healthaffairs.org/cgi/reprint/hlthaff.w5.289v1>.

due to poor credit and missing rent or mortgage payments.⁴⁸ In one study, one-quarter of families with at least one member lacking insurance reported having to “change their way of life significantly” to pay medical bills.⁴⁹ In 2005, Watson et al. studied 383 people in St. Louis, Missouri, finding that 53% of their respondents owed medical debt.⁵⁰ Of those with medical debt, 31% reported that the debt resulted in housing problems.⁵¹ Pryor and Gurewich conducted a similar study in 2003 of 342 clients at two community health centers in Boston, Massachusetts.⁵² They found that 41% of respondents reported having medical debt, with 53% of that group reporting that it caused housing problems.⁵³ Zeldin and Rukavina reported that in a phone survey of low to middle income households, those with medical expenses in the prior year had a higher average credit card debt than those who did not cite any medical expenses.⁵⁴ Although some of the studies note in passing that “[p]eople who owe medical bills often find themselves in court... sometimes leading to foreclosure,”⁵⁵ the relationship between mortgage foreclosure and medical distress remains underdeveloped.

⁴⁸ SEIFERT, *supra* note 47, at 1; DOTY, *supra* note 47, at 3; Schoen, *supra* note 47, at 296.

⁴⁹ LISA DUCHON ET AL, SECURITY MATTERS: HOW INSTABILITY IN HEALTH INSURANCE PUTS U.S. WORKERS AT RISK 11, 16 chart17 (The Commonwealth Fund, 2001) *available at* http://www.commonwealthfund.org/usr_doc/duchon_securitymatters_512.pdf?section=4039. The figure rises to nearly 40% when none of the family members are insured. *Id.*

⁵⁰ SIDNEY D. WATSON, MARGARIDA JORGE, ANDREW COHEN & ROBERT W. SEIFERT, LIVING IN THE RED: MEDICAL DEBT AND HOUSING SECURITY IN MISSOURI 1, 22 (The Access Project, 2007), *available at* http://www.accessproject.org/adobe/living_in_the_red.pdf.

⁵¹ This remained significant even with low amounts of debt, as 15% of the respondents with medical debt under \$500 and 27% with debt between \$500 and \$1,000 reported housing problems. *Id.* at 1.

⁵² CAROL PRYOR & DEBORAH GUREWICH, GETTING CARE BUT PAYING THE PRICE: HOW MEDICAL DEBT LEAVES MANY IN MASSACHUSETTS FACING TOUGH CHOICES 13 (The Access Project, February 2004), *available at* <http://www.accessproject.org/downloads/MAreport.pdf>.

⁵³ *Id.* at 6.

⁵⁴ CINDY ZELDIN & MARK RUKAVINA, BORROWING TO STAY HEALTHY: HOW CREDIT CARD DEBT IS RELATED TO MEDICAL EXPENSES 4-5 (2007), *available at* http://www.demos.org/pubs/healthy_web.pdf.

⁵⁵ Seifert, *supra* note 47, at 9 (citing GRACE ROLLINS, UNCHARITABLE CARE: YALE-NEW HAVEN HOSPITAL'S CHARITY CARE AND COLLECTIONS PRACTICES (Connecticut Center for a New Economy, January 2003)); *See also*, Lucette Lagnado, *Twenty Years and Still Paying*, WALL ST. J., Mar. 13, 2003, at B1 (describing the effect of aggressive collection practices used by hospitals); *cf.* Lucette Lagnado, *Full Price: A Young Woman, an Appendectomy, and a \$19,000 Debt*, WALL ST. J., Mar. 17, 2003, at A1 (depicting the economic troubles that resulted after a young woman

The Consumer Bankruptcy Project (CBP) provides a successful model for studying families in financial distress, drawing data from bankruptcy records, written surveys, and telephone interviews in 1981, 1991, 2001 and now 2007 forthcoming.⁵⁶ The CBP originally used only court records to link medical bills to bankruptcies.⁵⁷ However by 2001, it had become routine for debtors to pay medical bills with credit cards, which would be listed as general debt in court records and would not be traceable to a medical cause. Given this gap and other developments, the researchers also began using written and telephone surveys to acquire information from the debtors themselves, as we did in the present study.

Jacoby & Warren reported that 46% of debtors in the 2001 survey self-identified a medical cause for their bankruptcy, with 21% of debtors in the written survey reporting missing at least 2 weeks of work due to a medical injury and 26% reporting having medical bills in excess of \$1000 that were not covered by insurance in the two years before filing for bankruptcy.⁵⁸ Jacoby & Warren posited that perhaps 63% of the debtors they surveyed had a medical-related bankruptcy.⁵⁹

In a widely cited article also based on the 2001 dataset and supplemented by in-depth interviews with respondents who indicated medical causes of their bankruptcies, Himmelstein, Warren, Thorne

underwent surgery without medical insurance).

⁵⁶ See, e.g., TERESA A. SULLIVAN, ELIZABETH WARREN & JAY LAWRENCE WESTBROOK, AS WE FORGIVE OUR DEBTORS: BANKRUPTCY AND CONSUMER CREDIT IN AMERICA 168 (1989) (reporting CBP survey data); ELIZABETH WARREN & AMELIA WARREN TYAGI, THE TWO-INCOME TRAP: WHY MIDDLE-CLASS MOTHERS AND FATHERS ARE GOING BROKE 181-88 (2003); Robert M. Lawless & Elizabeth Warren, *The Myth of the Disappearing Business Bankruptcy*, 93 CAL. L. REV. 743, 769 (2005) (describing phases of data collection for the CBP). The project was initiated by Professors Teresa Sullivan, Jay Westbrook, and Elizabeth Warren in 1981 and 1991. By 2001, the team expanded to include Professors David Himmelstein, Robert Lawless, Katherine Porter, John Pottow, Deborah Thorne, Susan Wachter, Steffie Woolhandler, then-Professor and now-Judge Bruce Markell, and then-Professor and now-Dean Michael Schill. The CBP has conducted its most recent survey in 2007, and results are forthcoming. Many of the questions in our survey were based on the CBP's draft survey, and we are grateful to the entire team.

⁵⁷ See SULLIVAN ET AL., *supra* note 56.

⁵⁸ Melissa B. Jacoby & Elizabeth Warren, *Beyond Hospital Misbehavior: An Alternative Account of Medical-Related Financial Distress*, 100 NW U. L. REV. 535, 548-49, 551 (2006).

⁵⁹ *Id.* at 552 fig.3. Jacoby and Warren noted that not all researchers would agree with what they included under the realm of medical-related bankruptcy, and presented the data under alternative calculations, but concluded that “[b]y any analysis, this study finds a substantial number of families filing for bankruptcy in part to deal with the fallout from medical problems.” *Id.*, at 551

and Woolhandler concluded that about 2 million Americans (including filers and their dependents) suffered medical bankruptcies in a one year period.⁶⁰ Medical bankruptcies are not static; these authors estimated that the phenomenon had grown twenty-fold since the preliminary study in 1981.⁶¹

The present empirical study of mortgage foreclosure provides a useful supplement to the bankruptcy data, as an alternative measure of financial distress in America. In sheer numbers, in 2006, mortgage foreclosures affected a larger cross-section of America, striking at about double the rate of bankruptcies.⁶² Federal bankruptcy is an “imperfect proxy for financial ruin”⁶³ because it is a voluntary proceeding initiated by the debtor himself or herself, who therefore must have the financial and personal wherewithal to take this rather drastic remedy.⁶⁴ Moreover, bankruptcy is only attractive to those who have non-exempt assets or income that they are seeking to protect from creditors, and who have the cash on hand to pay an attorney to prepare and submit the filing. The most destitute Americans face financial distress without bankruptcy protection.

In contrast, foreclosure proceedings are involuntary for the debtors, as they are initiated by lenders at their own discretion, and the holder of a security interest on a house can exercise it, regardless of whether the homeowner has exempt equity therein.⁶⁵ As the bank-

⁶⁰ David U. Himmelstein et al., *Market Watch: Illness And Injury As Contributors To Bankruptcy*, W5 HEALTH AFFAIRS 63, 63 (2005), <http://content.healthaffairs.org/cgi/reprint/hlthaff.w5.63v1>. Compare Himmelstein et al. which used a narrower definition of medical bankruptcy, finding that 54.5% had medical causes, in contrast to the 63% in Jacoby and Warren *supra* note 58.

⁶¹ Himmelstein et al., *supra* note 60, at 71.

⁶² Compare Press Release, Administrative Office of the U.S. Courts, Bankruptcy Filings Plunge in Calendar Year 2006 (Apr. 16, 2007), available at http://www.uscourts.gov/Press_Releases/bankruptcyfilings041607.html (announcing that 617,660 bankruptcy cases were filed in 2006) with Press Release, RealtyTrac, *supra* note 1 (announcing 1.2 million foreclosure filings in 2006). Note, however, that 2006 was an odd year for both bankruptcies and foreclosures, with a dramatic decrease in bankruptcies following passage of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 and a dramatic increase in foreclosures. See *id.*

⁶³ Himmelstein et al., *supra* note 60, at 71.

⁶⁴ It is possible for creditors to file an involuntary petition for bankruptcy, however this is an extremely rare occurrence generally, and even more rare for consumers. David S. Kennedy, James E. Bailey, III, R. Spencer Clift, III, *The Involuntary Bankruptcy Process: A Study of the Relevant Statutory and Procedural Provisions and Related Matters*, 31 U. MEM. L. REV. 1, 3 (2000) (In 1998 “less than 1/1000 of one percent of all bankruptcy cases filed were commenced involuntarily.” (citation omitted)).

