

RESEARCH BRIEF

APRIL 2014

Community Advantage Panel Study: Sustainable Approaches to Affordable Homeownership

Research funded by the Ford Foundation



The UNC Center for Community Capital is conducting a long-term examination of 46,000 lower-income U.S. homeowners whose mortgages are part of the Community Advantage Program (CAP). CAP began before the foreclosure crisis and continues today.

The center's findings and analysis provide insight into the economic and social benefits of extending homeownership to creditworthy low- and moderate-income households and how to create a sustainable U.S. housing finance system.

Homeownership offers U.S. households a primary pathway to financial and economic stability. But many Americans, particularly lower-income and minority populations, lack access to this important wealth-building tool.

The UNC Center for Community Capital has studied the experience of 46,000 low- and moderate-income (LMI) and minority homeowners since 2003 to identify whether and how specific lending practices enable LMI households to transition successfully to homeownership.

The center's Community Advantage Panel Study (CAPS) examines data collected from the Community Advantage Program (CAP). Self-Help, a community development financial institution, teamed with the Ford Foundation and Fannie Mae to create CAP, which is a secondary market outlet for affordable mortgage loans.

CAP was created to meet two goals: expand home lending to LMI households and demonstrate the creditworthiness and market opportunity these households provide to the mortgage industry.

The commitment of the three founding organizations and of participating lenders from across the country represents an unparalleled investment in affordable mortgage lending. To date, CAP has provided more than \$4 billion in home loans to LMI borrowers.

The CAPS provides a unique opportunity to examine the performance of affordable mortgages before, during and after one of the most turbulent periods in the nation's housing history.

Findings from CAPS indicate that it is possible to expand homeownership broadly without introducing excessive risk to households and lenders.

This brief describes the CAP partnership, the history and context from which it evolved, the data collected for the study and key findings from more than a decade of CAPS analysis.

History and Context for CAP Research

U.S. housing policy since the 1930s has sought to promote homeownership as a primary means for Americans to build financial security. Congress created the Federal Housing Administration in 1934 to restore confidence in a mortgage market crippled by the Great Depression.

One of the modern mortgage finance system's earliest and most important innovations – the affordable, 30-year, fixed-rate mortgage – enabled many Americans to buy a home and take that important step up the ladder to financial security and the American dream.

Yet many of the policies and practices put in place to guide mortgage lending during the subsequent decades served to limit access to low- and moderate-income (LMI) and to minority borrowers.

The impact of those policies remains today in the form of significantly lower rates of homeownership among LMI and minority households. In 2010, 82 percent of Americans in the top half of the income bracket owned their homes compared to 51 percent with incomes in the bottom half; 74 percent of white families owned their homes in 2010, compared to 47 percent of Latinos and 45 percent of African Americans.

The Community Reinvestment Act (CRA) of 1977 encouraged banks to expand home lending to a tier of low-income households previously denied access to conventional, prime-rate home loans. Lenders responded with a range of new products that allowed thousands of households to obtain mortgages.

These new types of affordable mortgages did not conform to the requirements for sale to the government-sponsored enterprises (GSEs), Fannie Mae and Freddie Mac. Banks found themselves holding large portfolios of “nonconforming” CRA loans on their books, which often constrained them from making more affordable home loans. As a result, although lending to LMI borrowers increased following CRA, gaps remained in the lending industry through the mid-1990s.

Self-Help recognized this systemic limit to affordable mortgage lending. It also knew from its own lending experience that home loans made to LMI households performed well. So, in 1994, Self-Help launched a program to expand homeownership for LMI households and demonstrate the viability of lending to this market.

Self-Help began its demonstration by purchasing affordable, nonconforming loans from mainstream financial institutions in its home state of North Carolina, creating a local secondary market that freed capital lenders could reinvest in additional home loans.

In 1998, after four years of success in North Carolina, Self-Help teamed with Fannie Mae and Ford Foundation to expand the demonstration nationwide.

