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Reexamining the Social Benefits of Homeownership after the Housing Crisis

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The recent housing crisis and ensuing economic recession have been unprecedented in modern times. The loss of wealth due to the decline in value of real estate has been dramatic. Between 2006 and 2011 house prices fell more than 30 percent nationally, wiping out over \$8 trillion in home equity (Joint Center, 2012). At the height of the crisis, a full one-quarter of all homeowners owed more on their mortgages than their homes were worth (Belsky, 2013). Moreover, many people have been put out of their homes and had their credit ratings severely damaged. Mortgage foreclosures increased from the 1980-2006 average foreclosure rate of .32 percent to over 4.9 percent in 2010 (National Delinquency Survey). Between 2008 and 2011, more than four million homeowners lost their homes to foreclosure, and there are many more homeowners who were forced to sell, often at a price that was less than they owed on their mortgages. Recent data also indicate that there are an additional two million homeowners who are at least 90 days delinquent on their mortgage payments, suggesting that the high foreclosure rate will continue for some time to come (Joint Center, 2013).

Given these recent events, it is reasonable to ask, first, if the bloom is off the rose of homeownership. One of the attractions of homeownership is that it has been seen as a good financial investment. The sharp decrease in housing values may have seriously undermined that view of homeownership. As one writer recently put it, "... the national psyche has absorbed the tribulations of the millions of people who have been living in homes worth less than their mortgages, struggling to make payments and yet unable to sell" (Shiller, 2013). Another attraction of homeownership is that it has been seen as providing more stability and control over one's living environment. Homeowners were thought to be more secure than renters since they were not subject to landlords raising the rent or not renewing the lease. Again, the recent spike in foreclosure and forced sales may have seriously undermined this view of homeownership among both existing and prospective homeowners. Not only have many people been directly affected by the housing crisis, a much larger number have been indirectly affected by knowing someone who has, or by experiencing the extensive press coverage on the crisis.

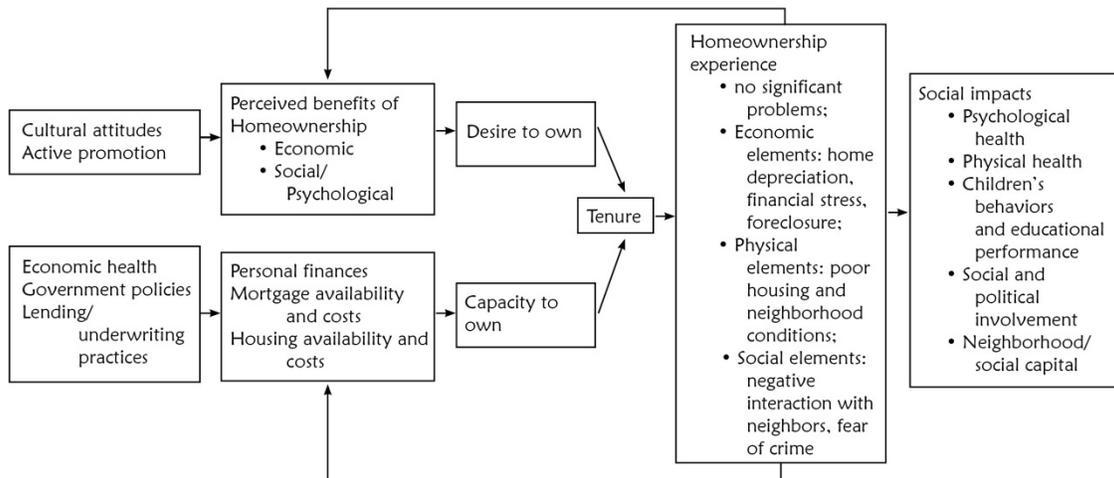
A second and related question is do the social benefits of homeownership found in past research, such as greater political participation and positive educational outcomes for children, still apply? That research was conducted at a time when a very small proportion of homeowners were experiencing heightened economic and psychological stress due to difficulty in making mortgage payments, mortgage delinquency and foreclosure, and dramatic drops in home equity. Might the recent, dramatic increases in these problems impact the attitudes, behavior, and health of homeowners? Research, for example, has tended to support a positive relationship between homeownership and residential satisfaction (Kinsey and Lane, 1983). But will this relationship be as strong or hold at all given the large number of vacant homes in many neighborhoods? Other research has tended to support a positive relationship between homeownership and both psychological and physical health. Will this relationship hold given the large number of homeowners that have been under considerable stress in trying to make their mortgage payments? The answers to these questions have important policy implications as the federal commitment to and subsidy of homeownership has been justified by claims that it has a variety of social benefits to both individuals and to society.

The purposes of this paper are, first, to present a conceptual model of how the housing crisis and ensuing recession might impact both interest in and the social impacts of homeownership. A second purpose is to review the limited empirical evidence on how, if at all, the recession and housing crisis have altered interest in homeownership or altered its actual impacts. A third purpose is to provide an updated review of the literature of the social impacts of homeownership, most of which was conducted before the recession. Fourth, we will draw some preliminary conclusions on how the recession and housing crisis may have altered the social impacts and what additional research is needed on this important topic. In this paper we focus on five social impacts: psychological health, physical health, parenting and children's academic achievement and behavior, social and political participation, and neighborhood/social capital.

Section 1: A Conceptual Model of the Impacts of the Housing Crisis on the Social Impacts of Homeownership

Both the perceived and the actual social benefits of homeownership found in previous research may have been substantially altered by the spikes in home depreciation, mortgage stress, and foreclosure in recent years. The purpose of the conceptual model presented in Figure 1 is to explore how direct and indirect experience with homeownership during the housing crisis might be expected to impact the perceived benefits of homeownership among both prospective buyers and current homeowners. For the sake of completeness, the model also suggests how the recent homeownership experience may impact the capacity to own as well as the desire to own.

Figure 1: A conceptual model of the impacts of the recession on attitudes toward and impacts of homeownership



Starting with the “tenure” box in the center of the model and moving back to the left, the model suggests that the tenure decision—to buy or to continue renting—is a function of both the desire to own and the capacity to own. The desire to own, in turn, is influenced by the perceived benefits of owning which include both economic benefits, such as wealth creation, and social-psychological benefits, such as greater control over the living environment. Continuing to the left, the model suggests that those perceived benefits are influenced by cultural attitudes toward owning and the active promotion of homeownership by the leaders, real estate agents, builders, and others involved in the housing industry. Homeownership is an

important goal of a very large percentage of Americans and has become a cultural symbol of social and economic success (Rohe and Watson, 2007). At the same time, the desire to own has also been reinforced by government programs and by advertising campaigns sponsored by housing industry players (Vale, 2007).

We argue, however, that the perceived benefits of homeownership are also influenced by both direct and indirect experience with homeownership. This is shown in the model as a feedback loop between homeownership experience and the perceived benefits of homeownership. As mentioned above, this influence may be direct—an individual had a bad homeownership experience themselves—or indirect—they know someone who has had a good or bad homeownership experience.

The key elements of the homeownership experience can be organized into three categories: economic, physical, and social. The economic elements include home depreciation, financial stress, and foreclosure. In most places and times, pre-recession home prices increased over time, but, since 2007, the value of a very large proportion of the housing stock has declined. Moreover, due to the spike in unemployment and the reliance on predatory and “creative” mortgage products, many homeowners have been under great stress trying to keep up with their mortgage payments, and many of those have either been forced to move or have lost their homes through foreclosure. Physical elements of the homeownership experience include the quality of the house and the neighborhood in which the house is located. The recession may have reduced the financial abilities of homeowners to maintain their homes and the increase in foreclosure rates may have led to neighborhood deterioration. Finally, the social elements of the homeownership experience include owners’ sense of security and control over their homes. The sharp increase in foreclosures and forced sales may have decreased the sense of residential security among homeowners. It is reasonable to believe that these substantial increases in negative homeownership experiences and their coverage in the media may have altered the perceived benefits of homeownership among prospective homebuyers; hence the feedback loop in the model. It is also reasonable to believe that the actual benefits of homeownership as found in earlier research may no longer be operative.

To understand how the social impacts of homeownership may have changed, it is helpful to consider the proposed theories as to what aspects of homeownership are responsible for its social impacts. As will be discussed in more detail later in this paper, several theories have been offered. Figure 2 provides a summary of five major theories on how ownership may lead to specific positive outcomes and three theories on how it may lead to specific negative outcomes. This figure also suggests the ways that the recession may have influenced each theory.