⁶⁵ This voluntary versus involuntary distinction only focuses on the legal filing itself. Whether individuals are forced into financial distress by exogenous fac-

ruptcy authors acknowledge, “many people financially ruined by illness are undoubtedly too ill, too destitute, or too demoralized to pursue formal bankruptcy.”⁶⁶ These people, on the other hand, will show up in the foreclosure filings, although they may or may not respond to our surveys. Indeed, only one third of our respondents (34%) reported that they had ever in the past declared bankruptcy, and only 15% of the total respondents had either “tried,” or were planning to declare bankruptcy as a solution to their impending foreclosure. By sampling a different population than other studies, our survey helps complete the picture of financial distress in America.⁶⁷

On the other hand, our foreclosure study is in some ways more limited than the bankruptcy studies. Mortgage foreclosure is obviously limited to homeowners, while bankruptcies cover both homeowners and renters. Another significant weakness of our data compared to the ongoing bankruptcy studies is that we only have a snapshot in time of four states rather than a national sample repeated several times over a quarter century.⁶⁸ Thus, we are unable to control for geographic variations and measure longitudinal changes over time.

II. RESEARCH METHOD

We mailed surveys to 2,000 homeowners in four states: California, Florida, Illinois and New Jersey.⁶⁹ We chose these states primarily in an attempt to reach people in a broad range of geographic, life-cycle and socio-economic situations, though we were also constrained by data availability, and certain features of particular state foreclosure laws. Geographically, these states include both coasts, the north and the south, and the interior of America. As for life cycles, in America, 12.4% of the population is over 65 years of age, and two of our states, Florida and New Jersey, are above this average while two others,

tors is a distinct, though more fundamental, question.

⁶⁶ Himmelstein et al., *supra* note 60, at 71.

⁶⁷ See Richard M. Hynes, *Bankruptcy and State Collections: The Case Of The Missing Garnishments*, 91 CORNELL L. REV. 603, 606 (2006) (studying state law debt collection defendants and arguing that “[i]f we are to understand the extent of consumer financial distress, we must look beyond bankruptcy”).

⁶⁸ The CBP has only this year undertaken a national sample. In previous years, it used a selection of individual judicial districts around the country. See *generally* sources cited at note 58 *supra*.

⁶⁹ We obtained funding and supplies sufficient to mail 2000 surveys, and we estimated that our response rate might be high enough to justify sending 500 surveys to any given state. So we selected four states to survey. Because we wanted a significant number of returns from each state, we did not weight them according to population in our mailings, but rather weighted the final results when making national comparisons.

California and Illinois, are below.⁷⁰ Except for Florida, these states have higher median home values than the national median of \$119,600, but these states, again except for Florida, also have higher median incomes than the national median of \$44,434. So, while these states include a reasonable cross-section of America, future studies should aim to be more comprehensive, and scientifically representative.

We also selected these states out of sheer practicality. In some states, foreclosures proceed from notice to disposition too quickly and the filings are not publicly accessible quickly enough to survey the homeowners by mail.⁷¹ As a result, we focused on states where the notices of foreclosure were readily accessible within days of the filings, but where the homeowners would still likely be in the homes for several weeks, during which they could receive and respond to our survey. There is a potential source of selection bias here – states with quicker foreclosure procedures could make foreclosure less expensive for lenders, and therefore cause them to turn more readily to this remedy. Thus, the potential survey populations in those states could have different characteristics than the ones we surveyed. This problem could be explored and remedied by future studies using telephone surveys instead of mail.

We obtained names, addresses, and basic property information for recent mortgage default notices from the Westlaw real property pre-foreclosure database for each state. The Westlaw databases contain information filed with the county clerk or recorder in select counties that relates to court filings for foreclosures or notices of default. Most of the information is usually provided by the party filing with the clerk—generally, the mortgage lender attempting to foreclose on the mortgage.

On November 27, 2006, we extracted all mortgage foreclosure records for single-family properties and residential condominiums that had been recorded within the previous 30 days from the appropriate pre-foreclosure databases.⁷² Seeking only to survey homeowners, we

⁷⁰ U.S. Census Bureau, QuickFacts, <http://quickfacts.census.gov/qfd/> (last visited Oct. 26, 2007) (use drop down box to view a particular state's census information).

⁷¹ For example, we considered surveying homeowners in Texas, but foreclosures in Texas can be completed within 21 days of the initial court filing. Many of the counties submit their data only bi-weekly. To get enough foreclosure notices in Texas, we would have had to use records that had been filed in court almost a month before we queried the database. By the time our survey would have reached the mailing address, it is likely that many of the homeowners would already have been forced from their homes. As a result, we were unable to survey homeowners in Texas.

⁷² To obtain enough records from New Jersey, we had to extract records for

filtered out commercial and investment properties by keeping only records for which the defendant mailing address was the same as the property address.⁷³ We then randomly selected 500 records from each state to receive surveys.⁷⁴

We designed our survey packet to maximize the response rate, and included a one dollar gift to encourage participation.⁷⁵ The survey instrument was designed to be easily readable,⁷⁶ and we circulated drafts for comment to bankruptcy attorneys who regularly work with

the previous 60 days. We obtained 6577 records from California, 1679 from Florida, 761 from Illinois, and 900 from New Jersey. Because counties update their data on different schedules (a few update daily, many update weekly or biweekly, some update monthly, and a handful update only bi-monthly), the median record date varied by state and some counties were disproportionately represented in our initial data extraction. The median recording date for the California data was November 7, it was November 2 for Florida and Illinois, and it was October 19 for the New Jersey data.

⁷³ A small number of institutional defendants made it through this filter, but we identified them by visual inspection after the survey sample had been selected. After filtering, we had 4348 records from California, 856 from Florida, 540 from Illinois, and 739 from New Jersey.

⁷⁴ We sampled 500 from each state for simplicity, though it implies that some states were over-sampled and others were under-sampled. Our subsequent comparisons across states rely on appropriately weighted averages. See for example *infra* note 84.

⁷⁵ We printed cover letters on high-bond, color Harvard Law School letterhead, and all three authors signed each of the 2000 letters in blue ink. The letter mentioned our advisor, Professor Elizabeth Warren, by title and name, and mentioned that she had published well-known books and has appeared on the popular Dr. Phil television show. We hand-stamped both the outer and return envelopes with brightly-colored stamps, and we included a crisp, new one-dollar bill in each packet. We strongly emphasized the confidentiality of the responses. We also attempted to call every recipient who had not yet responded, encouraging them to complete the survey on the telephone. In short, we followed the techniques shown to increase survey response rates. See generally, DON DILLMAN, *MAIL AND INTERNET SURVEYS: THE TAILORED DESIGN*, SECOND EDITION (2007).

⁷⁶ For example, we presented respondents with 21 possible contributing causes and asked them to check all factors that contributed to their default, but we were worried that respondents would be less inclined to read the entire list and to check causes further down on the list. Therefore, we broke the question into five sub-questions, each containing a list of four or five answer options. Unfortunately, we did not randomize or vary the order of the response options across individual surveys in order to test this potential source of bias. Nonetheless, the ‘standard account’ factors, as we are calling them, (i.e., “amount due for monthly mortgage payment increased”, and “loan was not affordable from the beginning”) were the first two options listed, while the medical factors, which we are exploring as an alternative hypothesis, were in slots six through nine. Thus, any such bias towards the top of the list, or towards either end of the list would make our findings more significant. The second-most popular response (“had to pay unexpected expenses ...”, at 49% of respondents) was in slot fifteen, suggesting that if there is a bias in this regard, it is modest.

these populations.⁷⁷ The survey was six pages, covering a variety of issues and collecting basic demographic data, and included a blank page at the end to allow respondents to explain their situation in greater detail.

We sent the surveys by first-class mail. We received 113 completed survey responses in the mail. An additional six surveys were returned by the recipients without responses, and 187 were returned by the post office marked “address unknown,” perhaps because the residents failed to prevent foreclosure and were evicted, without leaving a forwarding address. To increase our overall response rate, we called all of the non-respondents for whom we could obtain phone numbers.⁷⁸ Fifteen people answered the survey over the phone, bringing our total response count to 128, for a response rate of 7% (128 responses of 1813 valid postal addresses).⁷⁹

To check for bias in our relatively small number of responses, we obtained data from a website that compiles real-estate property data, Zillow.com, on most of the 2000 properties we had randomly selected to receive surveys.⁸⁰ According to the data from Zillow.com, our respondents had a mean/median home value of \$324,581 / \$250,063, whereas our non-respondents had a mean value of \$349,065 / \$283,726 — a difference of about \$25,000, but not statistically significant even at as low as the 80% confidence level. There were also no significant differences between respondents and non-respondents at the state level.⁸¹ We also found no statistically significant differ-

⁷⁷ We also placed a notice in Spanish at the top of the first page asking Spanish speakers to check a box and return the survey even if they were unable to complete it. We received no such returns.

⁷⁸ The Westlaw pre-foreclosure database records do not contain phone numbers for defendants, so we obtained phone numbers in bulk from online white pages. We were able to obtain phone numbers for 349 of our non-respondents; we attempted to call them all at least once.

⁷⁹ We received 22% of our responses from California, 32% from Florida, 20% from Illinois, and 27% from New Jersey. Two-thirds (64%) of our respondents were white, 18% were African-American, 8% were Hispanic, and 7% were Asian-American. As discussed in Part III (A) *infra*, with reference to their incomes and home values, our respondents looked quite like the median persons in their states.