Self-Help used a \$50 million grant from the Ford Foundation to underwrite the default risk, and it offered Fannie Mae a guaranty. Fannie Mae agreed to buy \$2 billion of mortgages from Self-Help that were made under CRA and affordable mortgage programs. Self-Help, in turn, bought affordable home loans from financial institutions across the country. By 2003, CAP exceeded its \$2 billion lending goal and participating organizations extended the program beyond the pilot phase.

During this period, mortgage lending guidelines became more flexible, expanding possibilities for homeownership. The industry had in many ways accepted Self-Help's proposition that making loans to lower-income and minority families is good business.

Beginning around 2003, however, another important trend emerged that would ultimately undermine this progress: the rapid expansion of subprime and predatory lending.

While certain innovative mortgage products had proven to sustainably increase access to credit for LMI borrowers, predatory lending would ultimately devastate many families and communities.

The growth in subprime lending and the resulting foreclosure crisis led some to claim that lending to LMI households is inherently risky, without consideration of the mortgage product or specific circumstances. But center research has demonstrated that risky mortgage products are more often the cause of default.

The ongoing public policy debate over affordable mortgage lending and the need for data to inform both policy and practice drives CAP research.

CAP Borrower Profile

The CAP portfolio is a nationwide sample of more than 46,000 homeowners who might have been excluded from the mortgage market because of their income levels, limited wealth or credit histories. CAP borrower households are approximately 40 percent minority and 40 percent female-headed. Descriptive analysis of CAP participants reveals the following about these borrowers:

- Median annual household income is \$30,792.
- 70 percent made down payments of less than five percent, and the median down payment was three percent.
- 88 percent did not meet at least one of three traditional underwriting criteria: loan-to-value ratios of 90 percent or less, debt-to-income ratios of 38 percent or less and credit scores of at least 640.
- 54 percent of CAP borrowers had origination credit scores of 680 or less, the “new normal” cut off for borrowers seeking traditional mortgage finance following the economic crisis.

Despite these non-traditional characteristics and a national housing crisis, default rates among CAP borrowers remain low and borrowers’ median home equity grew by \$18,429 between 1999 and the second quarter of 2013.

CAPS

CAPS draws on the experience of more than 46,000 borrowers to clarify the relationship between LMI homeowners, the financial and social outcomes their homeownership provides and the impact of LMI lending on the mortgage industry. The study offers a comprehensive examination of the conditions that support or hinder successful affordable home lending. More important, as it turns out, the study clarifies how to lend successfully during a tumultuous economic period.

Housing prices and sales peaked in the first quarter of 2006 but declined thereafter and, despite some improvements, remained depressed until mid-2013. In 2007, mortgage foreclosures and delinquencies began a rapid upward climb. Calculations based on data from the Mortgage Bankers Association’s National Delinquency Survey indicate that the percent of all outstanding loans in foreclosure rose from 1.3 percent in the first quarter of 2007 to 4.6 percent in the last quarter of 2010 and still stood at 3.6 percent in the first quarter of 2013.

In sharp contrast to the risky nontraditional and subprime loan products that precipitated the economic crisis, CAP loans have performed remarkably well, despite the financial crisis. Default rates have been dramatically lower than those of subprime loans made during the same time period. Considering the depressed state of the market and the limited resources of CAP households, these outcomes are remarkable.

Research Design

The center collects a range of data on CAP mortgage loans in order to analyze the relationship between loan products, borrower characteristics, property characteristics and loan performance.

The CAP mortgage database includes loan origination information and monthly payment records supplemented with credit score data, current property values and census tract information.

The center’s multidisciplinary research team has tracked the loan performance of a subset of CAP homeowners (initially 3,743) every year since 2003. Table 1 outlines many of CAPS’ key survey modules.