The first theory of positive impacts is that homeownership leads to wealth creation, which, in turn, leads to enhanced life satisfaction, to being able to afford better quality health care, and to higher rates of civic involvement (Grinstein-Weiss et al., 2010; Harkness and

Figure 2: Theories on the positive and negative social impacts of homeownership

<u>Positive impacts</u>	<u>Expected Benefits/Liabilities</u>	<u>Possible Influence of the Recession</u>
Anticipation of/ actual wealth creation	Improved health, enhanced life satisfaction, improved parenting	Falling home prices reduce or turn negative both anticipated and actual wealth creation
Greater residential stability/security	Higher levels of high school and post-secondary completions, social capital, civic engagement	Difficulty in paying mortgages and foreclosures decrease residential stability and security
Better quality housing/home environment	Better school performance and youth behaviors, greater residential satisfaction, greater self-esteem	Difficulty in paying for home improvements reduce the quality of home environments
Better quality neighborhood: physical and social	Better schools lead to better educational outcomes, higher homeownership rates lead to enhanced social capital and less crime	Foreclosures result in an increase in vacant homes and rental units in many neighborhoods thus reducing overall neighborhood quality
Heightened sense of control/ social status/ accomplishment	Higher levels of life satisfaction and psychological health	Foreclosures and difficulty paying mortgages leads to lower levels of life satisfaction and psychological health
<u>Negative impacts</u>	Homeowners have more difficulty moving to better homes and neighborhoods	The large number of underwater mortgages limit mobility
Mobility restrictions	Some homeowners experience considerable stress and other psychological problems	The increase in unemployment will increase the number of homeowners who experience mortgage stress or foreclosure
Mortgage payment stress and foreclosure	Some homeowners cannot afford to maintain their homes which may lead to health problems	Increased unemployment and underwater mortgages may lead to increases in unmet home repairs and maintenance
Home maintenance and repair stress/impacts		

Newman, 2002). During the recent recession, home values fell dramatically in many communities, resulting in massive decreases in household wealth. Homeowner equity reached an all-time high of \$13.5 trillion in the fourth quarter of 2006, but fell to \$6.2 trillion in the first quarter of 2009 (Federal Reserve, 2013). This suggests that the wealth-related benefits of homeownership should be substantially reduced, particularly among those with “underwater” mortgages.

A second theory of positive impacts is that homeownership leads to greater residential stability, which, in turn, leads to better school performance among children and higher levels of civic engagement and social capital among adults (Bramley and Karley, 2007; Haurin, Parcel, and Haurin, 2002). Traditionally, homeowners have remained in their homes considerably longer than renters (Rohe and Stewart, 1996). Yet, the recession has forced many homeowners to move because they were no longer able to pay their mortgages, thus this aspect of homeownership may be diminished.

A third theory of positive impacts is that homeowners enjoy better quality housing. Compared to renters, homeowners tend to live in single-family units, often with yards, and they provide more stimulating home environments for their children (Galster, 1989; Haurin, Parcel, and Haurin, 2002). Recession-induced reductions in home equity and incomes, then, may have resulted in cutbacks in home maintenance and reductions in the quality of the home environment, thereby muting the impacts of ownership.

A fourth theory of positive impacts is that homeownership allows access to neighborhoods with better schools, and better physical and social conditions (Bramley and Karley, 2007; Holupka and Newman, 2012). Neighborhoods with a higher percentage of single family homes tend to be maintained at a higher quality and have lower crime rates (Galster, 1987). The spike in the foreclosure rate, however, has resulted in an increase of vacant units in areas with high percentages of homeowners, thereby negatively impacting overall neighborhood quality (Immergluck, 2009).

A final theory of positive impact is that homeowners enjoy more control over their homes, and heightened senses of personal accomplishment and social status. This, in turn,

leads to greater life satisfaction and psychological health. Here again, the heightened number of foreclosures and greater difficulty in making mortgage payments is likely to lower life satisfaction and psychological health among homeowners.

Turning to theories of negative impacts, some have argued that homeownership can trap households, particularly minority and lower-income ones, in areas that they would rather leave (South and Crowder, 1997; 1998). Compared to renters, homeowners face higher transaction costs and their homes may be worth less than they owe on their mortgages. The recession only exacerbated this problem as falling real estate values resulted in almost a quarter of all homeowners being “underwater.” The second and third negative theories suggest that some homeowners experience considerable psychological stress due to either difficulty in making mortgage payments or in maintaining their homes. The recession-induced increased unemployment and loss of home equity could certainly have increased the prevalence of these negative impacts.

Returning to the conceptual model presented in Figure 1, it also highlights the importance of the capacity to own, along with the desire to own, in achieving homeownership. That capacity is affected by individual personal finances (e.g. income, savings, and debt), mortgage availability and cost, and the availability and cost of housing. Those factors, in turn, are affected by economic health, government policies, and lending practices. A more detailed discussion of this path is beyond the scope of this paper. The next section will review the preliminary evidence on the extent to which the housing crisis has, in fact, impacted both the perceived benefits of homeownership as well as the actual benefits.

Section 2: Preliminary Evidence on the Model

Several recent studies address the impact of the housing crisis on attitudes toward homeownership (the feedback loop in the model). That research has focused on three conceptually distinct attitudes: (1) the perceived benefits of homeownership, as assessed by survey questions on the financial benefits of owning; (2) the general desire to own as assessed

by questions on homeownership as a personal desire or goal; and (3) personal expectations about buying a home at some time in the future as assessed by questions asking if respondents were to move, would they be more likely to buy or rent, or if they expected to buy a home at some point in the future.

Perceived benefits of homeownership

Studies that address the impact of the housing crisis on the perceived benefits of homeownership have been limited to assessing whether owners and renters see homeownership as a good or safe investment. This is disappointing as a recent study that asked respondents the reasons they wanted to own a home found that the four most frequently cited reasons were social considerations such as providing a good place to raise children, a safe place, and having control over living space (Drew and Herbert, 2012).

A Pew Charitable Trusts survey conducted in March 2011 found that a very high percentage of people still consider financial gain as a perceived benefit of homeownership. In that survey, respondents were asked if they thought that buying a home was the best long-term investment a person can make. The results indicate that 81 percent of the respondents either strongly or somewhat agreed with that statement (Pew Research Center, 2011). In a 2013 MacArthur Foundation survey, however, only 25 percent of the respondents thought that families today were more or much more likely to build equity and wealth through homeownership compared to twenty or thirty years ago (MacArthur Foundation, 2013). The reasons for these contradictory findings are not readily apparent.

The only longitudinal analysis on perceptions of homeownership as a good or safe investment relies on data from Fannie Mae's National Housing Survey. In comparing the responses to a survey question asked in both 2003 and 2012 on whether homeownership is a safe investment, Belsky (2013) reports that the share of mortgage holders who thought that homeownership was a good investment dipped from between 2003 and 2012. Moreover, from 2010 to 2012, the share that viewed housing as a safe investment fell from 82 to 72

percent. Notwithstanding this drop, almost three-quarters of the respondents believed housing was a good investment.

Data on housing price expectations since the housing crisis seem to suggest that confidence in house price appreciation is on the rise. In the most recent Fannie Mae National Housing Survey, respondents were asked what they think will happen to housing prices in the next 12 months. Comparing survey results from December 2011 and December 2012, the percentage of respondents who said home prices would go up in the next 12 months increased from 26 percent to 43 percent and the average expected annual price change increased from .8 percent in December 2011 to 2.6 percent in December 2012 (Fannie Mae, 2012).

Drew and Herbert (2012) disaggregate perceptions of the financial benefits of homeownership using Fannie Mae National Housing Survey data collected from June 2010 to October 2011. The survey question on the benefits of owning asks: “Which is closer to your view: (1) Renting makes more sense because it protects you against housing price declines and is actually a better deal than owning; (2) Owning makes more sense because you’re protected against rent increases and owning is a good investment over the long term?” Overall, they report that 87 percent of the respondents chose number two—the “owning” statement—as closer to their view. This percentage varied by tenure type and demographic characteristics: renters were considerably less likely to view homeownership as financially better than renting, as were younger and lower-income respondents. In none of the sub-groups, however, did the percentage favoring ownership drop below 73 percent.

Drew and Herbert (2012) also assessed the relationship between considering owning as the best financial choice and personal experience with housing problems. Personal experience with housing problems was measured by three questions: whether survey respondents knew of defaults in their neighborhood, whether they knew a strategic defaulter (a person who has the ability to meet mortgage obligations but chooses not to, likely because their home is underwater), and whether they were underwater on their own mortgages. Somewhat surprisingly, their analysis found no statistically significant relationship between personal experience with housing problems and views of owning as a better financial choice among both

the renters and current mortgage holders. Drew and Herbert (2012) also tested to see if house price changes and delinquency rates in zip code areas impacted views on the financial superiority of homeownership. Again, they found that geographic context had only a weak association with the view that owning is financially superior to renting. Two other recent studies, Collins and Choi (2010) and Bracha and Jamison (2011), also report no statistically significant relationship between both local house price changes and foreclosure rates and respondent views on the financial sense of owning versus renting.

In sum, the available evidence suggests that people's perceptions of homeownership as a good investment were impacted by the housing crisis. The percentage of people holding those views certainly dropped during the early stages of the housing crisis, but they seem to have rebounded relatively quickly. There is also a surprising lack of association between personal experience with housing problems and attitudes toward the financial benefits of homeownership. Unfortunately, we could find no research that has addressed the impact of the housing crisis on other perceived benefits of homeownership, such as whether it provides greater security of tenure.