⁸⁰ We were able to extract estimates for home value and recent value appreciation for almost 90% of the addresses we selected, and we extracted square footage and year built for about 78% of the addresses outside of New Jersey. Aside from rough valuation estimates, Zillow.com did not have property characteristic data for New Jersey addresses. For addresses outside New Jersey, we were also able to obtain the number of bathrooms for 76% of the records and the number of bedrooms for 51% of the records.

⁸¹ Obviously, our low response rate makes it harder to find significant differences. The mean value (\$223,063) for our respondents in Florida was noticeably lower than the value (\$299,578) for the Florida non-respondents, but due to the large

ences between respondents and non-respondents in terms of mean and median home purchase prices, the change in home value over the recent 30 day period, the square footage of the home, the year the home was built, the number of bedrooms, or the number of bathrooms.

With regard to potential response bias, one concern would be that those with medical or other exogenous causes would be more likely to respond, wanting to tell their stories, while those who had caused their own foreclosure by purchasing a home they could not afford or making a bad bet on the real estate market, would be too embarrassed to respond. The year in which people had purchased the homes now in default would provide some indication of whether this response bias is present. If there were such a response bias, one would expect to see non-respondents with significantly more recent home purchases, compared to the respondents who would have been able to afford their homes until encountering a medical or other crisis. The average date purchased for these two groups was within six months of each other, yielding no statistically significant difference on this score ($n = 1112$, 71 , $p = .22$). Thus, if there is a response bias in this data, it is too subtle to be detectable with the data on hand. Nonetheless, even with these modest tests of bias, the relatively low response rate is a cause for concern, and readers should consider our findings conditional until a more robust study can further test our hypotheses.

III. FINDINGS

Our surveys included both subjective data, in which respondents themselves specify what they believed caused their foreclosures, and purportedly objective data -- the raw facts reported by the respondents about their situations, such as whether they currently have health insurance. As noted above, we also relied on data about the properties of both respondents and non-respondents. Together, these three sources of data complement each other and paint the picture of foreclosure.

The Standard Account

Our data shed light on what we have called, “the standard account” of the causes of home foreclosures.⁸² This standard account focuses on lax lending standards, rising interest rates, and irresponsible borrowers who are walking away from upside-down mortgages on houses they simply cannot afford. Relevant to this explanation, we

variation in values, the difference was not statistically meaningful at as low as the 90% confidence level.

⁸² See discussion surrounding and sources cited in notes 3-5 supra.

have data regarding the homeowners' self-reported causes of foreclosure, their time in residence, their incomes and secured debt, and their home equity.

Of the respondents, only one third (36%) said that increasing mortgage payments were a factor in their default, and only one in six (16%) reported that their loan was actually unaffordable from the beginning. In contrast, three quarters of respondents (76%) reported that their foreclosure was caused by a drop in income (57%) or unexpected expenses (49%). As we see below, medical crises strike on both of these fronts.

As shown in Table 2, these homeowners reported surprisingly high household incomes, earning \$52,000 annually on the median.⁸³ This puts them squarely in the middle-class, matching the \$51,000 median household income for residents of their four states, weighted appropriately.⁸⁴ The respondents also owned fairly typical homes for

⁸³ The average income was even higher, at \$58,567. Unfortunately, we did not ask respondents to distinguish between their incomes before and after their medical or other crises that caused the mortgage default. Thus, the reported figure could represent the income they were receiving before being injured, or it could represent their actual income now that they are unemployed. Assuming that some respondents may have answered the question one way, and some may have answered it the other way, one might assume that the average income, pre-medical crisis, is higher than the reported figure, even though the average actual income, during the medical crisis, is lower than the reported figure. Consistent with this hypothesis, we found a significant difference in the income levels of those who had a medical cause of foreclosure. Those without a medical cause had a mean/median income of \$75,000 / \$55,000, while those with a medical cause had \$52,000 / \$45,000. However, in regression models accounting for other factors, such as age, race, and state of residence, this difference became insignificant.

⁸⁴ U.S. Census Bureau, Two-Year-Average Median Household Income by State: 2003-2005, <http://www.census.gov/hhes/www/income/income05/statemhi2.html> (last visited Oct. 26, 2007). We took the 2004-2005 medians for each state, and then to estimate the 2006 value we used the same percentage change for each state in the previous period. We then weighted each state according to the number of responses we received in order to produce a weighted average of \$50,988. On this score, the incomes for population of the four chosen states are quite similar to the projected 2006 U.S. median income of \$47,913 (a difference of 6%). At \$52,000, our respondents earn about 9% more than the national median. Note, however, that here we are comparing the *homeowners* in our sample, with all residents of their states, including those who do not own homes. The average income of those with mortgages nationwide in 2006 was \$70,667. U.S. Census Bureau, Financial Characteristics for Housing Units with a Mortgage, http://factfinder.census.gov/servlet/STTable?_bm=y&-geo_id=D&-qr_name=ACS_2006_EST_G00_S2506&-ds_name=D&-lang=en (last visited Oct. 26, 2007) (note that the 2005 dataset for Table S2506 lists the median household income for homeowners with a mortgage in 2005 as \$67,852).

their states, with a median value of \$254,023.⁸⁵ In comparison, the median home values for residents of the four states, weighted appropriately, is \$320,931.⁸⁶ Together, these observations suggest that although these respondents have typical incomes, their homes are actually less expensive than the median homes in their states.

Table 2: Comparison of Foreclosure Respondents to State Base Rates

	Foreclosure Respondents	Four-State Weighted Averages
Household Incomes	\$52,000	\$51,000
Home Values	\$254,023	\$320,931
Ratio	4.9	6.2

We estimated the respondents' required mortgage payments based on the total amount of secured debt and interest rate each reported, assuming a thirty-year amortization.⁸⁷ Based on this relatively crude

⁸⁵ The average house was \$324,213. This estimate is based on data from Zillow.com. We also asked respondents to estimate the current value of their homes, and they were largely consistent with the Zillow data, with a mean of \$346,664 and a median of \$259,000. A paired t-test reveals that the differences are insignificant ($p = .14$).

⁸⁶ This is based on state medians estimated by Zillow.com, drawn at the same time that the property-level data was drawn. The medians were: California, \$524,716; Florida, \$233,743; Illinois, \$231,023; and New Jersey, \$357,955. Zillow.com estimated that the United States median home value was \$263,308. This is within 4% of our respondents' home value of \$254,023, suggesting that on this measure at least, our respondents look quite like middle America. However, at \$320,931, the housing stock in the four surveyed states is 26% higher than the national median, even though the incomes for residents of these states is only 6% higher. *See supra* note 84. Thus, residents of these sampled states can be expected to have somewhat more difficulty affording their homes, and therefore may find it more necessary to use exotic mortgages. *See supra* note 4 and accompanying text. A future national study of the causes of foreclosure might find an even larger percentage of medical causes relative to simple issues of unaffordability.

⁸⁷ The thirty-year amortization is the most typical loan type. *See* Federal Housing Finance Board, Terms on Conventional Home Mortgages: Table II – National Averages for All Major Lenders: Loans Closed, <http://www.fhfb.gov/GetFile.aspx?FileID=6582> (last visited Sept. 29, 2007) (reporting average time to maturity for fixed rate loans being 29.0 years for fixed-rate loans and 30.1 years for variable rate loans, for those closing in December 2006). This estimate of monthly payments does not include insurance or taxes, and will be inaccurate for respondents who have a longer or shorter loan period, and also fails to account for respondents who are using interest-only loans or other variations on the

estimate, the median homeowners in our sample spends less than one third (32%) of their income on their estimated mortgage payments.⁸⁸ This puts our respondents, all of whom are in foreclosure, just above the Federal Housing Administration (FHA) benchmark of 29%.⁸⁹ Almost half (47%) of our respondents meet or beat the FHA benchmark. We estimate that the median respondent can completely meet his or her mortgage payments, and have \$32,707 left over for other living expenses.⁹⁰ Nonetheless, given that these people are all in foreclosure, we suspect that many respondents reported their normal annual incomes, even though their mortgage foreclosures were precipitated by a sudden loss in income. If we had instead asked how much they earned in the most recent weeks or months, the annualized amount would likely have been somewhat lower. Future studies should attempt to clarify this point.

We also calculated the amounts of equity that respondents had in their homes –the home’s market value minus the secured debt on the home.⁹¹ As noted above, the traditional theory of mortgage default is

standard loan model. Also, note that this benchmark is distinct from the “Total Fixed Payment to Effective Income” benchmark that is sometimes used in the alternative, and is therefore not a measure of total housing costs, which would include utilities and maintenance. This is also distinct from the “Back End Ratio” which includes the burden of servicing all the consumer’s debts, including both secured and unsecured. Rather, the present number is comparable to the FHA “Mortgage Payment Expense to Effective Income” benchmark *infra* note 89, and is merely a measure of mortgage payments to income.

⁸⁸ The mean is 52%, and is drawn up because some people reported extremely low incomes, likely due to a recent loss of income. For example, there were ten respondents that had ratios above 100% (with a maximum of 473%), meaning that they would have had to spend every penny of income on their mortgage payments, and they still could not have made them. Interestingly, 83% of these particular respondents indicated medical causes of their foreclosures, or indicia of medical crises, as defined below. Of those who had income-to-mortgage payment ratios above 50%, 91% cited medical causes or indicia of crises. *See also* note 83 *supra* (income data does not distinguish between income before or after medical or other crises.)

⁸⁹ HUD, 100 Questions & Answers About Buying a New Home, <http://www.hud.gov/offices/hsg/sfh/buying/buyhm.cfm> (“according to the FHA, []monthly mortgage payments should be no more than 29% of gross income”), *see also* 7 C.F.R. § 1980.345 (2007) (allowing a 29% ratio for home loans under the Department of Agriculture programs); 38 C.F.R. § 36.4337 (2006) (allowing a 41% ratio for home loans under the Veterans Administration programs).