Table 1: CAPS Key Survey Modules and Schedules (2003-2014)

Module Topic	Survey Year(s)
Universal Core*	Every Year 2003-2014
Home Purchase	2003
Counseling	2003
Social Capital	2004, 2007, 2014
Parenting	2004, 2007
Wealth and Assets	2005, 2008, 2012
Mortgages	2005, 2008, 2012
Savings Attitudes	2005, 2008, 2012
Medical Expenses	2007
Home Improvements	2008, 2012
Housing Experiences	2008, 2012
Stress	2008 through 2014
Economic Challenges	2009 through 2014
Moral Hazards	2011 through 2014
Financial Services	2013
Travel	2013

*The Universal Core forms the bulk of the survey. It asks questions about demographics, household composition, education, employment, spending, saving, etc.

Center researchers conduct annual 45-minute interviews with homeowners to gather detailed information about their life experiences, the impact of those experiences on their ability to sustain homeownership and their financial and overall well-being. They have also tracked a comparison sample of renters (initially 1,530) since 2004. The renters panel enables researchers to isolate and compare the tenure and life experiences of owners and renters.

In 2009, researchers began asking survey participants about some of their experiences during the financial crisis, including changes in their spending patterns, their experiences seeking credit, their satisfaction with homeownership, and their psychological and financial stress levels. The data provide a broad picture of how LMI households cope with changes in economic conditions and reveal the factors that enable homeowners and lenders to work together for their mutual benefit.

CAPS' large sample size and scope are allowing researchers to uncover a wealth of information about the performance of mortgage products and about the financial and social impacts of homeownership. These findings help fill critical knowledge gaps about the mortgage industry and LMI borrowers.

Four key benefits of the CAPS study design are:

- **Comprehensive homeownership data** – The CAPS dataset includes an abundant amount of loan-level mortgage information. Center researchers examine the extensive data collected on CAP borrowers to understand how people choose to pursue homeownership and to assess the impacts of homeownership.
- **Insight into LMI borrowers** – The CAPS panel is the first data set to focus specifically on LMI home buyers. CAP participants are a diverse group of homeowners located throughout the nation, all of whom met the program's affordable loan eligibility guidelines for race, ethnicity and income. CAP participants possess characteristics similar to low-income and minority Current Population Survey and American Housing Survey respondents in terms of household income, minority representation and household size distributions.
- **Long-term evaluation** – CAPS contains extensive, consistent survey data on LMI renters and owners over time. These data offer unprecedented insights into the lives of LMI households before, during and following the recent economic crisis.

- **Renter-to-ownership transition data** – CAPS includes a renters panel that serves not only as a comparison to the borrowers panel, but that is a freestanding, rich database in its own right. Center researchers are able to investigate which renters choose to transition to homeownership, what events play a role in that decision and how transitioning renters experience the change.

Research Findings: Households and Communities

The center reports regularly on its CAPS findings through research reports, academic articles, testimony and presentations. The findings fall into two general areas: those that have implications for households and communities and those that relate to the housing finance industry.

This section presents a summary of key findings concerning households and communities.

Homeownership and Wealth

Homeownership has proven a solid investment for CAP borrowers over the long-term.

CAP homeowners – families with weak credit histories and those new to the credit system – have been able to build significant wealth through homeownership.

The equity of CAP homes purchased between 1999 and 2003 appreciated at a median annualized rate of 25 percent by the second quarter of 2013, leading to a median increase in equity of \$18,429. This rate of annual growth exceeds that for the Dow Jones Index, which experienced 3.2 percent median annual growth over the same period, and the 10-year T-bill, which posted median annual growth of 5.2 percent during that time.

CAP research shows no evidence that homeownership crowds out other investments or that owners deplete their equity gains through excessive borrowing.

Some critics of LMI mortgage lending suggest there are drawbacks to homeownership as a wealth-building tool, speculating that the scale and inflexibility of the investment can tie up LMI homeowners' financial resources and lead to under-diversification of their financial portfolios. Others express concern that LMI homeowners will draw down accumulated home equity by borrowing against the home.

Center researchers have used the CAPS data to examine these issues by comparing owners' and renters' debt and asset composition. They found no evidence that the increased debt of the CAP owners offsets their accrual of equity, except there does appear to be a positive association between the amassing of very large amounts of equity (\$150,000 or more) and increased indebtedness.

