



# **The Homeownership Experience of Low-Income and Minority Families**

*A Review and Synthesis of the Literature*

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*Prepared for*

U.S. Department of Housing and Urban Development  
Office of Policy Development and Research

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## Foreword

Throughout American history, homeownership and the independence that goes with a place of one's own has been a primal aim of Americans. Every President in modern times has sought to improve opportunities for homeownership and President Bush has placed special emphasis on extending the *American Dream* to low-income and minority households with his goal and efforts to bring about 5.5 million new minority homeowners by the year 2010.

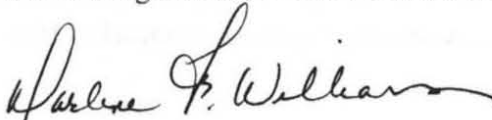
The benefits of owning a home are well known. Perhaps best known as a principal source of wealth accumulation for a majority of Americans, it also provides a greater degree of insulation from rising housing costs allowing more income to be saved or put to other uses. Research has also documented a range of non-financial, individual and social benefits of homeownership, including improved housing quality, satisfaction, and conditions for childhood development. However, the extent to which low-income or minority homebuyers share in the traditional benefits of homeownership noted above has received far less attention.

HUD's Office of Policy Development and Research initiated this study, *The Homeownership Experience of Low-Income and Minority Families: A Review and Synthesis of the Literature*, to provide a comprehensive examination of the homeownership experience of low-income and minority families over time and determine the extent to which low-income and minority homeowners are themselves reaping the traditional benefits of homeownership. Four shorter empirical papers listed below were also completed in conjunction with the study:

1. *The Impact of House Price Appreciation on Portfolio Composition and Savings*
2. *The Growth of Earnings of Low-income Households and the Sensitivity of Their Homeownership Choices to Economic and Socio-Demographic Shocks*
3. *Wealth Accumulation and Homeownership: Evidence for Low-Income Households*
4. *Is Manufactured Housing a Good Alternative for Low-Income Families? Evidence from the American Housing Survey*

The study finds that over the last ten to fifteen years, large numbers of new low-income and minority homeowners have made good initial choices, buying good quality homes in decent neighborhoods. More generally, the study finds that low-income and minority owners are as likely as others to benefit from homeownership. These owners are just as likely to see their homes appreciate as others; in fact, for the vast majority, housing wealth is their only source of wealth. There is also evidence that children of low-income owners have greater success in education and the job market than children of low-income renters.

The study also finds that low-income and minority families are more apt to encounter difficulties sustaining homeownership and points to the importance of continuing and enhancing policies that help owners weather and resolve circumstances that threaten their ability to sustain homeownership. While the study identifies many areas where our understanding could be enhanced with more research, it takes a giant step toward providing the basic understanding that will support policies that ensure homeownership provides lasting benefits to low-income and minority families.



Darlene F. Williams  
Assistant Secretary for  
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# Executive Summary

Aided by a favorable economic climate, concerted efforts by the public and private sectors alike have succeeded in significantly increasing homeownership rates for low-income and minority households across the country over the last decade. Despite these gains, efforts to increase homeownership opportunities continue to receive important emphasis from policy makers as significant gaps still remain in homeownership rates by income and race/ethnicity. But the success of efforts to increase homeownership has highlighted the need for policy makers to evaluate the extent to which these new low-income and minority homeowners are reaping the expected benefits of homeownership, and, if not, what can be done to increase the chances that they will realize these benefits. In fact, in recent years both housing advocates and the popular press have raised concerns that the emphasis on promoting homeownership may be luring families and individuals into buying homes when they would be better off renting. These critiques cite rising foreclosure rates, increases in the share of buyers shouldering substantial financial burdens, and accounts of buyers being trapped in poor quality homes as evidence that a move to homeownership is in many cases not beneficial for the low-income and minority households who are the focus of these efforts.

In the interest of supporting the development of effective policies for promoting and supporting homeownership, as well as to address the concerns raised about those who fear there is too great an emphasis on promoting homeownership, the purpose of this report is to review and synthesize what is known about the homeownership experience of low-income and minority households to assess the extent to which homeownership is likely to benefit these groups. While there have been several recent reviews of the literature that have assessed the empirical evidence on the benefits of homeownership, this study is unique in an explicit focus on what is known about the homeownership experience of low-income and minority households.

Efforts to promote homeownership are routinely justified by a range of financial and social benefits that are thought to result from owning a home. One of the key rationales for encouraging homeownership is that it is the principal source of wealth accumulation for a majority of Americans. Other financial benefits include reduced income tax obligations, protection from inflation in housing costs, and a resulting increased ability to amass other savings. But equally important are a range of non-financial or social benefits, including improved housing quality and satisfaction, increased social engagement (with positive impacts on the surrounding community), enhanced conditions for childhood development, and improved psychological and physical health.

## Summary of Findings

Overall, our own analysis and review of the literature documents the significant increase that occurred during the 1990s in the number of low-income and minority first-time homebuyers. For the most part, low-income and minority households were found to have made good initial choices in the homes they buy, obtaining good quality housing in decent neighborhoods. The share of these homes that are moderately or severely inadequate is only about 7 percent—no worse than the average for the country as a whole. While it does not seem that the move to homeownership is associated with an improvement in neighborhood conditions for many buyers, the new neighborhoods on average seem



to be decent areas with few signs of distress. There is also no evidence that these first-time buyers faced higher interest rates than other purchasers—at least on their first-lien mortgages through 2003. The most worrisome aspect of the situation of these new homeowners is that roughly one-in-five buyers during 1995 to 2003 faced a severe payment burden, spending more than 50 percent of their income on housing.

The study primarily relied on a review of the existing literature to assess whether over time low-income and minority homeowners were as likely as other owners to realize the financial and social benefits of owning a home. Our general conclusion is that for the most part these owners are as likely as others to benefit from homeownership. With regard to homeownership's financial benefits, these owners are just as likely to see their homes appreciate in value as other owners. Since housing is a leveraged investment, even modest appreciation in value combined with paying down mortgage debt over time, results in fairly significant wealth accumulation. In fact, for the vast majority of low-income households, housing wealth is their only source of wealth. In terms of social benefits, there is modest evidence that owners do benefit from improved psychological and physical health, although the research is not strong and there has been little attention to whether there are differences in these outcomes for different income or racial/ethnic groups. Moreover, there is fairly convincing evidence that the children of low-income owners have greater educational success, and more modest evidence that they have greater success in labor markets, are less likely to have behavioral problems, and are more likely to become homeowners themselves.

Nonetheless, there is also evidence that low-income and minority individuals and families face a greater risk of being unable to sustain homeownership. Since the benefits of homeownership mostly accrue slowly over time, a failure to maintain homeownership will greatly reduce the chance of realizing these benefits. While it can be argued that the risk of foreclosure remains fairly low for most owners, recent research on the rate at which households exit homeownership find that for every household that faces foreclosure there are several more who voluntarily leave their homes. Several recent studies have used longitudinal panel surveys to trace the tenure choices of households over fairly lengthy periods of time and found that between 43 and 53 percent of low-income buyers will not sustain homeownership for more than five years, compared to between 23 and 30 percent of high-income buyers. These studies also find that minorities at all income levels are between 22 and 39 percent more likely to leave homeownership than whites. These statistics reveal that the notion that “once an owner, always an owner” is not at all true—especially for low-income and minority families. While there may be substantial benefits from sustained homeownership, there are also significant costs of failed attempts at owning. Cases ending in foreclosure undoubtedly impose significant financial and personal costs on these families. Much less is known about other early exits from homeownership, but these situations may also impose non-trivial financial and personal costs to the extent that owners are compelled to leave homeownership.

The research that has been done on exits from homeownership draw upon data that extends back before the sharp rise in homeownership rates in the 1990s. Thus, it is not the case that these relatively quick exits from homeownership are a new development. But there is reason to believe that the homeownership gains of the 1990s may have increased the number of owners at risk of being unable to sustain homeownership. Perhaps most importantly the development of more flexible mortgage products has made it possible to buy a home with higher levels of debt, lower levels of savings, and worse credit histories than was previously possible. Thus, it would be expected that these buyers

would also face a greater risk of being unable to meet their mortgage obligations. The homeownership boom of the 1990s also brought many more single adults into homeownership, who may have less ability to carry their mortgage obligations in the wake of a financial crisis than households headed by two adults.

### **Policy Implications**

Nonetheless, given the benefits that result from sustained homeownership, there is no reason to retreat from the goal of increasing homeownership opportunities for low-income and minority households. There is, however, a clear need for policies to increase the likelihood that homeownership will be sustained and its full benefits realized. A concerted policy effort to improve homeownership experiences will have three broad thrusts: efforts to improve the initial homebuying choices made by these families and individuals—including whether owning is the right choice; efforts to ensure that homeowners optimize their mortgage choices after purchase and make appropriate investments in maintenance and improvements to their homes; and efforts to help owners resolve crises that threaten their ability to sustain homeownership. For the most part, there are a variety of existing efforts to support homeowners in each of these areas. As a result, the recommendations may be thought of more as an indication of where greater emphasis is needed rather than where there is currently a lack of effort. Among the specific approaches that need to be emphasized are pre-purchase counseling to ensure that prospective homebuyers make informed choices about buying a home, post-purchase counseling to provide support for families once they are in their homes, affordable refinance programs to help owners minimize the costs of homeownership, and loss mitigation programs to provide options for owners in financial crises to help them keep their homes.

### **Areas for Further Study**

This review of the existing literature has also revealed a number of areas where not enough work has been done to fully understand the circumstances facing homeowners, the nature of their decisions, or the outcomes realized. Further research is needed to provide a better understanding of the extent to which low-income and minority families and individuals benefit from homeownership as well as the challenges they face in sustaining homeownership over time. Perhaps one of the most important issues identified in this review is that roughly half of first-time low-income homebuyers are not able to sustain homeownership for at least five years, with minorities faring slightly worse still. Relatively little is known about the experience of these households as homeowners—what challenges they face and what resources they have to respond to these situations. Perhaps the most important area for further research is to gather better information about the experience of low-income homeowners. This information is needed for policy makers to be able to identify the type of support that is needed to ensure that low-income and minority households are able to sustain homeownership over time to be able to realize its many financial and social benefits.

### **Outline of the Report**

This report consists of six chapters. Chapter 1 describes the motivation for the study, outlines the benefits associated with homeownership, and describes the process by which these benefits are realized. Chapter 2 uses the American Housing Survey to examine trends in the characteristics of first-time homebuyers since the early 1990s and describes the housing choices made by these homebuyers with an understanding that these choices have important implications for the likelihood

that the long-run benefits of homeownership will be realized. Chapter 3 examines the choices and experiences of low-income and minority homebuyers after they buy their first home, including how often they move and leave homeownership, their experience with home maintenance and remodeling, and their choices about when to refinance and the mortgage terms they obtain upon refinancing. Chapter 4 reviews the literature evaluating the financial returns to homeownership and whether low-income and minority homeowners are less likely to experience financial gains than other owners. Chapter 5 focuses on what is known about the social benefits of homeownership for low-income and minority owners, including impacts on owner's psychological and physical health and the well-being of their children. Each of these chapters concludes with a detailed summary of findings. The report concludes in Chapter 6 with an overall summary of findings, a discussion of the policy implications of these findings, and an identification of areas where further research is needed.

# Chapter One:

## Introduction

There was a notable shift in federal housing policy in the early 1990s to place greater emphasis on efforts to promote homeownership for low-income and minority families.<sup>1</sup> To be sure, federal support for homeownership had a long history prior to this time—from the creation of the Federal Housing Administration and Fannie Mae in the 1930s, through providing financial guarantees for long-term, low downpayment mortgages that helped fuel the tremendous post-war homeownership boom, to the interest rate subsidy programs introduced in the 1960s. But as Carliner (1998) notes, for the most part the primary goals of these efforts were not to increase homeownership rates but rather were designed either to spur economic activity, provide a benefit to returning servicemen, or remedy urban blight.

The efforts that began in the 1990s were distinct from these earlier efforts in their explicit focus on the importance of expanding homeownership opportunities for low-income and minority households with the goal of helping these families realize the benefits associated with homeownership. In announcing his administration's commitment to increasing homeownership, President Clinton justified this goal by describing the benefits of owner-occupied homes:

They make for a more secure environment for our children. They create pride and self-esteem. They are the extension of our personality, our hopes, our dreams. For most of us, they're the main harbor of all of our collected memories. They are the most important investment in financial security that most Americans every make. And most people who own homes care more about their own communities and have a bigger stake in solving the kind of problems that we've been here talking about today.<sup>2</sup>

In June 2002, when President Bush announced his own commitment to increase minority homeownership rates, he also described the benefits of homeownership as the motivation for this effort:

It is a key to upward mobility for low- and middle-income Americans. It is an anchor for families and a source of stability for communities. It serves as the foundation of

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<sup>1</sup> Throughout this report, “low-income” will be defined as households having income less than 80 percent of the median household income for the geographic area where the household resides. The geographic area is defined as either the metropolitan area or the non-metropolitan portion of the state. Moderate income is defined as household income that is between 80 and 120 percent of the area median household income, while high income is greater than 120 percent of the area median.

<sup>2</sup> Speech by President William Clinton at the National Association of Realtors Conference, Anaheim, California, November 5, 1994.

many people's financial security. And it is a source of pride for people who have worked hard to provide for their families.<sup>3</sup>

Notably, federal efforts to promote homeownership have not relied heavily on federal outlays, but instead use the bully pulpit and regulatory powers to spur the public sector to heightened efforts to reduce barriers to homeownership, most notably a lack of information about the process, an inability to qualify for mortgage financing, and discriminatory treatment. One of the most important new tools at the government's disposal has been the housing goals for the government-sponsored enterprises (GSEs), Fannie Mae and Freddie Mac, which were created as part of the Federal Housing Enterprise Safety and Soundness Act of 1992. Through the housing goals, the government induces the GSEs to lead the mortgage market in expanding access to mortgage capital for low-income and minority individuals and communities. The government also fosters homeownership through mortgage insurance programs administered by the Federal Housing Administration, the Veterans Administration, and the Rural Housing Service of the Department of Agriculture, which are financed in large part by premiums paid by borrowers. In terms of direct efforts by the federal government, the HOME program, created by the Cranston-Gonzalez Act of 1990, is the largest source of federal funds for homeownership, committing \$3.9 billion for homebuyer efforts from 1992 through 2004. The Bush Administration's American Dream Downpayment Initiative of 2002 was designed to increase use of the HOME program to fund downpayment assistance for first-time homebuyers. In addition to the HOME program, another concrete effort to promote homeownership by the government was to increase financial support for homeownership counseling from \$3.5 million in 1991 to \$12 million during the mid-1990s, and ultimately to \$45 million by 2004 (Hornburg, 2004).

With the assistance of sustained economic growth and historically low interest rates, these efforts succeeded in fostering a dramatic increase in homeownership among all segments of society beginning in the early 1990s and continuing through 2004. Between 1993 and 2004, homeownership rates among very low-income households, blacks, and Hispanics increased by 6.4, 7.7, and 8.7 percentage points, respectively (Herbert et al., 2005). These sharp increases in homeownership were all the more remarkable coming as they did on the heels of more than a decade of stagnant or declining homeownership rates (Green, 1996).

Despite these gains, efforts to increase homeownership opportunities continue to receive important emphasis from policy makers as significant gaps still remain in homeownership rates by income and race/ethnicity. But the success of efforts to increase homeownership has highlighted the need for policy makers to evaluate the extent to which these new low-income and minority homeowners are reaping the expected benefits of homeownership, and, if not, what can be done to increase the chances that they will realize these benefits. In fact, while the gains in homeownership have widely been hailed as a significant accomplishment, in recent years there has been a growing chorus of concerns that the emphasis on homeownership may have gone too far (Baker, 2005; Apgar, 2004; Coy, 2004; Kosterlitz, 2004; Shlay, 2004; Pitcoff, 2003). A common theme in these articles is that the single-minded pursuit of homeownership as a solution to the housing needs of low-income families has in some cases made families worse off. The expansion of mortgage underwriting has made it possible for homebuyers to become financially over extended and far too often to end up losing their homes, at

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<sup>3</sup> Speech by President George W. Bush, quoted in "A Home of Your Own: Expanding Opportunities for All Americans," June 2002.

significant financial and personal cost. Furthermore, even if buyers are able to maintain their housing payments, they may be stuck in poor quality housing or devoting an excessive share of their income for housing. In short, while the goal of expanding homeownership is meant to allow these households to realize the many potential benefits of homeownership, including wealth accumulation, residential stability, and better social outcomes for the owners and their children, critics have come to question whether many low-income and minority buyers have actually been able to realize these benefits.

In the interest of supporting the development of effective policies for promoting and supporting homeownership, as well as to address the concerns raised about those who fear there is too great an emphasis on promoting homeownership, the purpose of this report is to review and synthesize what is known about the homeownership experience of low-income and minority households to assess the extent to which homeownership is likely to benefit these groups.<sup>4</sup> The primary methodology of this study will be to review and synthesize the relevant literature from academic, public policy, and housing industry sources. While there have been several fairly comprehensive literature reviews assessing the benefits and costs of homeownership generally (McCarthy, Van Zandt, and Rohe, 2001; Rohe, McCarthy, and Van Zandt, 2002; and Dietz and Haurin, 2003), this review differs in having an explicit focus on low-income and minority homeowners. In addition, while it is not the primary purpose of this study to conduct original research, unlike these other studies some amount of supporting descriptive analysis is used to document and evaluate the experience of low-income homeowners. This review is also intended to serve as a basis for identifying the types of policies and programs that are needed to mitigate the risks, maximize the benefits, and minimize the negative impacts of homeownership for low-income and minority households. Public policy must also recognize that there may be circumstances where homeownership is not recommended for certain households given the low likelihood of realizing the benefits of homeownership. Finally, there is also a growing recognition that we know less about the homeownership experiences of low-income families than we know about the causes of homeownership disparities by income and race-ethnicity. Thus, a final goal of this review will be to highlight the areas where further research is needed to enhance our understanding of this issue and to better inform the policy-making process.

In order to frame the discussion to be presented in this report, the remainder of this introduction outlines the benefits that are believed to be associated with homeownership and describes the process by which these benefits may or may not be realized. The chapter concludes by presenting the outline for the remainder of the report.

## **Individual Benefits of Homeownership**

Advocates of efforts to promote homeownership cite a wide variety of benefits that accrue to both individual homeowners as well as to society more broadly. The focus of this report is on the benefits that are realized by individual homeowners and so for the most part the report will not discuss societal

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<sup>4</sup> Herbert et al. (2005) provide a comprehensive review of the literature to synthesize what we know about the causes of differences in homeownership rates by race/ethnicity and income as well as policies to promote homeownership.

benefits.<sup>5</sup> Individual benefits of homeownership are generally divided into two classes: financial and social.

### **Financial Benefits**

One of the principal financial benefits of homeownership is as a vehicle for wealth accumulation, both through appreciation in value and through the forced savings associated with paying down outstanding mortgage principal. Wealth accumulation through homeownership is enhanced by tax law provisions that shield most appreciation in home values from capital gains taxes.<sup>6</sup> One of the unique aspects of homeownership as a vehicle for wealth accumulation is that it is one of the few leveraged investments available to households with little wealth allowing homeowners with very little equity in their homes to benefit from appreciation in the overall home value. For example, a buyer of a \$100,000 home with a \$5,000 downpayment will experience a 100 percent return on their investment if home prices rise by a mere 5 percent in the first year of ownership. Of course, financial leverage is a two-edged sword and housing is not a risk-free investment. If home prices were to fall by 5 percent, the buyer's initial investment would be wiped out. As long as the owner can continue to meet their monthly mortgage obligations they can recoup these losses over time assuming home prices recover and assuming they are not forced by other circumstances to have to move. But should owners experience a simultaneous loss in income and housing equity, which can happen during economic recessions, there may not be a way to avoid the loss of the home through foreclosure.

It is also important to note that a key factor in the financial returns to homeownership is the high transaction costs associated with buying and selling homes. Real estate agent fees alone are typically five to six percent of the sales price. In addition, sellers can face transfer taxes, legal fees, or buyers' closing costs paid by the seller. If buyers are forced to move either shortly after buying or during a down market, these transaction costs can greatly erode or eliminate any financial returns to homeownership.

Nonetheless, equity in homes is the single largest source of wealth for all households, and is particularly important for low-income and minority households. In 2000, housing equity accounted for 32.3 percent of aggregate household wealth, with stocks and mutual fund shares accounting for the next largest share of wealth at 15.6 percent (Orzechowski and Sepielli, 2003). But among households in the lowest income quintile, housing equity accounted for 56.2 percent of aggregate wealth, while stocks and mutual funds only accounted for 7.7 percent. Home equity is also a very important source of wealth among minorities, accounting for 61.8 percent of aggregate wealth among blacks and 50.8 percent of aggregate Hispanic wealth. Recognition of the critically important role

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<sup>5</sup> One category of societal benefits relates to improved neighborhood conditions (such as higher quality public services, better maintained properties, and higher levels of property appreciation) that are argued to result from higher levels of homeownership. This report will touch upon this category of benefits to the extent that owners themselves benefit from improved neighborhood conditions. Another class of societal benefits relates to improved macroeconomic performance due to higher levels of investment in housing that is associated with owner-occupants. This latter issue is beyond the scope of this paper.

<sup>6</sup> As of 1998, capital gains of up to \$250,000 for single filers and \$500,000 for married couples filing joint returns may be exempt from taxation.

that homeownership plays in wealth accumulation is one of the keystones supporting efforts to promote homeownership among low-income and minority households.

There are two other ways in which homeownership is thought to contribute to an individual's financial well being. First, owner-occupants are insulated from rapidly rising housing costs, particularly if they have fixed-rate financing. Because the real cost of housing declines over time, homeowners can have greater capacity for accruing savings in other financial assets or can enjoy a higher level of consumption. Second, the deductibility of mortgage interest and property tax payments serves to lower the after-tax cost of homeownership, also contributing to owners' ability to increase savings or consumption, although many low-income owners may not benefit from these provisions as the standard deduction often exceeds interest and property tax payments.

### **Social Benefits**

There are also a wide variety of non-financial benefits attributed to homeownership, generally referred to as social benefits. One of the principal social benefits is that owners are thought to have higher satisfaction with their homes, both in terms of the housing unit itself as well as the neighborhood where they live. A key factor in homeowners' greater housing satisfaction is that as owners they have greater ability and incentive to invest in their homes to suit their tastes. For this reason, homeownership rates increase as households age and enter a more home-centered phases of life, typically as they begin to raise children. Of course, the flip side of owners' ability to invest in the home as they see fit is the responsibility for maintaining the home. Individuals who do not have the interest or ability for conducting routine housing maintenance may find this aspect of homeownership to be more of a burden than a benefit.

In addition to the ability to investment in the home, homeowners may enjoy higher quality housing because of the segmentation of housing units between owner and renter markets. Larger and higher quality housing bundles are more likely to be available in the owner-occupied housing market. Rossi and Weber (1996) note that the rental stock includes many fewer single-family detached housing units, while the owner-occupied housing stock includes many fewer units in multifamily structures. While to some extent differences in housing demand between owners and renters may account for some of these observed differences in the type of units that are owned and rented, it is nonetheless true that in many areas anyone seeking a single family detached home will have many more options among units available for sale compared to units available for rent.

The argument that owner occupants are more likely to be satisfied with their neighborhoods is based on the idea that owners are both more likely both to invest in their own homes and to be actively engaged in efforts to improve their neighborhoods to protect their investment. To the extent that homeowners tend to cluster together, the collective activities of owners to improve their communities and their individual units would be expected to result in better neighborhood conditions.<sup>7</sup>

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<sup>7</sup> Herbert (1997) estimated measures of the degree of segregation in 1990 between owners and renters as measured by the dissimilarity index for 50 metropolitan areas. He found that the degree of segregation by tenure was moderate, suggesting that homeowners do, in fact, tend to cluster in neighborhoods. While segregation by tenure was much lower than the levels of segregation experienced by blacks, it was similar to the levels of experienced by Hispanics and Asians and higher than segregation by income or education.



Another significant benefit thought to be associated with homeownership is higher life satisfaction and better psychological health. Owners are thought to have higher self-esteem both due to the higher social status associated with homeownership as well as the sense of accomplishment that results from having achieved a significant life goal. Owners are also thought to benefit from a feeling of greater control over their life, derived from the fact that owners do not have to worry about being forced out of their home by landlords' actions. The wealth created through homeownership may also contribute to this greater sense of control by providing a financial cushion that can be tapped to meet emergency needs. Owners are also thought to have better physical health, perhaps in part as a result of their better psychological health and in part due to the better quality of their homes. Of course, to the extent that owners are financially stretched to meet the costs of homeownership, they may feel less control over their lives and more vulnerable to financial and personal shocks. In these situations owners may fare worse than renters in terms of both psychological and physical health.

Finally, an important social benefit of homeownership is better life outcomes for children that grow up in owner-occupied homes. Homeownership is thought to benefit children by several mechanisms. Homeownership may enable greater residential stability, which benefits children by providing a stable social and educational environment. The more home-centered lifestyle associated with homeownership may provide children with a more nurturing home environment. Given owners' incentive to invest in their homes and the fact that owner-occupied housing is much more likely to be in single-family detached housing, the greater quality, size, and privacy of these homes may also help support children's development. Finally, to the extent that homeownership helps to foster wealth creation, owners will have more financial resources available to invest in their children's education and health care and to generally provide a supportive environment for their development. A wide range of better outcomes in children have been attributed to homeownership, including higher educational attainment, less delinquency, lower rates of teenage pregnancy, and higher rates of subsequent homeownership. On the flip side, there may also be reason to be concerned about efforts that succeed in increasing low-income homeownership by having these households buy into distressed neighborhoods. In these situations, the benefits of homeownership may be offset by having children locked into these distressed communities.

## **Process for Realizing the Benefits of Homeownership**

The potential benefits of homeownership outlined above are by no means guaranteed. Whether these benefits are actually realized depends on a broad range of factors, including:

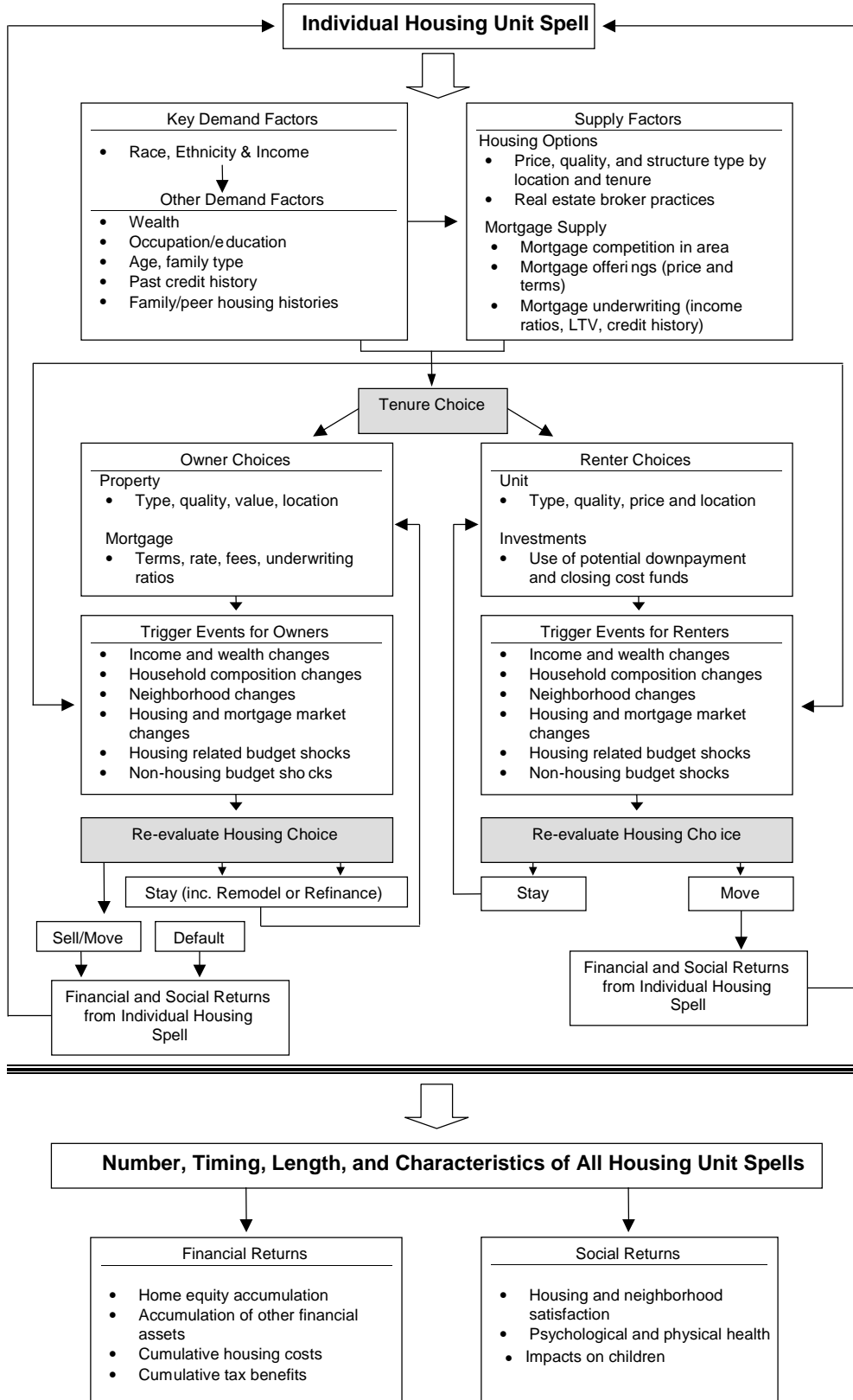
- When (age and timing) household heads first become homeowners;
- Where they chose to buy;
- How much the household spends on housing;
- The condition and age of the home they buy;
- How much they reinvest in maintaining and improving their homes;
- The mortgage products they can qualify for, have access to, and choose;

- If and when they refinance mortgages or tap into home equity;
- If income or budget shocks force them to default on their mortgage loans or house price declines spur them to do so; and
- How often they move and their tenure choice and level of expenditures at each move.

Exhibit 1 presents a conceptualization of the determinants of homeownership outcomes, delineating the key choices that affect outcomes as well as the types of events that affect these choices. Importantly, many of the benefits of homeownership—such as the accumulation of wealth and positive impacts on children or health—would only be expected to accrue over a long period of time. One of the key insights from the process outlined in Exhibit 1 is that it is not the outcome of single experiences with homeownership that matters but the timing of tenure and mortgage choices throughout the life cycle. Thus, in evaluating whether an individual household benefits from homeownership it is necessary to consider not just the outcome from the time spent in a single home, but rather their cumulative experience in a sequence of homes. Few studies take this perspective, probably because the number of paths that individuals can trace is so great and the sample sizes of panel studies so small. As a result, most of the literature examines behavior and outcomes across single episodes of homeownership, such as equity accumulation from purchase to sale of a home, or examines cross-sectional behaviors and outcomes, such as who refinances during a refinance boom or default and delinquency behavior in a single year. Nonetheless, the absence of a life cycle perspective contributes to important gaps in the existing literature.