⁹⁰ The mean is \$38,601. This figure is based on the estimate of mortgage payments explained *supra* note 87, deducted from the respondent’s self-reported income.

⁹¹ We used the respondents’ self-reported amount of secured debt and compared it to both their own estimates of the home value and Zillow.com’s estimate of the home values. There was no significant difference between these methods, so the self-reported data is discussed in the remainder of this paragraph. *See* note 85 *supra*.

that homeowners will exercise the “option” to walk away when their homes are worth less than they owe on them.⁹² However, our median respondent reports that he has about \$50,000 in home equity, and the average respondent has \$85,000 in equity.⁹³ Given that 85% of our respondents report having some equity in their homes, they do not appear to be walking away from upside-down mortgages, as the standard account would suggest.

Together, these observations paint a picture of foreclosure far different from that described by recent news articles. With decent incomes, moderate home values, reasonable debt burdens, and considerable home equity, these homeowners appear to be able to afford their homes, and have no reason to walk away from them. So why are they in default? It seems that either we have a severe response bias, revealing only the situations of an unrepresentative portion of those in foreclosure, or the standard account of home foreclosure is incorrect. As noted in our tests of response bias above, one prediction of the standard account would be that many of those in foreclosure had purchased their homes quite recently, but could not really afford them and therefore soon defaulted. However, the homeowners in our sample, and not just the respondents, have managed to pay their mortgages and avoid foreclosure for nine years on average, from the date that they purchased the home.⁹⁴ Thus, even with this small response rate, these preliminary findings compel further inquiry into the true causes of home foreclosure. What happened?

Self-Reported Medical Causes

In a major part of our study, we simply asked each respondent to mark each item on a long list that they believe “caused” them to get behind on their mortgage loans. We encouraged them to mark all that applied. The responses show that foreclosure can arise from a wide variety of causes including everything from natural disasters (5% of

⁹² See *supra* note 39-42 and accompanying text.

⁹³ The exact figures are \$85,561 mean and \$49,900 median. When compared to the home value of \$324,213 mean and \$254,023 median, homeowners have 26% of home equity on average, and 20% on the median.

⁹⁴ The median is five years. This data is based on the respondents' reported dates when they purchased their homes. The mean is 1998 and the median is 2002. The surveys were completed in December 2006 and January 2007. We also collected the year the property was last sold from Zillow.com, but the data did not cover New Jersey and appeared to exclude properties that were bought long ago. When a paired T-Test is run to compare only those properties that have both estimates, the differences are insignificant ($p = .08$).

our respondents) to divorce (13% of our respondents). However, medical crises form a particularly striking pattern.

As shown in Table 3, about half of the respondents said that their foreclosure was caused at least in part by a medical problem. The total figure ranges from 49% to 57%, depending on which specific causes are counted as “medical” problems. These responses suggest that medical crises impinge on foreclosures in multiple ways. A third of the respondents and spouses (32%), were hit by an injury or illness. Medical crises are ultimately financial problems—causing a quarter (27%) to lose work, and a quarter (23%), to divert money towards paying medical bills instead of the mortgage. There is obviously significant overlap in these populations—for example, those with medical bills are also likely to lose work.

Table 3: Self-Reported Medical Causes of Foreclosure

	respondents	any of the above
Illness or injury of self or spouse	32%	
Others in family ill or injured	14%	
Loss of work due to illness or injury	27%	
Medical bills	23%	49%
Drugs or alcohol abuse	6%	
Gambling problems	2%	50%
Birth, or other family growth	9%	
Death in family	11%	57%

The abuse of drugs, alcohol, and gambling are all diagnosable psychiatric disorders, but we do not know how many respondents were actually diagnosed with these conditions. Whether or not these are included as medical causes is largely inconsequential, as their inclusion adds a marginal one percent. Change in family size, often due to birth, or death, typically includes medical aspects as well. Together, these add another 7%, raising the total proportion of respondents reporting medical causes of their foreclosures to 57%.

This is a striking finding, suggesting a far more significant connection between medical crises, and the potential loss of homes than scholars have previously observed. In contrast, recall that Michael Collins found that 33% of foreclosures are associated with medical causes and Freddie Mac found that 21% of delinquencies had illness as the primary cause.⁹⁵ It is not clear whether these differences are

⁹⁵ Collins, *supra* note 45, at 213 tbl.2; See Press Release, Freddie Mac, *supra*

longitudinal, geographic, or methodological. Note that the Collins study was limited to one city, and had a shorter list of potential medical causes for respondents to choose from. The Freddie Mac difference may well be methodological, given that they only ask borrowers about the *primary* cause of their delinquency, rather than asking the borrowers to check *all* contributing causes, as we did. Moreover, the Freddie Mac data does not provide a list of the various ways in which medical causes can contribute to foreclosure, distinguishing medical bills from lost work for example, and therefore may elicit fewer accurate responses.

The fact that more than half of respondents identify some sort of medical cause has critical policy implications, suggesting that the cause of the foreclosure may be temporary and unpreventable, even though the results of foreclosure may be permanent dislocation. Nonetheless, it is also worth noting that most debtors cited one, two, or three other, completely distinct causes of foreclosure, including having trouble managing credit and exogenous shocks, such as natural disasters.⁹⁶

With regard to objective indicia of medical crises, we found an even stronger relationship with mortgage default, compared to these subjective responses. Medical crises have the potential to impact either the income side of a homeowner's budget, or the expense side, or both.

Income Effects of Medical Crises

One very significant problem was the loss of work due to injury or illness. Three in ten (30%) of our respondents indicated that they, or their spouses, had missed at least two weeks of work due to illness or injury in the two years preceding their mortgage default. At the time of the survey, one in twelve (8%) were currently unable to work, due to medical reasons.

In their narratives, respondents explained the link between health and income. One wrote that, "I went off work due to medical reasons, so the money was just not there." Another explained that, "[I] was on top [of the payments] then had emergency surgery [and] was laid up for four months and couldn't go to work. Got behind." Likewise, a

note 46.

⁹⁶ The modal respondent cited five specific causes of their foreclosure (mean = 4.7, median = 5). We also categorized the 21 potential causes into three categories – medical causes, problems with credit, and exogenous causes. (The survey instrument does not make this distinction.) The modal respondent indicated at least one cause in all three categories (mean = 2.1, median = 2).

third respondent said that, “I fell behind because my husband was injured in a car accident[,] and went out on disability.”

From a policy perspective, this connection between health crises and lost work suggests more attention must be paid to disability insurance, or other ways of bridging these sorts of temporary gaps, in addition to the typical policy focus on insurance for medical bills. Federal disability insurance, under the Social Security program, may not be large enough, or arrive fast enough to keep people in their homes.

Even if the homeowners are perfectly healthy, the illnesses of *other* family members can affect the income side of the ledger. One respondent explains, “I had taken time off from work when my mother was ill.” Another describes her need to care for two women in her home. “[I] have to take care of mom, 88, and my aunt. Mom is dying, calls 911. I am forced to take care of her.”

The survey evidence bears out these anecdotes. Three quarters of the respondents who had seniors in their homes reported medical causes for their foreclosures, while only 46% of those without seniors did so ($p < .05$). When limited to just medical problems afflicting “other family members” besides the respondent and spouse, four-in-ten (42%) of those with seniors cited this cause, while only one-in-ten (9%) of the others did so. In a logistic regression model⁹⁷ controlling

⁹⁷ A logistic model is a statistical regression model used to estimate the influence of exogenous explanatory factors on *whether a particular event occurs*. Here, we used age, sex, race, state and income of the respondent and whether there were seniors in the household as explanatory variables, and estimated their individual and collective influence on the likelihood that the respondent would report a medical cause. The general approach for logistic regression involves finding a *logistic* function that “best fits” the observed data, which include, for each observation, whether the event occurred (given a value of 1 if it occurred, and 0 otherwise) and the values for all of the explanatory factors. The logarithm of the odds of the event occurring is assumed to be a linear function of the explanatory variables, and the coefficients on the explanatory variables are determined essentially by maximizing the product of the probabilities the model assigns to the observed outcomes. The logistic is an increasing function that takes on values strictly between 0 and 1: $f(\theta) = e^\theta / (1 + e^\theta)$. In the logit model, used here, the single input value θ of the logistic function is itself a linear function of the explanatory values x_1, x_2, \dots : $\theta = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots$. Estimates of the coefficients β_i of the explanatory variables are found by choosing coefficients to maximize the product of $f(\theta)$ for observations where the event occurred and $[1-f(\theta)]$ for observations where the event did not occur. Values of the logistic function are commonly interpreted as probabilities that the event will occur conditional on the input values of the explanatory variables. For information on logit models and logistic regression generally, see G. S. MADDALA, LIMITED-DEPENDENT AND QUALITATIVE VARIABLES IN ECONOMETRICS 22-27 (Econometric Society Monographs No. 3, 1983).

for the age, sex, state, race, and income of the respondent, those with seniors in the house are significantly (thirteen times) more likely to report a medical cause related to “other family members.”⁹⁸ From a policy perspective, this finding suggests that the national Medicare safety net may have a gap. Although Medicare pays for health care and some prescription drugs, seniors who need daily care may be forced to impose on relatives who must then stay home from work to care for them. A national policy failure for senior citizens also has implications for their adult children who must pick up the slack.