Further, CCC researchers found no evidence that investment in the home caused a shortfall in alternative investments or savings.

Owning a home was less expensive for the CAP owners than renting a similar property would have been.

There has long been a debate over whether owning or renting is more economical for LMI households.

To shed light on this issue, center researchers compared the *ex post* user costs of CAP's homeowners with their estimated cost of renting a comparable property. Researchers compared actual CAPS data with data from the American Housing Survey, which was used to derive hedonic measures of equivalent rent.

The analysis revealed that for the median CAP homeowner, owning was the less costly option from 2003–2010.

Mobility and the Decision to Own

LMI and minority households are less likely than their high-income and white counterparts to move, but they are no less likely to purchase another home if they move.

Center researchers examined the transition out of homeownership by CAP homeowners and discovered that the higher rates of homeownership exit documented among low-income and minority borrowers in the larger population does not hold for CAP borrowers.

The analysis revealed that CAP's low-income and minority homeowners are less likely than their high-income and white counterparts to move, but are no less likely to purchase a new home if they do move.

These findings suggest that CAP households exhibit a strong attachment to homeownership once it is achieved and that they are able to make a successful transition to the purchase of another home when they do decide to move.

Renters are more likely to want to purchase a home if their parents owned a home.

Center researchers examined factors affecting the achievement of homeownership among CAP's renters between 2004 and 2007, assessing whether attitudes, subjective norms and perceived control predicted the intention to own. They then looked further at whether the intention to own predicted actual home purchases.

The analysis revealed that renters who intended to own a home were more likely to purchase a home than renters who did not intend to own a home.

This finding is encouraging because it suggests that strong intentions can help people achieve their goals, even when their goals are difficult to attain and require long-term planning and financial capacity.

Interestingly, one of the factors that affect the intention to own is parents' homeownership status. The importance of parents' homeownership status stands out because it implies an intergenerational effect on the intention to own a home.

Social Impacts of Homeownership

Increasing access to homeownership can help foster a more vibrant civic life in lower-income neighborhoods.

Does homeownership promote civic engagement or does it lock LMI families in disadvantaged areas with little community life?

Center researchers tackled this question with the CAPS data, examining whether a correlation exists between homeownership and various types of civic engagement and testing whether residential mobility has a different effect on how involved owners or renters are in their communities.

Researchers concluded that entry into homeownership can indeed provide a catalyst for some types of civic engagement.

Investigating the relationship between homeownership and political participation, they found that homeowners in disadvantaged neighborhoods are more likely to vote than renters and than those who own homes in more privileged communities. They also found that renters who become homeowners were not more involved in their neighborhoods than other renters before purchasing a home, but that their likelihood of such involvement increased significantly after they purchased a home.

Finally, they discovered that renters who move and continue renting are less likely to get involved in local groups than renters who do not move, while homeowners who move are not less likely to get involved than owners who do not move.

Overall, the researchers' findings support the claim that increasing access to homeownership can help foster a more vibrant civic life in lower-income neighborhoods.

Homeownership is associated with greater levels of social capital than renting.

Center researchers analyzed CAPS data to discover whether homeowners have larger and better-resourced social networks as a result of being homeowners and, if they do, whether that is because they are homeowners or the result of other unobserved factors.

Researchers, controlling for self-selection into homeownership, tested a broad range of individual-level variables to assess whether homeowners have greater levels of social capital resources than renters.

They found that homeowners do, in fact, have more social capital than renters both overall and within their neighborhoods. This finding holds even after researchers accounted for residential mobility and neighborhood effects, the traditional explanations for homeowners' higher levels of social resources.

Homeownership promotes social networks that reduce crime

Does homeownership influence crime? Center researchers isolated the homeownership effect by adjusting for self-selection into homes and neighborhoods and then controlling for residential stability. They found that by positively influencing social networks, homeownership reduces crime as a neighborhood problem.

Psychological Impacts of Homeownership

Homeownership can provide a psychological buffer against financial stress.