Of particular importance for this study, virtually all of the factors that contribute to the outcomes from tenure choices are strongly influenced by a household's income, race, and ethnicity. Lower average incomes restrict the range of housing options available to homebuyers to only lower cost units, often in lower quality neighborhoods. Segregation of residential space by income as well as race in turn may influence the average house price appreciation experience of low-income and minority owners. Research has consistently found significant geographic segmentation of mortgage markets by race and income, suggesting that where an owner lives exerts an important influence on their access to financial services and mortgage products. Low incomes also make it harder to save enough to be able to buy a home, harder to save a cash cushion against budget and income shocks, and harder to cover costs of maintenance and replacements. Lower income typically entails lower wage work and more unstable employment, which tends to leave low-income households more prone to reductions in income through job loss. Because Hispanics and blacks have lower levels of education on average than whites and receive lower earnings on average for comparable levels of education, the problems confronting low-income homebuyers and owners disproportionately affect minorities.

**Exhibit 1  
Conceptual Model of Lifetime Returns from Tenure Choices**



Finally, while the deductibility of mortgage interest on federal income taxes provides an incentive for homeownership, lower income households derive fewer benefits from this provision both because they have lower marginal tax rates and because their interest payments may be small relative to the standard deduction reducing the chance that they will choose to itemize their deductions. Based on estimates of the number of tax returns claiming the mortgage interest deduction, approximately 15 percent of homeowners with income under \$30,000 claim this deduction, compared to 50 percent of those with incomes between \$30,000 and \$50,000, and 64 percent of those with income over \$50,000.<sup>8</sup>

Because Hispanics and blacks have sharply lower average wealth than whites of comparable incomes, and because low-income households have sharply lower average wealth than higher income households, the neighborhood and housing options of low-income individuals and minorities is further restricted, their vulnerability to income and budget shocks greater, and the speed at which they can achieve homeownership thereby slower.

Taken together, many of the systematic variations in income, wealth, location, and education related to race, ethnicity, and income drive living arrangements and family choices, the number and timing of moves, number and timing of tenure choices, mortgage choices, refinance behaviors, repair and remodeling behaviors, and vulnerability to house price declines or housing payment increases, income disruptions, and unforeseen but necessary non-housing expenditures. These variations give rise to expected differences in the average experiences, risks, and returns to homeownership for low-income and minority homeowners. Thus, the “odds” of different outcomes are expected to vary by race, ethnicity, and income. The overarching goal of this study is to sort through available information to evaluate how the different factors outlined in Exhibit 1 contribute to difference homeownership experiences for low-income and minority homeowners.

## Outline of the Report

As noted above, for a variety of reasons much of the literature examining the benefits of homeownership does not take a life cycle view of housing choices, but rather focuses on a short-run outcome—e.g., the appreciation in house values over the course a set period of time. In addition, there is a variety of research that is not explicitly focused on examining the benefits of homeownership but rather examines either specific housing choices, such as a decision to choose a certain type of mortgage or undertake remodeling activities, or intermediate outcomes, such as the choice of moving to a new home. But the process outlined in Exhibit 1 helps to place this research in context in considering how specific housing choices and intermediate outcomes ultimately contribute to the benefits realized by low-income homeownership.

With the process outlined in Exhibit 1 in mind, the literature reviewed by this report is organized as follows. In Chapter 2, we begin by examining the housing choices made by first-time homebuyers.

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<sup>8</sup> These figures are derived from estimates of the number of tax returns by claiming the mortgage interest deduction by filer income in 2004 as reported in “Estimates of Federal Tax Expenditures for Fiscal Years 2005-2009” prepared by the Joint Committee on Taxation, January 12, 2005, and the authors’ tabulations of the number of homeowners in these income categories from the March 2004 Current Population Survey.

These choices have important implications for the likelihood that the long-run benefits of homeownership will be realized. Chapter 3 then examines choices made after initial purchase, including decisions about whether to move, remodel, refinance, or default. Chapters 4 and 5 then examine literature that sheds light on whether low-income and minority homebuyers are likely to realize the financial and social benefits of homeownership. The report concludes in Chapter 6 with a discussion of policy implications of the reports findings and areas where further research is needed.

## Related Studies

This report is part of a larger project to examine the experience of low-income and minority homeowners. In addition to this report, four other studies were undertaken to analyze specific aspects of the homeownership experience of these groups. The findings from these other studies are included in the review presented here. They include:

- *The Growth of Earnings of Low-income Households and the Sensitivity of Their Homeownership Choices to Economic and Socio-Demographic Shocks*, by Donald Haurin and Stuart Rosenthal;
- *Wealth Accumulation and Homeownership: Evidence for Low-Income Households*, by Thomas Boehm and Alan Schlottman;
- *The Impact of House Price Appreciation on Portfolio Composition and Savings*, by Donald Haurin and Stuart Rosenthal; and
- *Is Manufactured Housing a Good Alternative for Low-Income Families? Evidence from the American Housing Survey*, by Thomas Boehm and Alan Schlottman.

Full copies of these studies are available at <http://www.huduser.org/publications/homeown.html>.

## **Chapter Two: Initial Housing Choices Made by Low-Income Homebuyers**

The chapter presents information on the initial housing choices of low-income and minority first-time homebuyers. As described in the introduction, these characteristics are of interest because they influence the extent to which the long-run financial and social benefits of homeownership are realized. Of particular interest for this report are the millions of low-income and minority households who bought their first home during the homeownership boom that began in the early 1990s. Because there is not an extensive literature describing the housing choices of low-income first-time homebuyers from this period, much of the information presented in this chapter is derived from tabulations of the American Housing Surveys (AHS) from 1991 through 2003. The AHS, a national survey conducted in every odd-numbered year, is a rich source of information on characteristics of the U.S. housing stock and is one of the few sources of information on first-time homebuyers.

In order to place the housing choices of low-income and minority homebuyers in context, information on the housing choices of several comparison groups is also presented. First, the housing choices of white, moderate-, and high-income first-time homebuyers are used to examine the extent to which the choices of low-income and minority buyers differ from these groups. Second, the housing choices of recent-mover low-income renter households are also presented to see how the choices of homebuyers differ from those of renters. Recent movers are used rather than all renters so that the choices reflect the renters' optimal housing choice subject to the constraints imposed by current market conditions. As a final point of reference we also present information on all households.

Since the sample sizes for first-time homebuyers in specific income or racial-ethnic categories in any one survey can be fairly small, survey results are generally combined for the seven survey years from 1991 through 2003 to provide more robust estimates of how the characteristics of first-time buyers and their housing choices differ across the income and racial-ethnic groups of interest. But since trends in first-time buyers over the course of the recent homeownership boom are of interest, we also compare results for two time periods: those corresponding to the 1991 through 1995 survey years and those from the 1997 through 2003 survey years.

Of course, there are important differences in the characteristics of the various comparison groups, which will contribute to the differences in the housing choices made. The first section of this chapter presents basic demographic information on these groups so that these differences can be borne in mind when evaluating differences in housing choices. This section also presents information on trends in the number and characteristics of first-time homebuyers since 1991.

In the remaining sections of the chapter, four main aspects of housing choices are discussed:

- Housing characteristics;
- Neighborhood characteristics;
- Housing costs; and
- Mortgage finance characteristics.

An assessment of housing characteristics is used to assess whether low-income homebuyers do, in fact, benefit from larger and higher quality housing. In addition, housing characteristics will also influence the cost and effort associated with maintaining the home. Finally, structural qualities may influence the likelihood of future wealth accumulation. Manufactured housing, in particular, is of special interest because of its important role in increasing low-income homeownership, especially in the South, during the 1990s (Belsky and Duda, 2002a). But manufactured housing poses special issues for two reasons. First, since about half of manufactured homes are placed on leased land, owners of these units do not share in appreciation of land values and are subject to increased costs passed on by owners of the land. Second, financing of these units is often more expensive than conventional mortgage rates. Housing characteristics of interest include the housing type (e.g., single-family detached, manufactured home, or condominium in multifamily structure), age, size relative to household size, and quality (e.g., number and type of housing problems).

A number of benefits associated with homeownership derive from neighborhood attributes, including the quality of public services and surrounding properties. To provide some indication of whether homeowners are more likely to live in higher quality neighborhoods, this chapter examines information from the AHS on the location of the home within a metropolitan area, measures of neighborhood quality, and the homeowner's satisfaction with the neighborhood. There is also some literature on the characteristics of neighborhoods where low-income buyers have located, which will be reviewed.

Housing costs are of interest to determine whether the move to homeownership has placed an undue financial burden on these new owners. The discussion of housing costs focuses on measures of housing costs relative to household income. Finally, since mortgage finance choices have important implications for housing costs (both initially and over time) and for buyers' exposure to risks of interest rate and house value fluctuations, we will also examine mortgage finance characteristics. An important issue to consider in this context is subprime lending, which increases the costs of mortgage finance and has been associated with predatory lending practices. The extensive literature that examines this latter topic will also briefly be reviewed.

## Trends in the Number and Characteristics of First-Time Homebuyers

Exhibit 2 provides information on trends in the annual number of low-income and minority first-time homebuyers by income as captured by the AHS surveys from 1991 to 2003.<sup>9</sup> The relatively small sample sizes of some subgroups of first-time homebuyers results in fairly sizeable sampling variation in the estimates, which may cloud information on trends in the number of buyers over time.

Nonetheless, the annual estimates provide some indication of trends over time. During the early 1990s the number of low-income first-time buyers rose from a little more than 500,000 per year to more than 750,000 per year by 1995-1997, an increase of nearly 50 percent. These trends are consistent with the sharp rise in low-income homeownership that occurred over this period. After 1997, the number of low-income homebuyers moderated somewhat, but remained above the levels that prevailed during the first years of the 1990s.<sup>10</sup>

### Exhibit 2

#### Average Annual Number of Low-Income and Minority First Time Homebuyers

(Thousands of homebuyers)

Years	Low-Income	Black	Hispanic
1989-1991	514	128	88
1991-1993	578	96	120
1993-1995	594	180	152
1995-1997	761	252	196
1997-1999	693	228	200
1999-2001	643	192	219
2001-2003	690	156	230

Note: The overlap in years reflects the fact that each AHS survey covers the two-year period prior to the survey.

Source: Tabulations of the 1991-2003 AHS.

<sup>9</sup> The AHS is conducted every other year and provides information on current occupants of the surveyed units, including whether they are first-time homebuyers and what year they obtained their home. Responses to these questions make it possible to identify first-time homebuyers who purchased their homes in the two-year period between surveys. The AHS does identify the year of purchase so annual estimates are possible. But since the sample of first-time buyers is somewhat small for any single year, the number of homebuyers captured by the survey is divided by two to yield an estimate of the annual average number of first-time buyers to smooth out this sampling variation.

<sup>10</sup> Of note, there was a change in the methodology used to assign the relevant area median income for each household in the AHS. As a result, the trends in the number of low-income first-time buyers between 1999-2001 and 2001-2003 must be interpreted with caution. Trends between the last two survey years of 2001 and 2003 suggest there was a very sharp fall-off in high-income buyers, a more moderate decline in moderate-income buyers, and a slight increase in the number of low-income buyers. These trends may be related to the economic recession that occurred during the 2001-2003 period. But it seems likely that the change in how the relevant area median incomes are assigned contributed to this trend.



The increase in minority first-time buyers was even more pronounced. Over the same period from 1989-1991 to 1995-1997, the number of black first-time buyers doubled, while the number of Hispanic buyers rose by 123 percent. As with low-income buyers, the number of black first-time buyers moderated after 1997 but still remained above levels from the start of the decade. In contrast, the number of Hispanic homebuyers continued to grow through the 2001-2003 period.

Exhibit 3 presents summary information on the age, household type, and racial composition of first-time buyers over the period from 1989 through 2003. In terms of age, in general, there is a fair amount of similarity in the age profile of the three categories of buyers, with the single largest category age 25 to 34 followed by age 35 to 44. But low-income buyers are more likely to be both younger (under age 25) and older (age 45 or above) than either moderate- or high-income buyers. These two age groups may represent two distinct categories of low-income buyers: the younger buyers are more likely to only temporarily be categorized as low-income as their incomes will increase with age, while the older buyers are more likely to be long-term low-income households that have needed more time to accumulate the savings needed to purchase a home.<sup>11</sup> In general, the earlier that a household becomes a homeowner, the greater chance they will have to reap the benefits of homeownership. The fact that low-income first-time buyers are more likely to be older means they will have less time to realize homeownership's benefits. But the proportion of older households among low-income buyers (16 percent) is not substantially greater than for moderate-income (9 percent) or high-income (8 percent) households.

Exhibit 3 also shows the age distribution of recent-mover low-income renters. In general, as with the other demographic characteristics shown, low-income first-time buyers lie in between low-income renters and higher income owners in terms of age. Low-income renters have higher shares of both younger and older households than low-income owners, who in turn have higher shares of these groups than higher income owners. The greater concentration of homebuyers in the 25-to-34-age category is consistent with the view that households below age 25 have both greater expected mobility and less demand for housing and therefore are less likely to pursue homeownership. But low-income renters also have a higher share of households that are age 45 and older. These may be households who simply prefer to rent or they may be households who cannot amass the savings needed to purchase a suitable home.

There are more significant differences across the first-time buyer income categories by household type than there are by age. Specifically, low-income first-time buyers include a much lower share of married couple households and a much higher share of single-earner households than either moderate- or high-income buyers. While married couples account for nearly two-thirds of moderate-income homebuyers and three-quarters of high-income buyers, these households comprise only 42 percent of

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<sup>11</sup> Since the AHS surveys the same housing units each time, it can be used to give a sense of the degree to which households move between income categories over time. Of the low-income first-time homebuyers identified by the 1991 survey, 60 percent of those in the same housing unit at the time of the 1999 survey were still categorized as low-income, while 18 percent were moderate-income and 22 percent were high-income. So while a majority did not change their income category, there is nonetheless a fair amount of upward mobility. At the same time, there is a similar amount of downward mobility. Of those we were low-income in the 1999 survey, 66 percent were also low-income in 1991, while 20 percent started the period as moderate-income, and 14 percent started as high-income.

low-income buyers. In contrast, single parents with children and single person households account for 45 percent of low-income buyers, compared to only 11 percent of moderate income buyers and 9 percent of high-income buyers. The share of single person households among low-income buyers is particularly large, at 29 percent, compared to only 4 percent of higher-income buyers.

**Exhibit 3**  
**Selected Demographic Characteristics of First Time Homebuyers, 1989-2003**

Characteristic	First Time Homebuyers			Recent-Mover Low-Income Renters	All Households
	Low Income	Moderate Income	High Income		
<b>Age of Head</b>					
25 or younger	18%	11%	6%	26%	5%
25 to 34	43%	56%	62%	35%	19%
35 to 44	23%	24%	24%	19%	23%
45 or older	16%	9%	8%	20%	53%
<b>Household Type</b>					
Married, No Children	14%	26%	36%	9%	28%
Married with Children	28%	38%	39%	15%	24%
Single Parent with Children	16%	7%	4%	22%	9%
Single Person	29%	4%	4%	37%	25%
Other	12%	16%	8%	18%	13%
<b>Race/Ethnicity</b>					
White	67%	75%	77%	59%	76%
Black	14%	10%	8%	20%	12%
Hispanic	14%	9%	8%	15%	8%
Other	5%	6%	6%	6%	4%

Note: Low-, moderate-, and high-income defined as income less than 80 percent of the area median income (AMI), 80 to 119.9 percent of AMI, and 120 percent of AMI or higher, respectively.

Source: Tabulations of 1991-2003 American Housing Survey.

The high proportion of single earner households among low-income buyers is not surprising—it is to be expected that households with single earners will have lower incomes than those with two. But it also highlights an important challenge for this group—with only a single earner to rely on the household will have less ability to respond to a crisis, such as the loss of a job or a health problem in the family. These households also have fewer adults in the household to share the burden of maintaining the home. In part for these reasons, these households are more likely to be found among renter households. Among recent low-income renters, 59 percent were headed by a single adult, while only 24 percent were headed by married couples.

In terms of race and ethnicity, low-income first-time homebuyers include a higher share of minorities than the upper-income groups. Non-Hispanic whites account for about three quarters of both moderate- and high-income buyers, compared to two thirds of low-income buyers. Blacks and Hispanics each account for 14 percent of low-income buyers, compared to 10 percent or less of the

other two income groups. Minorities account for a greater share of low-income first-time buyers than they do of all households, although they account for even higher shares of low-income recent-mover renters.

At other points in this chapter we will make comparisons between the housing choices of low-income first-time buyers and low-income recent renters. The demographic differences between these groups evident in Exhibit 3—specifically, that renters are both younger and older, have fewer married couple households, and have a higher share minority—will account for some of the differences in housing choices made. While both groups have income levels below 80 percent of area median incomes, renters also have lower incomes than owners. Across the period studied, the average income among low-income recent mover renters is 38 percent of area median income, compared to an average of 49 percent among low-income first-time buyers. In short, low-income first-time buyers are not perfectly comparable with low-income renters. Nonetheless, some of the differences in housing choices between these groups does reflect differences in the housing choices available in rental and homeowner markets.

Exhibit 4 presents further information on the characteristics of first-time homebuyers by race and ethnicity. One notable difference between minorities and whites is that first-time minority buyers tend to be older than whites. While only 30 percent of white buyers are age 35 or older, 52 percent of blacks, 45 percent of Hispanics, and 48 percent of “Other” minorities are in these older age categories. The fact that minorities enter homeownership at later ages than whites means that they have less time to accumulate wealth and realize the other benefits of homeownership.

There are also notable differences in the distribution of household types by race-ethnicity. Compared to whites, first-time black homebuyers are less likely to be married (45 versus 58 percent) and more likely to be a single parent (41 versus 28 percent). Thus, black first-time buyers are less likely to have two earners to support the household. In contrast, compared to whites, Hispanics and other minorities are more likely to be married couples with children (52 and 46 percent, respectively, versus 31 percent) and less likely to be in single person households (9 and 10 percent, respectively, versus 21 percent). While these minorities groups are more likely to have two earners supporting the household, they are also more likely to have children, which increases non-housing costs and may make it more difficult to meet unexpected financial demands.

Finally, Exhibit 4 also presents information on the distribution of each racial-ethnic group by income. Both blacks and Hispanics are more likely than whites to be low-income, with about half of first-time buyers in this category compared to 37 percent of whites. Other minorities have a similar income distribution to whites.

**Exhibit 4**  
**Selected Demographic Characteristics of First Time Homebuyers by Race-Ethnicity, 1989-2003**

Characteristic	First Time Homebuyers			
	White	Black	Hispanic	Other
<b>Age of Head</b>				
25 or younger	13%	6%	11%	9%
25 to 34	56%	42%	44%	44%
35 to 44	20%	34%	30%	33%
45 or older	10%	18%	15%	15%
<b>Household Type</b>				
Married, No Children	27%	14%	18%	23%
Married with Children	31%	31%	52%	46%
Single Parent with Children	8%	23%	11%	8%
Single Person	21%	18%	9%	10%
Other	13%	14%	9%	14%
<b>Income Category</b>				
Low	37%	50%	52%	37%
Moderate	28%	25%	23%	27%
High	35%	25%	25%	36%

Note: Low-, moderate-, and high-income defined as income less than 80 percent of the area median income (AMI), 80 to 119.9 percent of AMI, and 120 percent of AMI or higher, respectively.

Source: Tabulations of 1991-2003 American Housing Survey.

Exhibit 5 shows trends in the characteristics of low-income first-time buyers before and after 1995 to see to what extent the increase in homeownership rates over this period was associated with changes in the characteristics of first-time buyers.<sup>12</sup> There are two notable trends in the data shown in Exhibit 5. First, there has been a decrease in the share of married couple households and a concomitant increase in the share of single adults, either with or without children. In the period 1989 to 1995, 50 percent of low-income homebuyers were married couples while 38 percent were headed by single adults. By 1995 to 2003 these shares had essentially reversed, with 38 percent headed by married couples and 49 percent headed by single adults. While moderate- and high-income buyers also experienced an increase in the share of single adult households, the rise among these groups was only 3 to 4 percentage points. Thus, it is true that many more low-income first-time buyers consisted of households headed by a single adult.

<sup>12</sup> Grouping the AHS survey years together provides increases the sample of low-income first-time buyers to provide a more accurate depiction of trends.

**Exhibit 5**  
**Trends in Selected Demographic Characteristics of Low-Income First Time Homebuyers, 1989-2003**

<b>Characteristic</b>	<b>1989-1995</b>	<b>1995-2003</b>
<b>Age of Head</b>		
25 or younger	17%	18%
25 to 34	46%	42%
35 to 44	22%	23%
45 or older	15%	17%
<b>Household Type</b>		
Married, No Children	16%	13%
Married with Children	34%	25%
Single Parent with Children	14%	17%
Single Person	25%	32%
Other	11%	13%
<b>Race/Ethnicity</b>		
White	71%	64%
Black	13%	14%
Hispanic	11%	15%
Other	5%	6%

Note: Low income defined as income less than 80 percent of area median income.

Source: Tabulations of 1991-2003 American Housing Survey.

A second notable trend was for a higher share of minorities among low-income first-time buyers. In 1989 to 1995, non-Hispanic whites accounted for 71 percent of these buyers, but since 1995 this share had declined to 64 percent. Much of this increase in the minority share was due to a higher share of Hispanics among low-income first-time buyers, which increased from 11 percent in 1989 to 1995 to 15 percent by 1995 to 2003.

## **Housing Choices of Low-Income Buyers**

Exhibit 6 presents summary information on the housing units purchased by first-time homebuyers by income and racial-ethnic categories during the period from 1989 to 2003. There is relatively little difference in the choice of structure type by race-ethnicity, although blacks are slightly more likely to live in single-family attached units and Hispanics are slightly less likely to live in manufactured housing. There are more significant differences evident by income. Compared to both moderate- and high-income buyers, low-income households are less likely to purchase single-family detached homes and more likely to purchase manufactured homes. This is in keeping with the findings of Belsky and Duda (2002a), who found that manufactured housing played an important role in the boom in low- and moderate-income homeownership during the 1990s. Among low-income buyers, manufactured



**Exhibit 6****Selected Housing Characteristics of First Time Buyers by Income Category 1989-2003**

Characteristic	First Time Homebuyers						Recent-Mover Low-Income Renters	All Households
	Low Income	Moderate Income	High Income	White	Black	Hispanic		
<b>Structure Type</b>								
Single Family Detached	61.3%	73.6%	81.3%	71.8%	68.1%	73.9%	19.5%	62.7%
Single Family Attached	7.4%	8.0%	8.0%	7.4%	12.1%	7.0%	7.9%	6.1%
Multifamily	7.5%	7.4%	7.2%	7.8%	6.7%	8.5%	68.1%	24.8%
Manufactured Home	23.8%	11.0%	3.5%	13.0%	13.0%	10.6%	4.5%	6.4%
<b>Median Square Feet per Occupant</b>	545	570	652	642	527	389	434	662
<b>Units Built in 1970 or Earlier</b>	49.7%	47.4%	40.2%	46.4%	45.3%	49.9%	53.3%	53.4%
<b>Housing Adequacy</b>								
Moderately Inadequate	4.8%	2.7%	2.3%	2.9%	4.5%	6.3%	7.9%	4.6%
Severely Inadequate	2.0%	1.2%	1.1%	1.4%	2.0%	1.5%	3.0%	2.1%
<b>Housing Satisfaction*</b>								
Average	8.1	8.3	8.4	8.3	8.6	8.4	7.4	8.1
Share rated 5 or lower	8.7%	4.6%	3.1%	5.6%	5.0%	6.3%	17.9%	9.3%

Note: Housing satisfaction is rated on a 10-point scale with 10 being the best and 1 the worst.

Source: Tabulations of the 1991-2003 American Housing Surveys.

homes accounted for 23.8 percent of homes purchased, compared to 11.0 percent among moderate-income buyers and 3.5 percent among high-income buyers. One recent study found that low-income owner's satisfaction with the quality of manufactured homes is only slightly lower than owners of traditional homes. Since these homes have much lower costs, the authors conclude that manufactured housing represents a good value for low-income buyers (Boehm and Schlottmann, 2004a). However, the study also notes that the fact that a large share of these homes are on leased land greatly limits the potential for wealth accumulation from these types of units—an issue that will be explored more in Chapter 4.

As noted in the introduction, there is a substantial difference in the types of housing units occupied by first-time homebuyers and renters. Low-income renters are nine times as likely to live in multifamily structures and a third as likely to live in single-family detached housing compared to low-income buyers. While some portion of these differences are undoubtedly related to differences in the desired quantity of housing between these groups, the differences are great enough that some amount is likely to reflect the different opportunities available in the rental and owner-occupied housing markets. Low-income owners clearly are able to obtain a much greater amount of privacy than renters.

In terms of the amount of living space available per resident, low-income first-time buyers do have less space than their higher-income counterparts. The median square feet per occupant for low-income buyers is 549. While this is only slightly lower than the 560 square feet for moderate-income buyers, it is substantially less than the 653 square feet available to high-income buyers. Nonetheless, low-income buyers have 26 percent more living space than recent low-income renters, who have only 439 square feet per occupant.

There are larger differences in the amount of living space per resident by race-ethnicity. While on average white buyers have 642 square feet per occupant, blacks have only 527 square feet and Hispanics have only 389. While black homebuyers still have much more space on average than low-income renters, Hispanics actually have less space per occupant than renters. However, the small amount of space per occupant among Hispanics primarily reflects the larger household sizes among Hispanic owners. The families of Hispanic buyers average 3.7 persons, while white owner families average 2.5 and blacks average 3.1. The homes purchased by Hispanics are also about 10 percent smaller on average than white homes, but it is the larger household sizes that lower the space per occupant so much. Still, Hispanic renters only average 313 square feet per occupant, so homeownership is associated with an increase in living space for Hispanics.

One of the concerns cited about the emphasis on low-income homeownership is that too many buyers are purchasing inadequate housing, which increases housing costs, raises the risk of being subject to financial shocks from unexpected housing problems, and reduces the quality of the living environment enjoyed by residents. Exhibit 6 presents information on the share of buyers purchasing older housing, which might be expected to need more maintenance and generally be of lower quality due to the age of the house. In terms of housing age, low-income buyers are found to be more likely to purchase homes that were built in 1970 or earlier, with 49.7 percent in homes of this age, compared to 47.4 percent of moderate-income buyers and 40.2 percent of high-income buyers. There is less variation in housing age by race-ethnicity. Hispanics have the highest share of older housing at 49.9 percent, compared with 46.4 percent of white first-time buyers in older housing and 45.3 percent of blacks. However, the share of all households living in these older housing units is higher still at 53.4



percent, which is essentially the same as the share of recent-mover low-income renters in older units. Thus, regardless of income or race-ethnicity homebuyers tend to occupy somewhat newer units than either all households or renters.

A more direct measure of housing quality is provided by AHS variables indicating whether a unit is moderately or severely structurally inadequate. It is true that low-income first-time buyers are more likely to live in moderately or severely inadequate units, with an inadequacy rate that is 75 percent higher than for moderate-income buyers and roughly twice the rate among high-income buyers. Nonetheless, the share of low-income buyers in moderately or severely inadequate housing is fairly low as 4.8 percent live in moderately inadequate housing and 2.0 percent live in severely inadequate conditions. Minority homebuyers are more likely to live in inadequate housing than whites, with 4.5 percent of blacks and 6.3 percent of Hispanics in moderately inadequate housing, compared to 2.9 percent of whites. With the exception of Hispanics, these rates are either better than or about the same as the share of all households living in inadequate housing, which suggests that low-income and minority buyers are no worse off than other households. In addition, the level of structural inadequacy is higher among recent-mover low-income renters, with 7.9 percent living in moderately inadequate and 3.0 percent in severely inadequate housing.

A similar pattern is evident with regard to housing satisfaction. As a measure of satisfaction, the AHS asks each respondent to rate their home as a place to live on a 10-point scale, with one being best and 10 being worst. Exhibit 6 shows both the average satisfaction rating and the share of households reporting a level of satisfaction of 5 or lower. Low-income buyers are found to have slightly lower average satisfaction ratings than moderate- or high-income buyers, but have similar levels of satisfaction compared to all households and higher levels of satisfaction compared to recent-mover low-income renters. In terms of the share with low satisfaction ratings, compared to moderate- and high-income buyers low-income buyers are two to three times as likely to rate their satisfaction level as 5 or lower. But the overall share of low-income buyers with low satisfaction is fairly small (8.7 percent) compared to the share of either all households (9.3 percent) or recent-mover low-income renters (17.9 percent) rating their housing this low. There is less difference in housing satisfaction by race-ethnicity, with blacks and Hispanics actually having higher average satisfaction levels than whites, and similar shares of households rating their housing 5 or lower across these three groups.

There is little evidence of any worsening of the quality of housing purchased by low-income buyers over the last decade. In terms of structural adequacy, among low-income buyers the share of units that were either moderately or severely inadequate actually declined from 8.1 percent to 6.2 percent between the 1989-1995 and 1995-2003 periods. Over the same time, the share of inadequate units among recent-mover low-income renters increased from 10.1 to 11.6 percent. There was a slight decline in low-income buyers satisfaction with their homes, but the changes were fairly small. The average rating among low-income first-time buyers dropped from 8.3 to 8.1, while the share of low-income buyers reporting a satisfaction rating of 5 or less rose from 8.4 to 8.9 percent. There were similar changes in satisfaction among recent-mover low-income renters as well.

An obvious deficiency of these tabulations of the AHS data is that they do not account for all of the differences in household characteristics between the groups being compared. Unfortunately, there is a very limited literature that employs multivariate analysis to examine housing outcomes of low-income or minority homebuyers. Of the studies that exist, several examine the issue of how

homeownership affects housing quality. The most recent of these studies is Friedman and Rosenbaum (2004), which uses the 2001 AHS to evaluate whether immigrants and racial-ethnic minorities who achieve homeownership are more likely to experience housing crowding or live in inadequate housing than whites. The study includes household income as an independent variable, and finds that increases in income reduce the probability of experiencing these problems, but the study does not present any estimates of the magnitude of differences between low- and upper-income households. With regard to race-ethnicity, they find that blacks and Hispanics are more likely to experience both crowding and inadequate housing than whites regardless of tenure and so conclude that a move to homeownership does not eliminate these problems for minorities. However, while blacks and Hispanic owners are worse off in these dimensions compared to white owners, the study does not examine the question of whether a move to homeownership reduces the likelihood of minorities experiencing these problems. However, the descriptive statistics presented in the report suggest that this is the case.

An earlier study that examines a similar set of questions is Rosenbaum (1996). Rosenbaum estimates a statistical model to predict the likelihood that a housing unit is structurally inadequate or has abandoned buildings nearby based on the race-ethnicity and socioeconomic status of the occupant, including whether they own or rent the unit. The analysis relies on data for the New York area from both the AHS and New York City's Housing Vacancy Survey. The analysis finds that minorities and lower-income households are more likely to experience both of these problems. However, one of the model's strongest results is that, all else equal, owners are less likely to experience these problems. However, since the study does not interact either race-ethnicity or income with tenure it does not shed light on whether an owner's lower likelihood of experiencing these problems varies by either race-ethnicity or income.