General desire to own

Three recent surveys have assessed the desire to own a home, but due to lack of longitudinal data, it is not clear how the housing crisis has impacted this sentiment. A New York Times/ CBS poll conducted in June of 2011 asked all respondents, "If you were going to move and could afford either, would you prefer to rent or buy?" Seventy-three percent of the respondents said they would prefer to buy. The renters in the sample were asked, "regardless of whether you think you can afford it, would you like to own someday or would you prefer to continue renting?" A full 85 percent of the respondents said they would like to own someday. Another question asked "how important a part of the American Dream is owning a home?" A full 89 percent of the respondents thought it was either "very" or "somewhat" important. Similarly, a 2012 survey conducted by the National Association of Home Builders asked renters: "Is one of your goals to eventually own a home?" A somewhat lower, but still substantial, 68

percent of respondents said that it was. Finally, in a recent poll sponsored by the MacArthur Foundation, 72 percent of renters said that homeownership was something that they aspired to and 49 percent reported some degree of worry about not being able to someday own a home (MacArthur Foundation, 2013). Given these relatively high percentages, it seems safe to conclude that if the housing crisis did impact the desire to own, it did not have a dramatic long term effect.

Expectations about buying

Other research has addressed the conceptually distinct indicator of whether respondents expect, rather than desire, to buy a home at some point in the future. Using Fannie May National Housing Survey data, Drew and Herbert (2012) construct a measure that distinguishes between those who expect to buy at some point in the future, including current homeowners, and those who expect to always rent. Their findings show that 89 percent of the respondents expect to buy a home or another home at some point in the future. When only current renters are considered, however, the percent who expect to buy falls to 74 percent. They also report that black and Hispanic renters are more likely than similar whites to expect to own, and that both older renters and owners with mortgages are less likely than those under 35 years of age to expect to buy in the future.

Again, Drew and Herbert (2012) report a surprising lack of associations between both personal exposure to housing market distress and indicators of distress in the surrounding area and the expectation of buying. Only underwater homeowners were significantly less likely to say they expected to buy in the future. Neither personal exposure nor location in more distressed areas impacted renter expectations of buying a home at some time in the future.

Other research has analyzed responses to a question asking whether respondents think it's a good time to buy a home. Engelhardt (2011), for example, suggests that believing it's a good time to buy is an indicator of "positive home-buying sentiment," although it could also be interpreted as an opinion unrelated to their intention to buy. He uses data from the University

of Michigan's Survey of Consumer Attitudes, which has been conducted monthly since 1978. This allows him to provide one of the few comparisons of attitudes toward homeownership both pre- and post-housing crisis. From 1993 through the first quarter of 2011, the percentage of current homeowners who thought it was a good time to buy varied from over 90 percent in the 1990s to close to 60 percent in 2006 (Engelhardt, 2011). Current renter views on it being a good time to buy ranged from a high of about 85 percent in the 1990s to a low of 45 percent in 2008. By the first quarter of 2011, however, 80 percent of homeowners thought it was a good time to buy, which was close its long-term average, while only 63 percent of renters thought it was a good time to buy, which was well below its long term average.

In sum, the extant research on home-buying expectations supports the conclusion that very large percentages of Americans still expect to buy a home at some time in the future. Similar to the findings on the financial benefits of homeownership, the housing crisis had a negative impact on those expectations but they have rebounded quite rapidly, particularly among current homeowners. Moreover, the finding that younger renters and owners are more likely than their older counterparts to expect to own bodes well for the future of the housing market.

Section 3: The Social Benefits of Homeownership

This section of the paper updates the research literature on the impacts of homeownership on five social constructs: social and political involvement, psychological health, social capital and neighborhood impacts, physical health, and parenting and children's behavior. The last comprehensive review of the social benefits of homeownership was done by Herbert and Belsky in 2006 (See Rohe, Van Zandt, and McCarthy , 2002 and Dietz and Haurin, 2003 for earlier reviews). Since that time, much new research, often utilizing stronger research designs, has been conducted.

Most of the research conducted before 2000 was limited in several ways. First, it failed to control for many covariates of homeownership, such as income, wealth, time in residence,

and neighborhood characteristics. Thus, the associations between homeownership and the outcome variables of interest may have been a result of these uncontrolled covariates and not homeownership itself. Second, very few studies addressed the potential impacts of self-selection on the relationships reported. They did not account for the possibility that certain types of people, say those who plan on staying in a place a long time or those who value citizen involvement, are more likely to buy homes. Thus, the findings may be due to the characteristics of those who buy homes rather than the experience of owning a home. The more sophisticated research addresses this issue, with different degrees of success, through a two-stage, instrumental variable statistical procedure (Murnane and Willett, 2011). Finally, many of the earlier studies analyzed cross-sectional datasets that are limited in their ability to draw causal inferences. They cannot, for example, determine whether homeownership promotes good health or whether healthier people are more likely to be homeowners.

The reviews of the research literatures on each of the five social constructs mentioned above begin with a discussion of the importance of the construct, the theory as to how homeownership impacts the construct, a summary of the research findings with particular emphasis on more recent research, and a discussion as to the aspects of homeownership that appear to be responsible for any associations found.

Homeownership and psychological health

The central tenet underlying the psychological impacts of housing is that our dwellings can affect what we think and how we feel. If true, then housing can play an important role not only in promoting psychological well-being, but also in reducing the incidence and severity of stress that can lead to psychopathologies and mental illnesses. One important characteristic of housing is whether it is owned or rented. Homeownership is associated with other housing characteristics, such as single-family versus multi-family designs, but beyond those associations, many believe that, compared to renting, ownership itself has positive psychological impacts. Others, however, have suggested that homeownership in certain situations and for certain people can have decidedly negative impacts.

The theory

Previous research and writing on the link between homeownership and positive psychological impacts suggests three ways that homeownership may influence psychological self-perceptions: self-esteem, perceived control, and financial security. Rohe and Stegman (1994b) suggest that becoming a homeowner may be seen by both oneself and others as a sign of accomplishment and success. As discussed above, despite the financial and foreclosure crises, owning a home remains an important desire for many Americans. Becoming a homeowner then, may lead to higher levels of life satisfaction and psychological health, such as greater self-esteem and less depression. Of course, for those who lose their homes, the reverse could be true as it may be experienced as a significant life failure.

Perceived control is a second way that homeownership might impact psychological health. Renters are limited in the customization of their dwelling units and, at least traditionally, have less security of tenure. Landlords can decide for a variety of reasons to not renew the lease or to substantially increase rent. In contrast, homeowners can customize their dwellings in many ways that are not available to renters. Homeowners who stay current on their mortgages can also make their own decision whether to stay in their house or move. Thus, homeowners may have a heightened sense of control over their living environment, which should lead to greater residential and life satisfaction and to less depression.

The wealth building potential of owning a home may also affect psychological health. Fixed-rate mortgages may decrease housing costs over time relative to inflation. Repaying principal may combine with house price appreciation and result in home equity gains. Together these factors may help build wealth among homeowners. Increased wealth, in turn, may translate into positive psychological outcomes such as higher life satisfaction and self-esteem. If financial interests explain the link between homeownership and psychological outcomes, an important corollary is that homeowners who experience decreases in home equity from depreciating house values, predatory mortgages, or home foreclosure should experience negative psychological health.

Research on positive psychological health

Early research on how psychological health might be influenced by homeownership emphasized its impacts on positive emotions. That research found, for example, positive associations between homeownership and overall life satisfaction (Rossi and Weber, 1996; Rohe and Stegman, 1994b; Rohe and Basolo, 1997) as well as narrower measures of residential and housing satisfaction (Rohe and Stegman, 1994b; Rohe and Basolo, 1997; Danes and Morris, 1986; Kinsey & Lane, 1983; Lam, 1985; Morris, Curl and Winter, 1976; and Varady, 1983). However, the research findings on other positive psychological constructs, including perceived control and self-esteem, were mixed. Rossi and Weber (1996), for example, reported a positive association between ownership and self-esteem in a cross-sectional study with limited controls, while Rohe and Stegman (1994b) and Rohe and Basolo (1997), using longitudinal data and controlling for housing condition, fail to find a significant association. In general, the earlier research on the impacts of homeownership on psychological health suffered from the research design limitations discussed above.

A second generation of research tends to address at least some of the shortcomings of prior work. Three rigorous studies, however, have recently linked homeownership to indicators of positive psychological health. Diaz-Serrano (2009) studied a panel sample of Europeans from 1994-2001. A portion of the sample purchased the homes that they were renting, changing ownership without changing units or neighborhoods. This feature allowed a rare natural experiment in that unit and neighborhood conditions did not change as tenure type changed. Their results indicate that homeownership was positively associated with residential satisfaction.

Manturuk (2012) studied the connection between homeownership, sense of control, and mental health. Data came from the Community Advantage Panel Survey and used established measures shown to be reliable by other researchers. The findings show an expected link between homeownership and mental health, but the homeownership effect is entirely mediated by a higher sense of control among homeowners. Furthermore, sense of control is partially mediated by housing experiences such that homeowners who experienced a

mortgage delinquency had a lower sense of control than homeowners who had never been delinquent. This study is notable because it accounts for selection bias while demonstrating how sense of control and financial hardship are causal mechanisms that link homeownership to mental health.

In a separate study, Manturuk, Riley, and Ratcliffe (2012) studied how the financial crisis impacted financial satisfaction of both homeowners and renters. In this study, the authors adjusted for selection into homeownership by first modeling the decision to own using several propensity score models, all of which yielded consistent results. The research also controlled for household income and net-worth as well as other socioeconomic variables. Their findings indicate that during the financial crisis, renters and owners experienced similar levels of financial hardship, yet homeowners reported feeling more satisfied with their financial situation.