The Expenses of Medical Crises

One quarter of the respondents (23%) said that medical bills were a cause of the foreclosure. Still, the relationship is not direct: none of the respondents indicated that a medical creditor was actually foreclosing on their houses after reducing the debt to a judicial lien.⁹⁹ This sort of aggressive collections practice has been the subject of recent controversy, and has led to some legislative responses.¹⁰⁰

Instead, the interaction between medical expenses and foreclosure is more indirect, and the policy responses must therefore be more nuanced. Medical crises apparently cause homeowners to re-allocate some of the money they do earn away from the mortgage and towards medical expenses. One respondent explained that, “[i]nsurance pays less each year. [Our] prescription medications run over \$200 per month for [the] family.” The medical crises of others in the family can be costly as well. As one respondent explained, “[m]y mother took sick[,] and that put me behind for medical and funeral expenses.”

Consistent with these narratives, over one third of the respondents (37%) reported that they had paid more than \$2,000 in un-reimbursed medical bills in the two years before their mortgage default. At a \$1,000 threshold, this figure climbs to 42% of the respondents, which is somewhat higher than that observed in the studies of medical bank-

⁹⁸ The model as a whole had significant predictive power at .05, and the seniors-in-household variable was itself significant which means roughly that there would be less than a 5% chance of observing the divergence in responses we actually observed if the presence of seniors in the household had no actual influence on whether a medical reason were reported.

⁹⁹ Rather, 97% of the respondents indicated the foreclosing party was either the primary mortgage lender or another mortgage lender. The remainder said it was some other special situation, such as the house being secured by a business loan which was defaulted.

¹⁰⁰ See Jacoby & Warren, *supra* note 58, at 576 n.218 (citing cases where judgment liens were filed by healthcare providers), 540-541 n.33-41 (showing the legislative responses, for example, Connecticut’s provision that expands the home-*stead* exemption when debts arise out of hospital services).

ruptcies.¹⁰¹ Specifically, the mean/median respondent had \$4,901 / \$1,250 of such un-reimbursed medical bills. For those who cited one of the four core medical causes for their bankruptcy, their un-reimbursed medical bills were \$8,334 / \$3,000, more than quintuple those who did not. Those that said medical bills were the *specific* cause of the foreclosure, faced \$15,044 / \$5,200 in bills. When one considers this smallest sub-group's income during this two-year period, these medical expenses would consume 17% of the mean income and 7% on the median. Of course, it is unlikely that the medical bills were conveniently spread across each paycheck.

These homeowners in foreclosure apparently reallocated their income towards paying medical bills rather than the mortgage, and this is cause for policy concern. From the perspective of rational choice economics, we might assume that with a fixed amount of money to allocate in any given month, and bills exceeding this amount, homeowners will select which bills to pay according to whichever creditor threatens the most negative consequences for nonpayment. It is generally more prudent to pay one's secured debts before the unsecured debts, and consumers are routinely advised as such.¹⁰² Homeowners must know that the threat of losing their home is a severe potential consequence of default. Thus, when they allocate money elsewhere, it may reflect a lack of understanding about the relative seriousness of the consequences across these choices.

Or, the decision to pay medical bills over the mortgage might be quite rational and intelligent. Perhaps the medical creditors have even more practical leverage than the mortgage creditor who has a security interest in the home. Medical providers can simply refuse further treatment until the account is paid in full. Indeed, some medical providers may refuse to work on credit at all, requiring payment in full before rendering medical services, as explicitly contemplated by the Code of Medical Ethics.¹⁰³ Federal law requires that medical provid-

¹⁰¹ Compare this with the 27% rate found by Himmelstein et al., *supra* note 60. This may be due to the differences in the populations of those in bankruptcy versus those in foreclosure, and it likely reflects a difference in time, between our late-2006 data and their 2001 data. Medical inflation alone would make \$1,000 in 2001 medical expenses equivalent to about \$1,300 in medical expenses at the end of 2006. See Bureau of Labor Statistics, U.S. Dep't of Labor, Medical Care Inflation in 2006, <http://stats.bls.gov/opub/ted/2007/jul/wk5/art05.htm> (last visited Nov. 3, 2007) (deducing from percentage increases in consumer price index related to medical care as noted in accompanying chart).

¹⁰² See, e.g., N.Y. City Dep't of Consumer Affairs, *Debt Collection Guide*, www.nyc.gov/html/dca/downloads/pdf/debt.pdf at 3 ("Pay your SECURED DEBTS first...").

¹⁰³ See AMERICAN MEDICAL ASSOCIATION, CODE OF MEDICAL ETHICS, E-608,

ers screen, and if necessary *stabilize* patients presenting with *emergency* conditions, without regard to the patient's ability to pay.¹⁰⁴ However, when it comes to getting real treatment for an underlying ailment, there is no generally applicable legal limit to the use of leverage. Such a consumer is faced with a choice between their health or their home.

For one in twelve respondents (8%), the medical bills became so onerous that they resorted to refinancing their homes, or taking a home equity loan to pay their medical bills, often along with other debt such as credit card bills.¹⁰⁵ Indeed, of those respondents who took out home equity for any purpose, almost one quarter (23%) used it to pay medical bills.¹⁰⁶ This medical debt, now secured by their house, provides one reason why the median respondents owed over \$50,000 more on their houses than the original purchase price.¹⁰⁷

This conversion of unsecured medical debt to secured home debt presents another serious policy implication. Scholars have noted that the bankruptcy system exists as a last-resort social insurance system for people hit with medical catastrophes, allowing them to discharge their medical debts and get a fresh start.¹⁰⁸ One in five (19%) of our respondents with medical foreclosures indicated that they had de-

available at <http://www.ama-assn.org/ama/pub/category/8371.html> ("Although harsh or commercial collection practices are discouraged in the practice of medicine, a physician who has experienced problems with delinquent accounts may properly choose to request that payment be made at the time of treatment")

¹⁰⁴ Emergency Medical Treatment & Labor Act, 42 U.S.C. § 1395dd (2000 & Supp. IV 2007).

¹⁰⁵ On average, respondents tended to use home equity for 1.8 purposes, including medical bills (23%), mortgage payments (25%), living expenses (28%), other purposes not listed (29%), repairs and renovations (31%), and credit card bills (65%).

¹⁰⁶ Compare this to the 15% rate found by Himmelstein et al., *supra* note 60, at 68.

¹⁰⁷ The mean/median purchase price was \$217,000/\$137,000 while the mean/median amount of secured debt was \$261,000/\$189,000. The difference in means is \$44,000; the difference in medians is \$52,000. By the way, the respondent's disclosed purchase price tracked very closely to the property data gathered from Zillow.com, where the mean/median last sold price was \$220,000/\$145,000.

¹⁰⁸ See generally, Adam Feibelman, *Defining The Social Insurance Function Of Consumer Bankruptcy*, 13 AM. BANKR. INST. L. REV. 129, 129 (2005) (Collecting sources and concluding that, "Bankruptcy scholars generally agree that consumer bankruptcy functions, at least in part, as a form of social insurance. . . . To [some scholars], bankruptcy is effectively an 'insurer of last resort,' providing some measure of protection to individuals who fall through cracks in other private and public institutions and legal regimes designed to promote economic security.") But see Melissa B. Jacoby, *The Debtor-Patient: In Search of Non-Debt-Based Alternatives*, 69 BROOK. L. REV. 453, 462-63 (2004) (arguing that the bankruptcy system has limited effectiveness as a system of medical insurance, in part because it provides no prospective relief and limits repeated use).

clared, or were considering, bankruptcy. Nonetheless, for those who have secured their medical debts with their homes, bankruptcy is likely to be much less helpful. Bankruptcy treats secured debt much differently than it treats unsecured debt, such as amounts owed directly to hospitals, doctors, or credit cards. In bankruptcy, these unsecured debts can sometimes be discharged totally, or often times at least partially, depending on the debtor's assets and income. In contrast, debtors must repay every penny of secured debts, up to the liquidated value of the collateral, and Chapter 13 bankruptcy instead merely allows the debtor to re-schedule those payments.¹⁰⁹ But for debts secured by a *home* in particular, bankruptcy is even less forgiving, requiring full payment according to the original mortgage contract, in addition to any payments on the arrears through the plan.¹¹⁰ If you cannot pay these secured medical bills, then you lose your house.¹¹¹ Given that medical crises may be highly correlated with loss of income, the chances of being able to complete such a Chapter 13 plan may be doubtful.¹¹²

At the very least, we might expect bankruptcy's automatic stay to provide these debtors with a reprieve while they try to get their affairs

¹⁰⁹ See 11 U.S.C.S. § 727(b) (limiting the discharge to liability on claims, not creditors' in rem rights in collateral); § 1325(a)(5)(B) (LexisNexis Supp. 2007) (requiring for approval of a Chapter 13 plan that "the value, as of the effective date of the plan, of property to be distributed under the plan on account of such claim is not less than the allowed amount of such claim; and [if the plan includes periodic payments] the amount of such payments shall not be less than an amount sufficient to provide to the holder of such claim adequate protection during the period of the plan").

¹¹⁰ See 11 U.S.C. § 1322(b)(2) (2000) (specifying that a Chapter 13 plan may not modify the rights of holders of claims "secured only by a security interest in the real property that is the debtor's principal residence"); see also § 1328(a)(1) (withholding discharge from debts that have repayment schedules extending beyond the length of the plan); see also Administrative Office of the U.S. Courts, Chapter 13, at <http://www.uscourts.gov/bankruptcycourts/bankruptcybasics/chapter13.html> ("Debts not discharged in chapter 13 include certain long term obligations (such as a home mortgage) . . .").

¹¹¹ 11 U.S.C. § 524(j) (The bankruptcy discharge "does not operate as an injunction against an act by a creditor that is the holder of a secured claim, if . . . such creditor retains a security interest in real property that is the principal residence of the debtor . . ."); see also Jacoby, *supra* note 108, at 464 ("Because that debt is secured, and particularly because it is secured by the debtor's principal residence, the debtor must pay that debt in full or she will lose her home.").