While recent-mover low-income renter households are shown in the exhibits presented in this section to provide an indication of whether a move to homeownership improves housing conditions for low-income homebuyers, since we do not control for the many differences between these groups it is not clear if this is a fair comparison. There have been a few studies that have examined the factors associated with housing satisfaction controlling for differences in housing and household characteristics. These studies consistently find that homeownership increases housing satisfaction even after controlling for these other factors (Kinsey and Lane, 1983; Lam, 1985; and Danes and Morris, 1986). While these studies do include income as an explanatory variable, they do not attempt to evaluate whether the impact of homeownership on housing satisfaction varies with income. One study (Kinsey and Lane) does have an explicit focus on differences between whites and blacks in the factors explaining housing satisfaction. This study finds that homeownership is associated with greater increases in housing satisfaction for blacks.

Finally, one recent study provides some insight into the question of how housing consumption changes when low-income households become homeowners. Cummings, DiPasquale, and Kahn (2002) examine the pre- and post-move housing characteristics of participants in homeownership programs run by the City of Philadelphia. The main focus of the paper is a program that was designed to promote neighborhood revitalization by constructing deeply subsidized owner-occupied housing units in severely distressed neighborhoods. Since the program provided homeowners with per unit subsidies in the range of \$50,000 to \$100,000 it is not surprising that this group experienced significant increases in housing quality after moving. But the study also found that participants in a

program that provided a small subsidy (\$1,000) to low-income buyers in the City of Philadelphia also experienced significant improvements in housing quality. The new units were larger, more likely to have a garage and to be in single-family structures. Overall, 75 percent of survey respondents reported that the new home was better than their previous one. Thus, this study provides limited evidence that a move to homeownership is often associated with an improvement in housing quality.

## Neighborhood Characteristics

Exhibit 7 summarizes the information available from the AHS on the neighborhood choices of first-time homebuyers. The top portion of the exhibit provides information on the prevalence of neighborhood conditions that are indicators of blight, a lack of public services, or property uses that are less well-suited to residential areas.<sup>13</sup> In general, low-income and, to a greater extent, minority first-time buyers do experience worse neighborhood conditions than higher-income buyers. However, the incidence of most of these conditions is somewhat rare. Low-income buyers are more likely to have abandoned or vandalized properties nearby and to have trash or junk on the street, but in both cases less than three percent of buyers experience these conditions. Blacks are more likely to have abandoned or vandalized properties nearby, with 5.7 percent exposed to this condition. Bars on windows, an indicator of greater potential for theft, are evident in 6.4 percent of low-income buyers' neighborhoods, compared to about 4 percent of moderate- and high-income buyers' neighborhoods. This condition is much more common among minorities, with 11.3 percent of blacks and 15.7 percent of Hispanics exposed to these conditions, compared to only 2.4 percent of whites.

The most common issue in low-income buyers' neighborhoods is the presence of commercial or industrial properties. These non-residential property uses are evident in about one in five cases for low-income and black buyers and nearly one in four of Hispanic buyers. But these mixed-use neighborhoods are also fairly common in the neighborhoods where white (15.4 percent), moderate-income (16.8 percent) and high-income (14.6 percent) buyers are located. Again, low-income buyers fare better in all of the dimensions compared to low-income recent-mover renters and have shares that are fairly similar to those experienced by all households.

Similar to the question on housing satisfaction, the AHS also asks respondents to rate their neighborhood on a scale of 1 to 10, with 10 being best and 1 the worst. Exhibit 7 shows the average neighborhood rating and the share of households reporting a neighborhood rating of 5 or lower. In terms of average ratings, there is very little difference across the first-time buyer groups by either income or race-ethnicity, ranging only from a low of 8.0 on a 10-point scale among low-income buyers to a high of 8.2 among moderate- and high-income and black buyers. However, the average neighborhood rating does mask some variation evident in the share of households rating their neighborhood at 5 or lower. Among low-income buyers, 11.7 percent rated their neighborhood 5 or lower, compared to 7.7 percent of moderate-income and 6.2 percent of high-income buyers. Minorities also are more likely to give a low rating to their neighborhoods, with 9.6 percent of blacks

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<sup>13</sup> These neighborhood characteristics are recorded by the field staff implementing the AHS. The questions ask whether the indicated characteristic is evident within 300 feet of the subject property.

**Exhibit 7**

**Selected Neighborhood Characteristics of First Time Buyers by Income Category 1989-2003**

Characteristic	First Time Homebuyers						Recent-Mover Low-Income Renters	All Households
	Low Income	Moderate Income	High Income	White	Black	Hispanic		
<b>Neighborhood Blight Within 300 Feet</b>								
Abandoned/Vandalized Properties	2.6%	1.5%	1.0%	1.3%	5.7%	1.7%	3.9%	1.8%
Bars on Windows	6.4%	4.1%	4.2%	2.4%	11.3%	15.7%	9.7%	5.9%
Trash/Junk on Street	2.5%	1.2%	1.2%	1.4%	2.3%	2.9%	4.1%	2.1%
Commercial/Industrial Properties	20.2%	16.8%	14.6%	15.4%	21.9%	24.6%	37.7%	20.1%
<b>Neighborhood Satisfaction*</b>								
Average	8.0	8.2	8.2	8.1	8.2	8.1	7.3	8.0
Share rated 5 or lower	11.7%	7.7%	6.2%	8.5%	9.6%	10.3%	21.6%	12.3%
<b>Metropolitan Location</b>								
Central City	30.4%	27.1%	26.7%	24.5%	39.5%	40.6%	46.6%	30.6%
Suburb	45.9%	54.7%	55.6%	52.5%	43.8%	48.7%	36.6%	47.3%
Non-metropolitan	23.8%	18.2%	17.7%	23.1%	16.6%	10.7%	16.7%	22.1%

Note: Neighborhood satisfaction is rated on a 10-point scale with 10 being the best and 1 the worst.

Source: Tabulations of the 1991-2003 American Housing Surveys.

and 10.3 percent of Hispanics giving a rating of five or lower, compared to 8.5 percent of whites. But once again, all buyer groups compare favorably with low-income recent-mover renters, who on average only rate their neighborhoods at 7.3 and 21.6 percent rate the neighborhood at 5 or lower. Even compared to all households, recent buyers fare well, as the average across all households is a rating of 8.0 and the 12.3 percent rate their neighborhood at 5 or lower.

Finally, Exhibit 7 also compares the distribution of these households between central cities, suburbs, and non-metropolitan areas. While there is great variation in neighborhood quality within each of these geographic categories, in general, neighborhoods in central cities are thought to be more likely to have lower quality public services and more land uses that are less well-suited for residential areas. Central cities also tend to have lower homeownership rates than suburban areas, and so owners in these areas may be less likely to realize benefits from higher concentrations of owner-occupants. As shown, low-income buyers are less likely to live in suburban areas than either moderate- or high-income buyers (46 percent versus 55 to 56 percent), but this difference is split between a greater propensity to live in both central cities and non-metropolitan areas. There is little difference between the geographic location of low-income buyers and all households. In contrast, low-income renters are much more likely than low-income buyers to live in central cities, with 47 percent in cities, but only 30 percent of low-income buyers in these areas. Both blacks and Hispanics are much more likely to buy in central cities than whites and less likely to buy in non-metropolitan areas. Nonetheless, the suburbs are still the most common destination for first-time black and Hispanic homebuyers, with 44 percent of blacks and 49 percent of Hispanics choosing to buy in these areas.

There are a small number of studies that have used Home Mortgage Disclosure Act (HMDA) data to identify the characteristics of neighborhoods where low-income and minority homebuyers are purchasing homes. It is not possible to identify first-time homebuyers from the HMDA data, but because these data identify the census tract where homes were purchased it provides more precise information on the neighborhood choices of homebuyers than other data sources. These studies shed light on the extent to which low-income and minority buyers are gaining access through homeownership to higher income neighborhoods and whether the location choices of minorities are helping to reduce racial segregation.

Stuart (2000) examined home purchases in the Boston metropolitan area from 1993 through 1998 and observes that while a significant share of blacks and Hispanics did purchase homes outside of the city of Boston, these minorities were still much more likely to purchase in the central city. While 91 percent of whites bought in suburban areas, only 41 percent of blacks and 61 percent of Hispanics did so. Importantly, half of the blacks and Hispanics who moved to the suburbs were found in just seven communities. While the reasons for such constrained choices are not clear—that is, whether it reflects discriminatory treatment, limits due to housing affordability, or preferences for specific communities—the result may be the recreation of racially segregated living patterns in suburban areas. In considering the location choices of low-income buyers, Stuart found that while low-income buyers were distributed across communities of all income levels, they were more likely to purchase in low-income communities (60 percent) than middle- (47 percent) or upper-income (34 percent) buyers. Furthermore, he found that in suburban areas low-income whites were as segregated from upper-income whites as blacks were from whites.

Immergluck (1999) also uses HMDA data to examine home purchase patterns by blacks in the Chicago area. He also finds that black homebuyers were concentrated in a relatively small number of census tracts. In the 1995 to 96 period, 45 percent of black homebuyers located in areas that were 75 percent black or more and 50 percent of all black homebuyers were concentrated in 5 percent of all census tracts. Thus, like Stuart, he finds that black homebuying choices seem to reinforce patterns of racial segregation. Immergluck and Smith (2001) also use HMDA data to examine patterns of home purchase by different income groups in Chicago. They find that there was significant growth in homebuying activity by low-income households in suburban areas of Chicago between 1993-1994 and 1999-2000. While these suburban buyers were mostly concentrated in older suburbs near the core and outlying suburbs, there was nonetheless a strong movement of low-income buyers to suburban areas. At the same time, the number of upper-income homebuyers increased rapidly in the City of Chicago, but, again, concentrated in a few specific neighborhoods. Nonetheless, Immergluck and Smith do find that there was some evidence of greater income mixing by homebuyers in the Chicago during the 1990s.

Finally, Belsky and Duda (2002a) also use HMDA data for the period 1993 to 1999 to examine home purchase activity by low-income and minority households in nine metropolitan areas. They also find that large shares of low-income and minority homebuyers are purchasing in the suburbs. Significant shares of low-income buyers were found to have purchased homes in moderate-income areas, leading the authors to conclude that homebuying activity was contributing to some income mixing, although there was a tendency for these households to be concentrated closer to the urban core than upper-income households. Black purchases were also more clustered near the urban core and tended to be concentrated in predominantly minority areas, leading the authors to conclude that homebuying by blacks was not contributing materially to lowering levels of racial segregation.

In short, studies examining home purchase activity using HMDA data come to mixed conclusions regarding home purchases by low-income and minority households. While buyers are gaining access to suburban areas, there is a tendency for these buyers to locate in areas with greater concentrations of low-income and/or minority households. In short, as Belsky and Duda conclude, “whether the move to low-income homeownership has been associated with a move to opportunity remains an open question” (Belsky and Duda, 2002a, page 52).

Another study that shed some light on the types of neighborhoods where minorities are buying homes is Herbert and Kaul (2005), who use decennial census data at the census tract level for 1990 and 2000 to examine the characteristics of neighborhoods where minority homeownership rates increased the most during the 1990s. This study reaches similar conclusions as those using HMDA data. In general they find that areas with the greatest gains in minority homeownership rates were more likely to be in suburban areas and were marked by higher incomes and house values and lower concentrations of minorities than areas where there was little change in minority homeownership rates. These findings suggest that the movement to homeownership is associated with a move to areas of higher socioeconomic status and is supportive of greater racial integration. Still, the findings also indicate that minorities live in areas with lower incomes and house values and higher minority concentrations than the areas where whites live.

However, while cross-sectional comparisons may show that on average low-income and minority buyers reside in better neighborhoods than low-income renters, this does not mean that individual

buyers actually improved their neighborhood conditions as a result of their move to homeownership. It may be that among low-income households, those who achieve homeownership already resided in somewhat better neighborhoods than other low-income renters. A more informative way to evaluate whether a move to homeownership is associated with an improvement in neighborhood conditions is to compare the characteristics of neighborhoods where low-income buyers lived prior to buying their home to the area where they purchased. Several recent studies provide results from this type of analysis.

Reid (2004) analyzes data from the Panel Study of Income Dynamics (PSID) covering a period from 1976 to 1993, using a special version of these data that includes characteristics from the decennial censuses for 1980 and 1990 for the census tracts where respondents reside. The panel nature of the PSID allows her to identify when renters become homeowners and to then compare the characteristics of the neighborhoods where they lived before and after purchasing a home. The characteristics examined include those related to demographics, economic status, and housing market conditions. Reid groups buyers into three income groups (low, moderate, and high)<sup>14</sup> and two racial groups (non-Hispanic white and all minorities). Reid concludes that the move to homeownership results in essentially no change in neighborhood conditions for low-income whites, but fairly sizeable improvements for low-income minorities. There are also small positive changes for moderate- and high-income whites and minorities. For all groups except low-income whites, the move to homeownership does result in an increase in the neighborhood homeownership rate. Low-income minorities also experience declines in the shares of female-headed households, people in poverty, households with welfare income, and unemployed adults.

Tempering the positive finding that minorities of all income levels experience some improvement in neighborhood conditions when buying a home is the fact that compared to whites of the same income category, minorities live in areas with lower economic status, fewer homeowners, and lower property values. Thus, while a move to homeownership improves neighborhood conditions for minorities, it by no means results in the same level of economic status as whites of similar income levels.

Another recent study that examines the before and after-purchase neighborhoods of low-income homebuyers is Turnham et al. (2004). This study gathered data on 788 low-income homebuyers assisted through the HOME program in 33 jurisdictions around the country during the period from 1993 to 2003. All of the homebuyers assisted through the HOME program have low incomes, with 74 percent of participants having between 50 and 80 percent of area median income. With a 55-percent share, minorities account for a higher share of program participants than they do of all low-income buyers.

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<sup>14</sup> Reid's income classification is somewhat unique. The low-income category includes renters whose income is less than 80 percent of the area median income in every year they are observed up through the time they purchase a home. Moderate-income renters are those whose income exceeds the 80 percent threshold in at least one year through the time when they purchase the home, but whose income is not consistently above the area median income. High-income renters have income that exceeds the area median income every year they are observed through the time they purchase their home.

The study found that a large majority of buyers (70 percent) moved at least one mile from their previous residence and so were likely to have changed neighborhoods. Of these, 47 percent moved between one and five miles, and 24 percent moved more than five miles.

This study did find some indications of increases in the housing status of the post-move neighborhoods. Homeownership rates were slightly higher (58 versus 54 percent), as were the share of housing in single-family units (52 versus 48 percent). But by a variety of other measures of housing conditions, including age, vacancy rates, and values, there was essentially no difference. Similarly, the pre- and post-move neighborhoods were remarkably similar in a variety of economic and demographic characteristics, including poverty rates, share of households receiving public assistance, household incomes, and share of adults with some college.

Turnham et al. also compare the characteristics of the neighborhoods to the broader jurisdiction (either city or county) where they are located. In general, neighborhoods where low-income buyers purchased are somewhat below average on a number of socioeconomic indicators. For example, the neighborhoods have lower household incomes, lower house values, and lower education levels than the broader jurisdictions. However, the neighborhoods are by no means distressed. The authors also point out the average incomes in the neighborhood are much higher than the average income of the HOME-assisted buyers. While the average buyer's income was about \$29,000, the average neighborhood income was \$42,000. The study concludes that while the move to homeownership did not result in improved neighborhood conditions, it is also the case that the neighborhoods were generally decent places to live, with moderate-income levels, a high share of working families and little welfare dependence, and racially diverse.

A similar type of analysis was conducted by Turnham et al. (2003) on a small sample (84) of homebuyers using housing vouchers in 12 markets around the country and found very similar results. The profile of families assisted through the housing voucher program is similar to those assisted by HOME. The typical buyer had income of less than \$35,000, half of the participants were minority, and most were single-parent households. As with the study of the HOME program participants, most buyers (61 percent) were found to have moved at least one mile from their previous residence, with 21 percent moving 5 miles or more. However, half of the buyers who did not move more than a mile purchased the same unit they had rented—and so experienced no change in either housing or neighborhood as a result of the purchase. For the most part, neighborhoods where they moved were similar to where they started, with only slight improvement evident in various socioeconomic indicators. There was a slight increase in neighborhood homeownership rates (60 versus 57 percent) and in the share of homes in single-family structures (54 versus 51 percent). Poverty rates were also slightly lower (16 versus 18 percent) as was the share of single female-headed households (10 versus 11 percent).

The study also conducted a windshield assessment of 32 of the properties and their surrounding neighborhoods. For the most part, the houses purchased appeared to be in better shape than surrounding properties, exhibiting better exterior condition of the structure and surrounding grounds. However, the differences were not large. For example, all of the purchased units were deemed to have good or excellent outside housekeeping evident, but 90 percent of surrounding properties were similarly rated. Overall, a majority of the neighborhoods where buyers had purchased were rated as excellent (38 percent) or good (47 percent). In short, as with the study of the HOME program,



participants in the voucher homeownership program were not found to have experienced a significant improvement in neighborhood conditions, but the areas where they bought were generally stable, good quality neighborhoods.

Finally, Cummings, DiPasquale, and Kahn (2002) examine the pre- and post-move neighborhood characteristics of participants in homeownership programs run by the City of Philadelphia. The main focus of the paper is a program that was designed to promote neighborhood revitalization by constructing deeply subsidized owner-occupied housing units in severely distressed neighborhoods. Not surprisingly, the study found that this group experienced significant declines in neighborhood quality after moving. But the study also reports on the pre- and post-move neighborhoods of participants in a program that provided a small subsidy (\$1,000) to low-income buyers in the City of Philadelphia. The authors find that participants in this program experienced significant improvements in neighborhood characteristics in a number of dimensions, including household income, house values, and homeownership rates.

Taken as a whole, the literature that has examined the neighborhood choices of low-income and minority homebuyers paints a somewhat mixed picture. For the most part, there is little evidence that a move to homeownership by low-income households is associated with significant improvements in neighborhood conditions. Although nor is there evidence that low-income homebuyers are being relegated to distressed neighborhoods. For the most part, the areas with higher concentrations of low-income buyers are suburban areas with moderate incomes. On the other hand, there are some indications that minority homebuyers may fare better, with the national analysis by Reid and the study of a Philadelphia homeownership program by Cummings, DiPasquale, and Kahn both finding that minorities realized much more substantial neighborhood improvements with a move to homeownership. But the downside of this finding is that even with these improvements, the socioeconomic status of neighborhoods where minority owners are locating is lower than for whites of comparable incomes.

Perhaps the most important concerns about the neighborhood choices of low-income and minority buyers is what implications these choices have for the likelihood of realizing the financial and social benefits associated with homeownership. These issues will be explored in depth in Chapters 4 and 5.

## **Housing Costs**

Exhibit 8 presents the distribution of housing cost burdens across first-time buyers and other household types. Housing cost burdens measure the share of income devoted to housing, including rent or mortgage payments, utilities, property insurance, and property taxes. Traditionally, housing is considered affordable if it accounts for less than 30 percent of income. Housing cost burdens of between 30 and 50 percent are considered moderate, while those of 50 percent or more are severe. Exhibit 8 further breaks down those with moderate cost burdens further into those that pay between 30 and 39 percent of income for housing and those that pay between 40 and 49 percent. Housing cost burdens are shown for the first half of the 1990s and for the 1997 to 2003 period to identify trends in cost burdens between these periods.

**Exhibit 8**

**Trends in Housing Cost Burden for First Time Buyers and Other Households**

(Share of Households Spending Given Percent of Income on Housing)

Time Period/Housing Burden Category	First Time Homebuyers						Recent Mover Low-Income Renters	All Households
	Low Income	Moderate Income	High Income	White	Black	Hispanic		
<b>1989-1995</b>								
Less than 30%	52.7%	82.9%	94.2%	76.7%	71.0%	63.5%	42.4%	72.5%
30-39.9%	20.9%	12.9%	5.4%	13.8%	9.3%	15.1%	19.7%	11.1%
40-49.9%	11.9%	3.4%	0.4%	5.1%	8.4%	9.4%	11.1%	5.3%
50% or higher	14.5%	0.7%	0.0%	4.4%	11.2%	11.9%	26.7%	11.1%
<b>1995-2003</b>								
Less than 30%	46.3%	78.4%	93.1%	74.1%	68.4%	54.3%	42.0%	71.5%
30-39.9%	20.9%	15.0%	5.0%	12.9%	14.1%	19.5%	18.9%	10.7%
40-49.9%	12.6%	4.1%	1.2%	5.6%	7.5%	10.8%	11.0%	5.3%
50% or higher	20.1%	2.4%	0.6%	7.4%	9.9%	15.3%	28.0%	12.4%
<b>Change</b>								
Less than 30%	-6.3%	-4.5%	-1.0%	-2.6%	-2.6%	-9.2%	-0.4%	-1.0%
30-39.9%	0.0%	2.1%	-0.4%	-0.9%	4.8%	4.4%	-0.8%	-0.4%
40-49.9%	0.7%	0.7%	0.8%	0.4%	-0.9%	1.4%	-0.1%	0.0%
50% or higher	5.6%	1.7%	0.6%	3.1%	-1.3%	3.4%	1.3%	1.3%

Source: Tabulations of the 1991-2003 American Housing Surveys.

As shown, in the first half of the 1990s low-income buyers were much more likely to face both moderate and severe housing cost burdens than either moderate- or high-income buyers. In the 1991 to 1995 period, 32.8 percent of low-income buyers experienced moderate payment burdens, compared to 16.3 percent of moderate-income buyers and 5.8 percent of high-income buyers. The differences in the shares of buyers with severe payment burdens were even starker. While 14.5 percent of low-income buyers paid more than 50 percent of their income for housing, only 0.7 percent of moderate-income and no high-income buyers faced this degree of burden. While not as extreme as the differences by income, minorities, particularly Hispanics, were also more likely to face housing cost burdens than whites. During this period, 24.5 percent of Hispanics first-time buyers had moderate payment burdens compared to 17.7 percent of blacks and 18.9 percent of whites, while 11.9 percent of Hispanics and 11.2 percent of blacks had severe payment burdens compared to 4.4 percent of whites.

Importantly, the share of first-time buyers facing severe housing cost burdens increased considerably after 1995, particularly among low-income buyers. In the period after 1995, 20.1 percent of low-income buyers had a severe housing cost burden, a 5.6 percentage point increase from the first half of the 1990s. While the share of households facing moderate and severe payment burdens increased for both moderate- and high-income buyers over the period, the increases were much smaller. Among minorities, Hispanics experienced the largest increases in the share of households with both moderate (5.8 percent) and severe (3.4 percent) payment burdens. As a result, in the latter half of the 1990s, Hispanics had payment burdens that were nearly as high as those among low-income buyers. Whites also saw a jump in the share of households with severe payment burdens (3.1 percent), while blacks had an increase in the share with moderate payment burdens (3.9 percent). Compared to whites, blacks were somewhat more likely to face both moderate (21.6 versus 18.5 percent) and severe (9.9 versus 7.4 percent) payment burdens.

For the most part, low-income renters face higher payment burdens than owners. In the period prior to 1995, low-income recent-mover renters were much more likely to face severe payment burdens, with 26.7 percent renters in this category compared to only 14.5 percent of low-income buyers. However, while the incidence of severe payment burdens was rising sharply for low-income buyers, there was only a small rise for low-income renters. In addition, while the share of low-income buyers with moderate payment burdens increased by 0.7 percentage points, the share of low-income renters in this category declined by 0.9 percentage points. As a result, in the period after 1995 more low-income buyers than renters faced a moderate payment burden (33.5 percent versus 29.9 percent), while the difference in shares with severe payment burdens narrowed to just 7.9 percentage points (20.1 percent versus 28.0 percent).

In short, the increase in low-income homeownership does appear to have been associated with fairly sizeable increases in the incidence of severe payment burdens among first-time buyers. Among minorities, the share of buyers with high payment burdens is most evident among Hispanics. The relaxation of mortgage underwriting requirements, which has been credited with helping to fuel the rise in homeownership rates, may also have contributed to these increases in severe payment burdens. While most mortgage products in the past required that housing costs (including the mortgage payment and property insurance and taxes) generally could not exceed about 30 percent of income, new products designed for low-income borrowers now commonly allow ratios in the upper 30s, while subprime products may allow even higher payment burdens. When the cost of utilities are added to

other housing costs, these more flexible guidelines can result in total payment burdens of 50 percent or more. Whatever the cause, it is notable that one in five low-income first-time homebuyers were paying more than 50 percent of their income for housing in the period since 1997, as were one in seven Hispanic buyers.

## Mortgage Financing Choices

The mortgage terms selected by homebuyers can have important implications for their experience as owners both in terms of long-run mortgage costs and the degree of risk of being unable to meet future mortgage obligations. One of the most important mortgage characteristics is the interest rate. Higher interest rates raise the monthly costs of homeownership and also decrease the share of mortgage payments that go toward principal in the early years of the mortgage, slowing equity accumulation. A notable characteristic of the mortgage market during the 1990s was the development of the subprime mortgage market, which gave borrowers who might otherwise not have qualified for a loan an opportunity to obtain mortgage credit—but at the cost of higher interest rates. Subprime lending has consistently been found to be disproportionately concentrated among minority and low-income borrowers and neighborhoods (see Apgar and Herbert (2005) for a review of this literature).

As the market developed, most subprime loans were used to refinance existing mortgages. As a result, most studies of subprime lending patterns have focused on this segment of the market. However, the share of home purchase mortgages has been growing steadily. In 1993, subprime lenders accounts for a little more than 1 percent of all home purchase loans (Joint Center for Housing Studies, 2004). By 2001 this share had increased to 6.5 percent and by 2002 it was more than 9 percent.<sup>15</sup> As with refinance loans, subprime purchase loans are more common among minority borrowers generally, and particularly common in low-income, minority neighborhoods. In 2001, subprime lenders accounted for 5.1 percent of purchase mortgages for whites, compared to 9.6 percent for minorities. In low-income minority communities, 13.4 percent of all purchase mortgages were made by subprime lenders, compared to 8.9 percent in high-income predominantly minority areas and 7.5 percent in low-income predominantly white areas (Joint Center for Housing Studies, 2004). Given the sharp rise in overall purchase lending volumes by subprime lenders in 2002, these shares are likely to be even higher now.

The increase in subprime purchase lending to minorities and, to a lesser extent, to low-income borrowers would be expected to be evident in the share of buyers obtaining high interest rate loans. The top portion of Exhibit 9 presents information on average interest rates for first-time buyers by income and race-ethnicity for the periods before and after the 1995 survey.<sup>16</sup> In the period up through the 1995 survey there was a clear tendency for lower-income buyers to face higher interest rates. The average interest rate for low-income buyers was 8.81 percent, compared to 8.48 percent for moderate-

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<sup>15</sup> The share for 2001 is from the Joint Center for Housing Studies (2004) while the 2002 share is from [http://www.huduser.org/datasets/manu/subprime\\_2003\\_distributed.xls](http://www.huduser.org/datasets/manu/subprime_2003_distributed.xls).

<sup>16</sup> Recent first-time buyers in each survey are those who purchased their home since the previous AHS survey two years earlier. As a result, the interest rates reported by buyers in any one survey reflect rates prevailing during the previous two-year period. For example, interest rates obtained by recent buyers in the 1991 AHS reflect interest rates from the 1989 to 1991 period.

income buyers and 8.46 percent for high-income buyers. To put these differences in perspective, assuming a \$100,000 mortgage, the higher interest rates faced by low-income buyers is equivalent to paying about \$25 more per month than higher-income buyers. There were smaller differences in average interest rates by race, with the average interest rate obtained by whites of 8.54 percent, compared to 8.72 for blacks and 8.34 for Hispanics, who somewhat surprisingly had the lowest average interest rate of the three groups.

**Exhibit 9**  
**Trends in Interest Rates by Income and Race-Ethnicity for First Time Homebuyers 1989-2003**

Income or Race-Ethnicity	1989-2003	1989-1995	1995-2003	Change
<b>Average Interest Rates</b>				
Low Income	8.02	8.81	7.43	-1.39
Moderate Income	7.86	8.48	7.39	-1.09
High Income	7.76	8.46	7.24	-1.22
White	7.86	8.54	7.38	-1.16
Black	7.90	8.72	7.51	-1.22
Hispanic	7.72	8.34	7.47	-0.87
<b>Share of Buyers with High* Interest Rates</b>				
Low Income	11.4%	12.9%	10.5%	-2.4%
Moderate Income	8.3%	6.8%	9.4%	2.6%
High Income	6.3%	4.6%	7.3%	2.7%
White	8.7%	8.7%	8.7%	0.1%
Black	9.2%	8.7%	9.4%	0.7%
Hispanic	10.9%	8.4%	11.9%	3.6%

Notes:

"High Interest Rate" defined as being more than one standard deviation above the mean for the AHS survey period. A standard deviation ranges from 1.32 to 1.70 over the seven survey periods.

Source: Tabulations of 1991-2003 American Housing Surveys.

The most notable aspect of the trends in average interest rates is the general decline that occurred in the second half of the decade. For all groups except Hispanics, average interest rates declined by more than a full percentage point. Interestingly, average interest rates declined more among low-income buyers, helping to substantially narrow the difference in average rates between low- and upper-income buyers. This trend suggests that the expansion of affordable mortgage lending products did contribute to a reduction in interest rates available to lower-income buyers. Blacks also experienced a slightly larger decline in average interest rates than whites, narrowing the difference in average interest rates by these groups to only 0.13 percentage points. Hispanics, however, experienced much smaller declines in average interest rates. But since Hispanics had started the period with lower average interest rates, in the second half of the decade there was little difference in the average rates obtained by these two groups—7.47 versus 7.38.

Given that subprime lending expanded rapidly in the second half of the 1990s and that this lending has been disproportionately concentrated among minority and low-income borrowers, it is somewhat surprising that the trends in average interest rates did not indicate a widening of differences by income or race-ethnicity.<sup>17</sup> In order to examine whether trends in average interest rates may mask the extent to which the share of borrowers facing very high interest rates was rising, loans were identified as having “high” interest rates if the rate was more than one standard deviation above the mean interest rate for any survey period.<sup>18</sup> By this measure there was only a slight increase in the overall share of home purchase mortgages that were high interest rate. During the 1989 to 1995 period, 8.6 percent of mortgages were high interest rate, compared to 9.1 percent from 1995 to 2003.

The bottom panel of Exhibit 9 presents the share of buyers with high interest rate loans. Interestingly, while high cost loans are more common among low-income buyers, both moderate- and high-income buyers experienced larger increases in the share of high cost loans in the late 1990s. While there was a decline of 2.4 percentage points in the share of low-income buyers using high-cost loans, moderate- and high-income buyers experienced an increase of 2.6 and 2.7 percentage points respectively. In the 1995-2003 period, roughly one in ten of both low- and moderate-income first-time buyers used high cost loans, while about one in fourteen high-income buyers used these loans. One possible explanation for this pattern is that the expansion of conventional lending to low-income buyers offset the growth in subprime lending to lower the share of buyers obtaining high cost loans. Since moderate- and high-income buyers would not have benefited as much from the expansion of affordable lending products, the growth of subprime lending may be more evident among these groups.

Among racial-ethnic groups, there was little difference in the early 1990s in the share of buyers obtaining high cost loans. While the share of whites obtaining high cost loans was essentially unchanged over the decade, the share of blacks with these loans increased by 0.7 percentage points and the share of Hispanics increased by 3.6 percentage points. This result is in keeping with findings from the literature on subprime loan usage that minorities are much more likely than whites to borrow through subprime lenders, but the result is at odds with the literature in that subprime lending is more common among blacks than Hispanics.