Center researchers analyzed the CAPS data to understand how LMI homeowners and renters fared both financially and psychologically during the Great Recession. The analysis determined that homeowners were neither more nor less stressed financially than renters; the homeowners and renters in CAPS experienced the same level of financial hardship during the economic crisis that began in 2008. However, the

homeowners were less stressed overall. Even more importantly, homeowners were more satisfied with their financial situation than were renters and were reported feeling more in control of the important aspects of their lives.

These findings suggest homeownership can provide a psychological buffer during difficult economic times and that the benefits of homeownership go beyond those that are financial and easy to measure.

Research Findings: Housing Finance Industry

In addition to providing insights into some of the household and community-level impacts of homeownership, the center's analysis of CAPS has offered industry practitioners and policymakers an unprecedented and in-depth look at the factors that influence loan performance in the affordable home loan market.

Because the CAPS data have been collected through a period of dramatic home price appreciation and a subsequent period of economic downturn, these data offer unparalleled insight into how to lend to lower-income homeowners in a way that endures, regardless of economic conditions.

Here are the center's key findings on affordable lending, presented by major topic area.

Mortgage Product Features

LMI borrowers with subprime loans are 3 to 5 times as likely to default as similar borrowers with the carefully underwritten, affordable loans in the CAP portfolio.

There is a clear difference in the performance of subprime mortgages, which were underwritten without regard to long-term sustainability, and the carefully underwritten, affordable mortgages that have been included in the CAP program.

Extensive analysis of the more than 46,000 affordable home loans in the CAP portfolio confirms that the 30-year, fixed-rate mortgage is a safe, enduring product. CAP's serious delinquency rate has been well below that of both subprime adjustable- and fixed-rate loans since the financial crisis began. At its worst following the financial crisis, CAP's delinquency grew to 10 percent, while the rate of delinquency of subprime fixed-rate loans climbed to 22 percent and that of subprime adjustable-rate loans soared to 43 percent.

To assess whether this performance gap is driven by borrower characteristic or loan characteristics, researchers matched CAP borrowers with similar borrowers in a national dataset of subprime loans. They found that borrowers given CAP loans (fixed-rate, prime-priced) were much less likely to default than similarly risky borrowers using non-traditional channel and product features (for example, adjustable rates, prepayment penalties and broker origination).

Down Payment Assistance

Homeowners who received down payment assistance repaid at the same rate as those who did not receive assistance.

CAP's loans are notable for their high loan-to-value ratios: a down payment of one to three percent of the home price is not uncommon. Surprisingly, approximately 38 percent of CAP owners relied on some form of down payment assistance to meet these minimal amounts.

Center researchers analyzed CAPS data to compare the loan performance of those owners who received assistance with those who did not. The analysis finds that using assistance toward one's down payment and closing costs does not increase risk of default.

Crisis Events

Dramatic household changes, such as unemployment, affect the risk of default, but this effect can be mitigated by the presence of savings and unemployment benefits.

Researchers have used the CAPS data to analyze the impact of adverse events on loan performance. In particular, they examined how a household unemployment experience, among other factors, affects mortgage default.

They found that both household unemployment and the local unemployment rate are important predictors of mortgage default, but they also discovered that the presence of precautionary savings and the duration of unemployment benefits can moderate mortgage default significantly.

Strategic Default

CAP owners are less likely than other homeowners to engage in "strategic defaults."

A "strategic default" occurs when a homeowner opts to walk away from their mortgage obligation because the market value of the home has dropped below the amount remaining on the mortgage loan. Center researchers have used the CAPS data to examine the incidence and drivers of strategic default behavior and attitudes among this population of LMI homeowners.

The research reveals that most CAP owners' mortgage defaults are not strategic. In fact, CAP owners are less likely than others to engage in strategic default, despite the fact that they express similar beliefs about the morality and prevalence of strategic default and a greater willingness to walk away from an underwater mortgage.