¹¹² See Scott F. Norberg & Andrew J. Velkey, *Debtor Discharge and Creditor Repayment in Chapter 13*, 39 CREIGHTON L. REV. 473, 505-06 tbls. 18 & 19, (2006) (reporting on longitudinal study of debtors who filed chapter 13 in 1994) (finding that two thirds of those entering Chapter 13 bankruptcies did not complete their plans).

in order.¹¹³ But when medical debt is secured by a home mortgage that exhausts the debtor's equity, the reprieve may be quite temporary. Because of the lack of equity means that the creditor also lacks "adequate protection" against a decline in value of the collateral, the mortgage holder can immediately move the court to lift the stay and thereby proceed with foreclosure.¹¹⁴

Still, for those debtors who have some equity in their homes, and have sufficient income to make a Chapter 13 plan work, bankruptcy can still be an effective solution to an impending foreclosure.¹¹⁵ Over the course of a Chapter 13 plan, the debtor can gradually repay his mortgage arrearages while also paying regular payments under the mortgage contract. Thus, for those debtors who have temporary medical crises that do not dramatically impact their long term financial situation, by either reducing income or diverting it to medical expenses, Chapter 13 could be a way to protect their homes.

Given this legal regime, our preliminary data suggest that the bankruptcy system may not be a very effective safety net, even as a last resort, for those with medical crises. Given the prevalence of medical debt secured by homes, the bankruptcy safety net has very large holes that debtors can fall right through. Bankruptcy is no replacement for a comprehensive and prudent policy for financing health care in America.

Medical Insurance

Medical insurance exists to protect consumers from financial shocks caused by health crises. However, amongst the homeowners that we studied, a third of them (30% for respondents, 34% for spouses), had no health insurance whatsoever.¹¹⁶ In contrast, for the

¹¹³ S. Rep. No. 95-989 (1979) reprinted in 11 U.S.C. §362 (2000) ("The automatic stay is one of the fundamental debtor protections provided by the bankruptcy laws. It gives the debtor a breathing spell from his creditors. It stops all collection efforts, all harassment, and all foreclosure actions. It permits the debtor to attempt a repayment or reorganization plan, or simply to be relieved of the financial pressures that drove him into bankruptcy.")

¹¹⁴ 11 U.S.C. §362(d) (2000). ("[T]he court shall grant relief from the stay . . . by terminating, annulling, modifying, or conditioning such stay - (1) for cause, including the lack of adequate protection of an interest in property of such party in interest; (2) with respect to a stay of an act against property under subsection (a) of this section, if - (A) the debtor does not have an equity in such property; and (B) such property is not necessary to an effective reorganization.")

¹¹⁵ See Melissa B. Jacoby, *Bankruptcy Reform and Homeownership Risk*, 2007 U. ILL. L. REV. 323, 327-28 (2007).

¹¹⁶ For 37% of the households, either the respondent or his/her spouse lacked health insurance.

weighted population of the four states we studied, only 17% lack insurance.¹¹⁷ This significant difference ($p < .02$), suggests a strong relationship between the lack of health insurance and mortgage default.

Nonetheless, it is not clear that even those who do have health insurance receive adequate protection from it. For those households where both the respondent and the spouse *do* have insurance, the mean/median amount of un-reimbursed, out-of-pocket medical bills was \$5,100/\$2,000, while households with one or more uninsured paid only \$4,565/\$500 ($p > .1$). Contrary to what one might expect, those in foreclosure with health insurance pay about the same in un-reimbursed medical bills as those without health insurance.¹¹⁸ Likewise, at about the same rate, both those with and without health insurance say medical problems, their own, or their spouse's, caused their foreclosure (33.8% and 30.4%, respectively).

Given that all of our respondents are in foreclosure, this is far from an ideal study design for considering whether medical insurance helps people in medical crises keep their houses. One explanation for these observations is that insurance effectively helps those with low and moderate medical bills avoid foreclosure, and thus the only insured people we see in our sample are those with very high medical bills who have surpassed their policy limits, or accumulated significant co-pays. Another explanation for this data may be adverse selection, such that those with medical problems and higher total bills may be more likely to be insured than others. Those who are over 65, or have very low incomes are thereby eligible for Medicare and Medicaid, which offset most medical expenses.¹¹⁹

¹¹⁷ The national average is 15%. U.S. Census Bureau, Current Population Survey 2005 and 2006 Annual Social and Economic (ASEC) Supplement, <http://www.census.gov/hhes/www/hlthins/usernote/usernote3-21rev.html> (last visited Oct. 26, 2007).

¹¹⁸ This is consistent with the findings of those in bankruptcy. See Jacoby & Warren, *supra* note 58, at 553 (noting that two thirds of "medical filers" of bankruptcy said all family members had insurance, and 82.7 percent of those ill or injured had insurance at time of the interview, yet "those with private insurance at illness onset reported higher out-of-pocket costs on average (\$ 13,460) than those uninsured at illness onset (\$ 10,893)").

¹¹⁹ See Robert Seifert, *Home Sick: How Medical Debt Undermines Housing Security*, 51 St. LOUIS U. L.J. 325, 336 (2007) ("Non-elderly people were much more likely to face the burdens of medical debt than people age 65 and above (47% versus 29%). Possible explanations for this are that programs for seniors such as Medicare are largely effective in protecting them from financial difficulties, and that seniors are relatively insulated from cutbacks in private insurance or state Medicaid programs that provide the bulk of coverage to younger people.")

CONCLUSIONS AND RECOMMENDATIONS

We define “significant medical distress” as occurring in those cases where a respondent self-identified a medical cause for their foreclosure, paid more than \$2,000 in un-reimbursed medical bills, lost two or more weeks of work for illness or injury, are currently unable to work for a medical reason, or used home equity to pay medical bills. As shown in Table 4, we find that seven in ten homeowners (69%) experienced at least some indicia of a significant medical distress in the two years preceding their foreclosures.

Table 4: Seven in Ten Homeowners in Foreclosure Had Significant Medical Distress

	respondents	any of the above
Self-reported medical cause	50%	
Un-reimbursed med bills > \$2000	37%	
Lost 2+ wks, work illness /injury	30%	
Currently unable to work, medical	8%	
Used home equity to pay medical bills	13%	
		69%

At the very least, this aggregate finding suggests that the standard account of home foreclosure may be missing a very large portion of the story. Those facing home foreclosure are often suffering from illness and injury. Even when these factors do not directly cause the foreclosure, they become part of the perfect storm of factors that push people over the brink.

It is worth pausing to consider how these findings about medical foreclosure relate to the standard account of the recent spike in home foreclosures. Undoubtedly, there has been a recent increase in exotic mortgages, predatory lending, and interest rates, while home prices remain flat.¹²⁰ Thus, some or perhaps all of the *increase* in foreclosures can be explained by the standard account. The question is thus, putting aside these temporary trends, what are the causes of the *base* rate of foreclosures? Our study provides only a snapshot in time, and does not provide such a base-rate with which we can estimate the prevalence of medical foreclosures as a proportion of all foreclosures.

¹²⁰ See *Alternative Mortgage Products*, *supra* note 2, at 7-10.

However, to the extent that these other factors were causing additional foreclosures during our study period of December 2006 and January 2007, we should expect the base rate to reflect an even higher percentage of foreclosures with medical causes. Of course, both the medical causes and the “standard account” causes are subject to policy interventions, which may in the future change (and hopefully decrease) the rate of foreclosures.

The “standard account” causes of foreclosure are not completely independent of medical foreclosures. In many cases, various factors combine to push borrowers over the edge, into financial ruin.¹²¹ Thus, in raw numbers, the spike in foreclosures due to these other causes might also cause a spike in medical foreclosures. Finally, given the observed relationship between medical crises and foreclosures, it is possible that changes in the health care economy during these same few years may have contributed to the spike in foreclosures.¹²²

Before turning to questions of policy, it is worth emphasizing that our findings are the result of a *preliminary* study of the medical causes of home foreclosure, one that suffers from a relatively low response rate. Notwithstanding our checks of response bias, it is possible that the experiences of our respondents are not representative of the whole. So, as we begin to contemplate the meaning of these findings for law and policy, we do so conditionally, on the assumption that these findings can and will be replicated in more comprehensive future studies. The question is, *if* these observations are accurate, what do they mean?

Our most striking observations begin with the realization that most of those suffering medical foreclosures are solidly in the middle class, with apparently affordable homes, and health insurance to boot. Thus, none of the handy bromides are apt. Simply tightening mortgage lending standards, or providing health insurance to more Americans, is unlikely to solve the problem of medical foreclosures. Instead, this study contributes to a growing awareness that the middle class in

¹²¹ See note 96 *supra*.

¹²² See, e.g., *Hearing on Economic Challenges Facing Middle Class Families Before the H. Comm. on Ways and Means*, 110th Cong. (Jan. 31, 2007) (statement of Diane Rowland, Executive Vice President of Kaiser Family Foundation, available at <http://waysandmeans.house.gov/hearings.asp?formmode=view&id=5415> (“From 2000 - 2006, the cumulative increase in premiums for employer-sponsored insurance was 87 percent compared to a 20 percent increase in wages and 18 percent increase in overall inflation Since 2000, the cumulative increase in premiums is over 4 times the increase in wages for non-supervisory employees. . . . Between 2001 and 2005, the share of middle-income employees in firms with employer-based coverage dropped from 82.4 percent to 78.5 percent and, in turn, their uninsured rate grew from 13.4 percent to 16 percent”).