Research on negative psychological health

An important contribution of recent research on the impacts of homeownership has been the documentation of negative psychological consequences of delinquency and foreclosure. The preponderance of research on the psychological impacts of homeownership has been conducted during times of appreciating housing markets and low mortgage delinquency and foreclosure rates. With the recent housing crisis, however, a growing number of researchers have turned their attention to assessing the negative impacts of homeownership on psychological health.

Links between mortgage foreclosure, mortgage delinquency, and psychological stress have been documented in several recent studies. Cairney and Boyle (2004) linked homeownership and mortgage delinquency to psychological distress as assessed by self-reported measures of depression, loneliness, and restlessness. They use data from the 1991 General Social Survey and find that homeowners have lower levels of distress than renters. The authors also find that homeowners without mortgages reported lower levels of distress than homeowners with mortgages. Their analysis, however, does not adjust for selection bias or other potentially confounding variables such as dwelling quality.

Through a series of focus groups held in five U.S. cities, Fields et al. (2007) investigated the psychological impacts of mortgage delinquency and foreclosure. The authors examined not only how and why some homeowners were late paying their mortgages, but also the psychological impacts of both mortgage delinquency and foreclosure. Those behind on their mortgage payments reported a variety of negative psychological emotions including anxiety, stress, fear, hopelessness, and depression. Other feelings associated with mortgage delinquency included confusion, victimization, and a sense of betrayal. The authors identify an 'emotionality of delinquency' that encompasses respondents' holistic negative psychological responses to mortgage delinquency and foreclosure.

Another qualitative study of mortgage foreclosure was undertaken by Bowdler, Quercia, and Smith (2010). In 2009, they conducted interviews with 25 Latino families who had recently experienced foreclosure. The interviews took place in five different U.S. regions and five families were interviewed in each region. The interviews collected data on the long-term financial, physical, and emotional impacts of foreclosures on their families, with special attention paid to children. These findings suggest elevated levels of stress, interpersonal strain, and mental illness during foreclosure proceedings and a sense of loss and disillusionment after the foreclosure was completed.

Pollack and Lynch (2009) studied how depression among people receiving foreclosure counseling in Philadelphia compared to a random sample of households drawn from southeastern Pennsylvania. More than a third of those receiving foreclosure counseling had major depressive symptoms. The authors identify a higher incidence of depression among the group in foreclosure counseling, yet depression, as well as most covariates, was measured in different ways across the two groups. The samples also differed, with the comparison group representing the general population rather than homeowners experiencing financial distress. The authors compare the two samples descriptively, but they do not explicitly model the selection of respondents into foreclosure counseling. Thus, the connection made between foreclosure and depression could be due to job loss, medical costs, or other adverse life events rather than the foreclosure itself. Osypuk et al. (2012) examined depression among a sample of

African American mothers in Detroit who had recently given birth. Depression was measured with a validated 20-item scale from the Center for Epidemiological Studies. Eight percent of the sample reported a mortgage foreclosure within the past two years. The findings suggest significantly higher levels of severe depression among those who reported a home foreclosure. This cross-sectional study, however, did not control for the time since foreclosure, prior history of depression, and other potentially confounding variables.

Foreclosure *rates* in geographic areas have also been associated with mental illness in two recent studies. Menzel and Thomas-Robinson (2011) examined the association of changes in foreclosure rates and medical diagnoses as identified through hospital discharge data. The authors studied diagnostic changes between 2005-2008 by linking zip-code level foreclosure rates to 25 stress-related measures provided by local hospitals. They identify a spike in bipolar and depressive disorders in 2007 that coincides with local foreclosure rates. Currie and Tekin (2011) also link foreclosure rates to measures of stress-related health. They examine zip code level data on mortgage performance and hospital discharges in four states with high foreclosure rates: Arizona, California, Florida, and New Jersey. The authors measure non-elective hospitalizations and emergency room visits and find positive associations between foreclosure rates and elevated rates of suicide attempts, heart attacks, and strokes. These associations are stronger among minorities, especially Hispanics, and the findings withstand a number of robustness checks. The findings of these two studies are suggestive but far from definitive. Although the data is aggregated locally at the zip-code level, it still does not enable linking of individual foreclosed homeowners to the observed stress disorders. Aggregate data cannot identify whether home foreclosure itself is the causal factor in psychological stress.

In sum, the research evidence supports an association between homeownership and both residential and financial satisfaction. Evidence of its independent impact on self-esteem, sense of control, and other dimensions of positive psychological health, however, is still limited. The research on the negative impacts on psychological health is also limited by relatively weak research designs, but is consistent in finding higher levels of psychological stress, anxiety and

depression among homeowners who are delinquent on their mortgages or who have experience with home foreclosure.

What aspects of ownership seem to be responsible for the impacts found?

All of the empirical studies above suggest mechanisms by which homeownership could lead to the positive and negative self-perceptions observed. Manturuk (2012) shows that sense of control and financial hardship entirely mediate the homeownership effect. In explaining why homeowners have greater financial satisfaction, Manturuk, Riley, and Ratcliffe (2012) suggest that owning a home gives people a sense of stability which reduces stress and helps them manage financial hardship. Diaz-Serrano (2009) controls for residential mobility and finds that it is not responsible for the positive associations found between homeownership and residential satisfaction. This leads the author to conclude that there is something about ownership itself that is qualitatively different than renting.

Turning to explanations for the impacts of delinquency and foreclosure on psychological health, Bennett, Scharoun-Lee, and Tucker-Seeley (2009) suggest that home foreclosure likely interacts with other stressful events in a homeowner's life. Adverse events such as job loss or divorce may put people at greater risk for psychological stress when home foreclosure starts. Osypuk et al.'s (2012) finding that housing stressors amplified severe depressive symptoms among new mothers is consistent with this explanation.

The drawn-out nature of foreclosure process may also play an important role. Although foreclosure processes and outcomes vary according to state laws, foreclosure proceedings take months or sometimes years. Thus, the prospect of being displaced from one's home is a chronic stressor (Bennett, Scharoun-Lee, and Tucker-Seeley, 2009). Saegert, Fields, and Libman (2011) offer another explanation for the relationship between foreclosure and psychological health. Home foreclosures, they suggest, may negatively impact mental and physical health by extracting human, social, and financial assets from homeowners. They also suggest that the negative effects of foreclosure may be magnified for first generation homeowners and for African American households.

Missing from the research on the psychological impacts of foreclosure is conceptual clarity about the various stages of home foreclosure and how each might affect mental health outcomes. A major weakness of most home foreclosure studies is a tendency to conflate the start of foreclosure proceedings with that of household displacement and actual sale of the home through foreclosure. The mental health impacts may differ for each stage of the foreclosure process. Another unexplored question is at what point people recover psychologically from home foreclosure. We did not find any studies that assess mental health after foreclosure proceedings have terminated. Some studies may have done this for some or all of their samples, yet none of the authors clarified how the timing of mental health assessments related to post-foreclosure outcomes such as household displacement, home sale, or mortgage modification. Clearly, more research is needed to evaluate mental health outcomes at all stages and outcomes of home foreclosure proceedings.

Homeownership and physical health

The impact of housing quality and crowding on physical health has been the subject of many research studies. That research has documented strong positive associations between living in poor quality housing and a range of health problems including respiratory conditions, such as asthma; exposure to toxic substances, such as lead; and injuries, such as burns and falls (Krieger and Higgins, 2002; Rohe and Han, 2012; Wilkinson, 1999). Research has also focused on the role of overcrowding in the onset of health problems (Cohen, 2011; Evans et al., 1998; The United Kingdom Office of the Deputy Minister, 2004). There is, however, a surprising lack of research on the independent role of housing tenure on health. Moreover, the studies that have been done fail to control for key correlates of housing tenure or to account for selection bias.

The theory

The most obvious connection between ownership and physical health outcomes is through its relationship with housing conditions. The argument is that owner occupants,

compared to landlords, have more incentives for maintaining their homes at a higher level. Housing conditions impact owner occupants on a day-to-day basis, thus they are more likely to take actions to correct problems as they arise. The condition of owner-occupied homes are also more likely to be taken as a reflection of the occupants own values or behaviors; they cannot blame poor housing conditions on recalcitrant landlords. Research has, in fact, shown that the homes of owners are generally in better condition than those of renters (Galster, 1987; Rohe and Stewart, 1996). Better housing conditions among owners, then, may result in improved health outcomes, particularly if those conditions are directly linked to the genesis of health problems such as dampness, toxic substances, and the presence of allergens (Ellaway and Macintyre, 1998; Macintyre et al., 1998, 2003).

As discussed above, homeownership is also associated with longer tenure which may result in both a greater knowledge of local health care resources, more extensive social support networks, and lower levels of stress. On the other hand, health outcomes may be negative for homeowners who would like to move due to difficulties in maintaining their properties, paying their mortgage, or undesirable neighborhood conditions, but cannot because their property is worth less than they owe on their mortgages (Smith et al., 2003).