The most salient predictors of strategic default behavior and attitudes for the CAP population are household income, the mortgage interest rate, geographic location, the year of loan origination and the loan servicer.

Bankruptcy and Foreclosure

How did mortgage delinquent homeowners respond to foreclosure? A small portion (8 percent) filed for bankruptcy. Center researchers found that Chapter 7 and 13 filings both reduced foreclosure sales but the effect was five times greater for Chapter 13, which contains enhanced tools to preserve homeownership.

Bankruptcy's effects were strongest in states that permit power-of-sale foreclosure or withdraw homeowners' right-of-redemption at the time of sale.

Prepayment Behavior

CCC researchers add to a body of evidence showing that affordable mortgages have slower prepayment behavior than conventional mortgages.

One of the most important yet most unpredictable drivers of mortgage economics is the rate at which borrowers pay off their loans. It has been suggested that loans made to low- and moderate- income borrowers have slower and more predictable prepayment rates than other prime mortgages, suggesting that more value should be attributed to these loans.

Using the CAPS data, center researchers probed the issue of prepayment by LMI borrowers. They determined that the mortgages in the CAP portfolio consistently prepaid more slowly than other comparable mortgages.

Classic option theory explains much, but not all, of this difference: researchers found that risk-related constraints, borrower characteristics and certain

neighborhood characteristics contribute to the prepayment differential. If, as the research suggests, LMI borrowers pay off their loans at a slower rate than traditional borrowers, they provide cash flow to investors and servicers for a longer period of time. This is significant for the mortgage industry, particularly in times of interest rate volatility, when investors are most concerned with the likelihood of early payoffs.

Financial Literacy

Adults who report that their parents taught them about money management during childhood have higher credit scores and less credit card debt.

It is well established that acquiring financial skills during childhood is linked with better savings in later life. Little is known, however, about the relationship between parental teaching of money management early in life and children's financial outcomes in adulthood. This is particularly true for LMI households.

Using CAPS data, researchers explored this issue. They found that adults who report receiving high levels of money-management information from their parents had higher credit scores and less credit card debt in adulthood. These findings suggest implications for initiatives promoting financial capability for parents and children.

Loan Servicing Impact

Loan servicing methods affect loan performance and foreclosure proceedings. The likelihood that a mildly delinquent borrower will fall further behind varies significantly across servicers. Mortgage servicers also vary in their likelihood of selling homes in foreclosure.

In the wake of the mortgage finance crisis, it is clear that preventive servicing – business practices that emphasize early intervention in delinquency and default management – can play an important part in helping financially troubled borrowers avoid foreclosure.

Center researchers have used the CAPS data to examine this issue. They assessed the performance of more than 28,000 affordable home loans and found that after controlling for loan and borrower characteristics, the likelihood that a delinquent mortgagor will ultimately default varied significantly across servicers, even before the onset of the foreclosure crisis.

Center researchers also tracked 4,280 mortgage delinquent homes that experienced a foreclosure start.

They found wide variation between mortgage servicers in their likelihood of bringing the foreclosed property to auction.

This research suggests that loan servicing is an important factor in determining whether LMI borrowers who fall behind in their mortgage payments will end up losing their homes through foreclosure. It also suggests a need for policy makers to incorporate preventive servicing into affordable homeownership programs.

Bankruptcy Decisions

Life stressors, such as mortgage delinquencies, unemployment, and difficulty paying medical bills, increase bankruptcy filings in the year following the event.

Econometric studies suggest that personal bankruptcy is explained by financial gain rather than adverse events. Because data constraints have hindered tests of the adverse events hypothesis, center researchers used CAPS data to analyze whether adverse life events influence the personal bankruptcy decisions of lower-income homeowners.

Using CAPS household-level panel data and controlling for the financial benefit of filing, they found that stressors related to cash flow, unexpected expenses, unemployment, health insurance coverage, medical bills and mortgage delinquencies predicted bankruptcy filings a year later.

Refinancing Decisions

Borrowers who refinance through mortgage brokers are more likely to report lower levels of satisfaction with their refinance.