The general conclusion from this analysis of AHS data – that there was not a significant tendency for low-income and minority homebuyers to face higher interest rates – seems at odds with the fact that

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<sup>17</sup> One reason why the increase in subprime lending may not be evident from these data is that higher borrowing costs come both in higher origination costs as well as higher interest rates. Since the AHS does not gather information on origination costs, we cannot assess whether there are differences among borrower groups in these costs.

<sup>18</sup> The variation in interest rates observed across borrowers in any survey period will reflect both variation in interest rates over the two-year period covered by the survey as well as variation in rates across borrowers at any particular point in time. Unfortunately, the AHS does not capture the month when mortgages are originated and so it is not possible to standardize rates by comparing them to some prevailing benchmark for the month of origination. Across the seven survey periods, the standard deviation of interest rates ranges from 1.32 to 1.70, with greater variation in the 1991 and 1993 survey periods when interest rates were falling more rapidly.

subprime lenders share of home purchase mortgages increased from 1.3 percent in 1993 to 6.5 percent by 2001 (Joint Center for Housing Studies, 2004).<sup>19</sup> However, it is also consistent with two recent studies that have examined differences by race and ethnicity in the interest rates obtained by homeowners. Both Susin (2003) and Boehm, Thistle, and Schlottmann (2005) analyze data from the AHS and find that there is no significant difference in interest rates on home purchase mortgages by race and ethnicity once differences in other available risk factors are accounted for. These same studies do, however, find that blacks pay significantly higher interest rates upon refinancing. These results suggest that the simple tabulations of the AHS showing little difference in home purchase interest rates by race and ethnicity may be a fair depiction of market experience—at least through 2003. The fact that low-income and minority buyers have fared better in the purchase mortgage market than the refinance market may also be a reflection of the fact that the emphasis of affordable lending programs has been almost exclusively for home purchase. This may be an indication that greater attention is needed on developing efforts aimed at assisting owners in the refinance market.

Another important characteristic of the initial mortgage terms is the loan-to-value ratio (LTV). While higher LTVs reduce the amount of savings buyers need to qualify for a mortgage, making it easier for low-income households to purchase a home, they also increase the risk that small fluctuations in home prices will erase the buyers' equity in the home. The greater prevalence of mortgage products that allow buyers to put down less than five percent of the purchase price has been cited as one of the factors contributing to the increase in low-income homeownership since the early 1990s. Exhibit 10 shows the distribution of LTVs among first-time homebuyers by income and racial-ethnic categories both for the entire period from 1989 to 2003 and the change in the distribution between the period before 1995 and the years since 1995. As would be expected, low-income buyers generally have higher LTVs than higher-income buyers. Over the entire period, 24.2 percent of low-income buyers had LTVs over 95 percent, compared to 21.0 percent of moderate-income and 14.2 percent of high-income buyers. Nonetheless, a fairly high share of low-income buyers had LTVs of 80 percent or less, with 45.1 percent of low-income buyers in this category, compared to 41.8 percent of moderate income and 45.7 percent of high-income buyers.<sup>20</sup> As a result, there was little difference in the average LTV across these income groups, ranging from 83.0 percent for low-income buyers, to 84.6 percent for moderate-income buyers and 82.3 percent for high-income buyers. When racial-ethnic groups are considered, minorities are found to have a higher proportion of high LTV loans than whites. Among black and Hispanic first-time buyers, 27.2 and 24.0 percent, respectively, had LTVs above 95 percent compared to 18.3 percent of whites.

In terms of changes over time in the distribution of mortgages by LTV, there was an increase in the share of higher LTV loans among all categories of first-time buyers, with the largest increases among blacks (6.3 percentage points), moderate-income buyers (6.2 percentage points), and Hispanics (4.2

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<sup>19</sup> While this might be an indication that the AHS does not accurately capture interest rate information, a recent study by Lam and Kaul (2003) concluded that data from the AHS on interest rates is consistent with other data sources. In fact, a comparison of interest rates on non-governmental loans found the AHS averages to be slightly higher, which the authors conclude may be due to the fact that the AHS includes subprime loans while the comparison data set did not.

<sup>20</sup> One explanation for the fairly high share of first-time buyers with low LTVs could be that they are more likely to use second mortgages to supplement a smaller first mortgage. The LTV calculation was only based on the primary mortgage.

percentage points). As a result of these increases, in recent years 29 percent of black first-time buyers and about a quarter of Hispanics and low- and moderate-income buyers have purchased homes with less than 5 percent equity in the homes at the time of purchase. Should home values drop in the near future, these buyers would be most vulnerable to a loss of their equity.

**Exhibit 10**  
**Trends in Loan-to-Value Ratio by Income and Race-Ethnicity for First Time Homebuyers, 1989-2003**

<b>Income or Race-Ethnicity/ LTV Category</b>	<b>1989-2003</b>	<b>1989-1995</b>	<b>1995-2003</b>	<b>Change</b>
<b>Low Income</b>				
80% or less	45.1%	47.0%	44.1%	-3.0%
80.1-90%	18.8%	20.4%	18.1%	-2.3%
90.1 to 95%	11.9%	10.0%	12.9%	2.9%
Above 95%	24.2%	22.6%	25.0%	2.4%
<b>Moderate Income</b>				
80% or less	41.8%	46.6%	38.7%	-7.9%
80.1-90%	22.6%	21.9%	23.1%	1.1%
90.1 to 95%	14.6%	14.3%	14.8%	0.6%
Above 95%	21.0%	17.2%	23.4%	6.2%
<b>High Income</b>				
80% or less	45.7%	44.0%	46.6%	2.6%
80.1-90%	26.6%	30.6%	24.4%	-6.2%
90.1 to 95%	13.5%	13.1%	13.7%	0.6%
Above 95%	14.2%	12.3%	15.3%	3.0%
<b>White</b>				
80% or less	44.8%	46.0%	44.1%	-1.9%
80.1-90%	23.9%	24.8%	23.3%	-1.5%
90.1 to 95%	13.0%	12.4%	13.3%	0.8%
Above 95%	18.3%	16.8%	19.3%	2.5%
<b>Black</b>				
80% or less	37.0%	36.6%	37.2%	0.6%
80.1-90%	19.9%	21.6%	19.1%	-2.5%
90.1 to 95%	16.0%	19.0%	14.7%	-4.4%
Above 95%	27.2%	22.7%	29.0%	6.3%
<b>Hispanic</b>				
80% or less	40.5%	43.7%	39.3%	-4.4%
80.1-90%	20.0%	26.8%	17.5%	-9.3%
90.1 to 95%	15.4%	8.5%	18.0%	9.5%
Above 95%	24.0%	20.9%	25.2%	4.2%

Note: Low income defined as income less than 80 percent of the area median income.



Source: Tabulations of 1991-2003 American Housing Surveys.

Exhibit 11 presents information on other key mortgage characteristics. Since adjustable-rate mortgages often provide initially lower interest rates, this option can be attractive to homebuyers who are trying to stretch their initial buying power and expect their incomes to rise over the next few years to meet any increase in interest rates. Fixed-rate mortgages, on the other hand, provide homeowners with protection against future increases in housing costs due to rising interest rates. The data shown in Exhibit 11 indicate that there is little variation across income or racial-ethnic groups in the prevalence of fixed-rate financing. Over the entire period, 87.4 percent of low-income buyers used fixed-rate financing, compared to 87.6 percent of moderate-income and 86.1 percent of high-income buyers. Blacks and Hispanics were actually more likely to use fixed rate financing than whites. All groups increased their use of fixed-rate mortgages after 1995, reflecting the fact that interest rates were generally lower during this period so buyers were both more motivated to lock these lower rates in for the long-term and had less need of an adjustable rate product to lower initial interest rates. In the 1995 to 2003 period about 89 percent of most buyers used fixed-rate financing, with the shares slightly higher among blacks and Hispanics.

Of note, in the past year there has been considerable attention in the popular press on the growing use of adjustable rate loans, including a sizeable portion of these loans that are interest only loans for some number of years. As shown in Exhibit 11, these trends were not yet evident in the AHS data available as of 2003. It is not known to what extent the reported increased use of adjustable rate loans was prevalent among first-time buyers. The 2005 AHS survey may shed light on the characteristics of borrowers that were drawn to these adjustable rate loans since 2003.

**Exhibit 11**  
**Trends in Selected Mortgage Characteristics of Low-Income First Time Homebuyers, 1989-2003**

<b>Characteristic</b>	<b>1989-2003</b>	<b>1989-1995</b>	<b>1995-2003</b>	<b>Change</b>
<b>Share with Fixed Rate Mortgage</b>				
Low Income	87.4%	85.0%	88.9%	3.9%
Moderate Income	87.6%	85.3%	89.3%	4.1%
High Income	86.1%	81.4%	89.0%	7.7%
White	86.1%	83.1%	88.4%	5.3%
Black	91.4%	89.4%	92.5%	3.1%
Hispanic	89.0%	86.2%	90.2%	3.9%
<b>Share with 30-Year Term or Longer</b>				
Low Income	62.0%	53.6%	68.4%	14.8%
Moderate Income	77.4%	72.4%	81.2%	8.8%
High Income	80.5%	77.0%	83.2%	6.2%
White	72.9%	66.7%	77.5%	10.8%
Black	75.0%	72.1%	76.4%	4.3%
Hispanic	78.5%	69.1%	82.5%	13.5%

Note: Low income defined as income less than 80 percent of the area median income.

Source: Tabulations of 1991-2003 American Housing Surveys.

Exhibit 11 also shows the share of mortgages with terms of 30 years or more. Longer-term mortgages have the advantage of lowering the monthly payment, but also build up equity more slowly. Interestingly, low-income buyers have had a tendency to use shorter term financing than higher-income buyers. This likely reflects the fact that a relatively high share of low-income buyers choose manufactured homes, which are commonly financed with shorter-term loans than site-built housing. Over the entire period 62.0 percent of low-income buyers chose 30-year terms or longer, compared to 77.4 percent of moderate-income buyers and 80.5 percent of high-income buyers. There is less difference across racial-ethnic groups, although minorities tend to be more likely to use long term financing than whites. While 72.9 percent of whites had 30-year terms or longer, 75.0 percent of blacks and 78.5 percent of Hispanics opted for such long terms. All groups experienced an increase in the share of mortgages with these longer terms after 1995, with larger increases among low-income and Hispanic buyers. Still, low-income buyers are more likely than higher income buyers to use shorter-term mortgages, and thus will tend to build up equity more quickly. There is relatively little difference by race-ethnicity, although Hispanics are slightly more likely to use longer-term mortgages and so will build up equity more slowly.

## Summary

This chapter has made extensive use of information from the AHS from 1991 through 2003 to identify the characteristics of first-time homebuyers and their housing choices and to examine whether these characteristics have changed over time. In keeping with the well-documented rise in homeownership rates, the number of low-income and minority homebuyers rose rapidly beginning in the early 1990s. Between 1989-1991 and 1995-1997 the number of black and Hispanic first-time buyers roughly doubled, while the number of low-income buyers rose by nearly 50 percent. After 1997 the number of low-income and black homebuyers remained high but increases moderated somewhat, while the number of Hispanic buyers continued to increase. One notable change associated with the increase in low-income and black homebuyers over the decade was the greater proportion of single-parent households and single persons among first-time buyers. While this trend is positive in that it indicates greater opportunities among these households who have historically had lower homeownership rates, it is also true that they may be exposed to greater risks from unexpected crisis since there is only one wage earner in the household.

While the size and quality of housing purchased by low-income and minority homebuyers tends to be not quite as good as that enjoyed by moderate- and high-income households, conditions are better than for low-income renters and at least as good as for the average U.S. household. While there have been concerns that low-income homebuyers may be much more likely to purchase housing in poor conditions, the share of homes that are moderately or severely inadequate is only about 7 percent—no worse than the average for the U.S., although slightly worse than the average for all homeowners. Overall, low-income homebuyers are satisfied with their homes, with only 8.7 percent of these buyers rating their homes as 5 or lower on a 10-point scale. In comparison, 9.3 percent of all households and 17.9 percent of recent mover low-income renters rate their homes as 5 or lower.

One of the notable differences between renters and owners is the share occupying single-family detached housing. Low-income and minority owners are much more likely to live in single-family detached homes than renters, and so do gain access to more living space and greater privacy. However, a fairly large share of low-income buyers (23.8 percent) purchased manufactured housing. While there is evidence that these homes do provide good quality at an affordable price, there are concerns that since a large share of these buyers do not own the land on which the unit sits, they may not benefit from appreciation in land values. This issue will be explored more in Chapter 4.

Similar to the conclusions regarding housing quality, data from the AHS suggests that low-income buyers experience better neighborhood conditions and have higher satisfaction with their neighborhoods than low-income renters, and are similar to all U.S. households in both dimensions. However, minority homebuyers are more likely than low-income buyers to buy in central cities, which is reflected in a slightly higher propensity to live near commercial or industrial properties or to have bars on the windows of nearby buildings. Nonetheless, minorities are slightly more satisfied with their neighborhoods than low-income buyers.

One strand of existing research has used HMDA data to examine the location choices of low-income and minority homebuyers in a small number of metropolitan areas. While these studies cannot identify first-time buyers, the findings are consistent with those from the AHS. Low-income households are found to be gaining access to suburban areas. While these buyers do tend to locate in closer-in, lower-income areas, they are also fairly likely to locate in moderate-income areas, which suggests that a move to homeownership does support some degree of income mixing. These studies also find that while minorities are gaining access to the suburbs, these buyers, particularly blacks, are often concentrated in a small number of areas with an above average share of minorities. As a result, the move to homeownership does not seem to be fostering greater racial integration. But this does not mean that these neighborhoods are not otherwise fine places to live.

A comparison of neighborhood characteristics of low-income buyers and renters is intended to shed light on the extent to which a move to homeownership is associated with an improvement in neighborhood conditions. Several studies provide more direct evidence on the change in neighborhood conditions associated with a move to homeownership through data gathered on pre- and post-move neighborhoods for samples of homebuyers participating in subsidized homeownership programs. In general, these studies find that for the most part there is little change in neighborhood conditions for these buyers, although there tends to be a small increase in homeownership rates and the share of housing in single-family units. One study of this type used a national panel study to examine pre- and post-move neighborhood conditions and so may have broader applicability than the studies that examine participants in government programs. This study found that while low-income whites did not experience any real change in neighborhood conditions by purchasing a home, low-income minorities experienced fairly sizeable improvements, while moderate- and high-income minorities experienced small positive changes. Nonetheless, the study also finds that the areas where minorities purchased generally ranked lower on various socioeconomic dimensions than the areas where whites purchased. In short, collectively these studies suggest that moves to homeownership are generally not associated with substantial improvement in neighborhood conditions. But nor do the studies find that low-income or minority homebuyers are systematically being shunted into poor quality neighborhoods. Instead, they appear to be moving to low- or moderate-income areas with few

signs of distress. The implications of these neighborhood choices for the financial returns and social benefits realized by these owners will be considered in Chapters 4 and 5.

This chapter has also presented information on the mortgage terms obtained by low-income and minority homebuyers. It is generally believed that the sizeable increases in homeownership rates over the last decade have been supported by expansion in the availability of mortgage credit through more relaxed underwriting guidelines. This would suggest that borrowers may have had greater access to affordable mortgage products over the decade. However, at the same time, there has also been significant growth in subprime mortgage lending, which expands the supply of credit but at the cost of higher interest rates and fees. Evidence from the AHS on differences in interest rates across first-time buyers by income and race-ethnicity suggests that on average low-income and minority buyers only pay slightly higher interest rates compared to upper-income and white buyers and these differences tended to narrow over the course of the last decade. The growth of subprime lending was not yet evident in higher interest rates on purchase mortgages, at least as of 2003. However, the same cannot be said of refinance mortgages, which will be discussed more in the next chapter.

Another important loan term is the ratio between the loan amount and the house value. While low downpayment loans are important for addressing the lack of wealth that is the principal barrier to homeownership for most low-income and minority households, it also exposes buyers to greater risk of losing their investment due to fluctuations in home prices. Low-income and minority homebuyers are more likely to buy homes with little money down. Since 1995, about a quarter of low-income and Hispanic homebuyers and 29 percent of black homebuyers have purchased homes with less than 5 percent down, compared to 18 percent of all white buyers. The shares of buyers using such high LTV loans has increased somewhat from the early 1990s, with increases of 2 to 6 percentage points across these groups. While the availability of these loans has undoubtedly helped fuel the increases in homebuying, there are a fairly large share of buyers with little equity in their homes.

In terms of other mortgage characteristics, there is no indication that low-income and minority first-time buyers are more likely to choose adjustable rate mortgages and thus be exposed to interest rate risk—at least as of 2003. There is also little difference in the length of the mortgage term by income or race-ethnicity. However, over the last year there have been numerous news accounts documenting the rapid growth in market share for various types of adjustable rate mortgages, including those with interest-only payments. What is not evident from these reports, however, is what are the characteristics of homebuyers using these loans, particularly to what extent the borrowers are low-income and minority first-time homebuyers. Perhaps data from the 2005 AHS can shed light on whether there have been substantial changes in mortgage choices of first-time buyers.

Perhaps the most troubling aspect of the housing choices made by low-income and first time buyers is the fairly large share facing significant housing cost burdens. In the period since 1995, there has been a fairly significant increase in the share of low-income buyers having a severe payment burden, where they devote more than 50 percent of their income for housing costs. During the period 1995 to 2003, 20.1 percent of low-income buyers faced such severe payment burdens, an increase of nearly 40 percent from the 14.5 percent of buyers in this situation in the early 1990s. While black homebuyers are only slightly more likely to face moderate or significant payment burdens compared to whites, Hispanics are much more likely to have significant payment burdens, with 30.3 percent having

moderate payment burdens (that is, paying between 30 and 50 percent of income for housing) and 15.3 percent having severe payment burdens.

Overall, the evidence from the AHS and the literature paints a somewhat mixed picture of the initial housing conditions of low-income and minority homebuyers. On the one hand, for the most part these buyers have obtained decent housing in decent neighborhoods. The houses and neighborhoods are of higher quality than those occupied by low-income renters and of similar quality to the average U.S. household. On the other hand, there is not strong evidence that a move to homeownership has resulted in large increases in neighborhood quality for these buyers. But there is no indication that a significant share of buyers are ending up in distressed neighborhoods.

Perhaps not surprisingly, there are also indications that there has been an increase in the number of buyers exposed to the risk of being unable to meet their mortgage obligations. One example of this trend is the increased prevalence of high LTV loans, with a quarter or more of low-income and minority buyers purchasing their first home with relatively little money down. While this has undoubtedly helped to fuel the increase in homeownership, these buyers are also more vulnerable to fluctuations in house prices. The significant increase in single person and single parent homebuyers also raises concerns about the ability of these households to respond to crisis with only one earner to support the mortgage. Most importantly, there has been a growing share of low-income first-time buyers that are devoting more than half of their income to housing costs, with one-in-five buyers facing such a severe burden in recent years. These households clearly have little ability to adapt to any increases in expenses or decrease in income. On a positive note, low-income and minority buyers do not appear to face significantly higher interest rates at the time of purchase compared to other buyers.

This chapter has relied much less on a review of the existing literature and more on descriptive analysis of available data than is true of other parts of this report. In part, this reflects a desire to present a strong factual base about the recent low-income and minority homeownership boom to help inform the interpretation of studies about the experience of low-income and minority households as owners which is the subject of subsequent chapters. But it also reflects the fact that the literature examining initial housing choices is fairly thin. Several areas for further research stand out in particular. First, there is a need for multivariate analysis of the housing choices made by low-income and minority homebuyers to examine whether, in fact, homeownership is associated with greater housing quantity, quality, and satisfaction, taking into consideration important differences in the characteristics of renters and owners. Second, it would be interesting to make use of panel surveys of households to examine how a move to homeownership changes the quantity and quality of housing as well as its cost. Finally, further analysis of the mortgage choices made by low-income and minority homebuyers is needed given the importance of these choices in determining the financial benefits of homeownership.

One of the key findings of this chapter is that the gains in homeownership of the 1990s have been associated with an increase in the risk profile of first-time buyers, raising concerns about how well these households will be able to sustain homeownership. This issue is the focus of the next chapter, which examines the experiences and choices made by low-income and minority buyers after home purchase.



## **Chapter Three:**

# **Key Experiences and Decisions of Low-Income and Minority Homeowners**

In this chapter we examine several critical aspects of the experiences and decisions of low-income and minority homebuyers after they purchase their home. First and foremost is the question of how long these owners maintain homeownership. Many of the financial and social benefits of homeownership are derived from residential stability. The first part of this chapter examines research related to the question of whether low-income and minority first-time homebuyers are able to sustain homeownership and realize this stability. A second important issue is the experience of these owners both in refinancing their primary mortgage and in using debt to tap their accumulated home equity. These decisions have important implications for the ongoing costs of homeownership and whether these owners are able to accumulate wealth over time. Finally, this chapter also examines differences by income and race-ethnicity in homeowners' tendency to invest in maintenance and improvement to their homes. Investments in maintenance are important to ensure that the home continues to provide adequate housing and to maintain its value. Investments in improvements can also contribute to the owner's enjoyment of the home and increases in value. Conversely, repairs and replacements can make it difficult for borrowers to meet their mortgage obligations or force them to increase their mortgage debt. Hence, these needs constitute cost items for which homeowners do not always have the resources to cover. The chapter concludes with a summary of findings in each of these areas.

### **Mobility, Defaults, and Length of Time as Homeowners**

Perhaps the most important question regarding the experience of low-income and minority homeowners is whether they are able to sustain homeownership once achieved. The critiques of efforts to promote homeownership discussed in the introduction to this report emphasize the high rate of foreclosure among these buyers as evidence that we may have gone too far in helping households into homeownership when they are not capable of sustaining it. Without a doubt, there are reasons for concern about failed attempts at homeownership as the costs of being forced to move out of a home can be quite high. But even if a move is voluntary, if owners have a short stay in their home they will be less likely to realize many of the benefits of homeownership that are associated with residential stability.

In terms of the financial benefits, given the high transaction costs of buying and selling a home, homeownership becomes very expensive if the household moves frequently. Also, while in the longer run nominal house prices are very likely to rise, short periods of falling nominal house prices are not uncommon (Belsky and Duda, 2002b). If an owner is forced to sell their home into a down market, they will incur these nominal declines in values. Longer tenure in the home will allow owners to ride out short-term nominal declines and avoid these losses.

Of course, if a household suffers a foreclosure, the costs include not just a loss of their equity, but also the psychic distress of having failed at homeownership and being forced out of their home and

the damage done to the owner's credit history and ability to obtain credit in the future. Finally, as will be discussed in detail in Chapter 5, a variety of the social benefits are associated with residential stability. In short, if low-income and minority homebuyers are more likely to move or more likely to be unable to sustain homeownership they will be less likely to realize both the financial and social benefits of homeownership.

The literature touching upon these issues can be divided into three strands. The first strand deals with residential mobility, which is the tendency for households to move out of their homes. This literature is generally not concerned with movers' subsequent housing choice and so does not address the question of whether owners leave homeownership or are simply trading one owned residence for another. But these studies are of interest in examining the question of whether low-income and minority owners might be more likely to incur the high transaction costs associated with moving. The second strand of the literature relates to the prevalence of foreclosure among homebuyers. Given the high costs of foreclosure, the frequency of this outcome is of obvious importance. But while the frequency of foreclosures is important, foreclosures are also relatively rare. Many owners who are unable to sustain homeownership may be able to take steps to avoid a foreclosure. Still, these owners may face significant costs from being forced to leave homeownership, including higher future borrowing costs from having defaulted on a loan. The third strand of the literature, which is relatively new, uses panel surveys of households to track their tenure choices over time. This literature provides a more direct indication of the extent to which low-income and minority homebuyers are able to sustain homeownership over time. The literature dealing with each of these three issues is discussed in turn.

### **Residential Mobility**

Several recent reviews of the literature have concluded that the evidence is convincing that owners move less than renters (Dietz and Haurin, 2003; Rohe, McCarthy, and Van Zandt, 2001; Rohe and Stewart, 1996).<sup>21</sup> However, the question of interest for this study is whether low-income or minority homeowners are more or less likely to move than other *homeowners*, not whether they are more likely to move than renters. There are actually few studies that compare the mobility choices of homeowners of different incomes or race-ethnicities. Most studies pool owners and renters and include income and race-ethnicity as independent variables, but do not interact a household's tenure with these variables to examine whether the impact of income or race-ethnicity on mobility differs between owners and renters.

Most of the handful of studies that do address this issue suggest that low-income households are somewhat less likely to move than higher income groups (Gronberg and Reed, 1992; Henderson and Ioannides, 1989; Haurin and Lee, 1989). This result is attributable to the fact that higher income households have more choices in the housing market and are less deterred by transaction costs and so

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<sup>21</sup> The fact that owners move less than renters does not mean that the evidence is clear that homeownership *causes* greater residential stability. In fact, individuals are more likely to buy a home when they know they are less likely to want to move in the near future. In this case, lower expected mobility leads to homeownership, not the other way around. Still, homeownership would be expected to lower mobility in several ways. First, higher transaction costs of moving will make owners less inclined to move as their household circumstances change. Second, owners also have a greater ability to tailor homes to meet their needs and tastes and so may have less need to move to adjust their housing consumption.



are more likely to move than low-income households. However, Varady (1986) found that high-income households were less likely to move, although this result was not statistically significant. One difference from the other studies cited is that Varady includes a much more exhaustive list of explanatory variables, including measures of housing and neighborhood problems and duration of residence in the home. One explanation for Varady's finding is that high-income households have greater ability to move away from housing or neighborhood problems, but in studies that do not include these types of measures we only observe that high-income owners are generally more mobile. In fact, they may only be more mobile when confronted by disagreeable situations.

These same studies also generally find that white owners have lower mobility than minorities (Gronberg and Reed, 1992; Henderson and Ioannides, 1989). This finding is it odds with the explanation advanced for the higher mobility of higher income households. If it is the degree of choice in housing markets that drives mobility then minorities ought to have lower mobility than whites. Instead, it is possible that the greater mobility among minority homeowners is more likely to reflect their greater difficulty in sustaining homeownership. Again, Varady (1986) reaches the opposite conclusion, finding that black owners are less likely to move. He interprets this as indicating that blacks have fewer choices in the housing market due to racial segregation. The different conclusion reached by Varady may be related to the longer list of explanatory variables used. It may be that blacks are more likely to be exposed to housing and neighborhood problems and when not controlled for these factors may contribute to higher mobility by black owners.

In short, the little evidence that exists on differences in mobility among homeowners by income and race-ethnicity is mixed. This may simply reflect that fact that there are not substantial differences in mobility rates and so different samples and different methodologies come to different conclusions. Most of these studies also rely on data from several decades ago and may be of less relevance for present market circumstances. More recent studies that focus not only on differences in the propensity to move but also examine the subsequent tenure choice of households are more relevant for the purpose of this study. This literature is reviewed below.

### **Mortgage Delinquency and Default**

There is a rich literature on the determinants of mortgage delinquency and residential foreclosure, which the literature generally refers to as default. Perhaps not surprisingly, research consistently finds that households with lower incomes are more likely to miss payments and default on their mortgages (see Quercia and Stegman, 1992 for a thorough review of the default literature through that time). Two more recent studies with an explicit focus on the difference in default experience by borrower income are Van Order and Zorn (2002) and Deng, Quigley and Van Order (1996). Van Order and Zorn study the performance of mortgages purchased by Freddie Mac that were originated between 1993 and 1995 and then tracked through 1999. They divide borrowers into four categories based on their income relative to the median incomes where they live (80 percent of area median income or less, 81 to 100 percent, 101 to 120 percent, and above 120 percent). Even after controlling for a variety of loan characteristics, they find that lower income groups consistently have higher default probabilities than higher income groups.

The unadjusted default rates (that is, differences in default by income category without taking into account other differences between these borrower groups) reported by Van Order and Zorn are also

instructive as they indicate the extent to which low-income borrowers are likely to experience foreclosure. The data presented by Van Order and Zorn indicate that even for low-income borrowers foreclosure is a rare event. Among their cohort of loans from the first half of the 1990s, only 0.8 percent of buyers with income below 80 percent of area median income experienced a foreclosure in the four to six years following origination. This was only slightly higher than the 0.6 percent of high-income borrowers that experienced foreclosure over the same period of time.

Of course, since these were loans purchased by Freddie Mac, they represent prime conventional mortgages, which are less risky than the FHA or subprime loans that may be more common among low-income borrowers. Recent data from the Mortgage Bankers Association National Delinquency Survey indicates that the share of FHA loans in the foreclosure process has been about five times higher than prime loans while the share of subprime loans has been eight to ten times higher than prime loans.<sup>22</sup> Still, even for subprime loans, the share of loans in the foreclosure process has only been about 4 to 6 percent. In short, foreclosure is an uncommon event even for low-income borrowers.

Deng, Quigley, and Van Order (1996) shed some light on how the expansion of mortgage credit for low-income borrowers in the form of low downpayment loans may affect foreclosure rates. They develop a model predicting mortgage default based on the performance of loans purchased by Freddie Mac that were originated between 1976 and 1983 and then tracked through 1992. This model is then used to simulate the performance of mortgages over a 15-year period with different assumptions about borrower income relative to area median incomes, loan-to-value ratio, and fluctuations in house price appreciation and unemployment rates. Under favorable economic circumstances (long-run average unemployment of 4 percent and house price appreciation of 5 percent) and assuming a downpayment of 10 percent, they find little difference in expected 15-year foreclosure rates by income: 3.56 percent of borrowers with income between 60 and 100 percent of area median income would default compared to 3.09 percent of borrowers with income between 100 and 150 percent.<sup>23</sup> If the downpayment is reduced to 0 percent, the differences in default rates by income grow larger: 6.58 percent of low-income borrowers would default compared to 4.74 percent of borrowers with incomes above the area median. If the macroeconomic conditions are also made much more challenging (8 percent unemployment and 0 percent housing appreciation on average), the differences in default rates grow to nearly five percentage points: 12.88 versus 8.00 percent.

There are several conclusions that can be drawn from these simulations. To begin with, while the likelihood of foreclosure among all income groups is sensitive to downpayment levels and macroeconomic conditions, low-income borrowers are more sensitive to these factors than higher-income borrowers. But it is also true that except under extremely poor macroeconomic conditions, foreclosure is unlikely to exceed the low single digits. In the prime market it occurs in only about one

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<sup>22</sup> Mortgage Bankers Association press release, March 17, 2005, "Residential Foreclosures and Delinquencies Down From last Year, According to MBA National Delinquency Survey," <http://www.mortgagebankers.org/news/2005/pr0317.html>

<sup>23</sup> The paper also reports default rates for those with income below 60 percent of area median income, but the sample size for this group is relatively small. They also report default rates for those with income above 150 percent of area median income, but these rates are higher than for those with income between 100 and 150 percent.

in twenty cases over a fifteen-year period even when borrowers start with no equity in their homes. Also, the absolute differences in default rates by income are not large. With 0 percent down loans, the probability of foreclosure among low-income borrowers is only 1.87 percentage points higher than among higher-income borrowers. However, should there be a period of sustained poor economic conditions, with nominal house price growth averaging 0 percent for 15 years, much higher foreclosure rates would occur, with the foreclosure rate among low-income borrowers more than 50 percent higher than among higher-income borrowers. These results indicate the importance of providing support mechanisms for low-income borrowers, particularly those with low downpayments and particularly during challenging economic environments.