Another possible link between homeownership and physical health is that homeowners may tap into any home equity they may have accrued to pay for better medical care (Rasmussen and Megbolugbe, 1997). However, a counter argument is that, assuming the costs of ownership are more expensive than the cost of renting, homeowners, at least in the early years, may actually have less money to spend on health care. This suggests that the impacts of homeownership on health outcomes may depend on both the relative costs of renting versus owning, and the amount of home equity that an owner has at a particular point in time.

Research on physical health outcomes

Much of the research on the relationship between tenure and health outcomes has been conducted in the United Kingdom, where homeownership is often used as a proxy for socioeconomic status since the national census does not collect information on income or wealth (Macintyre et al., 2003). Those studies have consistently found positive associations

between ownership and a variety of self-reported health indicators (Filakti and Fox, 1995; Gould and Jones, 1996). Rahkonen, Arber, and Lahelma (1995), for example, report that homeownership is strongly associated with the health of young adults in Britain. Given the lack of controls for income and wealth, however, this and other studies based on British census data cannot isolate the independent impacts of ownership.

Several British studies address the relationship between homeownership and health using survey data that does contain measures of income. Ellaway and Macintyre (1998), for example, analyze survey data from two neighborhoods in Glasgow, and find that owner-occupancy was related to several health indicators even after controlling for income and other socioeconomic characteristics. They also found that homeowners were less likely to report a range of housing problems including hazards, dampness, and noise. When those housing problems were controlled, however, the impact of tenure on health was no longer statistically significant. In a larger sample of residents in Western Scotland, Macintyre et al. (2003) find similar results. The magnitude of the associations between ownership and a range of physical and mental health indicators are substantially reduced after housing and neighborhood conditions are controlled. The conclusions drawn from these cross-sectional studies are limited, however, by the small number of control variables included in the analysis, such as wealth, and the failure to account for selection bias.

Several U.S. studies have also addressed the association between homeownership and physical health. Robert and House (1996) assess the associations between several indicators of socioeconomic status, including homeownership, and find that after controlling for education, income, and liquid assets, homeownership was positively related to self-reported health but not to chronic conditions among many of the age categories considered. Rossi and Weber (1996) analyzed data from the National Study of Family Health and found that self-reported health among homeowners was higher than that among renters. The control variables, however, were limited to age and socioeconomic status. These authors also analyzed data from the General Social Survey and found no statistically significant relationship between ownership and self-reported health.

Several studies have also assessed whether mortgage stress, mortgage default, or foreclosure impacts physical health. Nettleton and Burrows (1998) analyzed data from the British Household Panel Survey to assess the impacts of mortgage arrears on the subjective well-being and the number of doctor visits of homeowners. They find that being in mortgage arrears was associated with lower scores on a general well-being scale for both men and women, and it increased the likelihood that men visited the doctor. The control variables, however, were limited to income, employment, and age. Alley et al. (2011), in analyzing a representative sample of U.S. adults over 50, report that those who reported being delinquent on mortgage payments had poorer physical health. Schootman et al. (2012), in a sample of breast cancer survivors, report that women who resided in high-foreclosure areas were more likely to report being in poor or fair health than women in other areas with comparable poverty rates. Pollack et al. (2011) used a case-controlled research design to assess the rate of hypertension and renal disease, and the number of visits to the hospital over a two year period prior to foreclosure. Those who experienced foreclosure were found to have higher rates of hypertension and renal disease and were more likely to visit the emergency room even after controlling for several socio-demographic characteristics. Finally, Cannuscio et al. (2012), using the results of an internet survey conducted in the four states with the highest foreclosure rates—Arizona, California, Florida and Nevada—compared self-reported indicators of health among three categories of homeowners—those who reported no financial strain, moderate financial strain, and those who were in the process of default or foreclosure—and renters. They find that owners who reported no strain had the best health, followed by owners reporting moderate strain, and renters. Homeowners who reported being in default reported the poorest health. None of these studies, however, speak to the causal direction between foreclosure and health.

In sum, although many studies have documented an association between homeownership and health, there is no convincing evidence that homeownership *causes* better health. Even with the introduction of a limited set of control variables, the simple associations found tend to become non-significant, and none of the studies reviewed addressed the issue of selection bias. The research on the impacts of mortgage delinquency and foreclosure on

physical health is consistent in finding negative health impacts, but again, key control variables having to do with the circumstances that lead to their inability to pay their mortgages were not controlled in those studies. Clearly, much additional research is needed on this topic.

What aspects of ownership seem to be responsible for the impacts found?

The limited research on the impacts of homeownership on physical health supports the theory that the impact, if there is one, is through its association with higher quality housing and neighborhood conditions. Overall, homeowners have been found to live in better quality houses and neighborhoods, thus they have better health outcomes. In several studies, when those factors are controlled, ownership per se does not have an independent impact on physical health. The findings of Robert and House (1996) provide some support for the theory that the impact of homeownership on health is through its association with wealth creation, as they find that assets are important in predicting health outcomes. Thus, to the extent that homeownership leads to additional assets, it should enhance health.

The literature on ownership and physical health also suggests that this relationship, to the extent that it exists, may vary depending on the homeowner's ability to keep current with mortgage payments. Rather than enhancing physical health, mortgage payment stress may result in health problems. Moreover, those whose health is in decline may find that homeownership adds to their health problems (Smith et al., 2003).

Homeownership, parenting and children's behavior

Beyond the potential impacts on adults, homeownership may also have important impacts on the cognitive abilities, school performance, and behaviors of children.

The theory

Through what mechanisms might living in a home that is owned, rather than rented, impart positive benefits? A variety of answers to this question have been suggested in the literature. One compelling argument is that children benefit from the residential stability

associated with homeownership. Research consistently finds that the average length of tenure among homeowners is substantially longer than that of renters (Rohe and Stewart, 1996). The children of homeowners, then, may benefit from this stability in several ways. First, they do not change schools as often. Children who change schools often have been found to do considerably worse in school (Mohanty and Raut 2009). Second, residential stability may increase parent participation in local civic organizations, thereby building social networks that are supportive of positive child behaviors. Haurin, Parcel, and Haurin (2002) argue that residential stability may “create neighborhood networks that may promote positive child outcomes” (p. 642). Third, some have suggested that homeownership results in access to better quality neighborhoods and schools (Bramley and Karley, 2007; Holupka and Newman, 2012). Housing that is for sale tends to be located in higher-income, better quality neighborhoods, and is often served by better quality schools than rental housing. Fourth, homeownership may require parents to learn home repair, financial, and interpersonal skills that they then pass along to their children (Green and White, 1997). Fifth, homeowners create a more stimulating home environment for their children (Haurin, Parcel, and Haurin, 2002). Sixth, improved self-esteem and reduced financial stress among home-owning parents may impact children’s behaviors. The improved self-esteem associated with homeownership may translate into more positive interactions with their children. “Greater emotional support should lead to better cognitive outcomes and fewer behavioral problems” (Haurin, Parcel, and Haurin, 2002, p. 642). Reductions in financial stress due to the accumulation of home equity may have similar positive impacts on parent-child interactions (Harkness and Newman, 2003; Grinstein-Weiss et al., 2010).

Research on child outcomes and parenting

There is a particularly large amount of recent research on the impacts of homeownership on children’s cognitive ability and behavioral outcomes. Unfortunately, many of the studies utilize different measures of child outcomes—including school performance, cognitive ability, educational attainment, and teenage child birth—so the number of studies on any one outcome measure is limited. Research has been conducted on the relationship

between housing tenure and parenting behaviors, including time spent reading to children, time children watch “screens,” school involvement, and parental supervision.

Homeownership and cognitive ability

The most often studied outcome in studies of the impacts of homeownership on children is child cognitive ability, as measured by test scores. Although there is some support for the conclusion that homeownership has a positive impact on cognitive ability, a majority of the better-designed research indicates that once other variables are controlled, the impact of homeownership is not statistically significant.

Based on an analysis of longitudinal data from the National Longitudinal Survey of Youth (NLSY), Haurin, Parcel, and Haurin (2002) found that after controlling for individual and household characteristics—including income, wealth, the gender of the child, and county level socioeconomic characteristics—the children of home-owning parents had math achievement test scores that were nine percent higher and reading achievement scores that were seven percent higher than the children of renters. These differences were statistically significant at the .1 level. They found that homeowners provide more stimulating home environments for their children.

Four other studies, however, found no statistically significant relationship between homeownership and children’s cognitive abilities. Holupka and Newman (2012), in analyzing data from the Panel Study of Income Dynamics (PSID and its Child Development Supplement), did not find a statistically significant relationship between homeownership and measures of either verbal or math ability. Similarly, Barker and Miller (2009), in analyzing both the PSID and the NLSY data, report that after controlling for mobility, wealth, dwelling types, and vehicle ownership, homeownership had no significant impact on math and reading test scores. Finally, Mohanty and Raut (2009), in analyzing four different national datasets, report that after controlling for home environment, neighborhood quality, and residential stability, homeownership had no independent impact on the cognitive abilities of children in any of the four datasets.