The centers' analysis of the refinance experiences of CAP borrowers sheds light on the practices of mortgage brokers in the run-up in home prices before 2006. The analysis identified differences in the refinancing transactions associated with the use of mortgage brokers vs. retail lenders. Specifically, the analysis included measures of the refinancing process, such as whether the lender initiated contact with the borrower, whether the terms of the mortgage changed at closing and the level of borrower satisfaction in hindsight.

The analysis revealed that origination with a mortgage broker, compared with origination through a retail lender, is associated with both a less satisfactory refinancing process and a higher likelihood of refinancing into an adjustable-rate mortgage.

Selected Bibliography

The center's findings are available in book form, as research reports and as journal articles. A selection of CAP publications follows.

Complete study results and details may be found on the center's website at www.ccc.unc.edu.

Cohen, Taya R., Mark R. Lindblad, Jong-Gyu Paik, and Roberto G. Quercia. "Renting to owning: An exploration of the theory of planned behavior in the homeownership domain." *Basic and Applied Social Psychology* 31, no. 4 (2009): 376-389.

Ding, Lei, Roberto G. Quercia, and Janneke Ratcliffe. "Neighborhood subprime lending and the performance of community reinvestment mortgages." *Journal of Real Estate Research* 32, no. 3 (2010): 341-376.

Ding, Lei, Roberto G. Quercia, and Janneke Ratcliffe. "Post-purchase counseling and default resolutions among low-and moderate-income borrowers." *Journal of Real Estate Research* 30, no. 3 (2008): 315-344.

Ding, Lei, Roberto G. Quercia, Wei Li, and Janneke Ratcliffe. "Risky borrowers or risky mortgages? Disaggregating effects using propensity score models." *Journal of Real Estate Research* 33, no. 2 (2011): 245-277.

Freeman, Allison, and Bruce A. Desmarais. "Portfolio adjustment to home equity accumulation among CRA borrowers." *Journal of Housing Research* 20, no. 2 (2011): 141-160.

Grinstein-Weiss, Michal, Clinton Key, Shenyang Guo, Yeong Hun Yeo, and Krista Holub. "Homeownership and wealth among low-and moderate-income households." *Housing Policy Debate* 23, no. 2 (2013): 259-279.

Grinstein-Weiss, Michal, Jonathan Spader, Yeong Hun Yeo, Andréa Taylor, and Elizabeth Books Freeze. "Parental transfer of financial knowledge and later credit outcomes among low-and moderate-income homeowners." *Children and Youth Services Review* 33, no. 1 (2011): 78-85.

Grinstein-Weiss, Michal, Yeong Yeo, Katrin Anacker, Shannon Van Zandt, Elizabeth B. Freeze, and Roberto G. Quercia. "Homeownership and neighborhood satisfaction among low- and moderate-income households." *Journal of Urban Affairs* 33, no. 3 (2011): 247-265.

Lindblad, Mark, Kim Manturuk, and Roberto G. Quercia. "Sense of community and informal social control among lower income households: The role of homeownership and collective efficacy in reducing subjective neighborhood crime and disorder." *American journal of community psychology* 51, no. 1-2 (2013): 123-139.

Lindblad, Mark, Roberto G. Quercia, Sarah F. Riley, Melissa Jacoby, Tianji Cai, Ling Wang, and Kim Manturuk. "Coping with adversity: Personal bankruptcy decisions of lower-income homeowners before and after bankruptcy reform. Working paper of the UNC Center for Community Capital (2011).

Manturuk, Kim R. "Urban homeownership and mental health: mediating effect of perceived sense of control." *City & Community* 11, no. 4 (2012): 409-430.

Manturuk, Kim, Mark Lindblad, and Roberto Quercia. "Friends and neighbors: Homeownership and social capital among low- to moderate-income families." *Journal of Urban Affairs* 32, no. 4 (2010): 471-488.

Manturuk, Kim, Mark Lindblad, and Roberto Quercia. "Homeownership and civic engagement in low-income urban neighborhoods A Longitudinal Analysis." *Urban Affairs Review* 48, no. 5 (2012): 731-760.