The above discussion has focused on differences in default probabilities by income. The issue of differences in default rates by race-ethnicity has also received a fair amount of attention in the literature and has been a contentious issue. Berkovec et al. (1994) analyzed the performance of a pool of FHA loans and found that, all else equal, blacks had a higher default rate than whites. They argued that this finding was counter to the argument that blacks were discriminated against in the mortgage origination process as they hypothesized that the rejection of marginally-qualified blacks should result in higher quality among black borrowers actually funded and so lower default rates. This work was subjected to a series of criticisms regarding the adequacy of the controls employed for credit quality and other borrower characteristics as well as the reasonableness of the hypothesis that discrimination in the origination process should result in lower default rates. Cotterman (2002) replicated the analysis of Berkovec et al. using data on FHA loans from the early 1990s that had information on borrower credit history, which was not available to Berkovic et al. Cotterman found that once credit quality was controlled for, there was no difference in default propensities for Hispanics and Asians, and generally no difference for blacks as well.<sup>24</sup>

The above studies attempt to control for differences in default propensities by race and ethnicity after controlling for all observable risk factors. However, for our purposes, default rates by race-ethnicity that do not control for other factors are of more interest to indicate whether minorities are more likely to experience default given their characteristics, the types of loans they choose, and the characteristics of their homes. When foreclosure rates are compared by race-ethnicity it is clear that minorities do, in fact, face a greater likelihood of losing their homes to foreclosure. Van Order and Zorn (2002) report statistics for a pool of Freddie Mac loans originated in 1993 to 1995 showing that while only 0.6 percent of white borrowers experienced a foreclosure by 1999, 1.9 percent of blacks and 2.2 percent of Hispanics lost their homes to foreclosure. Cotterman's sample of FHA loans from 1992, 1994, and 1996, which were tracked through mid 2002, also show higher foreclosure rates for minorities compared to whites. Across the three sample years of 1992, 1994, and 1996, white foreclosure rates were 4.1, 4.0, and 2.9 percent. In comparison, black rates were roughly twice as high at 8.1, 7.6, and 4.8 percent, while Hispanic rates were higher still at 11.0, 8.5, and 5.4 percent.

As the findings of these papers show, differences in foreclosure rates are much larger by race and ethnicity than they are by income. In addition, the figures presented in Cotterman's paper also

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<sup>24</sup> Cotterman tested the model on different origination samples and using different explanatory variables. In most cases the black indicator variable was not significant. But in one case it was significant and positive, indicating blacks had a higher default probability, and in another it was significant and negative, indicating they had a lower default probability.

highlight that foreclosure rates among FHA borrowers are much higher than among prime borrowers. While it is still the case that the vast majority of FHA minority homeowners do not experience foreclosure, the 8.1 percent of blacks and 11.0 percent of Hispanics who lost their homes within eight years of purchase are not insignificant. As with low-income homebuyers, these figures underscore the need to provide support for these borrowers to be able to sustain homeownership.

Aside from the question of whether low-income and minority homebuyers face greater risks of foreclosure, there is also a question of whether the risk of foreclosure has risen in recent years. There have been a wide variety of studies that have documented increases in foreclosure rates in specific markets or neighborhoods since the mid 1990s, with these increases often linked to increases in subprime lending (National Information and Training Center, 1999; Bunce et al., 2000; Immergluck and Smith, 2004; The Reinvestment Fund, 2005). However, while these studies have documented sharp increases in the number of foreclosures in specific areas, long-term national foreclosure statistics compiled by the Mortgage Bankers Association (MBA) indicate that nationally the increase in the foreclosure rate has not been as dramatic as these studies would suggest. For example, MBA data indicates that among all mortgages, the share entering foreclosure rose from 0.26 percent in 1986 to around 0.33 percent in the early 1990s, before jumping again in the late 1990s to reach 0.46 percent in 2002. Since then the rate of foreclosures started has moderated somewhat to 0.42 percent in 2004.<sup>25</sup> But while the incidence of foreclosure has increased by about 60 percent since 1986, the start of foreclosure still remains a rare event. However, it may be that the MBA data simply do not adequately capture the full range of subprime lending activity as their subprime foreclosure data is based on a small sample of subprime lenders (Denis and Pennington-Cross, 2005).

The MBA data highlight two factors that have contributed to the rise in foreclosure rates. First, the MBA began to track foreclosures among subprime loans in 1998, which revealed a much higher rate of foreclosures among these loans. In 2001, as the rate of foreclosures started among all loans reached their peak of 0.46 percent, among subprime loans this rate was 2.34 percent, or more than 10 times the rate among prime conventional loans. But since that time, the subprime foreclosure rate as reported to the MBA has steadily declined to 1.50 percent in 2004, reflecting a general increase in credit quality in the subprime sector (Denis and Pennington-Cross, 2005). Despite the decline, subprime foreclosure rates remain nearly eight times as high as the rate among prime conventional loans. Another factor that has contributed to rising overall foreclosure rates has been a large increase among FHA loans. Foreclosure rates among FHA loans have more than tripled since 1986, rising from 0.32 percent to about 0.60 percent in the late 1990s and then again to 0.98 percent in 2004.<sup>26</sup>

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<sup>25</sup> MBA data for the share of loans entering foreclosure as reported in *U.S. Housing Market Conditions*, May 2005.

<sup>26</sup> The MBA also tracks the share of loans that have missed any payments or have not made a payment in 90 days or more (seriously delinquent). A similar pattern of much higher rates of delinquency are evident among subprime and FHA loans relative to prime loans, although the share of loans in these categories are obviously higher than the share entering foreclosure. Still, serious delinquency is a rare event, with only 0.29 percent of prime, 2.72 percent of subprime, and 2.75 percent of FHA loans in this state in 2004. We have focused on the share of loans entering foreclosure since this rate more accurately captures the share of borrowers who are likely to lose their homes.

The sharply higher foreclosure rates among subprime and, to a lesser extent, FHA loans accounts for the findings of studies that have documented the fact that in specific markets the number of foreclosures has increased by several fold since the mid 1990s. While these highly concentrated foreclosure patterns are clearly a cause for concern, it is important to bear in mind that the overall incidence of foreclosure remains a fairly uncommon event. Even among riskier subprime and FHA loans, less than 1.5 percent of these loans entered foreclosure in 2004. Thus, the vast majority of borrowers are unlikely to face foreclosure.

### **Length of Time as Homeowners**

One of the concerns with drawing conclusions about whether low-income and minority buyers share in the benefits of homeownership from the literature analyzing residential mobility is that some share of moves represent positive outcomes—owners trading up to better quality homes. On the other hand, estimates of the share of borrowers losing homes to foreclosure may also underestimate the failure of buyers to succeed as homeowners by ignoring cases where buyers are forced by circumstances to move out of their homes, but do not experience a foreclosure. Cases where owners reluctantly put their homes up for sale, possibly at a financial loss, are not captured in foreclosure statistics. Recently, several studies have made use of panel surveys – surveys that track the same households over time – to examine the question of how long low-income and minority first-time buyers maintain homeownership (Reid, 2004; Haurin and Rosenthal, 2005a; Haurin and Rosenthal, 2005b; and Boehm and Schlottmann, 2004b). By capturing all cases where owners leave their home and do not purchase another one, these studies provide a much better indication than either the residential mobility or default literature of the degree to which these buyers are able to remain owners over time and so reap the benefits of homeownership.

One of the surprising conclusions from these studies is that a fairly sizeable share of all first-time owners – regardless of income or race-ethnicity – return to renting or living with others after first achieving homeownership. Both Reid (2004) and Haurin and Rosenthal (2005a) find that about 40 percent of first-time homebuyers leave homeownership at some point after buying. These studies also find that low-income owners face a higher risk of being unable to sustain homeownership over time. Reid’s analysis of data from the Panel Study of Income Dynamics from 1976 through 1993 found that 53 percent of low-income buyers left homeownership within five years of buying their first home, compared to 23 percent of high-income buyers.<sup>27</sup> Employing a less restrictive definition of low-income, Haurin and Rosenthal’s analysis of data from the National Longitudinal Study of Youth from 1979 through 2000 found that about 43 percent of low-income buyers did not sustain homeownership for more than five years, compared to 30 percent of high-income buyers.<sup>28</sup>

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<sup>27</sup> While Reid cites specific survivorship rates for some subgroups in the text of her study, in some cases specific rates had to be estimated based on survivorship graphs shown in the report.

<sup>28</sup> Reid’s definition of low-income required that the household have income less than 80 percent of area median income in every year through the year in which they bought their first home. High-income buyers were those whose income was above the area median income every year through the year they purchased their home. All other households were considered moderate income. Haurin and Rosenthal, in contrast, defined households based on their income at age 25 relative to all other 25-year olds. Those in the bottom quartile were considered low-income, while those in the top quartile were considered high income. The survivor rates for Haurin and Rosenthal are unpublished figures obtained from the authors.

In some respects, given differences in the samples used and time periods studied, the results of these two analyses are somewhat similar: as an approximation, roughly half of low-income buyers exit homeownership within five years of purchase compared to a quarter to a third of high-income buyers.<sup>29</sup> However, the difference in survival rates between low-income and high-income buyers is much larger in Reid's study than Haurin and Rosenthal's. While Reid finds a 30 percentage point lower survival rate for low-income buyers, Haurin and Rosenthal find a difference of only 13 percentage points. This may well be due to Reid's more restrictive definition of "low-income," which requires that households have income less than 80 percent of the area median income in every year they are observed through the year in which they buy. Haurin and Rosenthal, on the other hand, define low-income as those in the bottom quartile of the income distribution in their sample at age 25. Reid's sample is also somewhat older, consisting of renters between the ages of 18 and 45, while Haurin and Rosenthal begin with a sample of those age 14 to 22. Given the differences in the age groups and definition of low-income, Reid's results may well represent the experience of what might be thought of as more permanently low-income households. Further work is needed to understand the difference in findings between these studies for low-income owners.

Both of these studies also find that minorities are much more likely to return to renting or living with others than whites. Reid's five-year rates of exits from homeownership for minorities are between 22 and 38 percent more likely than for whites in the same income categories.<sup>30</sup> Haurin and Rosenthal (2005a) find that blacks are 46 percent more likely than whites to be unable to sustain homeownership, while Hispanic's were 38 percent and Asians 39 percent more likely to leave.<sup>31</sup> Reid reports that after five years about 29 percent of high-income minorities did not sustain homeownership compared to 21 percent of high income whites, while 58 percent of low-income minorities were no longer owners compared to 46 percent of low-income whites.

The high rates of exit for low-income and minority first-time buyers are a cause for concern as the benefits of homeownership will generally be much greater for those who continue as owners for longer periods. This is both because the odds of benefiting from appreciation increase with time and the benefits of amortizing loans increase exponentially with the aging of the loan. In addition, social benefits of homeownership are strongly linked with residential stability. One point worth noting is that Reid's study pertains to the period from 1976 through 1993, which is prior to the increase in homeownership experienced over the last decade. Haurin and Rosenthal examine the period from 1979 through 2000, which does capture some of the period of rising homeownership rates, although given the age of the persons in their sample many made their first foray into homeownership during

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<sup>29</sup> The analysis by Boehm and Schlottmann (2004b) of the PSID from 1984 through 1992 produces a higher rate of success in maintaining homeownership for at least five years both for all households and for white low-income owners. For example, among high income whites, they find that 95 percent survive 5 years, while among low-income whites 82 percent survive five years. A key difference from the other studies is that Boehm and Schlottmann do not limit their sample to only first-time buyers. The difference in results may reflect the fact that repeat homebuyers are more likely to maintain homeownership over time.

<sup>30</sup> Reid's analysis does not distinguish between different types of racial-ethnic minorities.

<sup>31</sup> Haurin and Rosenthal find that the differences between whites and both Hispanics and Asians are completely accounted for by other household characteristics, while large, statistically significant differences remain for blacks even after controlling for other factors.

the 1980s. Thus, these high rates of exit from homeownership identified in these studies are not a new phenomenon, but have been evident for several decades. These studies do not shed light directly on whether the rate of exit from homeownership has increased in recent years. However, the continued gains in homeownership through 2004 suggest that homeownership exits have probably not risen as an increased homeownership failure rate would have a dampening effect on overall homeownership.

In fact, Haurin and Rosenthal (2005b) discuss the implications of more frequent exits from homeownership and longer intervening spells as renters on overall homeownership rates. They find that the difference in the shares of whites and blacks in their sample who ever attain homeownership is much smaller than the difference in homeownership rates observed at the end of the sample period. They also find that about a quarter of this difference in ending homeownership rates is accounted for by the greater tendency of blacks to leave homeownership and to take longer to regain homeownership.<sup>32</sup> If more low-income and minority families were exiting from homeownership in recent years, this would serve to depress overall homeownership rates for these groups. Instead, they have continued to rise.

Perhaps a more important caveat regarding these findings is that most exits from homeownership are not permanent. Returning to renting or living with others can be an effective way to adjust to changes in circumstances. A key question is what share of these households later return to homeownership. While Reid's analysis only extends up to the point when households leave homeownership, Haurin and Rosenthal (2005b) continue to track households to identify how frequently households regain homeownership. While their analysis does not examine differences across income groups, they do report differences by race-ethnicity. Of white first-time buyers, 69 percent of those who moved back to renting or living with others for a period are ultimately observed to return to owning. Thus, the majority of these exits from homeownership are temporary. The rates of returns to homeownership are lower for minorities, but a majority also succeeds in returning to ownership status, including 59 percent of blacks and 64 percent of Hispanics. Overall, of those who become first-time buyers, the share who are observed to either never leave homeownership or to return to owning after a spell of renting or living with others is fairly high for all racial-ethnic groups. Among whites, 86 percent who become owners either continually sustain ownership or return to owning, compared to 81 percent of blacks and 84 percent of Hispanics. However, Haurin and Rosenthal do find that compared to whites, the average length of stay as owners is shorter for minorities and the period of renting or living with others is longer. These differences contribute to overall differences in ownership rates.

### **Factors Contributing to Leaving Homeownership**

The studies by Reid (2004) and Haurin and Rosenthal (2005a, 2005b) also estimate models to identify the factors associated with a household leaving homeownership. The explanatory variables included in these models include both the characteristics of the household when they first purchased as well as changes in their personal circumstances and the macroeconomic environment after purchase. Aside from income and race-ethnicity, one of the most important household characteristics is whether the

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<sup>32</sup> Specifically, while the white-black gap in homeownership rates in their sample in 2000 is 34 percentage points, the difference in the shares of whites and blacks that become first-time buyers over the period is only 26 percentage points.

owner is a married couple. Haurin and Rosenthal (2005a) find that this is the single most important factor predicting the length of time that homeownership is maintained. Married couples are found to have half the risk of exiting homeownership as households headed by single persons. Reid's results find a similar magnitude, although she finds that the importance of being married is somewhat less for low-income households, who face only a 30 percent increase in risk of exiting homeownership if they are not married. This finding supports the concerns raised in Chapter 2 that the growth in homeownership among single persons and single-parent households may raise the number of owners who are vulnerable to economic shocks.

Other household characteristics associated with the risk of leaving homeownership are age and education. Younger households are found to be at greater risk of returning to renting or living with others. As shown in Chapter 2, low-income first-time buyers include a relatively large share of both younger and older households. While the younger households may be at greater risk of leaving homeownership, those who come to homeownership later may be more likely to sustain it. Those with more education are also more likely to sustain homeownership. Both Reid and Haurin and Rosenthal speculate that education likely captures the long-run earnings potential of the owner, with higher educated owners more likely to experience rising earnings. To the extent that greater education is associated with greater financial literacy, this result would also be consistent with the importance of financial knowledge to maintaining homeownership.

The studies also examine the importance of changes in household circumstances for precipitating an exit from homeownership. It is generally believed that "trigger events," which are unexpected changes in a household's circumstances, are important factors in producing defaults or otherwise ending homeownership spells (Vandell, 1995; Elmer and Selig, 1999). The most commonly cited trigger events are a reduction in earnings as a result of job loss, the splintering of the household due to divorce or separation, or an increase in expenses or reduction in earnings due to a health crisis. Cutts (2003) reports that among delinquent Freddie Mac borrowers during the period from 1999 to 2003, 40 percent reported unemployment or curtailment of income as the reason for their delinquency. The next most common issue was illness or death of the borrower or someone in the family, which was reported for 24 percent of delinquent borrowers. Marital difficulties and excessive financial obligations each were cited in about 10 percent of cases.

To capture job loss or income curtailment, Reid includes an indicator of whether the borrower experienced an unemployment episode, while Haurin and Rosenthal include a change in household earnings compared to earnings in the year when they purchased the home. Both find these measures to be significant predictors of whether a household will cease to own. Reid found an unemployment spell more than doubled the probability of ending ownership, with larger impacts on higher-income households. Haurin and Rosenthal found a somewhat smaller effect, with declines of \$10,000 in earnings raising the risk of leaving homeownership by 11 percent. Reid reports that job loss was more common among low-income households, with about 9 percent of low-income households and 15 percent of low-income minorities having a spell of unemployment compared to 6 percent of high-income households. Haurin and Rosenthal also find that among the low-income households that switch back to renting or living with others, earnings declined *on average* by \$13,629, or 37 percent, in the year when this transition occurred, which suggests that declines in earnings are common among those leaving ownership. Further supporting the importance of employment loss, Haurin and



Rosenthal find that increases in the state unemployment rate are significantly associated with moves out of homeownership.

Both Reid and Haurin and Rosenthal find that divorce is the single event that is most strongly associated with termination of an ownership spell. Reid's findings indicate that a divorce raises the probability of leaving homeownership roughly by a factor of 10, while Haurin and Rosenthal's estimate is a more modest, but still significant, 40 percent.

Haurin and Rosenthal include an indicator of whether there was a change in the buyer's health that limited the amount or type of work they could do. This situation was rare in the sample (occurring in only 1 percent of cases) and was not statistically significant. Some of the effect of illness may have been captured by their measure of a change in earnings. The other impact of a health problem is on the costs incurred by the household, particularly if they do not have health insurance. The change in health measure might have been expected to capture the impact of uninsured health care costs, but this was not found to be an important factor—at least in this sample.

Haurin and Rosenthal also evaluate the impact of changes in both non-housing wealth and housing values on the likelihood of leaving homeownership and find that neither is particularly important. Non-housing wealth might be expected to act as a buffer in the event of income loss or an increase in expenses, but the results do not support this role for wealth. Increases in house values might be expected to support sustained homeownership by increasing overall household wealth, but the coefficients on these variables are not statistically significant. One reason for this result might be that they measure house values in real terms, while nominal changes in value may be more relevant for housing choices.

One of the key findings in Chapter 2 is that a significant share of low-income homeowners during the 1990s started out with severe housing cost burdens, devoting 50 percent or more of their income for housing. Neither Reid nor Haurin and Rosenthal include a measure of housing costs (either at the time the home is purchased or during the time after purchase) in their models, so there is no direct measure of the extent to which high housing costs precipitate a movement out of homeownership. But Haurin and Rosenthal do include measures of prevailing mortgage rates, both at the time of purchase and changes in these rates over time, all of which are found to be highly significant. A one-percentage point increase in initial mortgage interest rates is found to increase the risk of leaving homeownership by 16 percent. The authors note that this finding provides an indication of the increased risks faced by low-income buyers using higher-cost subprime financing. They also find that a one percentage point increase in rates over time increases the risk of leaving homeownership by 30 percent, while a one percentage point decline reduces the risk of leaving by 15 percent. They interpret these latter results as indicating the risks faced by those using adjustable rate financing. However, their data do not indicate whether borrowers actually have an adjustable rate product. Another interpretation of this result could be that owners who are forced by circumstances to change residence have a harder time maintaining ownership during periods when interest rates are high. In sum, while Haurin and Rosenthal do not incorporate any direct measure of housing costs, their findings regarding the importance of interest rate levels and changes do suggest that housing costs are an important factor in sustaining homeownership.

Related to the issue of changes in housing affordability, Haurin and Rosenthal also investigate changes in low-income first-time homebuyers' earnings over time. They find that on average the earnings of low-income owners grew at 13 percent, which is at least twice the growth rate of low-income renters and moderate- or high-income owners. Thus, they conclude that for most low-income owners strong income growth will help to lower housing cost burdens over time and help make homeownership more sustainable.

The panel nature of the AHS makes it possible to track first-time homebuyers over time to see how housing cost burdens change in the years after home purchase as well as whether those with higher initial cost burdens are less likely to continue owning the same home. In terms of changes in housing costs burdens, analysis of AHS surveys from the 1991 through 2003 suggests that housing costs as a percent of income do drop over time, but only modestly. Pooling data from all AHS surveys from 1991 through 2003, 8 percent of first-time buyers were found to have a severe payment burden at the time of purchase, where housing costs accounting for more than 50 percent of their income. Among first-time buyers still in their home after four to six years, this share was unchanged at 8 percent.<sup>33</sup> However, there was a decline in the share of first-time buyers with moderate payment burdens (where housing costs account for between 30 and 50 percent of income) from 20 percent to 15 percent of owners. The median burden among first-time buyers declined over the first four to six years from 22.5 percent of income to 19.5 percent.

The AHS also provides some insights into differences in the propensity of first-time buyers to stay in their first home given differences in the initial payment burden. It is important to note that since the AHS tracks housing units over time, not households, we cannot tell if buyers who moved out of their homes continued to own or not. But the rate at which first-time buyers leave their first home provides some indication of the degree to which these households are able to maintain homeownership in the face of high initial payment burdens. Across all the AHS surveys from 1991 through 2001, we find that buyers who start out with initial payment burdens over 50 percent are less likely than other buyers to still be in their home by the time of the next AHS survey two years later: 61 percent of buyers with severe payment burdens at purchase are still in their homes, compared to 70 percent of those with moderate burdens and 71 percent of those with burdens less than 30 percent of income. However, the rate at which these buyers leave their homes stabilizes after the first period, so that by the time that six to eight years since purchase have passed, there is little difference in the share of buyers still in their homes by initial payment burden: 40 percent of those with severe initial burdens, compared to 42 percent of those with moderate burdens and 40 percent of those with affordable costs.

One reason why the initial burden may not be such an important determinant of which households continue as owners is that there appears to be fairly significant changes between survey periods in whether a household has a severe payment burden. For example, of the households that have severe payment burdens at purchase, only 19 percent are found to still have such an extreme burden in the next survey period. Meanwhile, of those with payment burdens of less than 30 percent at purchase, 5 percent have severe payment burdens two years later. This suggests there is a fair amount of volatility in the income of low-income owners.

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<sup>33</sup> Since the AHS is conducted every two years, new first-time buyers are those who moved into a home in the two years since the last survey and so have been owners for between zero and two years. Those buyers still in the home two survey periods later would thus have been owners for between four and six years.

While these studies do shed some light on the factors associated with exits from homeownership, they also leave many questions unanswered. While it appears clear that a loss of income is an important factor in precipitating an exit from homeownership, the specific factors that cause these declines in income and what support is needed to help owners cope with these changes are not well understood. Another puzzle is that while data on the causes of delinquency and studies of long-run trends in foreclosure rates (Elmer and Selig, 1999) suggest that health problems and a lack of health insurance may contribute to owners' difficulties in maintaining homeownership, the analysis by Haurin and Rosenthal does not find evidence to support this view.

It is also likely that many exits from homeownership are simply rational decisions in response to changes in circumstances that do not impose significant costs on the owners. The fact that a fairly high proportion of high-income households leave homeownership within five years suggests that a failure to be able to afford homeownership is not the only reason for these departures. In short, there is a clear need for more information about the dynamics of homeownership over time, including the changes that occur in household circumstances, how different households respond to these changes (including whether they can draw upon savings, debt, insurance, or resources provided by family and friends), and how these responses are associated with different outcomes. A better understanding of these dynamics would allow policy makers to identify which households are at greater risk of being unable to sustain homeownership and what types of support is needed to increase their chances of success.

## **Mortgage Financing Choices After Purchase**

Mortgage financing choices made by homeowners after home purchase can have important repercussions for the financial benefits realized from ownership. One important decision is to refinance into lower interest rate loans when market conditions provide the opportunity to do so. The failure to take advantage of such opportunities can result in much higher interest rate costs over the life of the mortgage. Owners also can use loans to tap accumulated home equity. While the availability of this wealth is one of the benefits of homeownership, changes in mortgage markets over the last decade have made it much easier to tap home equity both through refinancing of existing mortgages and through home equity loans or lines of credit. The ease with which owners can tap their home equity may make it easier to use their wealth to support current consumption which both increases housing costs and erodes the development of a nest egg to help weather financial crises, fund investment in homes, business or education, or support the owner in retirement. This section explores what is known about differences among homeowners by income and race in their propensity to take advantage of refinance opportunities to lower interest rates or to cash out accumulated equity for other uses. Each of these issues is considered in turn.

### **Refinance Activity**

In general, analysis of refinancing activity has found that low-income and minority homebuyers are less likely to refinance their primary mortgage than upper-income households or whites. Exhibit 12 presents data from the 2003 AHS as an indication of the difference in magnitude of the likelihood of refinancing. As of 2003, 12 percent of low-income owners had primary mortgages that were

refinanced, which is about half the share of moderate-income owners and a third of the share of high-income owners. Comparing different racial-ethnic groups, whites (24 percent) are more likely to refinance than either blacks (14 percent) or Hispanics (21 percent). Exhibit 12 also shows that first-time buyers who are still in their first home are least likely to have refinanced (5 percent), although this likely reflects the fact that on average they have the shortest tenure in their homes and so have had less opportunity to refinance.

**Exhibit 12**  
**Refinance Activity and Reasons for Refinancing by Income and Race-Ethnicity of Owners**

	Low Income	Moderate Income	High Income	White	Black	Hispanic	First-time Buyers
<b>Share of All Owners with Primary Mortgage Refinanced</b>	12%	26%	35%	24%	14%	21%	5%
<b>Reason for Refinancing</b> (Share of those with refinanced mortgage)							
To get lower interest rate	83%	90%	93%	90%	84%	87%	97%
To increase payment period	2%	3%	2%	2%	2%	2%	0%
To reduce payment period	9%	11%	13%	12%	9%	12%	5%
To renew or extend a loan	1%	1%	1%	1%	3%	1%	0%
To receive cash	14%	12%	11%	11%	12%	15%	5%
Other reason	12%	10%	6%	8%	11%	12%	4%

Note: Reasons for refinancing sum to more than 100 percent as more than one reason can be reported.

Source: 2003 American Housing Survey.

Exhibit 12 also shows the reported reasons for refinancing among owners who have refinanced. By far the most common reason given among all groups of owners is to obtain a lower interest rate, with at least 83 percent of all owners reporting this reason. However, low-income and minority borrowers are more likely to report a desire to take cash out or “other reasons” for pursuing a refinance. Since one of the common reasons for refinancing is to consolidate non-housing debt into lower cost and longer-term mortgage debt, it is likely that this motivation is captured in the “other reasons” category (Canner et al., 2002). Considering both the shares motivated to refinance to take cash out and for other reasons, 26 percent of low-income owners report these reasons, compared to 22 percent of moderate-income owners and 17 percent of high-income owners. Blacks (23 percent) and Hispanics (27 percent) are also more likely to report these motivations than whites (19 percent).

While these overall refinance propensities from the AHS provide some indication of the prevalence of this activity by income and race-ethnicity, these simple tabulations do not take into account other differences in borrower circumstances that affect the likelihood of pursuing a refinance. For example, borrowers with mortgages that are largely paid off would be expected to be less likely to refinance because the small loan size reduces the benefits while financing costs are larger as a percent of the outstanding loan balance. Two recent studies have examined differences in the propensity of

homeowners by income and race-ethnicity to refinance using multivariate techniques to control for other differences in loan and borrower characteristics. In general, these studies find that low-income and minority homeowners are, indeed, less likely to refinance when interest rates fall and so may not be realizing the benefits of interest rate reductions to the same degree as other owners. However, these studies also suggest that low-income and minority generally seem to be responsive to market conditions, but they are more likely to be impeded from taking advantage of these opportunities by other financial constraints.

Van Order and Zorn (2002) analyze a sample of loans originated in 1993 through 1997 and purchased by Freddie Mac. These loans were tracked through 1999 to examine their refinance activity. In order to evaluate whether there are differences in the probability of refinance by homeowner income or race-ethnicity, they divide their observations into groups based on a comparison of the borrowers' current interest rate and prevailing market interest rates at the time. Specifically, the samples they report include cases where market rates are above the loan rate, near to the loan rate, and below the loan rate. They then model the probability of a refinance occurring as a function of the borrowers' income, race-ethnicity, and the age of the loan within each of these sub-samples. A comparison of the coefficients for the income and racial-ethnic groups across the samples is used to indicate whether low-income or minority homeowners behave differently in different interest rate environments. The results indicate that there is no difference in the propensity to refinance by either income or race-ethnicity when current interest rates are either higher or close to the borrowers' existing mortgage rate. This finding indicates low-income and minority borrowers are not more likely to refinance when doing so would result in a higher interest rate. However, these owners are found to have a lower probability of refinancing when current interest rates are below the owners' existing mortgage rate. Thus, low-income and minority owners are missing opportunities to lower their borrowing rates and so facing higher costs of homeownership than is necessary.

Van Order and Zorn also estimate models including other controls for borrower risk, including credit score, loan-to-value ratio, and their loan amount. Once these additional factors are included they find that there are no longer any differences in the probability of refinance by borrower income. Thus, the tendency of lower-income borrowers to miss refinance opportunities is related to the fact that they are more likely to be credit constrained. Among minorities, the inclusion of these other variables diminishes the likelihood of missing a beneficial refinance opportunity, but some differences do persist. In fact, in these specifications both blacks and Hispanics are found to have a similarly lower probability of refinancing in all interest rate environments. Since refinance activity during periods of relatively high interest rates is more likely to reflect owners' need to tap home equity for other purposes, the lower rate of minority refinance activity during these periods suggests they are also less likely to pursue cash-out refinances to meet other needs. This issue will be discussed more below.

The findings of Van Order and Zorn are consistent with those of Archer et al. (2002) based on an analysis of data from the AHS. Archer et al. examine refinance activity in five different periods from the mid 1980s through the mid 1990s. The focus of their analysis is on identifying any differences between low-income and other owners in the importance of various factors in predicting the likelihood of a refinance. They do this by interacting all of the explanatory variables with an indicator variable for low-income owners. In general, they find little difference in the importance of explanatory variables in predicting the refinance behavior of low-income versus other owners. Most notably, they found no difference in their sensitivity to opportunities to refinance to a lower interest

rate. Among the few statistically significant differences they found was that low-income owners were more sensitive to restrictions imposed by high existing loan-to-value ratios. The authors conclude that the lower propensity of low-income owners to refinance is due to the fact that they are more likely to face credit constraints than higher income owners. While Archer et al. do include controls for borrower race, they do not discuss these results. In general, the racial-ethnic coefficients were not statistically significant, but this result may simply reflect the fact that the AHS may not have had large enough samples of minority owners to detect an effect.