Other studies have looked at the impacts of homeownership on high school and college completion rates. The majority of those studies find that homeownership does positively impact completion rates. Green and White (1997), in analyzing PSID and PUMS data, report that the children of homeowners were significantly less likely to drop out of school, yet key variables including parental wealth, neighborhood attributes, and mobility were not controlled. Aaronson (2000) replicated Green and White's analysis and included mobility as a control variable. He found that the impact of homeownership was reduced, but it remained statistically significant. In analyzing a low-income subsample of the PSID, Harkness and Newman (2003) report a positive relationship between homeownership and both high school and post-secondary education, but they were unable to control for important family characteristics that, if included, may have altered the findings. Galster et al. (2007), in analyzing PSID and Census data, report a positive relationship between homeownership and the attainment of both high school and college degrees, although those relationships fall below statistical significance when residential stability was controlled. Finally, Green, Painter, and White (2012) tested to see if the amount of the down payments made on homes impacts the degree to which the children of homeowners drop out of high school by age 17. In an analysis of PSID data, they find that the children of homeowners are generally less likely to drop out of school than those of renters, but that this did not apply for homeowners who made no down payment. This benefit was also found to decrease as tenure length increased. Stable long-term renters showed results similar to owners.

Children's behaviors

Several studies have addressed the impacts of homeownership on children and teen behaviors. One set of studies assesses the impacts of homeownership on either indexes of behavioral problems, such as acting out or withdrawal, or indexes of positive behaviors, such as getting along with others and thinking before acting. This research finds either that homeownership does not have a statistically significant impact on those indexes, or that the impacts are confined to specific population subgroups. After controlling for socioeconomic variables Haurin, Parcel, and Haurin (2002) report that homeownership had a small, non-

significant impact on their behavioral problems index. Similarly, Holupka and Newman (2012), in their study of a lower-income, minority sample, find no statistically significant associations between homeownership and behavioral problems in any of the subsamples studied. In a sample of homeowners who received affordable mortgages and a matched sample of renters, Grinstein-Weiss et al. (2012) found no statistically significant associations between homeownership and a positive behavior index. Such a relationship was found, however, among a subsample of respondents who lived in higher density areas. This study is limited, however, by its nonrandom sample and lack of controls for length of ownership and residential mobility.

Several other studies have assessed the impact of homeownership on teen child birth. Green and White (1997) reported that the children of homeowners were less likely to give birth to a child, although as mentioned above, controls for parental wealth, neighborhood attributes, and mobility were not included in the analysis. In a more recent follow-up study, Green, Painter, and White (2012) report that their earlier findings hold for homeowners who made a down payment but not for those who did not. They also report that the positive impacts of homeownership attenuated as length of tenure increased. Studies by Galster et al. (2007) and Harkness and Newman (2003), however, found no statistically significant relationships between homeownership and teen births.

Engaged parenting

The impacts of homeownership on parenting have also been addressed in several studies. Grinstein-Weiss et al. (2011), in analyzing a sample of homeowners who received affordable mortgages and a comparison group of low-income renters, found that once they controlled for covariates, the homeowners had no greater levels of parental supervision, expectations that their children will go to college, or volunteering at their children's schools. In another analysis using the same dataset, Grinstein-Weiss et al. (2010) did find that homeowners were more likely to limit the amount of screen time allowed their children and to involve children in organized activities. Yet they were no more likely to be involved in their children's school and they were less likely to read to their children. Given the limitations in the

sample and in control variables available in these analyses, it is premature to draw any firm conclusions from them.

In sum, the weight of the evidence does not support the proposition that homeownership has a positive impact on the cognitive abilities of children or that it is related to measures of either positive or negative behaviors, while research on its impacts on teen births and parenting behaviors is mixed. However, the research does support an association between homeownership and the completion of high school and post-secondary education.

What aspects of ownership seem to be responsible for the impacts found?

Most of the studies reviewed attempt to shed light on the aspect or aspects of homeownership that are responsible for the positive associations found between homeownership and child outcomes. Several studies suggest that the key aspect of homeownership is its relation to residential stability. In several instances, studies find positive and statistically significant relationships between homeownership and child outcomes only to see those relationships disappear once length of tenure is added as a control variable (Barker and Miller, 2009; Galster et al., 2007; Mohanty and Raut, 2009). In other instances, the positive and statistically significant relationships diminish but remain significant (Aaronson, 2000). Thus, there is considerable evidence suggesting that residential stability is responsible for some of the benefits that have been attributed to homeownership.

Another aspect of homeownership that has been studied is its relationship to the quality of home environments. Both Haurin, Parcel, and Haurin (2002) and Mohanty and Raut (2009) conducted analyses that support the idea that homeowners, due to greater financial incentives to invest in their homes, provide healthier and more stimulating home environments, which in turn, result in positive child outcomes. Haurin, Parcel, and Haurin (2002) trace the impacts of homeownership through its impacts on the quality of the home environment, while Mohanty and Raut (2009) find that once the quality of the home environment is controlled, the impact of homeownership becomes non-significant. This leads them to argue that “subsidized ownership can lead to better child outcomes to the extent that it places a child in a better home environment, in a more stable residence and in a better neighborhood” (p. 465). Clearly there is

more research that needs to be done to isolate the aspects of homeownership that are responsible for any positive associations between homeownership and child outcomes.

Homeownership and social and political participation

Citizen participation in political and social activities, such as voting and participation in neighborhood and community groups, is an important aspect of American culture. Our democratic form of government is predicated on the assumption that citizens will actively participate in the governing process. A primary form of participation is voting in national, state, and local elections. The expectation is that citizens will turn out to express their desires by voting for candidates who they believe will best address their interests and concerns. Other forms of political participation include supporting candidates and calling or writing elected officials.

At the same time, there is a long tradition of citizen participation in voluntary organizations that seek to supplement or expand the issues addressed by government. Citizens join neighborhood organizations, for example, to pick up litter, improve the local schools, or address affordable housing issues. Such volunteer activities are important to the quality of life in American communities.

Given the importance of citizen participation in political and social activities to the functioning of American society, scholars have studied the social characteristics associated with it. Most research finds that homeownership, along with other social characteristics such as education and income level, is a strong predictor of social and political participation (Huckfeldt, 1979). But since this research has not addressed selection bias, it is not clear whether this association is causal or spurious.

The theory

Previous research and writing on the link between homeownership and political and social participation has suggested two explanations for the higher rates of participation among

homeowners: protecting economic interests and protecting social-psychological interests. The economic argument suggests that, compared to renters, homeowners have greater economic investment in their homes, thus it is reasonable to expect that they will be more likely to participate in both political and social activities to protect and enhance that investment (Cox, 1982). Since the characteristics of neighborhoods and communities surrounding homes have important impacts on home values, owners should have a greater incentive to vote, particularly in local elections, and to participate in other activities designed to protect their investments. Moreover, homeowners are more directly impacted by increases in property taxes, which are set by local elected officials. Another financial argument is that homeowners have significantly higher transaction costs associated with moving. Owners have to pay real estate agent, mortgage, and other fees when they sell an existing home and buy a new one. While renters also have costs associated with moving, they are typically a small fraction of those born by owners.

The social argument for greater participation among homeowners is that, compared to renters, homeowners become more emotionally attached to their homes and neighborhoods (Logan and Molotch, 1987). Homeowners may participate at higher levels because they want to protect the consumption or use values of their homes. They are more socially ensconced in their neighborhoods and are motivated to protect those relationships. Homeowners may also be more likely to see their homes as symbols of their tastes and values. Owned homes may provide their residents with an observable indication of their success in society. Thus, perceived threats to home and neighborhood may be experienced as threats to one's sense of social status and/or self-esteem. Given that homeowners tend to stay in their homes for longer periods of time, there is some question as to whether these social and psychological attachments are solely a function of length of tenure rather than ownership.

Research on voting and involvement in political activities

Early research on political involvement was fairly consistent in finding that, compared to renters, homeowners are more likely to both vote and to engage in other political activities, even after a range of demographic and social factors were taken into account. This was the

case for both general population samples and samples of low- and moderate- income households (Ahlbrandt and Cunningham, 1979; Cox, 1982; Kingston and Fries, 1994; Lyons and Lowery, 1989; Rossi and Weber, 1996). Gilderbloom and Markham (1995) found higher voting for upper-income members of the sample but not for the lower-income ones. This first generation research suffered to a lesser or greater extent from both the failure to account for potentially confounding variables and selection bias. The samples used in this research tended to be geographically limited, raising questions about the generalizability of results.

The second generation research has attempted to address one or more of these limitations. Overall, it tends to show that even when selection bias and additional controls are added, homeowners are still more likely to vote. DiPasquale and Glaeser (1999), in analyzing data from the General Social Survey, addressed selection bias using an instrumental variable approach and also controlled for length of tenure. They report that compared to the renters in the sample, homeowners were 16 percent more likely to vote in local elections. Manturuk, Lindblad, and Quercia (2009), in comparing voting among a matched sample of lower-income homebuyers and renters, found that homeowners were more likely to have voted in recent local elections. Selection bias was addressed in this study by the use of two-stage modeling where the predicted probability of homeownership for the first model is substituted for actual homeownership in the second model predicting voting. Manturuk, Lindblad, and Quercia (2009) also report that homeowners in disadvantaged neighborhoods were more likely to vote than owners in other areas. McCabe (2013), in analyzing data from several years of the Current Population Survey, found that after controlling for residential stability and many other variables, homeowners remain more likely to participate in local elections. McCabe discusses selection bias after performing robustness checks that compare the homeownership effect to a set of placebo measures.