Manturuk, Kim, Mark Lindblad, and Roberto G. Quercia. "Homeownership and local voting in disadvantaged urban neighborhoods." *Cityscape* (2009): 213-230.

Manturuk, Kim, Sarah Riley, and Janneke Ratcliffe. "Perception vs. reality: The relationship between low-income homeownership, perceived financial stress, and financial hardship." *Social science research* 41, no. 2 (2012): 276-286.

Quercia, Roberto, and Jonathan Spader. "Does homeownership counseling affect the prepayment and default behavior of affordable mortgage borrowers?." *Journal of Policy Analysis and Management* 27, no. 2 (2008): 304-325.

Quercia, Roberto G., Allison Freeman, and Janneke Ratcliffe. *Regaining the dream: How to renew the promise of homeownership for America's working families*. Brookings Institution Press, 2011.

Quercia, Roberto G., Anthony Pennington-Cross, and Chao Yue Tian. "Differential impacts of structural and cyclical unemployment on mortgage default and prepayment." Working paper of the UNC Center for Community Capital (2012).

Quercia, Roberto G., Anthony Pennington-Cross, and Chao Yue Tian. "Mortgage default and prepayment risks among moderate and low-income households." Working paper of the UNC Center for Community Capital (2010).

Quercia, Roberto G., Anthony Pennington-Cross, and Chao Yue Tian. "Mortgage default risk and local unemployment." Working paper of the UNC Center for Community Capital (2011).

Riley, Sarah, HongYu Ru, and Qing Feng. 2013. The User Cost of Low-Income Homeownership. *Journal of Regional Analysis and Policy* 43(2):123-137.

Spader, Jonathan S., and Roberto G. Quercia. "Mobility and exit from homeownership: Implications for community reinvestment lending." *Housing Policy Debate* 19, no. 4 (2008): 675-709.

Spader, Jonathan S., and Roberto G. Quercia. "Mortgage brokers and the refinancing transaction: evidence from CRA borrowers." *The Journal of Real Estate Finance and Economics* 42, no. 2 (2011): 181-210.

Stegman, Michael A., Roberto G. Quercia, Janneke Ratcliffe, Lei Ding, and Walter R. Davis. "Preventive servicing is good for business and affordable homeownership policy." *Housing Policy Debate* 18, no. 2 (2007): 243-278.

Stegman, Michael A., Roberto G. Quercia, and Walter R. Davis. "The determinants of home price appreciation among community reinvestment homeowners." *Housing Studies* 22, no. 3 (2007): 381-408.

Lindblad, Mark, Roberto G. Quercia, Melissa B. Jacoby, Ling Wang, and Huifang Zhao. in press. Bankruptcy during Foreclosure: Home Preservation through Chapters 7 and 13. *Housing Policy Debate*.

Riley, Sarah (2013). Strategic Default Behavior and Attitudes among Low-Income Homeowners. *Real Estate Finance* 29(5):23-36.

Riley, Sarah (2012). Land Use Regulations and the Returns to Low-Income Homeownership. *Annals of Regional Science* 49(3):745-766.

Riley, Sarah, HongYu Ru, and Roberto Quercia (2009). The Community Advantage Program Database: Overview and Comparison with the Current Population Survey. *Cityscape* 11(3): 247- 255. (Data Shop).



The UNC Center for Community Capital at the University of North Carolina at Chapel Hill is the leading center for research and policy analysis on the transformative power of capital on households and communities in the United States. The center's in-depth analysis helps policymakers, advocates and the private sector find sustainable ways to expand economic opportunity to more people, more effectively.

Roberto G. Quercia, Director | Janneke Ratcliffe, Executive Director

1700 Martin Luther King Blvd | Campus Box 3452, Suite 129 | Chapel Hill NC 27599-3452
(877) 783-2359 | (919) 843-2140 | communitycapital@unc.edu | www.ccc.unc.edu