Canner et al. (2002) provide further support for the conclusion that low-income and minority owners are less likely to refinance. This study analyzes a sample of 2,240 homeowners interviewed by telephone in 2002. The survey gathered information on the refinance activity of these owners in 2001 and the first half of 2002. Using the results, they estimate a model predicting the probability that an owner obtained a refinance loan during this period as a function of a variety of borrower characteristics and loan terms prior to the refinance. Their results indicate that borrowers with income under \$40,000 were 1.4 percent less likely to refinance. Minorities were also 4.0 percent less likely to refinance, although this result was not statistically significant.

Finally, like Archer et al., Nothaft and Chang (2004) use the AHS to estimate models predicting the likelihood of refinancing. They pool the AHS from four different periods between the late 1980s and 2001 when interest rates declined and provided good opportunities for refinancing. Their results are similar to those of Archer et al., although by pooling the AHS from several years they also obtain statistically significant results for minorities, finding that blacks and “other” minorities are less likely to refinance than whites.

One of the interesting contributions of Nothaft and Chang is their attempt to estimate the value of the missed refinance opportunities by blacks and low-income owners. Given a prototypical upper-income, married couple homeowner, they find that blacks are 16.5 percent less likely to refinance than whites. Assuming a mortgage of \$100,000, average interest rates of about 8 percent and an average decline in the interest rate of 1.33 percentage points from refinancing, they estimate the present value of lower interest payments of the mortgage of \$12,394 per borrower. If 16.5 percent of blacks miss this opportunity, this works out to an average lost benefit of \$2,040 per black homeowner, or \$22.0 billion in lost benefits across all black homeowners. Employing the same methodology, they find that 6.9 percent of low-income homeowners miss out on refinance opportunities, with a total lost benefit of \$21.9 billion. In short, the benefits lost by missed refinance opportunities of these owners are substantial.

While not the subject of a detailed analysis, Nothaft and Chang also indicate that there is a substantial difference between whites and blacks in the decline in interest rates obtained through refinance. While whites average a decline of 1.33 percentage points, blacks average a decline of only 0.39 percentage points. Several other recent studies that have examined racial disparities in mortgage interest rates have also observed that blacks obtain much less financial benefit from refinancing. Susin (2003) and Boehm, Thistle, and Schlottmann (2005) both analyze data from the AHS and find that blacks pay higher interest rates than whites. Susin’s analysis of all outstanding mortgages as of 2001 concludes that blacks pay about 0.44 percentage points higher rates on average, with much of the difference associated with differences in rates obtained through refinancing. Boehm, Thistle, and Schlottman’s analysis of primary mortgages originated from 1990 through 2001 finds that the interest

rates obtained by blacks who refinance are on average 0.75 percentage points higher than the refinance rates obtained by whites. When they estimate statistical models that take into account a variety of borrower and loan characteristics, they find that the unexplained difference in refinance rates increases to 1.01 percentage points.

The significant differences in mortgage rates obtained by blacks who refinanced is consistent with the findings from a large number of studies that have found that blacks are much more likely than other racial-ethnic groups to use subprime lenders (Pennington-Cross, Yezer, and Nichols, 2000; Scheessele, 2002; National Community Reinvestment Coalition, 2003; Calem, Gillen, and Wachter, 2004; and Calem, Hershaff, and Wachter, 2004). It is telling that the Boehm, Thistle, and Schlottmann and Susin find that the disparities in mortgage interest rates between whites and blacks are not evident among purchase mortgages. This result is consistent with the fact the growth of subprime lending during the 1990s was most evident among refinance loans and much less evident among purchase loans—at least until very recently.

Boehm, Thistle, and Schlottmann also use their estimated model to disaggregate the reasons for blacks' higher interest rates into portions due to differences in borrower characteristics versus differences in treatment in the market associated with race that cannot be attributed to other borrower characteristics. They find that 87 percent of the difference in black-white refinance interest rates is due to different treatment in the market and only 13 percent is due to differences in borrower or loan characteristics. They note that some of the unexplained racial difference may be due to differences in credit history, a factor that is not captured by the AHS.

Nothaft and Chang's estimates of the value of missed refinancing opportunities do not take into account differences in interest rates obtained by income or race-ethnicity, but the disparities found by the above studies suggest they could be substantial. Carr and Schuetz (2001) present calculations showing that every additional percentage point added to a 30-year mortgage increases the total interest paid over the life of the mortgage by at least \$20,000. If on average all black owners who refinance pay about one percentage point higher rates than whites, the total aggregate costs of these higher rates would be several multiples of Nothaft and Chang's estimated cost of \$22 billion in lost benefits from the 16.5 percent of black owners who did not refinance.

### **Tapping Home Equity Through Cash-out Refinance or Home Equity Loans**

As noted above, another issue to consider regarding mortgage finance decisions is the extent to which owners reduce their equity in their homes either through cash-out refinancing or home equity loans. Exhibit 13 illustrates the prevalence of these activities by homeowner income, race-ethnicity, and first-time owner status. Both cash-out refinancings and home equity loans are more than twice as common among moderate- and high-income owners compared to low-income owners. Home equity loans are much more common among all groups. While 1.6 percent of low-income owners took cash out of their homes through a refinanced primary mortgage, 8.1 percent had a home equity loan in place in 2003. In comparison, among moderate- and high-income owners, 3.1 and 3.7 percent, respectively, had taken cash out through a refinancing while 15.3 and 21.2 percent, respectively, had home equity loans outstanding.

As Exhibit 13 also shows, blacks were less likely than whites to have either taken cash out through a refinancing (1.7 versus 2.7 percent) or have a home equity loan (8.4 versus 15.5 percent). Hispanics were also less likely to have a home equity loan than whites (8.7 versus 15.5 percent), but they were slightly more likely to have taken cash out through refinancing (3.2 versus 2.7 percent). Once again, first-time buyers are much less likely to tap home equity than any other group of owners, no doubt reflecting the fact that they have less equity in their homes.

**Exhibit 13**  
**Refinance Activity and Reasons for Refinancing by Income and Race-Ethnicity of Owners**

	Low Income	Moderate Income	High Income	White	Black	Hispanic	First-time Buyers
<b>Share of All Owners with:</b>							
Cash Out Refinance	1.6%	3.1%	3.7%	2.7%	1.7%	3.2%	0.3%
Home Equity Loan	8.1%	15.3%	21.2%	15.5%	8.4%	8.7%	7.8%

Note: Reasons for refinancing sum to more than 100 percent as more than one reason can be reported.

Source: 2003 American Housing Survey.

The differences in the propensity to tap home equity through borrowing evident in these simple cross tabulations are supported by several recent studies that have used multivariate techniques. Using the AHS, Nothaft and Chang (2004) estimate models predicting the incidence of both cash-out refinancings and the use of second mortgages to draw down equity. In addition to income and race-ethnicity, these models also control for the loan-to-value ratio, the size of the primary mortgage, and the borrowers’ payment-to-income ratio. Higher income households are generally more likely to tap home equity both through cash-out refinancing and second mortgages. First-time homebuyers are less likely to use either type of financing to draw down their equity. With regard to minorities, Nothaft and Chang find that “other” minority households are less likely to use a refinance to take cash out, while blacks are no different than whites in this regard. Blacks are, however, much more likely than whites to take out a second mortgage, while “other” minorities are no different than whites.

Finally, Canner et al. (2002) also examine the tendency for owners to take cash out through a refinance. They do not show results for the probability of taking cash out, but instead indicate the association between borrower and loan characteristics and the amount of cash taken out. The single most important factor is found to be the race-ethnicity of the borrower, with minorities taking out much less cash out than whites—\$5,537 less on average. Homeowner income is not found to be as important as race, with those whose income is below \$40,000 found to take out \$1,847 less on average.

In short, existing studies suggest that low-income and minority owners are less likely to tap home equity through cash-out refinancing. Thus, it does not appear to be the case that these owners are drawing down their home equity more rapidly than other owners. Of course, tapping home equity is not necessarily a bad outcome. One of the benefits of homeownership is that the accrued equity in the home can be used to finance investments in businesses or education or be drawn upon to meet



emergency needs. The concern is that low-income and minority households will have a greater need to tap equity to meet more routine consumption needs, which will reduce the availability of wealth for these other purposes.<sup>34</sup>

To the extent that some owners are tapping their equity, it would be interesting to know how the use of proceeds from cash-out refinancing or home equity mortgages differs by income and race-ethnicity. But, unfortunately, there is little information available on this topic. Canner et al. (2002) report on the differences in the use of cash taken out among all owners and find that the most common use is the repayment of other debts (51 percent), followed by home improvement (43 percent), and consumer expenditures (25 percent). More rarely, owners are found to use proceeds to make investments in stocks or other financial instruments (13 percent) or real estate and businesses (7 percent). The AHS only reports on the proportion of cash used for home improvements. Low-income households are slightly less likely to use cash out proceeds for home improvement expenses compared to moderate- and high-income owners (57 percent versus 62 percent, respectively). With regard to race-ethnicity, Hispanics (67 percent) are more likely to use cashed out funds for home improvement than either whites (60 percent) or blacks (56 percent).

One study that provides some indication of the extent to which home equity is tapped for other purposes is Haurin and Rosenthal (2005c). This study employs a different approach than the studies discussed above to estimate the extent to which homeowners tap capital gains for other purposes. Their basic approach is to predict levels of total household debt and non-housing assets as a function of a variety of household characteristics, including changes in the value of their home. The coefficient on the variable measuring the change in housing value is interpreted as the share of the gain that is evident in increased household debt or non-housing assets. An important difference from the studies focusing on mortgage debt is that this approach allows for the fact that increased housing wealth may encourage owners to take on non-mortgage debt to finance purchases. The difference between the change in debt levels and the change in non-housing assets is interpreted as the share of debt spent on non-durable goods that do not add to household assets. The focus of the study is on evaluating differences by homeowner income level in the propensity both to tap gains in house values and to use these proceeds either to invest in other assets or to support consumption of non-durable goods.

The study uses two different data sets, including pooled observations from the Survey of Consumer Finance (SCF) from 1983 through 2001 and the National Longitudinal Study of Youth (NLSY) from 1980 through 2000. The authors conclude that low-income and minority households have a somewhat higher propensity to tap capital gains, as for each dollar in gain the amount of household debt among these owners increases by between 12 and 18 cents, compared to an increase of 8 to 17 cents for high income households. This conclusion differs from the studies focusing solely on mortgage debt, which found that low-income households and minorities were less likely to borrow against their homes. The results suggest that these owners may be more likely to use non-mortgage debt as a means of tapping home equity.

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<sup>34</sup> One recent study (Hurst and Stafford, 2004) has found that owners are more likely to have taken equity out of their homes through refinancing if they experienced a spell of unemployment and also had low levels of liquid financial assets. However, the study did not explore whether there were any differences in these tendencies by income or race-ethnicity of the borrower.

One of the key findings of this study is that there are important differences by income in how owners use their housing wealth. High-income households appear to spend most of their gains on non-durable goods as they experience little increase in the value of non-housing assets. For low- and moderate-income households, on the other hand, much of the increased debt is associated with an increase in the value of non-housing assets, with their estimates ranging from 11 to 15 cents. In short, while high-income households are more likely to tap housing equity for consumer expenditures, low- and moderate-income households are more likely to use their gains to finance the purchase of other durable goods.

While the results from the SCF and NLSY were fairly consistent for both moderate- and high-income households, there were some important variations in Haurin and Rosenthal's results for low-income owners. The SCF results found no evidence that low-income owners increased either their debt levels or their non-housing assets in response to gains in house values. One explanation for this result is that the low-income owners in the SCF sample were much older than the low-income owners in the NLSY, with an average age of 60 compared to 35 in the NLSY. This suggests that older low-income households are less likely to tap housing equity than younger ones, a result that is consistent with Skinner (1993).

One important caveat regarding the findings of most of these studies is that there has been a significant rise in recent years in the amount of home equity being extracted through refinances. Data from Freddie Mac for conventional conforming loans shows that the amount of home equity withdrawn through refinances more than doubled between the early and late 1990s, increasing from less than \$20 billion annually before 1997 to about \$40 billion in 1999. After a decline in 2000, the amount of cash being taken out then rose to \$83 billion in 2001, \$111 billion in 2002 and \$147 billion and \$140 billion in 2003 and 2004, respectively.<sup>35</sup> The rise in cash out refinancing seems to be driven by a combination of rapid growth in housing values, continued low interest rates, and increases in consumer debt generally (Canner et al., 2002). Most of the studies cited above rely on data from 2001 or earlier, which is before the peak of this cash-out boom. Canner et al. come closest to capturing this cash-out boom, but their study period of 2001 and the first half of 2002 is also before the peak. Thus, these studies do not shed light on the extent to which this sharp rise in cash out refinances has been distributed across different types of homeowners. But the figures cited from the 2003 AHS above indicate that higher income households were much more likely to have taken cash out.

## Investing in Home Maintenance and Improvements

Another important choice that borrowers face after purchasing a home is whether and how much to invest in maintenance and improvements. These investments are important for several reasons. A certain level of investment in the house is needed to counter the effects of depreciation to protect the owner's investment. Deferred maintenance can lead to larger problems and have significant impacts

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<sup>35</sup> See [http://www.freddiemac.com/news/finance/docs/cashout\\_volume.xls](http://www.freddiemac.com/news/finance/docs/cashout_volume.xls). Since these figures exclude government insured, jumbo, and subprime mortgages, they undoubtedly underestimate the total volume of cash taken out, but the trends are nonetheless instructive.

on the home's value. For example, ignoring a leaking roof can lead to substantial damage to both the structure and the interior of the home. Aside from being necessary to maintain the value of the home, another reason why maintenance expenditures are of interest is that they can also add to the financial burdens of homeownership. If low-income and minority households purchase older homes that require greater levels of ongoing maintenance, this will increase their total housing costs.

Investments in home improvements beyond routine maintenance also help to support increases in home values over time. Analysis of the AHS by the Joint Center for Housing Studies (2005) found that greater investments in home improvement over the period from 1995 to 2001 were strongly associated with larger increases in home values over the same time.<sup>36</sup> However, while owners do realize some return on their investments in home improvements, on average the increase in the value of the house is less than the cost of the improvement. Industry estimates of the return on remodeling investments indicate that 80 percent of the costs of typical improvement projects are recouped in increases in home values.<sup>37</sup>

The disparity between the cost of home improvements and the increase in home values that result from these efforts highlights that, while investments in the home can have important financial implications, for the most part owners choose to make these investments out of a desire to tailor their homes to suit their tastes. In this regard, investments in home improvements may also be important as an indication that low-income and minority owners are able to maximize the benefits they receive from their homes. On the other hand, as long as the home is in sound condition and adequately provides for the needs of the household, improvements may best be categorized as a luxury rather than a necessity. That is, a failure of low-income and minority owners to invest in their homes to the same degree as upper income or white owners may not be an indication that homeownership fails to provide them with sufficient benefits.

In short, decisions by low-income and minority owners about investments in property maintenance are probably most important to both protect their investment in the house and to ensure that the home provides an adequate living environment. The extent to which these households choose to invest in improvements to the property may provide some indication of their ability to tailor their homes to meet their needs, but in many cases these investments may not be necessary to meet the fundamental housing needs of the owners.

There is very little research that has examined the experience of low-income owners in having to make investments in maintenance and repair to their homes. One study that provides some investigation of this issue is Rohe et al. (2003). This study surveyed low-income participants in homeownership counseling programs offered through affiliates of the Neighborhood Reinvestment Corporation in eight locations around the country. The survey, conducted about 18 months after participants received counseling, asked those who had purchased homes about their experience with unexpected major costs associated with the house and whether there were any needed repairs that the owner had been unable to afford. The responses from 343 homebuyers suggest that both of these issues are fairly common among the low-income buyers participating in these programs. Almost half

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<sup>36</sup> As the Joint Center notes, the causality in this association goes both ways. That is, it is also true that rising housing prices provide owners with equity that can be tapped to fund these home improvements.

<sup>37</sup> "2004 Cost Vs. Value Report," *REMODELING Magazine*, November 1, 2004.

(48 percent) of respondents indicated that they had experienced a major unexpected cost, with the most common problem being a repair needed to one of the home's major systems. A little more than a quarter of buyers (28 percent) also reported having a needed repair that they were unable to afford, most commonly including problems related to the roof, foundation, or major systems. The survey results suggest that home maintenance issues may be fairly common among the low-income buyers assisted by homeownership counseling programs.

While there is little work with an explicit focus on low-income homeowners, there is a fair amount of literature that has evaluated the factors that are associated with an owner's decisions about whether to invest in home improvements and, if so, how much to invest. In general, this research has found that low-income and minority households are less likely to make improvements and, when they do, their investments are smaller (Mendelsohn, 1977; Boehm and Ilhandfeldt, 1986; Montgomery, 1992; Harding, Miceli, and Sirmans, 2000; and Baker and Kaul, 2002). Tabulations of the 2003 AHS by the Joint Center for Housing Studies (2005) provide some indication of the magnitude of these differences. Among homeowners with income under \$40,000, 23 percent are found to undertake a home improvement project, compared to 30 percent of owners with incomes over \$120,000. However, since elderly homeowners account for a disproportionate share of these lower-income owners, in large part these differences reflect the tendency of older owners to make more limited investments in their homes. A comparison of the remaining income categories shows little difference in the proportion that invest in their homes. Among those with incomes between \$40,000 and \$80,000, 28 percent invested in home improvements, which is identical to the share of owners with income between \$80,000 and \$120,000 and only slightly lower than the 30 percent share among those with income above \$120,000. A similar pattern is evident among owners by race-ethnicity; while blacks are less likely to invest in their homes, the difference from whites is small. In 2003, 27 percent of white owners undertook a home improvement project, compared to 25 percent of blacks. Hispanics were actually slightly more likely than whites to invest in their homes, with 28 percent undertaking a home improvement project.

While the share of owners investing in their homes is similar, there are larger differences in the average amounts spent. Among owners with incomes between \$40,000 and \$80,000, the average home improvement project was \$5,300, compared to \$8,900 for those with incomes between \$80,000 and \$120,000, and \$14,200 for those with incomes above \$120,000. Whites also spent more on average than either blacks or Hispanics. The average white homeowner spent \$7,300, compared to \$4,400 among blacks and \$5,500 among Hispanics.

It is important to note that, for the most part, the Joint Center tabulations and the literature cited above do not include expenditures for routine home maintenance. These types of activities include repairs and maintenance to the home's existing systems as well as cosmetic improvements, such as painting. Investments in maintenance and repairs can be substantial. In 2001, homeowners spent a total of \$131.5 billion on home improvement and \$34.3 billion on home repairs (Joint Center for Housing Studies, 2004). As noted above, expenditures on home maintenance may be a more important factor in evaluating whether low-income and minority homeowners are sustaining their investment, continuing to occupy adequate housing, and are not facing undue cost burdens from high maintenance expenditures.

Of those cited above, Montgomery (1992) is the only one that addresses whether there may be differences in the factors associated with investments in home improvements versus maintenance. In an analysis of data from the 1985 AHS, she estimates models predicting both the prevalence of home improvement activities and the amount spent where home improvement is alternatively defined to include or exclude home maintenance activities. Her results indicate that there is little difference in the factors predicting if an investment is made whether maintenance is included or excluded. In both cases, higher-income and whites households are more likely to undertake these activities. However, there are some significant differences in her results regarding the amount spent. While household income is still positively and significantly associated with expenditure levels, the size of the income coefficient is smaller when maintenance activities are included. More importantly, the association between expenditure levels and race-ethnicity switches when maintenance expenditures are included. Without maintenance expenditures, whites are found to spend more; with maintenance expenditures included, minorities are found to spend more (although the coefficient is only significant at the 10 percent level).

There are several possible explanations for this result. One reason might be that when minorities do have a need to spend on home maintenance, the problems are more severe and so require greater expenditures. However, another reason might be related to the fact that minorities are more likely to hire a professional contractor for home improvement projects and less likely to undertake these projects themselves—so called “do-it-yourself” or DIY activities. Two studies have examined the factors associated with the decision of a homeowner to undertake a home improvement project themselves or to hire someone to do the work (Mendelsohn, 1977; and Bogdon, 1996). Both of these studies find that while lower-income households are more likely to engage in DIY, minorities are less likely to do so.

The finding that low-income households are more likely to engage in DIY is consistent with the notion that these households both have lower costs of forgoing paying work to undertake these projects and also have less income to be able to hire someone. Since minorities tend to have lower incomes than whites, it might have been expected that they would also be more likely to engage in DIY activities. Yet, controlling for income and other housing and household characteristics, this does not appear to be the case. Bogdon speculates that one reason why minorities might not be as likely to engage in DIY is that they are less likely to have grown up in an owner-occupied home and so have had less opportunity to develop the skills needed for these efforts. She also posits that low-income households may have greater difficulty in undertaking DIY efforts if they have to work long hours to compensate for lower hourly wages.

Again, tabulations of the 2003 AHS by the Joint Center for Housing Studies (2005) shed some light on the variation by income and race-ethnicity in the prevalence of DIY versus hiring professional contractors for home improvement projects. Across the four income categories defined by the Joint Center, the lowest share of DIY projects for those undertaking some home improvement was among those with incomes under \$40,000 (48 percent) and those with income over \$120,000 (47 percent). In contrast, 59 percent of those with income between \$40,000 and \$80,000 and 57 percent of those with income between \$80,000 and \$120,000 engaged in DIY activities. As before, the low shares of DIY among the lowest income category may well reflect a higher share of elderly homeowners in this category, who are much less likely to engage in DIY. Focusing on the next two lowest income

groups, the data do support the idea that lower income households are less likely to hire contractors than the highest income group.

The Joint Center figures also show that while 53 percent of whites undertake DIY projects, only 42 percent of blacks do. Hispanics are actually 8 percentage points more than whites to undertake home improvement efforts. One explanation for the differences between Hispanics and blacks may be that Hispanic immigrants come from countries where it is very common for households to construct their own housing (so called self-help housing). Another factor might be that Hispanic owners are even more likely to be in married couples households than whites, and so have more adults in the household to support DIY activities.

Bogdon suggests that to the extent that lower DIY activity is the result of less knowledge of how to undertake these projects, the obvious policy response would be to make training available for new homeowners to develop these skills. If in fact the lower level of DIY activity among blacks is indicative of less ability to undertake repairs and improvements to the home, it also raises concerns that these owners are deferring routine maintenance, potentially increasing the magnitude of these problems. This issue further highlights the lack of research that provides a good understanding of the maintenance needs of low-income homeowners, particularly blacks, and how they respond to these needs.

A final issue regarding maintenance and improvement expenditures that has not been the subject of much study is the relationship between neighborhood conditions and an owner's decision to invest in their home. In theory, poor neighborhood conditions would deter investment in the home since the owner would be less likely to recoup their investment in a declining area. As shown in Chapter 2, for the most part low-income and minority first-time homebuyers do not locate in distressed areas, but, nonetheless, conditions are somewhat worse than they are for whites and higher-income buyers. While most studies of improvement activities include controls for region and whether the home is in a central city or suburban area, few have attempted to capture variations in neighborhood conditions. Of those that have, Boehm and Ihlanfeldt (1986) find that owners in areas with high crime rates and higher shares of surrounding buildings with structural defects are less likely to invest in their homes. On the other hand, Montgomery (1992) includes the AHS measure of neighborhood quality but finds that it is only weakly correlated with home improvement activities. When there is a significant association, she also finds that higher quality neighborhoods are associated with less investment in the home, a finding that is contrary to expectations. One study that directly assesses this issue is Ioannides (2002), which analyzes the association between spending on home improvement by other homeowners in the immediate vicinity on a homeowner's own improvement spending. He finds a strong positive impact of neighbors' investments. But the study does not identify whether this effect varies by the characteristics of the neighborhood. The question of whether investment in home upkeep and improvement varies with neighborhood condition is not well studied.

## Summary

Many of the financial and social benefits of homeownership are associated with residential stability. Longer-term stays in the same house avoid the high transaction associated with selling a home, allow owners to ride out short-term market downturns, and give families an opportunity to develop and

benefit from social networks in the community. Given the importance of residential stability, a critical issue in evaluating whether low-income and minority owners realize the benefits from homeownership is whether they are able to sustain homeownership over time.

One measure of stability is simply the rate at which owners move out of their homes, which includes moves to other owner-occupied situations as well returns to renting or living with others. The main implications of greater mobility relate to the expected financial returns to homeownership, since more frequent moves mean greater costs of buying and selling homes and more chance to sell into down markets. There is a rich literature on residential mobility, which indicates quite clearly that owners move much less frequently than renters. However, there are surprisingly few studies that address the question of whether there are differences in mobility rates among owners by income or race-ethnicity. Of the few studies that have been done, most suggest that higher income households are more likely to move, which is in keeping with the view that these households have greater choices in the housing market. These same studies also find that minorities are generally more likely to move. Since minorities are unlikely to have more housing choices than whites, the higher mobility likely reflects greater difficulty in maintaining homeownership. Of note, one study comes to opposite conclusions, finding that low-income and white households are both more likely to move. In short, the mobility literature does not provide a clear picture of the extent of differences in the mobility rates of owners by income and race-ethnicity.

The most obvious and costly failures to sustain homeownership are cases that end in foreclosure. There is no question that low-income and minority owners are more likely to experience a foreclosure than other owners. But that still leaves the question of at what point is the rate of foreclosure too high. Among prime borrowers with at least 10 percent equity in their homes, foreclosure rates among low-income and minority borrowers are fairly low (less than one in twenty owners) and the difference from other owners are small (a few percentage points at most). However, simulations indicate that foreclosure rates rise by several percentage points when owners have no initial equity in their homes. If no-downpayment loans are combined with sustained periods without any house price growth, foreclosure rates are estimated to rise to about one in ten borrowers, with low-income borrowers about 50 percent more likely to face foreclosure than other owners. But while prime borrowers are only projected to experience rates this high in relatively extreme circumstances, foreclosure rates of one-in-ten were evident during the 1990s among minority borrowers using FHA insurance. Even higher rates are likely to occur among subprime borrowers.

But even in these high-risk lending programs, the vast majority – on the order of 90 percent – of low-income and minority owners do not experience a foreclosure. Thus, while foreclosure rates of one-in-ten are a cause for concern, it does not mean that lending to these groups in general has gone too far. However, it does highlight the need to identify the borrowers who are at greatest risk of foreclosure both to see whether financing ought to be limited to these groups and to develop approaches for providing more support for these owners over time to avoid foreclosure. In fact, during the 1990s there was a great deal of innovation in loan servicing approaches both to improve lenders' rates of contacting delinquent borrowers and to offer these borrowers a range of options for curing their problems short of foreclosure. These innovations in loss mitigation efforts were widespread in both the conventional prime market and at FHA (Cutts and Green, 2004; Herbert et al., 2000). Given the continued growth of subprime lending, particularly in the home purchase market, the implementation of concerted loss mitigation efforts in this market segment is clearly needed. Recently, there have

been examples of innovative efforts by subprime lenders in the Chicago area to help reduce foreclosures (Neighborhood Housing Services of Chicago, 2004).

But foreclosures are only the most visible way in which owners fail to maintain homeownership. Several recent studies have examined panel studies tracking households over time to examine how long low-income and minority first-time owners are able to stay in their first homes before returning to renting or living with others. One unexpected finding from these studies is that exits from homeownership are actually fairly common among all first-time buyers, with 40 percent of buyers found to no longer own their residence five years after they first purchased. Importantly, these studies also find that low-income and minority first-time buyers are more likely to leave homeownership than other buyers. Estimates from two studies focusing explicitly on first-time buyers differ somewhat, but they find that between 43 and 53 percent of low-income buyers will not sustain homeownership for more than five years, compared to between 23 and 30 percent of high-income buyers. They also find that minorities at all income levels are between 22 and 39 percent more likely to leave homeownership than whites.

These studies do not identify why these households leave homeownership. The exits will include cases where a change in circumstances make it impossible for owners to sustain homeownership—including both instances where owners are forced out of their homes by foreclosure as well as instances where owners leave to avoid foreclosure. But some share of these exits are also voluntary and likely represent sound decisions given changes in household circumstances that impose few costs on the owners. Assuming that high-income owners are only rarely forced out of homeownership by an inability to meet their financial obligations, then the exit rate for these households of between 23 and 30 percent may be taken as an indication of the share of cases where households voluntarily leave homeownership within five years. This assumption would suggest that roughly a fifth of low-income owners generally and about a quarter of low-income minority owners are forced out of homeownership within five years of buying. Clearly, it is not at all a given that low-income first-time buyers will be able to sustain homeownership long enough to realize its benefits.

These studies find that income loss, unemployment, and divorce are all strong predictors of who is likely to leave homeownership. One study that included measures of mortgage interest rates both at purchase and over time found a strong association between higher interest rates and shorter spells as an owner, suggesting that higher housing costs are also an important factor. Aside from household income and race-ethnicity, another important household characteristic is whether the owners are a married couple. Households headed by a single adult are found to have a much greater chance of leaving homeownership. This may well reflect the fact that with only one adult in these households they have less ability to accommodate a loss of income, an illness, or other unexpected crisis.

While the share of low-income and minority owners leaving homeownership seems high, it is also important to consider that not all moves out of homeownership are involuntary or associated with financial losses. As noted above, the fact that a fairly high share of high-income first-time buyers leaves homeownership within five years suggests that a lack of affordability is not the only factor that precipitates a return to renting or living with others. One study tracked households after they left homeownership to see if they subsequently returned to owning. While the study did not report results by household income, they did find that a majority of first-time buyers in all racial-ethnic groups that left homeownership ultimately succeeded in purchasing a second home. Among whites, 86 percent of



those who become owners either continually sustain ownership or return to owning, compared to 81 percent of blacks and 84 percent of Hispanics. These figures suggest that, despite fairly high shares of households leaving homeownership at some point after they buy their first home, ultimately a large majority of first-time buyers of all racial-ethnic groups do succeed as owners.

While these papers examining the length of time households sustain homeownership provide valuable insights into the homeownership experience of low-income and minority owners, they also highlight how little we know about the dynamics of an individual buyer's homeownership experience over time. Specifically, it would be very helpful to know more about the changes that occur in household circumstances after home purchase, how different households respond to these changes (including whether they can draw upon savings, debt, insurance, or resources provided by family and friends), and how these responses are associated with different outcomes. A better understanding of these dynamics would allow policy makers to identify which households are at greatest risk of being unable to sustain homeownership and what types of support are needed to increase their chances of success.

Another important set of choices made by owners after purchasing their homes relates to the use of mortgage finance. One important benefit available to owners is to take advantage of declines in mortgage interest rates to refinance their mortgage and lower their housing costs. Studies that have examined the propensity of lower-income and minority homeowners to refinance have found that both groups are less likely to refinance during periods when interest rates decline. For low-income owners these differences appear to be completely explained by the fact that these borrowers are constrained from refinancing by their higher risk profile in terms of loan-to-value ratios and credit scores. For minorities, some of the difference from whites is explained by minorities having higher risk factors, but even after controlling for these factors they are less likely to refinance than whites. One study estimated that in present value terms low-income and minority homeowners each lost in aggregate about \$21 to \$22 billion in reduced interest costs over the life of their mortgages from missed refinancing opportunities.