America is financially insecure, both because they are living too close to the margins, and because they are now exposed to risks that can push them over the edge.¹²³ For example, recall that those who cited medical bills as the cause of their foreclosure were hit, on average, with over \$15,000 in uncovered expenses. This sort of “exogenous shock” to their personal budgets was apparently too much for them to handle, and it pushed them into foreclosure. In this light, medical foreclosures are symptoms of larger policy problems.

Given the complexity of the problem of middle class financial insecurity, there is no simple solution. Enhancing real wages, minimizing the middle class tax burden, encouraging savings, and creating various governmental safety nets are all salient responses, but beyond the scope of the present study.

Nonetheless, there are specifically legal responses available to policy makers to address the narrower problem of medical foreclosures themselves. For one thing, this study suggests that the public discussion of universal health insurance needs to be sensitive to not just the problem of un-insurance, but also under-insurance. To be effective, health insurance must be done right – a policy with low caps or slow reimbursements may not keep people in their homes. Moreover, this suggests that in addition to insurance for medical bills, more attention needs to be paid to medical disability insurance, and home care insurance. Our respondents indicate that medical crises affect both the income and expenses side of a consumer’s ledger, yet much of the contemporary discussions about healthcare reform focuses only on the latter.

Putting health policy aside, the problem of medical foreclosures could instead be addressed by housing policy and the mortgage industry. One potential response is to create a public or private insurance system to prevent the problem. Such insurance could pay the mortgage during a verifiable medical crisis in the borrowers’ household, allowing those with only a temporary problem to overcome it without losing their homes in the process. For those with permanent medical problems, the insurance could provide a more orderly process of divesting themselves of the asset, while preserving whatever equity they

¹²³ See generally WARREN & TYAGI, *supra* note 56 (arguing that American families have almost all of their income locked up in necessities and have little in reserve for crises); JACOB HACKER, *THE GREAT RISK SHIFT: THE ASSAULT ON AMERICAN JOBS, FAMILIES, HEALTH CARE, AND RETIREMENT AND HOW YOU CAN FIGHT BACK* (2006) (arguing that the traditional pillars of financial security, the family and the workplace, no longer provide as much economic stability).

have.¹²⁴ Alternatively, for those with permanent disabilities, the debt could simply be forgiven, as is done for federal student loans.¹²⁵

Preventing medical foreclosure is a positive sum game for the lenders, the homeowners, and the public.¹²⁶ Therefore, we could expect these three interests to be willing to invest together to purchase such insurance. If rational borrowers were told *ex ante* that half of all foreclosures are caused by medical crises, then, in theory, they should be willing to pay some amount for insurance to protect themselves from a medical foreclosure. Lenders, in return, should be willing to offer lower origination fees and/or interest rates, reflecting the reduced risk of default for the loans of such insured borrowers, which would thereby partially offset the cost of the insurance.¹²⁷ Finally, given the negative externalities of foreclosures, the government would have an interest in subsidizing this insurance, at least by making it tax-deductible.¹²⁸ Although attractive in principle, any such voluntary insurance program will be severely hampered by problems of bounded rationality.¹²⁹ Given the pernicious effects of optimism bias, home-

¹²⁴ See Stark, *supra* note 14, at 678-80 (proposing a bifurcated process, whereby those with significant equity in their properties would be allowed to sell the property “in a manner which is commercially reasonable and designed to produce a selling price close to the fair market value of the property”).

¹²⁵ See U.S. Department of Education, *Repaying Your Student Loans*, at 23 n.1 available at http://studentaid.ed.gov/students/attachments/sitesources/RepayingYourStudentLoansEnglish2003_04.pdf (“Beginning July 1, 2002, a borrower who is determined to be totally and permanently disabled will have his or her loan placed in a conditional discharge period for three years from the date the borrower became totally and permanently disabled. During this conditional period, the borrower doesn’t have to pay principal or interest. If the borrower continues to meet the total-and-permanent disability requirements during, and at the end of, the three-year conditional period, the borrower’s obligation to repay the loan is canceled.”)

¹²⁶ See *supra* notes 8-11 and accompanying text.

¹²⁷ See Stark, *supra* note 14, at 641 (suggesting that without added security, “[l]enders will pass along the costs associated with delinquent mortgages to new borrowers in the form of higher loan fees or higher interest rates.”).

¹²⁸ Alternatively, the government could provide a form of mortgage insurance directly to borrowers instead of, or as a supplement to, privately purchased mortgage insurance. The United Kingdom has such a two-policy system, but the complexity has hindered its effectiveness. See Janet Ford & Deborah Quilgars, *Failing Home Owners? The Effectiveness of Public and Private Safety-nets*, 16 HOUSING STUD. 147, 160-61 (2001) (explaining that the two-policy system fails to provide housing security as hoped, especially for the poorest homeowners).

¹²⁹ Amongst other problems, homeowners are likely to suffer from optimism bias, as they will tend to assume the medical foreclosures will happen to others, not themselves. See, Christine Jolls, *Behavioral Economics Analysis of Redistributive Legal Rules*, 51 VAND. L. REV. 1653, 1660-61 (1998) (describing empirical findings that individuals tend to under-estimate the likelihood of suffering an automobile acci-

buyers are unlikely to purchase such insurance, even if given the option to do so.

It should be noted that loan servicers already seek to modify mortgages, or grant forbearances when borrowers face a short-term financial crunch, so as to avoid the costs and risks associated with proceeding to a foreclosure sale.¹³⁰ Indeed, many of our respondents likely worked out some such arrangement to stay in their homes.¹³¹ However, such an offer may come only after the lender has initiated foreclosure proceedings, which incurs thousands of dollars of legal fees that are passed on to the borrower even if he or she ultimately cures the default.¹³² Thus, homeowners should be advised to begin negotiating with their lenders much sooner, before foreclosure proceedings are initiated. Still, such negotiations will be of limited value to the homeowner who has no real choice about whether to default, since a servicer is free to proceed with foreclosure whenever it is economically rational to do so, without regard for the borrower's reasons for delinquency. Without some sort of legal entitlement to protect him, the borrower has little or no negotiation power.¹³³ Policymakers

dent).

¹³⁰ See, Amy Crew Cutts and Richard K Green, *Innovative Servicing Technology: Smart Enough to Keep People in Their Houses?* in BUILDING ASSETS, BUILDING CREDIT: CREATING WEALTH IN LOW-INCOME COMMUNITIES 348, (Nicolas P. Retsinas & Eric S. Belsky, eds., 2005), available at http://www.freddiemac.com/news/pdf/fmwp_0403_servicing.pdf.

¹³¹ See Stark, *supra* note 14, at 663 (“[O]nly a third or fewer of the foreclosure cases filed ended in a foreclosure sale.”). A future study should explore whether there is a significant difference in the outcomes for homeowners depending on the reasons that caused their foreclosures in the first place. One might hypothesize that those entering default because interest rates have adjusted upwards might be more likely to actually lose their homes, while those suffering a temporary medical crisis may be more likely to negotiate a deal that saves their homes.

¹³² See e.g., *Brown v. Lynn* 385 F. Supp. 986, 993 (N.D. Ill., 1974) (“[T]he mortgagees' collection attorneys are apparently charging high fees for what appears to be the mailing of a collection notice threatening foreclosure. Unless the mortgagor pays all existing deficiencies as well as these attorney's fees, the mortgagees institute foreclosure proceedings which apparently give rise to even greater costs and attorney's fees. Since, under [state law], the only defense to a foreclosure is the tender of the entire arrearage, plus all costs, fees and expenses, the mortgagors, who are already under severe financial strain, find it virtually impossible to reinstate. The initial referrals [by the mortgagees to the attorneys] thus appear to seal the mortgagors' fates. . . . [I]f [the plaintiff's] allegations are true, and they are in fact losing their homes largely because of attorney's fees, we find such conduct to be unconscionable.”), discussed in HUD *supra* note 6 at 23.

¹³³ See generally, Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadow of the Law: The Case of Divorce*, 88 YALE L.J. 950 (1979) (explaining how legal entitlements provide bargaining power to parties, even without intervention by the courts to enforce those laws in the particular dispute).

should explore ways to further incentivize mortgage servicers to deal with those suffering from short-term trigger events, so that these borrowers can avoid losing their homes, and avoid the onerous costs involved in such an involuntary transaction. In crude terms, if laws make it more expensive for lenders to consummate foreclosure, for example, by requiring that they use a judicial remedy, lenders will be compelled to instead negotiate with the marginal borrowers, some of whom will be able to re-instate their mortgages after a temporary setback. Of course, any such costs will presumably be spread to all borrowers *ex ante*.

Under the status quo, mortgage disability insurance is already available on the private market.¹³⁴ Yet, only eight percent of our respondents indicated that they were currently unable to work because of a medical reason, and we do not know how many of these had such insurance. Even this small minority, who may have been eligible to receive such insurance benefits if they had bought such contracts *ex ante*, found themselves in foreclosure. Thus, to be effective, medical foreclosure insurance would likely need to be broader in scope, more widely held, and perhaps have quicker benefits than traditional disability insurance.

As an alternative to the insurance response, the government could create a law staying foreclosure proceedings during verifiable medical crises.¹³⁵ Similarly, during World War I, Congress was concerned about soldiers and sailors who were returning from combat to find that their homes had been foreclosed. Congress turned to then Major John Wigmore, later Dean of Northwestern University Law School and author of the renowned treatise, *Wigmore on Evidence*.¹³⁶ Wigmore drafted, and Congress passed, The Soldiers' and Sailors' Civil Relief Act of 1918, which stayed all home foreclosures against service-

¹³⁴ See e.g., STATE FARM MUT. AUTO. INS. CO., MORTGAGE DISABILITY INCOME INSURANCE, <http://www.statefarm.com/insurance/disability/mortgdi.asp> (last visited Oct. 28, 2007).