There is one recent study, however, that found no relationship between homeownership and voting. Englehardt et al. (2010), in analyzing data from a random assignment experiment of the impacts of an individual development account program in a single city, reports that those who bought homes were no more likely to vote in local elections

or to engage in other political activities, including writing a letter or supporting a candidate with time or money. The relatively small, socially and geographically confined sample, however, limits the generalizability of these findings.

Research on participation in neighborhood and community organizations

Similar to the research on homeownership and voting, the early research on homeownership and involvement in neighborhood and community organizations has tended to support the proposition that homeowners are more likely to participate in at least certain types of community groups (Ahlbrandt and Cunningham, 1979; Baum and Kingston, 1984; Cox, 1982; Guest and Oropensa, 1986; Pratt, 1986; Rossi and Weber, 1996). Based on the analysis of panel data on a group of low-income homebuyers and a comparison group of continuing renters in Baltimore, Rohe and Stegman (1994a) and Rohe and Basolo (1997) report that homebuyers' participation in neighborhood and block organizations increased significantly after purchasing their homes. Homebuyers were no more likely than the continuing renters, however, to participate in other types of community organizations such as PTA groups. Kingston and Fries (1994), using data from the General Social Survey, was one of the few studies to find no relationship between homeownership and participation in voluntary organizations.

More recent research on homeownership and social involvement tends to support the earlier positive findings. DiPasquale and Glaeser (1999), in analyzing data from the General Social Survey, reported that homeownership had a strong correlation with the number of non-professional organizations to which respondents belonged and to involvement in activities designed to solve local problems. Manturuk, Lindblad, and Quercia (2009), using a matched sample of owners and renters followed over a four year time period, report that renters who became homeowners during the study period significantly increased their participation in neighborhood organizations. Similarly, McCabe (2013) reports that after controlling for residential stability, homeowners were still more likely to participate in civic and neighborhood associations than were renters, but he describes the difference as modest. Rotolo, Wilson, and Hughes (2010) find no relationship between home equity and volunteering. Englehardt et al.

(2010) found no relationship between homebuyers and renters, but as mentioned above, the generalizability of these results is limited.

What aspects of ownership seem to be responsible for the impacts found?

Many of the studies reviewed above have tried to identify the aspects of homeownership responsible for the associations that have been found between homeownership and both political and social participation. Cox (1982), for example, compared homeowners who reported that making a profit was an important reason for buying to those who said it was less important, and found no difference in their levels of engagement in political and social activities. Similar results have been reported by Rohe and Stegman (1994a) and DiPasquale and Glaeser (1999).

The more recent research on this issue has made some progress in identifying the underlying factors, but it's still far from resolved. McCabe (2013) found that residential stability was an important predictor of participating in local elections, civic groups, and neighborhood associations. Yet, after controlling for residential stability, homeownership was still a significant predictor of all three measures of participation. Similarly, Manturuk, Lindblad, and Quercia (2010) test to see if homeowners might be less likely to participate due to increased residential satisfaction, and they find no support for this idea. A study by Rotolo, Wilson, and Hughes (2010) measured the economic interest of homeownership using self-reported home equity levels, which they defined as high, low, or none (for renters). Their findings did not support the hypothesis that home equity relates to volunteering, which implies that non-economic factors may explain the homeownership effect. Much work is still needed to tease out what it is about homeownership that motivates owners to participate at higher rates.

Neighborhood perceptions and social capital

The proposition that homeownership might influence neighborhood perceptions and social capital has important implications for housing policy. If positive homeownership experiences build trust of neighbors, then it may influence the way that residents think and feel

about their communities. The reverse may also be true: household displacement and asset loss through foreclosure sale may undermine trust of neighbors. Policies that foster positive homeownership experiences and minimize negative experiences therefore have potential to impact not only individual households, but also social capital within communities.

Is there any evidence to suggest that perceptions of neighbors matter? Sampson, Raudenbush, and Earls (1997), in one of the most widely cited studies of the past two decades, convincingly demonstrate that positive perceptions of neighbors reduce violent crimes within neighborhoods. They analyze crime perceptions and victimization including homicides. Through multi-level and latent variable models, the authors assess neighborhood effects in Chicago. Their study also links homeownership to crime outcomes, but indirectly, through the intervening measures of how residents view their neighbors. Similarly, other studies connect perception of neighborhood to the safety, walkability, physical exercise, and mental and physical health of residents (Ross, 2000; Ross and Mirowsky, 2001; Ross, Mirowsky, and Pribesh, 2001).

For at least some outcomes, then, neighborhood perceptions matter a great deal. An in-depth qualitative study of Baltimore neighborhoods revealed a striking disconnect between resident's perceptions and more objective measures of neighborhood conditions (Taylor, 2001). Sampson and Raudenbush (2004) further investigated and found only a moderate correlation between objective and subjective measures of neighborhood conditions. The point is that for some outcomes, perception of neighborhood may overpower the more objective indicators of neighborhood quality.

To consider whether there is a causal link between homeownership and perceptions of neighbors and neighborhoods, we first investigate the mechanisms by which such a link might exist. We ask: Is there something about homeownership that influences how people view their neighbors and neighborhoods?

The theory

Prior research suggests several mechanisms by which homeownership could influence the perceptions of neighbors and neighborhoods. One possible mechanism is through fostering more informal social interaction in the neighborhood. Manturuk, Lindblad, and Quercia (2010) argue that “homeownership produces cohesion and stability, at least in part, by promoting social interaction” (p.473). A later study by these authors suggests that it is the *type* of social interaction that matters. When compared to similar renters, homeowners were more likely to engage in instrumental civic engagement, such as participating in neighborhood organizations, but not expressive engagement, such as socializing with neighbors (2012). Homeowners engage in a different type of social interaction that is more utilitarian and focused on protecting their own financial and social interests within the neighborhood. In so doing, homeowners may build more neighborhood cohesion and social capital than comparable renters.

Related to this idea of social interaction is the notion of increased vigilance among homeowners. In their review of the literature, Dietz and Haurin (2003) noted that reduced crime victimization among homeowners may reflect greater use of home security systems or neighborhood watch groups by homeowners.

A third possible mechanism by which homeownership may influence perception of neighbors derives from research on decision-making. A great deal of evidence suggests that people rationalize past decisions as an ego defense mechanism. Decades of experimental social psychology studies have confirmed processes of cognitive dissonance in which satisfaction increases with costs (Festinger, 1957; Gbadamosi, 2009; Shultz and Lepper, 1996). The more people pay for something, the more likely they are to report feeling satisfied with that product. Homeownership being the largest purchase most people ever make, the rationalization of the decision to purchase a home may transfer beyond the residence and to the neighborhood. People everywhere want to justify their decisions and thus the act of choosing a neighborhood may combine with reduced mobility and lead homeowners to see their neighbors and neighborhoods more positively.

A final possible mechanism is that, compared to renters, homeowners pay much more attention to the characteristics of the neighborhoods in which they live. Homes are purchased, after all, in particular geographic spaces. As the real estate agents' refrain of *location, location, location* suggests, this choice of neighborhood is perhaps even more important than the dwelling itself. While researchers increasingly attend to selection bias, such adjustments should be expanded beyond the decision to own or rent. Attention to the potential for neighborhood selection bias seems justified going forward, particularly for the neighborhood level constructs that we review here.

Research on perceptions of neighbors and neighborhoods

Prior research generally associates homeownership with higher levels of neighborhood satisfaction, friendship formation, and neighborhood cohesion (Lee et al., 1991; Oh, 2004; Sampson, Raudenbush, and Earls, 1997; Robinson and Wilkinson, 1995). Oh (2004) labeled these measures as well as those of social involvement as neighborhood attachment. Other researchers suggest that all such neighborhood perceptions contribute to the larger construct of social capital (Lochner, Kawachi, and Kennedy, 1999). Still others have analyzed behaviors such as neighboring, citizen participation and/or civic engagement as measures of social capital (Glaeser, Laibson, and Sacerdote, 2002; Yamamura, 2011). Finally, some define social capital as resources that may be available through neighbors (Manturuk, Lindblad, and Quercia, 2010). The lack of consensus that surrounds these neighborhood constructs is a source of confusion.

Measurement error and level of analysis are particular concerns in studies that link homeownership to neighborhood perceptions because the survey questions no longer focus on the individual respondent. Instead, study participants must shift their attention to their neighbors and neighborhood. Studies that empirically adjust for measurement error and analyze data with multi-level modeling are preferable.

One study used multi-level modeling while predicting neighborhood satisfaction. Multi-level modeling is ideally suited to measuring and analyzing these constructs because it captures multiple respondents within particular neighborhoods. The study also adjusted for a

respondent's decision to own or rent their home. Grinstein-Weiss et al. (2011) asked lower-income households to rate their neighborhood as a place to raise children. This measure of neighborhood satisfaction was rated more highly by homeowners while controlling for neighborhood characteristics such as stability and disadvantage.

Oh (2004) includes homeownership in models of neighborhood satisfaction, friendship, and cohesion/trust. The study does not address bias of the decision to own or rent, but the analysis controlled for time in residence, neighborhood disorder, and a series of homeownership interactions with race/ethnicity. The author reports that homeownership is positively associated with social cohesion but does not predict friendship, neighborhood satisfaction, or sentiment.