For blacks, another troubling issue is that when they do refinance, on average they obtain interest rates that are about one percentage point higher than whites. Interestingly, these studies of racial disparities in interest rates also find no significant difference in rates paid by blacks at the time of purchase. This result is consistent with the findings of a range of studies that have found blacks to be much more likely than whites or other minorities to use subprime lenders to refinance their primary mortgages. While differences in credit risk may explain some of this difference, a variety of studies that have included measures of risk still find that blacks are more likely to use subprime lenders, all else equal. Given that each additional percentage point on a mortgage of about \$80,000 raises total interest paid over the life of the loan by at least \$20,000, the additional costs imposed on black owners by unnecessary subprime refinances could be substantial. The tendency for blacks to fare worse in mortgage refinance markets than in purchase mortgage markets may be an indication that affordable lending programs need pay greater attention to the needs of existing owners rather than focusing most of their attention on efforts to support initial home purchases.

Another important aspect of mortgage finance choices relates to owners' choices to tap accumulated home equity for other purposes. Since one of the benefits of homeownership is that owners can use accumulated wealth to support investments in education and businesses or to weather financial crises, the use of home equity is not necessarily a bad outcome. However, one concern is that low-income

and minority homeowners might be more likely to use home equity to support current consumption and so reduce the availability of wealth for these other purposes. Accumulated home equity also helps to lower long-run housing costs, so if owners continually ratchet up their debt, they will not realize this long-run benefit. Innovations in mortgage markets during the 1990s have made it cheaper and easier to tap home equity through either cash-out refinances or home equity loans, raising the chances that owners will draw down their home equity. Studies examining the factors associated with the use of mortgage debt consistently find that low-income and minority owners are less likely to tap their home equity either through cash-out refinancing or home equity loans. One exception to this pattern is that Hispanics are slightly more likely than whites to take cash out through refinance. Thus, in general, there does not appear to be concerns that these borrowers are more likely to draw down their home equity. One study that examined changes in total household debt did conclude that low- and moderate-income households were more likely to increase their debt in response to gains in house values, but it also found that these owners were highly likely to invest in durable goods that increased the value of household assets. In contrast, high-income households mostly tapped housing gains to support consumption of non-durable goods that did not add to the household balance sheet.

A final aspect of the homeownership experience examined in this chapter dealt with investments in home maintenance and improvements. These investments are important in two respects. First, spending on home maintenance is important to ensure that the home continues to provide adequate shelter and to protect the value of the home. Required home maintenance spending can also add to housing costs and may increase the financial burden on low-income owners. Second, investments in home improvement increase the benefits received by owners from their homes and help to support increases in value. In general, studies have found that low-income and minority households are less likely to invest in home improvements, although the differences are not large. However, existing studies mostly focus on home improvements and shed little light on the incidence of maintenance expenditures. Since these activities are arguably more important for preserving the home, more research on differences in maintenance activities by income and race-ethnicity would be interesting.

One interesting finding from studies of home improvement activities concerns the tendency of owners to either do the work themselves versus hiring professional contractors. While low-income households are found to be more likely to do it themselves, minority owners, particularly blacks, are found to be more likely to hire contractors. There are several possible explanations for this pattern. One is that since blacks are less likely to have grown up in owner-occupied households, they may have less experience with these types of tasks. To the extent that this is the case, one implication is that blacks will face higher costs for home maintenance than other owners, which was found by the one study that examined patterns of home improvement spending including maintenance expenditures. Another implication is black owners may also be less likely to handle routine maintenance tasks, which will increase the chances that more serious problems will result. An obvious response to this situation would be make training available for new owners to develop the skills needed to handle basic home maintenance and improvement tasks.

Many of the issues touched upon in this chapter have important repercussions for the financial return realized by low-income and minority homeowners. The next chapter explores this issue in depth.

## Chapter Four:

# Financial Benefits of Homeownership

One of the fundamental reasons that policy makers have made it an important goal to increase homeownership opportunities for low-income and minority families is because it is believed to be the primary means of wealth creation for many U.S. households. The most important ways in which homeownership generates wealth is through appreciation in the value of the home and amortization of mortgage debt over time. Secondary financial benefits, which can also contribute to wealth creation, include lower annual housing costs both due to the income tax benefits associated with the deductibility of mortgage interest and property taxes and to the protection that homeownership provides against rising housing costs.

Arguments about the importance of homeownership as a means of wealth creation generally point to the large share of household wealth that is held in housing, particularly among low-income and minority households. In 2000, equity in homes accounted for 56 percent of aggregate wealth among households with income in the lowest quintile, compared to 32 percent of aggregate wealth among all households. Housing wealth was even more important among blacks, accounting for 62 percent of their aggregate wealth (Orzechowski and Sepielli, 2003).

But while faith in the financial benefits of homeownership is strong, the literature examining owner-occupied housing from a financial investment perspective raises significant questions about whether housing is, in fact, the best investment a family can make. Chief among the concerns about housing as an investment is the risk of experiencing weak or even negative appreciation in house values. Over the past 30 years there have been a number of markets that have experienced significant booms and busts in housing prices, exposing owners who are forced to move at the wrong time to potentially significant financial losses. In other markets, the long-run appreciation in house prices has not kept pace with inflation. In these areas, owners may well have been better off financially if they had invested in a balanced portfolio of stocks and bonds. Further adding to the risk of homeownership are the significant transaction costs associated with buying and selling homes.

To the extent that homeownership is, in fact, a good investment for the average household, there is still the question of whether it is a good investment for low-income and minority households. Since these households are buying lower-valued homes in different neighborhoods than higher-income and white households they may not have the same likelihood of experiencing appreciation in home values. Another important difference is that low-income households are less likely to benefit from favorable income tax provisions since the standard deduction is more likely to exceed their deductible housing costs. Finally, as the literature reviewed in Chapter 3 showed, low-income and minority first-time buyers have a greater likelihood of leaving homeownership after a few years and so are less likely to be able to ride out the ups and downs in housing prices.

In this chapter we review the literature that has examined both the general question of whether homeownership is a good financial investment as well as what is known about differences in the likelihood of realizing financial benefits for low-income and minority owners. The chapter begins by reviewing the literature that has examined the role of housing appreciation in the financial return to

homeownership and whether expectations regarding appreciation differ for homes purchased by low-income and minority homebuyers. The next section then examines the importance of income tax benefits in making homeownership financially attractive and how limitations on the ability of low-income owners to take advantage of these benefits affect their financial return. The last section takes a more comprehensive look at the role of homeownership in wealth creation. There is a complex web of factors that contribute to the financial returns from homeownership, including appreciation in values and tax benefits as well as the issues raised in Chapter 3 about sustaining homeownership over time and decisions about financing, maintenance, and improvements. The literature reviewed in the last section attempts to account for all of these factors by using longitudinal surveys of households over time to track trends in the tenure choices of households and how these cumulative tenure choices are related to wealth accumulation. The chapter closes with a summary and conclusions from the literature reviewed.

## **Housing Appreciation and the Financial Return to Homeownership**

Appreciation in house values is critical to the realization of financial returns to homeownership. Given the focus of this study, we are primarily concerned with the question of whether low-income and minority owners are as likely as other owners to benefit from housing appreciation. But before turning to the question of what is known about how appreciation rates may vary by income or by the race-ethnicity of the owner, it is important to consider the general question of how financial returns to housing compare to other investments. In assessing the financial returns to housing, Goetzmann and Spiegel (2002) take the straightforward approach of estimating the average nominal change in housing values in 12 markets based on a repeat sales index covering the period from 1980 to 1999. They then compare these rates of return to after-tax mortgage costs over the same period as proxied by the annual return on mortgage-backed securities. They find that in 9 of 12 markets examined house price growth was lower than the after-tax mortgage costs so the returns to housing over this 20-year period were negative. From this result they conclude that housing offers lower returns than Treasury bills and note that given this poor performance it is “surprising that housing continues to represent a significant portion of American household portfolios.”

However, Goetzmann and Spiegel’s analysis does not take into a number of important considerations, including the value of the housing services provided by the home (also referred to as imputed rent), the full tax advantages of home ownership (including the ability to deduct property tax payments), or the fact that investments in homes are generally highly leveraged through mortgage debt. The use of leverage means that while the rate of appreciation in the overall house value may be fairly low, since many owners have a fairly small amount of equity in the home but realize appreciation on the full value of the property, even small increases in value can represent a high rate of return on the invested equity.

Studies that do take a more comprehensive view of the financial returns to homeownership come to a much more positive conclusion about the investment appeal of owner-occupied housing. Flavin and Yamashita (2002) incorporate the value of housing services, a more complete estimate of the income tax benefits, and estimates of other costs of homeownership (specifically, property taxes and depreciation). They do not, however, incorporate the effect of financial leverage. They estimate returns to housing using two methods—one using owners self valuations of their homes from the

Panel Survey of Income Dynamics for the period 1968 to 1992 and another using a repeat sales housing price index for four markets during the period from 1970 to 1986. By either method, they find that the financial returns to homeownership are lower than the returns to stocks, but much higher than the returns from either risk free investments or investments in mortgages. Flavin and Yamashita also estimate the variance of the returns for individual owners and find that the variance of returns to housing are higher than risk-free investments but lower than for stocks, which is in keeping with the relative rates of return of these different investments. Finally, they also find that the correlation of housing returns with stocks, bonds, and treasury bills is essentially zero—so homeownership helps to diversify the risks of other investments.

Case and Shiller (1990) examine the same repeat sales index as Flavin and Yamashita covering the Atlanta, Chicago, Dallas and San Francisco markets over the period from 1970 to 1986. Like Flavin and Yamashita, their analysis of the financial returns to owner-occupied housing includes income taxes, maintenance, and the value of housing services. But in addition they also estimate returns alternatively assuming the home is owned without debt and with a mortgage equal to 80 percent of its value. Case and Shiller then estimate the difference between the financial returns to housing and the returns earned by 90-day Treasury bills, defining this difference as the excess return to housing above a riskless investment. They conclude that in these four markets over the period studied the excess returns on owner occupied housing were enormous in all four markets, particularly when the effect of leverage is included.

These results are confirmed by Goetzmann (1993) who presents a similar analysis for the same four markets. Over the period studied, house price appreciation rates were high in all four markets, so that even when the estimated returns ignore the combined contribution of tax benefits, the value of housing services, and financial leverage, the returns are found to compare favorably with other investments taking into account differences in risk. Importantly, however, when Goetzmann does include estimates of the tax benefits, the value of housing services, and financial leverage the returns to housing are increased by a multiple of between 1.6 and 3.7 and greatly exceed the returns from alternative investments.

In short, when tax considerations, imputed rent, and financial leverage are included in the financial returns to owner-occupied housing, on average and over fairly lengthy holding periods this investment is found to generate significant financial returns. When financial leverage is not taken in account, estimates suggest that the financial returns are a little lower than for stocks, but with appropriately lower risk. When financial leverage is included, the financial returns to homeownership were found to be even greater than for stocks—at least in the four markets studied over the period from 1980 to 1996.

Several of the studies cited above also examine the issue of how much housing should be owned to optimize a household's investment portfolio. In general, the household's consumption demand for housing is found to force lower-wealth households to hold a larger share of their wealth than is optimal in housing. But these studies still find that given the constraint that a household needs to occupy a home and given the risks and returns offered by owner-occupied housing, home ownership does represent a constrained optimum investment strategy (Flavin and Yamashita, 2002; Brueckner, 1997; Goetzmann, 1993).

## Variations in Housing Appreciation by Income and Race-Ethnicity

While in general it may be true that homeownership offers the potential for significant financial returns, the key question for this study is whether low-income and minority owners are as likely as all homeowners to experience positive returns. Given both the importance of house price appreciation to the overall returns to homeownership and the fact that low-income and minority buyers are likely to buy homes in different submarkets than higher-income, white households, it is important to address the question of whether these buyers are as likely to realize positive house price appreciation.

There is a fairly extensive literature evaluating differences in housing appreciation rates across different value submarkets within metropolitan areas. Dietz and Haurin (2002) and McCarthy, Van Zandt, and Rohe (2001) provide fairly thorough reviews of this literature. There are a variety of approaches used to define submarkets by value in these studies. One approach divides individual homes into different value categories (e.g., lower quartile or upper quartile) without regard to the specific neighborhood where the home is located. Another segment examines appreciation rates for individual neighborhoods as a function of neighborhood characteristics, including the median home value. Finally, a few studies have used household micro data that provides information on the characteristics of the occupant and the home that can be used to define the market segment. A common feature of this literature is that given the need for detailed information on house values and characteristics, many of these studies examine either a single market area or a small number of markets over a specific time period. In these cases it is not clear to what extent the findings are generally true of low-valued market segments or are just unique to the individual markets over the specific period studied.

Given these variations in the literature, it is hard to draw definitive conclusions about differences in appreciation rates by housing value from any individual study. But taken as a whole, the literature leads fairly convincingly to the conclusion that there is no consistent difference in appreciation rates between low-income and high-income market segments. It is true that several studies have found that lower-value homes or neighborhoods have experienced less appreciation (Poterba, 1991; Seward et al., 1992; MacPherson and Sirmans, 2001; and Kim, 2000). But it is also the case that others have found that lower-valued homes or neighborhoods have experienced more appreciation (Case and Shiller, 1994; Case and Mayer, 1996; Archer et al., 1996; and Belsky and Duda, 2002b). Most commonly, the results of these studies either find no significant difference in appreciation rates or the results are mixed, finding that whether low- or high-valued homes or neighborhoods appreciate more depends on the specific time period or the specific market studied (Kiel and Carson, 1990; Pollakowski et al., 1992; Smith and Tesarek, 1991; Smith and Ho, 1996; Goetzmann and Spiegel, 1997; Li and Rosenblatt, 1997; Quercia et al., 2000; and Case and Marynchenko, 2002).

For example, Li and Rosenblatt (1997) examined price changes at the neighborhood level in three different California metropolitan areas. Their analysis separates the period when house prices were rising (1986 to 1990) from when they were falling (1990 to 1994). They find that while higher-value homes appreciated more rapidly during the boom, they also fell more rapidly during the bust. Importantly, they found that the direction, magnitude, and significance level of the explanatory variables varied by time and by market area, indicating that there was no consistent relationship between a neighborhood's characteristics and house price trends. Case and Marynchenko (2002) come to similar conclusions based on their examination of price trends for neighborhoods in Boston,

Chicago, and Los Angeles over the period from 1983 through 1998. They find that low-valued neighborhoods in Chicago experienced consistently higher price appreciation over this period, while in both Boston and Los Angeles whether low- or high-valued homes experienced more or less growth depended upon the specific time period considered.

In short, taken as a whole the literature indicates that there is no reason to believe that low-value segments of the housing market will necessarily experience less appreciation than higher-valued homes. In fact, at different points in time in different market areas, low-valued homes and neighborhoods have experienced greater appreciation rates. Although the opposite is also true.

In comparison to studies of differences in appreciation rates across different submarkets defined in terms of housing values, there is much less recent research examining differences in appreciation rates by the race-ethnicity of the owner or the racial-ethnic composition of the neighborhood.<sup>38</sup> Given the thinner literature on this topic it is harder to draw general conclusions. Kiel and Zabel (1996) link data from the American Housing Survey for Chicago, Philadelphia, and Denver from the late 1970s through 1990 to census data on neighborhood characteristics. Including controls for the housing unit, the neighborhood, and the household, they find that the magnitude of the effect of neighborhood racial composition varies significantly over time in the different market areas. At times, prices grew faster in black areas, while at other times they grew more slowly. They conclude that the impact of racial composition on house prices is not consistent either over time in the same market or across market areas.

MacPherson and Sirmans (2001) examine changes in individual house prices in Orlando and Tampa over the period from 1970 through 1997. They include measures of neighborhood racial and ethnic composition in their model of house prices and find that in both markets a higher Hispanic share was associated with greater price appreciation over the period, while the black share was not statistically associated with price changes. They also include measures of the change in the Hispanic and black population shares over time, and find that increases in the black share were associated with less appreciation in both areas while increases in Hispanic share were associated with higher appreciation. Two other studies come to more negative conclusions.

Quercia et al. (2000) examine price changes for individual homes in Miami over the period from 1972 to 1993. They find that homes in neighborhoods with a high concentration of minorities experienced lower appreciation over the period than other neighborhoods. Kim (2000) modeled changes in house prices at the neighborhood level in Milwaukee over the period from 1971 to 1993. The results indicate that house price appreciation was much lower in neighborhoods that had high minority shares. Finally, Coate and Vanderhoff (1993) use the American Housing Survey (AHS) for the

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<sup>38</sup> There is a literature from the 1970s and earlier that was concerned with the issue of whether racial segregation of blacks resulted in blacks and whites paying different prices for comparable housing. These studies generally focused on evaluating differences in the price of housing in a single market and at a single point in time based on the racial composition of neighborhood and how the racial composition had been changing. The general conclusion of this literature is that blacks paid a premium compared to whites for housing in the 1960s, but as white suburbanization accelerated in the 1970s house prices in predominantly black neighborhoods were lower than in white areas. See, for example, King and Mieszkowski (1973), Schnare (1976), Schnare and Struyk (1977), and Yinger (1978).

period 1974 to 1983 to analyze house price changes including the owner's race as an explanatory variable. They find that the owner's race is not statistically significant in predicting house price changes once other variables are controlled for.

Taken together, these few studies present a somewhat mixed picture. Only one study found that there were periods when house prices rose more rapidly in neighborhoods with a high share black, although two studies found no racial effect. On the other hand, the one study that included the Hispanic share found that prices grew more rapidly in areas with a higher Hispanic presence. Based on these results, it does appear that homes in mostly black areas may be less likely to experience appreciation, but this conclusion is tempered by the small number of studies and the fact that these studies mostly analyzed trends from the 1970s and 1980s, which may no longer be relevant. It is also important to bear in mind that the literature reviewed in Chapter 2 suggests that minority first-time homebuyers are not concentrated in predominantly minority neighborhoods, although they are moving to areas with higher minority shares than the typical white homebuyer. Given the lack of research on variation in appreciation rates by neighborhood racial composition, particularly for the period since the 1980s, further research on the appreciation rates realized by minority homebuyers in the 1990s would make a valuable contribution to the literature.

### **Variation in Appreciation by Structure Type**

Another key factor to consider regarding differences in appreciation rates is the type of home purchased. For the most part, studies examining both the financial returns to housing generally as well as differences in appreciation rates for different segments of the housing market have focused on price trends for single-family detached housing. But as shown in Chapter 2, over the 15 years from 1989 to 2003 nearly a quarter of low-income first-time homebuyers purchased a manufactured home, compared to only 11 percent of moderate-income and 4 percent of high-income buyers. Black first-time buyers are also somewhat more likely to purchase single-family attached homes (12 percent versus 8 percent for all buyers). First-time buyers may also be more likely to purchase condominiums in multiunit structures in high-cost markets as a more affordable way of attaining homeownership. There is good reason to believe that structural differences exist in the supply and demand for different types of homes, producing significant differences in appreciation rates. Unfortunately the literature in this area is particularly thin so relatively little is known about differences in appreciation rates by structure type.

Turning first to differences in appreciation rates among structure types other than manufactured homes, Tong and Glascock (2000) claim that their study is the first designed to model drivers of appreciation rates across unit types. They compare rates of price appreciation across three types of housing units – single-family detached, townhouses, and condominiums – in three geographic areas in Maryland—Baltimore City, Baltimore County, and Montgomery County. They note that two previous studies provide incidental information on the issue. The analysis by Pollakowski et al. (1992) included a dummy variable for single-family detached housing that was positive and statistically significant, suggesting that these homes appreciate more rapidly than other structure types. Similarly, Clapp, Giaccotto, and Tirtiroglu (1991) found that condos appreciated less rapidly than single-family homes in the Hartford metropolitan area. In neither of these studies, however, did the authors pay much attention to differences in appreciation rates by unit type.



Looking at the issue directly, Tong and Glascock (2000) find substantial differences in the factors explaining appreciation rates both across the three structure types and across the three geographic areas studied. Not only do the explanatory variables differ, but they also found substantial differences in appreciation rates by structure type. Over the entire 1973 to 1997 period, single-family detached units in Montgomery County appreciated 22.4 percent in real terms, while townhouses fell 3.1 percent. In Baltimore County, townhouses appreciated most rapidly—24.8 percent versus 16.6 percent for single-family detached and a 10.8 percent decline for condos. In Baltimore City, single-family detached home prices fell 10.7 percent, slower than the declines for both townhouses (-16.2 percent) and condos (-21.2 percent). The authors also show that condo prices are more volatile across all three geographies. In short, the findings of Tong and Glascock indicate that there are important differences in appreciation by structure type. Although the findings of this single study should not be interpreted as an indication that structures other than single-family houses appreciate more slowly. Data from the National Association of Realtors show that condominium prices surged much more than even single-family home prices from 1997 through 2004. Hence, the appropriate conclusion is that the correlation of price appreciation with structure type is sensitive to temporal and spatial variations in the supply and demand for different structure types.

Given the relatively high share of manufactured housing among low-income first-time homebuyers the question of whether these homes offer the same potential for appreciation is particularly important. There are two different reasons why manufactured homes might not be expected to produce the same returns. First, given the different building process and materials used to construct these homes, there is a perception that they are likely to depreciate faster than site built homes (Jewell, 2003). Second, about half of those who own manufactured homes do not also own the land on which the homes are located. Since appreciation in house values largely reflects appreciation in land values, those who do not also own the land on which their homes are located may be much less likely to experience a growth in housing equity.

There are several studies that have compared rates of appreciation of manufactured homes with conventionally built homes. The general conclusion of these studies is that in cases where owners also own the land, manufactured homes generally appreciate at close to the same rate as other homes, but that absent land ownership manufactured homes offer little opportunity for appreciation.

Stephensen and Shen (1997) analyze somewhat limited information on appreciation rates of manufactured versus site built homes in four North Carolina counties with different housing market characteristics. The study concludes that manufactured housing placed on permanent foundations and titled as real property appreciated nearly identically to comparable site-built homes. However, they also find that manufactured homes without land ownership depreciated in value over time.

Apgar et al. (2002) simulate changes in values of manufactured homes versus site built homes based on changes in construction costs and real property values (which is used as a measure of land price changes). Their simulation leads them to conclude that, because of improvements in manufactured housing production processes over time that have lowered the costs of new units, existing manufactured units themselves are likely to have appreciated a bit more slowly than site built homes. However, they also find that since changes in land value play such an important role in overall house price changes, the impact of slightly lower appreciation of the housing unit has only a slight impact on overall appreciation rates. Specifically, they estimate that the real value of site built homes grew

8.2 percent between 1990 and 2000, while manufactured homes where the land is also owned were estimated to have increased in value by 7.5 percent. But, again, if owners of manufactured homes did not own the land, they would not have realized any gains at all.

To assess differences in appreciation rates for manufactured homes, Jewell (2003) analyzes county appraisal data for three Texas counties for the period from 1990 to 2002 as well as data from the AHS for the period 1985 to 1999. His analysis of the appraisal data for the Texas counties finds no significant difference in appreciation rates between site built and manufactured homes if land is owned, although manufactured homes did exhibit greater variation in appreciation rates. However, manufactured homes on leased land had much lower appreciation rates. His analysis of the AHS came to very similar conclusions: while manufactured homes on owned land appreciated at rates similar to site built homes, there was much greater variability in appreciation rates and manufactured homes on leased land actually depreciated on average. A study by Boehm and Schlottmann (2004a) using AHS data for 1991 to 2001 corroborates Jewell's results.

There is a fairly clear consensus that emerges from these studies. Manufactured housing sited on owned land on average appreciates at rates similar to site-built homes. However, there is greater variation in appreciation rates so investments in these homes are somewhat more risky. Most importantly, studies consistently find that manufactured homes that do not include land ownership do not offer the potential for asset appreciation. As Boehm and Schlottmann concluded "manufactured housing where the household does not own the lot is not an investment in any sense." Thus, for the half of manufactured home owners who do not own their lot there is little chance of realizing a financial return.

### **Influence of the Timing of Purchase and Sale on Financial Returns**

The findings from the literature reviewed above suggest that in general the rates of return make homeownership a good investment and, importantly, there is no reason to believe that low-valued homes are less likely to produce a positive return than higher-valued homes. However, these findings do not mean that housing is a risk-free investment. As the literature examining housing appreciation patterns makes clear, housing appreciation rates vary substantially both across markets and over time. For example, an analysis of price trends in 163 market areas for which Freddie Mac produces price indexes reveals that between 1990 and 1995 slightly more than a quarter of these areas experienced declines in nominal home values while more than half had gains that did not keep pace with inflation. But since 1995 strong house price growth has been widespread. Between 2000 and 2005 41 percent of market areas had nominal price growth in excess of 50 percent and in virtually all markets house price growth has outpaced inflation. The Freddie Mac price indexes also reveal that over the long-run the periods of increases more than offset the periods of declining prices as house price growth exceeded inflation for the period from 1975 to 2005 in all but 13 of the 163 markets. But since the typical homeowner is unlikely to own a single home over the "long run," whether a homebuyer realizes a positive financial return depends critically on both what market they live in and when they buy and sell their homes.

The analysis by Belsky and Duda (2002b) makes an important contribution to the literature by evaluating the importance of the timing of the purchase and sale of a home in determining the financial returns realized by individual owners. They analyze repeat sales data for single-family

homes in four markets – Boston, Chicago, Denver, and Philadelphia – over the period from 1982 to 1999. Houses are divided into three cost categories at the time of sale. Low-cost homes are those affordable to households at or below 80 percent of the area median income, moderate-cost homes are those affordable to households between 80 and 120 percent of area median income, and high-cost homes are those affordable to households above 120 percent of area median income. Belsky and Duda estimate the mean return realized by homeowners by first deflating prices for inflation and then subtracting six percent of the sales price for transaction costs. They find that the average return on sale among low-cost homes was consistently large and positive, ranging from 23 percent in Philadelphia to 54 percent in Boston. In contrast, the average return for moderate- and high-cost homes was small or negative in most cases (with the one exception being moderate-cost homes in Boston which increased in value by 19 percent on average).

But the key finding of Belsky and Duda was that a large share of owners at all price levels experienced a financial loss after taking into account both general inflation and the transaction costs of selling their homes. In three of the four markets a small majority of all owners experienced a loss, while in the fourth 41 percent had a loss. Importantly, in all four areas, buyers of low-cost homes were less likely to lose money, so homeownership appears to have been less of a gamble for those who purchased low-cost homes in these four markets. But even among these buyers, between 21 and 42 percent were estimated to have had a real loss on their investment.

Belsky and Duda find that the better financial return experienced by buyers of low-cost homes reflected better timing of purchases, as high-cost purchases were more likely to occur around peaks and low-cost purchases made up a greater share of purchases during troughs. This result leads them to question whether efforts to increase homeownership among low-income families during the housing boom of the late 1990s might mean that these buyers will be more likely to experience losses following the current boom.

However, there are several important caveats to the results of this study. First, as the authors make clear, they are not reporting the shares of all buyers who experience losses, but rather shares of all those who both bought *and* sold their homes within the period for which they had data. Since longer-term owners are more likely to ride out the ups and downs of market prices, non-sellers – who are not in the data set – may be more likely to have experienced gains. A large majority of the cases in their data set consisted of owners who sold their homes within nine years of purchase. Based on data from the AHS, the authors estimated that 35 percent of low-income homebuyers in the mid 1980s moved within nine years as did 44 percent of high-income buyers.<sup>39</sup> Thus, when considering that about half of all homebuyers who sold within nine years of buying their homes experienced a real financial loss, it is important to bear in mind that these sellers actually account for less than half of all buyers.

Another caveat with their analysis is that while it is important to take inflation into account in determining the financial return on homeownership, an owner may incur a loss in real terms but still walk away from the sale with some cash in hand. This outcome is of no small importance as the cash is likely to be important in providing the seller with funds to use for a downpayment on another

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<sup>39</sup> The shares of low-income buyers sustaining long spells of homeownership cited by Belsky and Duda are higher than the shares reported in Chapter 3 because their analysis is not limited to low-income first-time buyers, but instead includes all buyers of low-valued homes.

home. Along those lines it is not unimportant that Belsky and Duda find that the vast majority of owners sold their homes for more than they bought them and so may have had the financial means to purchase another home. Along these lines, it is important to note that the study examines only single spells of homeownership. It is possible that those who sold their homes near the bottom of a cycle and experienced a real loss still managed to buy another home. In that case, they may have been well positioned to benefit from the next upswing in prices.

Nonetheless, the findings of Belsky and Duda highlight the critical importance of sustaining home ownership in order to ride out market downturns. The literature reviewed in Chapter 3 indicates that, in fact, sizeable shares of low-income first-time homebuyers are not able to sustain homeownership for at least five years. Belsky and Duda's findings suggest that these sellers are fairly likely to experience a loss in real terms. On the positive side, they do find that low-cost homes experienced greater price appreciation and exposed buyers to less risk of loss compared to higher-cost homes—at least in the markets and time period they studied. As Belsky and Duda (2002, 217-219) succinctly observe: “Purchasing a home, especially on a single term of homeownership, is risky. The American Dream of homeownership may turn out to be just that for millions of owners, but for large shares it is not a fruitful investment unless sellers reenter the market and are able to ride one or more waves of appreciation over their lifetime.”

## Comparing the Costs of Owning and Renting

The previous section was concerned with the question of whether homeowners—and particularly low-income and minority homeowners—are likely to realize a fair financial return on their investment through appreciation in home values. But while homeownership may be likely to provide a fair financial return, it is still possible that individuals could be financially better off by renting a home and devoting their savings to other investments. In this section we review the literature that compares the costs of owning and renting, with a particular emphasis on differences in these costs for low-income or minority households.

The ongoing costs associated with owner occupied homes include those for mortgage interest, property taxes, maintenance, and hazard insurance. In addition, there are transaction costs associated with buying and selling a home and with originating a mortgage both at the time of purchase and when the mortgage is refinanced. Offsetting these costs are the financial benefits associated with appreciation in the value of the home and the potential deductibility of payments for mortgage interest and property taxes. Thus, a complete accounting of the costs of homeownership must take into account the ongoing costs of paying for the home, the annual tax benefits realized (if any), and the one time costs and benefits of transaction costs and capital gains on sale of the home.<sup>40</sup>

In comparison, the costs and benefits of renting are fairly straightforward. The costs include rent payments and the transaction costs of signing a new lease (such as a realtor fee) and leaving an

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<sup>40</sup> Since there capital gains taxes are not paid on either the first \$250,000 in gains for single-person owners or \$500,000 in gains for married couple owners, it is generally assumed that there are no capital gains paid on housing appreciation by homeowners. While this treatment of capital gains is relatively new, the tax treatment of capital gains on owner-occupied homes in the past also generally made it possible for most owners to avoid these taxes.

existing one (such as a loss of a security deposit for damage to the unit or fees for breaking a lease). These costs are offset by the financial gain associated with investing funds that would otherwise be used to support the purchase of a home. Alternatively, rather than count this return as a benefit of renting, it can be counted as an opportunity cost associated with owning.

While the above description may make it seem as though a comparison of the costs of owning and renting is fairly straightforward, in practice such a comparison is extremely complex given the large number of factors that influence the costs of owning. Before turning to the literature that compares the costs of owning and renting, it is helpful to begin by examining each of the components of these costs and assessing how they might differ based on household income or race.