¹³⁵ Similarly, Kansas already has a law that stays wage garnishment proceedings during two months following a medical crisis that causes a loss of work. KAN. STAT. ANN. 60-2310(c) (2005) ("If any debtor is prevented from working at the debtor's regular trade, profession, or calling for any period greater than two weeks because of illness of the debtor or any member of the family of the debtor, and this fact is shown by the affidavit of the debtor, the provisions of this section shall not be invoked against any such debtor until after the expiration of two months after recovery from such illness."). It is unclear how valuable this provision is to a debtor, given that one who is not working is also not likely earning wages, and therefore has nothing to garnish.

¹³⁶ See generally Terry M. Jarrett, *The Servicemembers Civil Relief Act: Important New Protections for Those in Uniform*, 60 J. MO. B. 174 (2004).

members while they were on active duty.¹³⁷ This Act expired at the end of World War I, but Congress re-enacted it during World War II, without expiration, and has more recently expanded its reach.¹³⁸ There are two obvious motivations for this sort of stay provision. First is a sense of reciprocal obligation to those serving the country. If they are willing to put their lives on the line for us, the least we can do is protect their homes while they are gone. Second is a sense of sheer practicality and basic fairness. A soldier serving abroad is effectively incapacitated, unable to appear in court stateside, and with little control over his own finances.¹³⁹ Both of these points would seem to be particularly trenchant in a time of conscripted service, where soldiers are involuntarily removed from their stateside professions.

Homeowners suffering medical crises are obviously different in important ways compared to soldiers serving abroad. While there is not such a tangible sense of reciprocal obligation to homeowners as such, there may be a more philosophical commitment to reciprocity, in the sense of a social contract. After all, a medical emergency could strike any of us, and a catastrophic one could put nearly any of us at risk of losing our homes. There may be reasonable disagreement about how robust the social contract should be, but perhaps this is close to the bare minimum.¹⁴⁰ Even if our society is not willing to pay

¹³⁷ *Id.* The Act's mortgage foreclosure provisions are now codified at 50 U.S.C. app. § 533 (2000 & Supp. III 2005). "Mortgage lenders may not foreclose, or seize property for a failure to pay a mortgage debt, while a service member is on active duty or within 90 days after the period of military service unless they have the approval of a court. In a court proceeding, the lender would be required to show that the service member's ability to repay the debt was not affected by his or her military service." U.S. Dep't of Hous. & Urban Dev., Questions & Answers for Reservists, Guardsmen and Other Military Personnel, <http://www.hud.gov/offices/hsg/sfh/nsc/qasscra1.cfm> (last visited Oct. 7, 2007) (summarizing 50 U.S.C. app. § 533). The Act also has provisions for renters. *See* 50 U.S.C. app. §§ 531, 535. Likewise, the argument for protecting those in medical foreclosure could be extended to protect renters as well.

¹³⁸ The Act was amended in 2003, adding additional protections, including a mandate for the initial 90-day stay of proceedings rather than merely allowing court discretion in whether to impose the stay, as in the original act. Pub. L. No. 108-189, § 202(b)(1) 117 Stat. 2835.

¹³⁹ This concern for the servicemember's financial situation is evident in the Act's provision that a lender may move the court to lift the stay if it can show that the servicemember's finances are not in fact adversely impacted by his service in the military. *See* U.S. Dep't of Hous. & Urban Dev., *supra* note 137.

¹⁴⁰ Compare R. EPSTEIN, MORTAL PERIL: OUR INALIENABLE RIGHT TO HEALTH CARE? (1997) (using the veil of ignorance to argue against a positive right to health care), with Russell Korobkin, *Determining Health Care Rights from Behind a Veil of Ignorance*, 1998 U. ILL. L. REV. 801 (1998) (using the veil of ignorance to argue for such a right).

for your medical expenses, we may at least let you keep your home while you try to pay your own way. From the perspective of practicality and fairness, those in medical foreclosure share one feature with service members – their mortgage defaults are often involuntary. The positive law could distinguish between those who breach a contract voluntarily versus those who made a contract in good faith, but encountered obstacles that made performance impossible.¹⁴¹ The means test of the revised bankruptcy code reflects this sensibility; those who are able to repay their debts should do so, while the rest will be forgiven.¹⁴²

Still, the proposed stay need not go all the way to discharging the debts of those in medical foreclosure, at least not for those whose medical crisis is temporary. The stay rule could operate on principles similar to a Chapter 13 bankruptcy, requiring borrowers to pay all of their disposable income towards their mortgage, but preventing the lender from taking the property during the medical crisis.¹⁴³ The unpaid portions of the mortgage payments would continue to accrue as secured debt, which would eventually be paid off by the borrower, or by a future purchaser of the property. Such a policy would nonetheless have a cost for lenders in cases where there is insufficient equity and an ultimate default, and this cost presumably would be passed on to the borrowers *ex ante*. If all borrowers are thereby paying the costs of protection from medical foreclosure, the system looks quite like the insurance program described above, only that it is now mandatory, avoiding the problems of bounded rationality.¹⁴⁴

¹⁴¹ This is not to say that the law already makes such a distinction. See Richard A. Posner, *Common-Law Economic Torts: An Economic and Legal Analysis*, 48 ARIZ. L. REV. 735, 745-46 (2006) (addressing wrongfulness and the strict liability components of contract law).

¹⁴² 11 U.S.C. § 707. This test is a crude measure of ability to repay debts because it is retrospective, rather than prospective.

¹⁴³ Of course declaring bankruptcy is also an option, but bankruptcy may be unnecessarily drastic, expensive, and consequential for these homeowners. See generally Jacoby, *supra* note 108 (discussing the consequences of medical-related debt and assessing alternatives to bankruptcy in the health environment). A lighter weight, more tailored solution could be more efficacious. As noted above, bankruptcy is particularly unhelpful for those who have secured their debts with their homes. See *supra* notes 108-114 and accompanying text.

¹⁴⁴ See Schill, *supra* note 8, at 490 (“[M]ortgagor protection laws [function] as a form of insurance against the adverse effects of default and foreclosure. Viewed in this way, mortgagor protections might promote economic efficiency, even though, as an *ex post* matter, they are not frequently exercised by borrowers.”). Schill also provides empirical evidence that mortgagor protections, such as prohibitions on deficiency judgments and statutory rights of redemption, have a modest effect on interest rates. *Id.*

As an alternative to this form of mandated risk-spreading, the government could instead provide mortgage guarantees, loans, or grants that kick in only when a borrower avails himself of the medical tolling provisions.¹⁴⁵ For example, the Pennsylvania Foreclosure Prevention Act 91 of 1983 includes a Homeowners' Emergency Mortgage Assistance Program (HEMAP), which provides a temporary stay of foreclosure proceedings so that homeowners experiencing temporary financial disruptions can apply for special loans that cover their mortgage payments for up to 24 months or \$60,000.¹⁴⁶ In its first twelve years in existence, the program has disbursed \$384 million to 37,100 homeowners, out of 145,500 applications, and the program recoups its expenses through loan repayments and secondary liens, along with state appropriations.¹⁴⁷ Further study may reveal that this program is an effective model for legislation nationwide.

Methodologically, this entire study is merely a preliminary approach to the collection of empirical data about the causes of mortgage foreclosures, and will need to be replicated, and expanded in future studies. Notwithstanding all the knowledge that can be gleaned by inferential statistics, we found that a great deal can be learned by simply asking homeowners about the causes of their foreclosures. Although the respondents may be susceptible to various biases, and may lack important macro-level information available to social scientists, these homeowners are, at a practical level, in the best position to know what happened to them and what it means to them. Allowing them to tell their stories, and then listening, is a way of enfranchising them in the policymaking process. Future work needs to develop higher confidence that the respondents are representative of all those in foreclosure, and that the study does not suffer from a self-selection bias of respondents.

¹⁴⁵ One advantage of requiring mortgage lenders to spread the costs of this stay provision, rather than the federal and/or state governments, is that lenders would only spread the costs to other homeowners. If the federal government were to guarantee these loans using their general treasuries, it would have the redistributive effect of forcing renters who are taxpayers to further subsidize homeowners (as they currently do with the various tax subsidies for homeowners). This inequity could be minimized if renters also received some protections from medical evictions in a similar program.

¹⁴⁶ Pennsylvania Foreclosure Prevention Act 91 of 1983, 35 PA. STAT. ANN. §§ 1680.401c, .405c(f) (West 2003); Pennsylvania Housing Finance Agency, Pennsylvania Foreclosure Prevention Act 91 of 1983 – Homeowners' Emergency Mortgage Assistance Program (HEMAP), <http://www.phfa.org/consumers/homeowners/hemap.aspx> (last visited Oct. 11, 2007).

¹⁴⁷ Pennsylvania Housing Finance Agency, *supra* note 146; Cmty. Affairs Dep't, Fed. Reserve Bank of Phila., *Homeowner's Emergency Mortgage Assistance Program (HEMAP)*, TECHNICAL BRIEFS, Nov. 2006, available at http://www.phil.frb.org/cca/capubs/tech-brief_nov-2006.pdf.

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Altogether, these findings suggest that the standard account of mortgage foreclosure is missing a large portion of the story. Mortgage foreclosures are not just the results of bad loans, bad properties, or bad borrowers. Instead, many mortgage foreclosures are the result of unpredictable medical disruptions that impact both the incomes and the expenses of family finances.