The relationship between homeownership and trust of neighbors was investigated in a study by McCabe (2013). Data comes from the 2006 Social Capital Community Survey, and trust is measured in two ways: general trust of neighbors and a hypothetical scenario gauging the likelihood that neighbors would return lost money. After a series of robustness checks, McCabe concludes that, when compared to renters, homeowners are more trusting of their neighbors.

Neighborhood cohesion, informal social control, and collective efficacy were positively associated with homeownership in a study by Lindblad, Manturuk, and Quercia (2013). The study built upon the framework used by Sampson, Raudenbush, and Earls (1997) in which social cohesion provides one dimension of collective efficacy and the other dimension is informal social control, defined as the willingness to intervene on behalf of the common good. Lindblad, Manturuk, and Quercia use data from the Community Advantage Panel Survey and address selection bias by modeling the homeownership decision and matching renters to homeowners. Their analysis controls for potential confounds such as the respondent's time in residence and neighborhood stability.

The authors also evaluated the impact of homeownership on perceptions of neighborhood crime/disorder and found no direct link. However, homeownership had an indirect effect. After accounting for selection bias, Lindblad, Manturuk, and Quercia (2013) find

that homeownership reduced subjective crime and disorder through positive perceptions of neighbors, as originally suggested by Sampson, Raudenbush, and Earls (1997). The study by Lindblad, Manturuk, and Quercia (2013) also finds that homeownership does not interact with residential stability and homeownership rates, which suggests that the effect of homeownership in reducing perceived crime will not be altered by the foreclosure crisis.

Finally, Manturuk, Lindblad, and Quercia (2010) measured social capital in a way that differs from most other housing studies to date. These authors administer what is called a resource generator to capture overall and neighborhood-specific social capital. They address selection bias through a two-stage model. The authors find higher neighborhood social capital among homeowners that persists while controlling for overall social capital. They conclude that there is something about owning a home which generates higher degree of within-neighborhood social capital for homeowners.

In sum, the reviewed studies largely uphold the link between homeownership and social capital as measured by positive perceptions of neighbors that include greater neighborhood satisfaction, trust, cohesion, connections, and beliefs that neighbors will act in the common good. These perceptions also mediate homeownership's influence on more distal outcomes such as crime and safety in neighborhoods. This second generation research has made methodological advances in addressing sources of endogeneity that include neighborhood effects, measurement error, and selection bias in the decision to own or rent.

What aspects of ownership seem to be responsible for the impacts found?

The reviewed studies provide rationales for why homeownership might influence perceptions of neighborhood, but make little progress in empirically testing these mechanisms. An exception is the study by Manturuk, Lindblad, and Quercia (2010). These authors suggest that informal social interaction is a causal mechanism that results from the cohesion and stability that come from owning a home. Their results support this idea because the influence of homeownership on social capital was partially mediated by participation in neighborhood groups. Other possible mechanisms such as neighborhood watch groups and home security systems were not analyzed in the studies of crime and safety. Nor did any of the studies

empirically explore whether owning a home influences how people think about finances. Finally, no studies explored empirically whether homeowners' higher satisfaction with their neighborhood is simply a rationalization made to justify their large financial purchase. More work is needed to test these causal mechanisms in order to understand why homeownership is associated with higher social capital and positive views of neighbors. Future research on neighborhood outcomes should also empirically adjust for the bias that would arise if homeowners choose their neighborhoods in a selective way that influences neighborhood outcomes.

Section 4: Conclusion

There are many reasons to believe that the housing crisis may have altered attitudes toward home buying and the social impacts that have been associated with homeownership. This paper presented a conceptual model as to how that crisis might have affected both attitudes toward owning as well as the social impacts of owning. The focus of the model is on the role that housing experience—such as mortgage payment stress, having negative equity, and foreclosure—plays in these outcomes.

The limited information on the impacts of the housing crisis on attitudes toward owning suggests that the impact of the housing crisis seems to have been short lived even among those who have either direct or indirect experience with mortgage foreclosure. Attitudes toward buying a home have rebounded at a remarkably fast pace. An apt analogy might be investor interest in the stock market during and after a crash. In the short run, many people swear off investing in the market. But as the market recovers, they return to the market relatively quickly. Even after the dramatic loss of equity and the high foreclosure rates, the early evidence suggests that people seem to believe that, over the long run, owning is still preferable to renting, at least when it comes to the financial benefits of homeownership. The long term cultural preference for owning seems to have weathered the recent housing crisis. Having said this, additional carefully designed research is needed to track the perceptions of homeownership before and after the housing crisis. There is little research that addresses how

the housing crisis has impacted the perceived non-financial benefits of homeownership, such as whether it is still seen as providing greater tenure security than rental housing.

Research is also needed on how the housing crisis has impacted the actual social impacts of homeownership. The literature reviewed in the second part of this paper is, with few exceptions, based on data collected before the housing crisis. Thus, the findings that homeownership is related to social involvement, residential satisfaction, and children's completion of high school and post-secondary education may not hold post-crisis particularly for those who are under considerable financial stress due to mortgage payments or who owe more than their homes are worth.

Future research must meet as many of the following criteria as possible to make important contributions to our understanding of the social benefits of homeownership. First, it must account for selection bias in who chooses to buy and where they choose to live. Homebuyers may be different from continuing renters in ways that have not been captured in control variables. Moreover, homebuyers choose to live in particular locations and those choices threaten the validity of the causal links that have been drawn between homeownership and social outcomes such as civic engagement, political participation, and trust of neighbors. Without addressing selection bias there is no way of determining whether any associations found are due to homeownership or an artifact of the characteristics of those who seek it out.

Second, future research should assess and take into account housing experiences. As suggested above, housing experiences such as having to leave one's home due to the inability to make payments, owning more than a house is worth, or even not getting along with neighbors may result in very different social outcomes. Future research should address the question: Under what circumstances does homeownership lead to specific social outcomes?

Third, future research needs to isolate the aspects of homeownership that are associated with particular social outcomes. It needs to be designed to test the importance of length of residence, housing type, size and condition, and neighborhood conditions. It also should consider home equity, debt leveraging, and how different types of mortgage products may affect stress, health, and other social outcomes. An interesting question is once these

correlates of homeownership are controlled, is there any residual impact that is purely the result of ownership? If one were to rent a home of similar type, size, condition, and neighborhood to an owned unit, and live in it the same length of time, would there be any difference in the social outcomes? Is there anything that is truly different about owning, or is it just a proxy for other factors that could conceivably be addressed through other public policies or programs? If the positive impacts of homeownership, for example, are largely the result of longer residential stability, policies that increased tenure security among renters may have the same impacts, although these may not be politically feasible at least in the short run.

Another way of thinking about this issue is which traits of homeownership are intrinsic to it and which are socially and politically constructed. The answer to this question is important for research on the impacts of homeownership as it determines which control variables should be included in explanatory models as control variables, and which should be considered as a dimension of homeownership.

Fourth, research needs to consider the impacts of homeownership on a wide range of social groups. The research reviewed above varies in the characteristics of the samples analyzed. Some of the research relies on general population samples, while other research relies on population subgroups such as lower-income people. There are reasons to believe that the impacts of homeownership may differ among subgroups as their housing experiences may be considerably different (Harkness and Newman 2003; Rohe, Van Zandt, and McCarthy 2002).

Finally, future research needs to use measures of social outcomes that have known validity and reliability. Too often, the social constructs are measured with single questions, which lack the precision that can be obtained with a multi-question battery. Thus, whenever possible, standardized measures of the social outcomes such as self-esteem, depression, sense of control, health, and other constructs should be used. This will both ensure a greater accuracy of measurement and allow for valid comparisons among research studies on the same topic. Although difficult to come by, the use of measures that do not rely on self-reporting will eliminate the social expectancy bias that may be influencing respondents' answers.

Respondents are likely to over or under report a wide range of outcomes—from civic participation to health—by giving what they think are the socially accepted answers.

Turning to the policy implications, federal homeownership promotion effects have been at least partially justified by claims that homeownership creates better citizens, results in healthier neighborhoods, and provides a range of other social benefits. Thus, it is important to assess the validity of those claims. This is not to say that other good reasons for supporting homeownership do not exist, only that if homeownership is not generating the claimed social benefits, we should stop using them as a justification.

The updated literature review presented above does provide support for several social benefits of homeownership. Even after taking self-selection and other confounding factors into account there is considerable evidence that positive homeownership experiences result in greater participation in social and political activities, improved psychological health, positive assessments of neighborhood, and high school and post-secondary school completion. The jury is still out, however, on several other claims including improved physical health, and both the cognitive abilities and positive behaviors of children.

Our review of early research on the impacts of the housing crisis on attitudes toward homeownership suggests that no extraordinary efforts will be needed to attract American households back into the housing market. Recent research indicates that attitudes toward homeownership as a financial investment have been steadily improving since the height of the housing crisis, although the attitudes of renters have been slower to rebound. Whether this rebound is related to the financial reforms and consumer safeguards or whether it is simply the reassertion of the American belief in the benefits of homeownership is impossible to say.

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