### **Variations in Owner and Renter Costs by Income and Race-Ethnicity**

The most obvious way in which the cost of owning differs by income is as a result of the income tax treatment of mortgage interest and property tax payments. Under federal tax rules, these costs are both deductible from income. But an individual tax filer will only benefit from this provision of the tax code if the value of their itemized deductions exceeds the standard deduction.<sup>41</sup> The value of this benefit is equal to the amount of itemized deductions in excess of the standard deduction times the marginal tax rate paid on the income that is sheltered by these excess deductions. Low-income homebuyers are less likely to benefit from these tax provisions both because their lower housing costs are less likely to exceed the standard deduction and, if they do itemize, because their lower marginal tax rates reduce the value of this benefit.

Low-income married couples are particularly unlikely to realize these benefits, as their standard deduction of \$9,700 will often exceed interest and property tax payments on a modest home. Single persons and, to a lesser extent, single heads of household are more likely to benefit as their standard deductions are only \$4,850 and \$7,150, respectively. Even if married couples do itemize their deductions, they are also penalized by the fact that they face lower marginal tax rates than single persons or single heads of households. Follain and Ling (1991) and Capone (1996) both find that low-income married couple households are unlikely to realize any tax benefits from homeownership.

To illustrate how the potential magnitude of income tax benefits relative to housing costs may vary by income, Appendix A presents the results of a simulation comparing the value of tax benefits as a percent of housing costs for different household types and income levels. Specifically, three household types are considered: a married couple with two children, a single parent with one child, and a single person. We examine each of these households at five different income levels: \$15,000, \$30,000, \$45,000, \$60,000, and \$75,000. At each income level, we estimate the maximum value of a home that is affordable using fairly standard underwriting criteria. To put these incomes in perspective, the typical low-income first-time homebuyer in the 2003 AHS had household income of about \$30,000, with incomes of \$15,000 and \$45,000 roughly representing lower and higher bounds

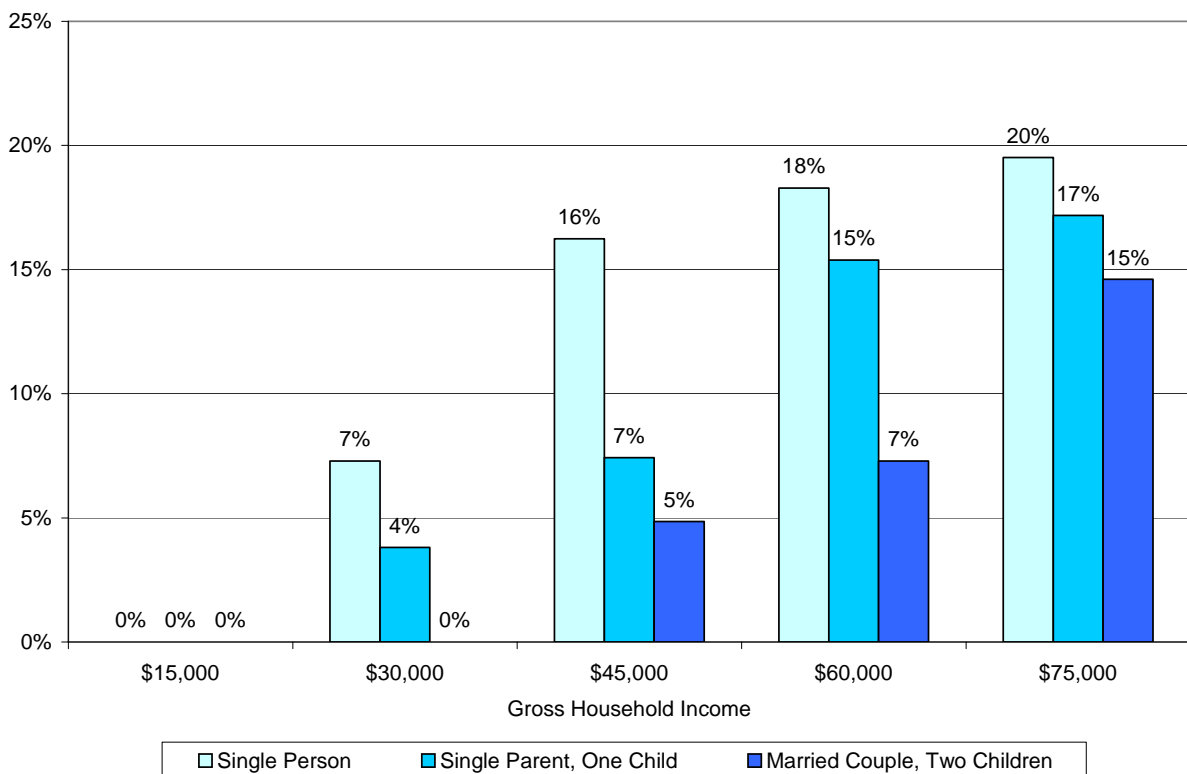
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<sup>41</sup> Other than mortgage interest and property tax payments the next most common itemized deduction are for state and local taxes and charitable contributions. Other categories of itemized deductions include medical, employment, and educational costs, but these are much less commonly claimed given the rules governing what can be claimed as a deduction in each of these categories.

on this group. Incomes of \$60,000 and \$75,000 may be taken as more typical of moderate- and higher-income first-time buyers.

Exhibit 14 presents the results of this exercise. The value of tax benefits is expressed as a percent of total housing costs paid. As shown, at the lowest income level considered (\$15,000) none of the three types of households realize any tax benefits from homeownership. This result reflects the fact that the value of homes that are affordable at this income are too low to produce itemized deductions that exceed the standard deduction. But as household income rises to \$30,000, both single persons and single-parent households begin to realize some tax benefits from homeownership as itemized deductions exceed the standard deduction. Even at this income level married couples still do not realize any benefits given the higher level of their standard deduction. The magnitude of benefits realized by single persons and single parents is also fairly small at seven and four percent, respectively. Given that the average income in 2003 for first-time low-income buyers was \$30,000, this simulation suggests that the tax benefits realized by these typical first-time buyers does little to reduce their out-of-pocket housing costs.<sup>42</sup>

**Exhibit 14**  
**Value of Tax Benefits from Homeownership as Percent of Total Housing Costs by Gross Household Income and Household Type**



Note: See text for assumptions used in estimating the value of tax benefits.

<sup>42</sup> It is possible that in many markets the assumptions used here underestimate the actual housing costs incurred by buyers due to higher house values, higher property taxes, or higher interest rates. In these cases the tax benefits would be higher—but the housing costs burdens would also be much higher.

As incomes rise above \$30,000 homebuyers become more likely to realize tax benefits from owning, although benefits remain lower for single parents and, particularly, married couples. Tax benefits only exceed 15 percent of housing costs for singles at \$45,000 in income, for single parents at \$60,000 in income, and for married couples at \$75,000 in income. This example illustrates how the value of tax benefits can greatly reduce the costs of homeownership, but that low-income households, and particularly married couples, are unlikely to realize these benefits. Thus, low-income households will be more likely to have the costs of owning exceed the costs of renting.

Another aspect of owner's costs that are likely to vary by income and race is the mortgage interest rate. There has been tremendous growth in higher-cost subprime lending over the last decade, with these loans particularly common among low-income and minority owners. While the analysis of the AHS presented in Chapter 2 did not find any significant difference in the interest rate on home purchase mortgages by income or race, it may be that the increased use of subprime loans for home purchase was not yet evident in the period from 2001 to 2003 covered by most recent survey. However, the information presented in Chapter 3 does indicate that low-income and minority owners are less likely to benefit from refinancing their mortgages to lower interest rates when such opportunities arise. Minorities, in particular, are both less likely to refinance when interest rates drop and, when they do refinance, they are found to pay interest rates that are about one percentage point higher than whites. In short, differences in mortgage choices, both at purchase and over time, are likely to contribute to differences in the cost of owning relative to renting for low-income and minority owners.

As will be discussed more below, a particularly challenging and important aspect of the comparison of the costs of owning and renting is determining the market rent for a home of a given value. One approach used is to make an assumption about the ratio of annual rent to the home's value. Most studies do not address the question of whether there might be variations in the ratio between rent and house values. However, findings from Linneman and Voith (1991) and Capone (1996) suggest that there might be a higher ratio of rents to values among low-priced homes. Linneman and Voith base this conclusion on an analysis of survey data for Philadelphia while Capone's conclusions is derived from the results of interviews he conducted with real estate professionals around the country. One argument for this result is that the lower income tax benefits realized by low-income households reduces the amount they are willing to bid for these homes. To the extent that rents are a larger share of house values among low-priced homes, then low-income owners will find it more likely that owning is preferred to renting.

A final way in which the costs of owning may vary by income and race is due to differences in the length of time that owners occupy a home. Given the substantial transaction costs of buying and selling homes, renting will generally be a better financial choice if a household is expected to move within a few years of buying.<sup>43</sup> The studies reviewed in Chapter 3 found that low-income and minority owners were more likely to move within five years. This shorter tenure in the home will tend to make renting more attractive compared to owning.

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<sup>43</sup> In fact, as will be discussed below, the focus of several of most studies that compare the costs of owning and renting is in estimating the length of time that a household must stay in the home in order for owning to be preferred to renting.

Other aspects of owner costs are less likely to vary by income or race. Neither transaction costs nor the rate of return available on alternative investments should vary by income. As discussed above, there is also no reason to believe that there are systematic differences in the appreciation rates experienced by low-income owners. While available studies are less conclusive regarding differences in appreciation rates experienced by minorities, there is also not strong evidence that appreciation rates are lower for these owners. Nonetheless, house price trends do vary significantly over time and across markets. In short, where and when you buy a home will play a significant role in determining whether owning would be preferred to renting, but this variability will be evident among both low- and high-income buyers.

### **Studies Comparing the Costs of Owning and Renting**

There are surprisingly few studies that actually compare the cost of owning and renting. The few that exist differ in important ways in terms of how detailed their estimates of costs are, the methods used to determine market rents, whether they assess the importance of variations in price trends and other market factors over time, how tax issues are handled, and other factors. Given the variation in methods and assumptions used in these studies it is not surprising that they reach different conclusions about whether owning is financially preferred to renting. While in many situations owning is found to be financially preferred to renting, it is also true that under a variety of plausible assumptions about owners' circumstances and market conditions, renting can be found to be cheaper. Most studies also conclude that the value of federal income tax benefits can be decisive in making owning financially preferable to renting, with the implication that low-income households who do not realize these tax benefits are often better off renting. Nonetheless, the conclusion about whether owning is preferred to renting largely rests on assumptions about the level of rents compared to house values. Since there is little reliable information on this relationship or how it might vary across price segments of the market, it is difficult to draw any definitive conclusions about whether owning is financially preferable to renting. Nonetheless, as will be discussed in the final section of this chapter, studies do consistently find that homeownership households are more likely to accumulate wealth over time than renters.

Mills' (1990) compares the costs of owning and renting by first developing equations to estimate these costs and then making assumptions about the values of key parameters. He then uses these equations to test the importance of various components of homeowners' costs in determining under what circumstances owning is cheaper than renting. The key variables he focuses on are the income tax treatment of interest payments and property taxes, the rate of house price appreciation, the mortgage interest rate, and rent levels.<sup>44</sup> In all of the scenarios he considers, homeowner costs start

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<sup>44</sup> Assumptions about the rate of house price appreciation account for the benefits of financial leverage offered by homeownership, where owners realize increases in the value of the entire house and not just on their equity stake. Related to this, another important assumption in comparisons of the cost of owning and renting is the opportunity cost of funds invested in the home; that is, the financial return that would be realized if the downpayment and accumulated home equity were invested in the next best investment alternative. This foregone return is part of the cost of owning (or, alternatively, the benefit of renting). None of the studies treat the rate of return earned on other investments as a variable to identify how important this variable is in determining whether owning is better than renting. In general, the more



out being higher than renting due to the high transaction costs of buying and selling a home. But as the length of time that the home is occupied increases, the importance of these transaction costs is reduced. Given this pattern, the focus of his analysis is in determining the number of years the home must be owned for owning to be preferred to renting.

Under his initial assumptions, he finds that a household would need to stay in the same home for 7.5 years in order for owning to be cheaper than renting. He explores a number of variations in assumptions regarding average housing appreciation rates (increasing these rates from a base assumption of 5 percent in nominal terms to 6 or 7 percent) and transaction costs (lowering the costs of buying a home from 5 percent of its value to 4 percent and the costs of selling a home from 10 percent of its value to 9 percent). By making these more optimistic assumptions he finds that the break even holding period is reduced to a range of 3.3 to 6.7 years. The basic conclusion that emerges from these simulations is that under most scenarios a household needs to occupy a home for between five and seven years for owning to be a better financial choice.

However, Mills' analysis finds that the two most important factors in determining whether owning is preferred to renting are the ratio of rent to property value and the household's marginal tax bracket. In his initial analysis, Mills sets annual rent levels at 7 percent of house values. He bases this assumption on a comparison over time in the value of rent in national income and product accounts to the value of dwellings from national capital accounts. Using these data, he finds that rent levels fluctuated on an annual basis between 4.1 and 9.1 percent of house values over the previous half century. His assumption of 7 percent is slightly above the mid-point of this range reflecting recent upward trends in this measure. His results, however, indicate that whether renting is preferred to owning is highly dependent on this assumption. If rent levels are assumed to be 8 percent of house values rather than 7, the break even holding period falls from 7.5 years to 4.4 years. On the other hand, if rents are assumed to average 6 percent of house values, the break-even holding period is increased more than three fold to 23.5 years. There is no other variable that is found to be as important in producing changes in the breakeven holding period.

Another key conclusion from Mills' analysis is that the degree to which households are able to benefit from the deductibility of mortgage interest and property taxes is of fundamental importance in determining whether owning is preferred to renting. In his base case scenario, he assumes that the household is in a 28 percent marginal tax bracket. When he lowers the marginal tax rate to 15 percent he finds that owning is never preferred to renting. Mills probably even underestimates the importance of tax benefits since he ignores the standard deduction and simply assumes that all owners can claim the full value of mortgage interest and property tax payments as deductions. In fact, as demonstrated above, many low-income owners receive no tax benefits from owning because their housing costs do not exceed the standard deduction.

An analysis by Goetzmann and Spiegel (2002) of the importance of differences in the tax treatment of residential property between owners and investors supports the conclusion reached by Mills regarding the limited financial appeal of homeownership for those in low tax brackets. Goetzmann and Spiegel start by assuming that in equilibrium, the rent earned by property investors must just equal their costs,

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conservative the assumption about the return on the next best alternative investment, the more attractive homeownership will be.

including a fair return on their capital investment. They then compare the costs incurred by owner occupants to those of investors and show how the question of whether owning is preferred to renting hinges on a comparison of the tax brackets of owners and investors. Based on assumptions about the marginal tax rates likely to be incurred by investors in rental properties, they find that owner occupants must have a marginal income tax rate of 33 percent in order to be financially better off owning. Since this rate is higher than that faced by low-income households, they conclude that renting is financially preferred to owning for these households. While the analysis by Goetzmann and Spiegel is highly stylized, ignoring, for example, the transaction costs of buying and selling homes, their analysis does make it clear that income tax benefits are an important factor in determining whether owning is cheaper than renting.

Capone (1996) extends the work by Mills in two ways: first, by exploring the validity of his assumptions about the relationship between rents and house values; and second, by examining in more detail the importance of the tax treatment of housing costs in the comparison of renting and owning. To test the validity of Mills' assumptions about rents, Capone develops a detailed equation of the cost to investors of residential property and then solves this equation for the rent level (as a percent of the property value) that must be charged for investors to break even. Capone finds that a key assumption in the calculation of investors' costs is their expected holding period, with longer holding periods resulting in lower rent to value ratios. His simulations find that rent to value ratios range from a low of 4.4 percent given an investor holding period of 20 years to a high of 10.9 percent for holding periods of just five years. In fact, this range is fairly close to the range estimated by Mills using a different methodology.

However, Capone cites two sources in support of a higher assumed ratio of rents to values for low-income households. First, he cites a study by Linneman and Voith (1991) that used the AHS for the Philadelphia metropolitan area in 1982 to estimate rent-to-value ratios as a function of both housing and occupant characteristics. While this analysis finds a market average rent to value ratio of 10 percent, it also finds that these ratios are consistently higher for lower income households—generally exceeding 12 percent for those with incomes of \$15,000 or less. Linneman and Voith argue that the higher capitalization rates found for lower-income households are likely a result of the lower tax benefits from homeownership for these households. In essence, they argue that there is segmentation of the housing market by income, with the tax benefits realized by the marginal buyer in different segments of the market being capitalized into home prices. Goodman and Kawai (1982) provide further support for this view that differences in tax benefits by income are reflected in housing prices.

Capone also justifies his assumption of higher rent to value ratios on the basis of interviews he conducted with real estate professionals to gather their assessment of the ratio of annual rents to property values for single-family homes. These interviews lead him to conclude that rent to value ratios for low-valued homes are generally in the range of 10 to 15 percent of value. He argues that his simulations of rent-to-value ratios required of investors are consistent with the findings of both Linneman and Voith and his interviews if more conservative assumptions are made about investors' expectations regarding vacancy periods between tenants.

Capone then compares the costs of owning and renting assuming that rents range from 10 to 15 percent of home values. He finds that owning is preferred to renting as long as owners stay only between two and three years. Given Mills' findings about the importance of the rent-to-value

assumption in determining whether owning is preferred to renting, it is perhaps not surprising that Capone would reach a much more optimistic conclusion about the advantages of owning given his much higher assumptions about rent levels. But countering his more generous assumptions about rent levels, Capone also makes much more restrictive assumptions about the tax benefits of homeownership. One of the purposes of his study is to assess the extent to which federal income tax provisions help support homeownership among moderate-income households. To do this, he assumes a much lower cost home than Mills (\$56,000 rather than \$200,000) and a lower marginal tax rate for the homebuyer (18 percent rather than 28 percent). His estimate of owners' costs also takes into account the level of the standard deduction and only includes the value of tax deductions that exceed the standard deduction. As a result of using a much lower priced home and factoring in the level of the standard deduction, in Capone's base case scenario owners receive essentially no income tax benefits. So his conclusion that owning is preferred to renting for stays of as short as two to three years is notable for not relying on income tax benefits.

Capone uses his equations to examine the relative importance of changes in income tax treatment and assumptions about rent levels on the estimated breakeven residence in the home. He finds that the higher that rents are assumed to be, the less important tax benefits are in determining the minimum period that the home needs to be occupied before owning is preferred to renting. For example, if rents are assumed to be 12 percent of value, then the breakeven period for owning is two years regardless of whether any tax benefits are realized. However, if rents are set at eight percent of house values then the breakeven holding period is as short as three years for those who benefit substantially from tax benefits to as long as five years for those who do not benefit at all.

In short, the key extension to Mills conclusions that comes from Capone's work is to show that if rents are assumed to be as high as eight percent of house values, then low-income households may be better off owning even if they do not obtain any tax benefits.

By assuming a constant relationship between house prices and rents, one issue that Mills and Capone do not shed light on is how fluctuations in the relative levels of house prices and rents over time affect the estimation of whether owning is financially preferred to renting. As Goodman (1998) notes, the assumption that rents and house values remain in equilibrium over time ignores the fact that housing prices may be slow to adjust to changes in market conditions. For example, Blackley and Follain (1996) find that investors' costs are much more volatile than market rents. Also, Gallin (2004) has found that while rents and house prices do tend to move together in the longer run, in the short run they may exhibit divergent trends.

To address this concern, Goodman uses actual national trends in home prices and rents between 1985 and 1995 to estimate the costs of owning and renting over this period. Using the American Housing Survey from 1985, he estimates the rent on a prototypical single family home by a hedonic regression model, with the value of the home based on a tabulation of owner reported home values. His estimated annual rent is 6.9 percent of the house value, remarkably close to the assumption of 7 percent used by Mills. He then trends these values over time using the Freddie Mac index of home prices and the Consumer Price Index for rental housing. However, the data presented by Goodman shows that over this period rents and house prices grew by nearly an identical average annual growth rate. As a result, his rent to value ratio hardly deviates from the starting assumption of 6.9 percent so

his results do not offer a valid test of how sensitive this analysis is to an assumption of a stable relationship between rents and house values.

Given the similarity of his assumption about the relationship between rents and values to that used by Mills it is not surprising that his conclusion differs little from Mills. He finds that owning is preferred to renting only as long as the home is occupied for about nine years. This is somewhat longer than Mills estimate because Goodman makes somewhat more conservative assumptions about the value of tax benefits by factoring in the value of the standard deduction. However, one interesting aspect of Goodman's results is that he shows an annual estimate of the ratio of owner and renter costs. After the third year, owners' costs are never more than three percent higher than renters' costs. This result is also consistent with the findings of Mills and Capone that with somewhat more favorable assumptions about owners' costs the breakeven holding period for owning can be as short as three years.

Belsky, Retsinas, and Duda (2005) provide a more thorough test of the importance of the actual volatility of house prices and rents in determining whether owning is preferred to renting. Like the other studies reviewed, they construct an equation to estimate total housing costs for owners that can be compared to the cost of renting. Like Goodman, rather than assume a constant relationship between house prices and rents, they use price indexes to incorporate actual trends in these relative prices over time. However, they improve upon Goodman's analysis by analyzing price trends in four different markets over an 18-year period. The four markets were chosen for study as they represent different degrees of house price growth and volatility. The focus of their analysis is to estimate how often owner costs are less than renter costs assuming holding periods of 3, 5, or 7 years. Given the length of their data series on rents and house values, they can identify 16 different 3-year holding periods, 14 5-year holding periods, and 12 7-year holding periods. They then report the share of these different holding periods where owner costs were lower than renters' costs.

Reflecting their concern with the question of whether homeownership is financially appealing for low-income households, their starting home value is half of the market median value. They use data from the Bureau of Labor Statistics on owners' estimates of the rental value of their properties and compare this to home values based on tabulations of the American Housing Survey for these markets. The ratio of rents to values is then used to estimate a rent level for homes at half the median home value. They then apply the market-specific Freddie Mac house price indexes and the consumer price indexes for rental housing to these initial values. While not reported in their paper, the authors indicate that the starting ratio of rents to values is on the order of five to seven percent across the markets studied.

Belsky, Retsinas, and Duda note that the two factors that are most likely to affect the cost of owning for low-income households is whether they are able to realize any tax benefits from owning and the costs of mortgage finance. They then present a series of scenarios to test the impact of these factors on the relative costs of owning and renting. To test the importance of tax benefits on the costs of owning, as a starting assumption they assume that households benefit from mortgage interest and property tax payments only to the extent the value of these deductions exceed the standard deduction. They then assume that owners do not realize any tax benefits and see how this affects the likelihood that the cost of owning will exceed the cost of renting. To test the impact of mortgage choices, they

then increase the level of initial interest rates to simulate subprime mortgage rates and also examine what happens if opportunities for refinancing to a lower cost mortgage are missed.

Pooling their results from the four markets, in their base case scenario where full tax benefits are realized they find that in 53 percent of the possible 3-year holding periods owning would be preferred to renting. If the holding period is extended to 5 or 7 years, the share of cases where owning is preferred to renting rises to 63 percent of all possible holding periods. Thus, in only a little more than half of the possible holding periods in the four markets is owning preferred to renting. Perhaps not surprisingly given that their analysis focuses on low-valued homes, their results indicate that there is little impact of tax benefits on the likelihood that the costs of owning are lower than the costs of renting. They do, however, find that having an interest rate that is 2 percentage points higher, which simulates the impact of moderately-higher interest rates from a subprime loan, reduces the likelihood that the costs of owning are less than renting by between 8 and 16 percentage points. Further increasing the interest rate obtained to be 5 percentage points above prevailing rates lowers the likelihood that owning is preferred to renting to only between 15 and 22 percent. In short, their analysis indicates that very high cost subprime loans make it unlikely that owning would be cheaper than renting.<sup>45</sup>

In assessing the conclusion reached by Belsky, Retsinas, and Duda that in a little less than half of all cases examined renting would have been preferred to owning it is important to bear in mind that their analysis is based on a fairly low ratio of rents to values, which tends to favor renting. They do not attempt to assess whether these ratios vary by price segment of the market or what impact this variation would have on their conclusions. Nonetheless, their analysis does show that volatility in both house prices and rents is an important factor in determining whether owning is cheaper than renting. Under their baseline assumptions, in only a slight majority of cases do they find that owning will be cheaper than renting given a stay of between three and seven years. However, this conclusion is as likely to hold for high-income households as it is for low-income households as they find that whether a household realizes any tax benefits or not has little impact on their results. But they do find that the higher mortgage rates associated with subprime lending, which are more likely to be incurred by low-income and minority owners, can have a significant impact of whether owning is cheaper. In particular, if mortgage interest rates are five percentage points above prime rates, in less than 20 percent of cases is owning cheaper.

### **Conclusions Regarding the Costs of Renting and Owning**

Looking solely at the literature that has compared the cost of owning and renting it is difficult to reach any definitive conclusions about whether low-income or minority households are better off owning or renting. Whether owning is financially preferable to renting is very sensitive to assumptions about the level of rents compared to house values. Unfortunately, there is very little empirical information on how rents compare to values for comparable housing units. While one

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<sup>45</sup> The authors also examine the impact of missing refinance opportunities, but find that there is very little affect on the likelihood that owning is financially preferred compared to renting. However, this result likely reflects the fact that they assume that there are only two years that offered refinance opportunities (1993 and 1998), so that only a small subset of all possible holding periods were affected by these missed opportunities.

study found that the ratio of rents to values is higher in the low-cost segments of the market, since the results are based on a single market at a single point in time there is not enough evidence to support this claim. Given the importance of this issue to the question of whether owning is cheaper than renting, more research on differences in rent levels relative to house values across different segments of the market and at different points in time would be very informative.

The literature also suggests that under certain assumptions, the value of tax benefits can be quite important in determining whether owning is a better deal than renting. The fact that low-income households, particularly married couples, receive fewer tax benefits from owning means that these households are more likely to be better off renting than households headed by unmarried individuals. But Capone's analysis also indicates that as long as rents are high relative to values, owning will clearly be preferred to renting for stays as short as three years whether tax benefits are realized or not.

While the results of these studies suggest that there are a number of situations where low-income households would have lower housing costs if they rented, it is clear that a large share of low-income households still chose to own. In part, this may reflect the fact that there are many reasons for wanting to own a home beyond purely financial considerations, including greater security of tenure, the ability to tailor the home to fit one's tastes, and greater privacy. It may also be that even if homeownership is more costly it may still be more likely that owner households will accumulate greater wealth as a result of the forced savings associated with paying off a mortgage over time. The next section provides some support for this view by reviewing literature that has found that homeownership is strongly associated with wealth accumulation even for low-income households.

## **Homeownership and Long-Run Wealth Accumulation**

As the issues raised in Chapter 3 and in the sections above make plain, there is a complex web of factors that play a role in determining whether owners realize the financial benefits of homeownership. These include the degree to which house prices increase, whether owners are able to sustain homeownership, the timing of buying and selling a home relative to housing price cycles, the degree to which owners can take advantage of the income tax benefits of owning, and the choices owners make along the way regarding financing, maintaining, and improving their homes. The literature that has been reviewed in each of these areas provides both good and bad news regarding the likelihood that low-income and minority owners are likely to benefit financially from homeownership. On the plus side, analyses of the overall financial return from homeownership suggest that ownership is a prudent financial investment. There is also no reason to believe that low-valued homes are less likely to appreciate than higher-valued homes. In fact, research suggests that in the past low-income buyers were more likely to benefit from buying near the bottom of housing cycles. On the negative side, most low-income owners realize few, if any, of the tax benefits of homeownership. Also, as discussed in Chapter 3, low-income first-time buyers, particularly minority buyers, are more likely to have early exits from homeownership. Additionally, the surge in home buying by low-income and minority households at what now appears close to the top of a price cycle may eliminate the advantage they had in previous periods of buying at the bottom of the cycle. Finally, minority owners are also more likely to miss out on valuable refinancing opportunities and may be less likely to maintain their homes.

In this section we review literature that takes a more holistic approach to evaluating the financial returns to homeownership in an attempt to account for this complex web of factors. Rather than attempt to isolate the impact of individual factors, these studies use longitudinal surveys of households to observe their tenure choices over time and to assess how these tenure choices relate to overall changes in household wealth. By following households over a long period and observing changes in wealth, these studies implicitly account for the combined effect of housing price changes, the timing of purchase and sale, the ability to take advantage of tax benefits, and the impact of choices regarding refinance, maintenance, and improvement. An important caveat with these studies is that they do not incorporate any controls for selection bias in who becomes an owner, and so it is not clear whether the observed differences in wealth accumulation reflect solely the impact of homeownership or whether the result is due to other unobserved differences between owners and renters. Despite this important shortcoming these studies do shed light on whether homeownership is as likely to support wealth accumulation among low-income and minority households.

Perhaps the most thorough of these studies is Di et al. (2004), which uses the Panel Survey of Income Dynamics (PSID) to examine the relationship between homeownership and changes in household wealth over the period from 1984 to 2001. The basic approach used in this paper is to estimate a regression model that predicts the level of wealth in 2001 as a function of demographic characteristics, starting wealth in 1984, and measures of the length of time spent as an owner over the period since 1984. The results indicate that, as would be expected, average income and starting wealth are the single most important predictors of wealth in 2001. But the next most important factors are the length of time spent as an owner. Owning a home for between 1 and 5 years was associated with an increase in wealth of more than \$50,000, with each additional year owned up to 17 years adding about \$6,700 a year to wealth on average. Those who owned homes for the entire 18-year period between 1984 and 2001 had wealth levels that were \$156,000 higher than those who rented the whole period. Interestingly, a variable measuring the number of home sales during the period was not significant, so the results do not provide any indication that more moves lowers wealth as might be expected given the high transaction costs of moving.

Di et al. also examine whether the factors predicting wealth levels differ for low-income owners. When they estimate a separate model predicting 2001 wealth for those with average incomes over the study period in the lowest quintile of the sample they reject the hypothesis that the same factors predict wealth levels for both low- and upper-income households. This result indicates that the process for accumulating wealth through homeownership for low-income owners is distinct from that experienced by higher income owners. In fact, the results suggest that homeownership is arguably more important in predicting wealth accumulation for low-income households. Among low-income households, those owning for the entire 18-year period have nearly 8 times the average wealth of those who rented for the entire period, while for higher-income households owning for the entire period is associated with only having twice as much wealth as those who always rent. That said, it is also true that low-income households accumulate much less wealth than higher-income households with or without homeownership. Among low-income households, owning a home for 18 years increases average wealth to \$49,700 compared to \$5,700 for those who rented the entire period. But among higher-income households, wealth increases to \$260,000 for those who owned the whole time compared to \$84,000 for those who only rented.

Finally, Di et al. also investigate the issue of whether holding wealth in stocks rather than housing helps to increase wealth. This question relates to the issue of whether holding wealth in non-housing assets rather than housing would result in higher wealth levels. That is, even though homeownership is found to increase wealth, it might still be the case that devoting savings to stocks or other financial assets would create even greater wealth. Di et al. indicate that their interest in this question in part in response to findings by Hurst et al. (1998) who found that the level of housing wealth in 1989 was negatively associated with overall wealth in 1994. However, Di et al. argue that this result was probably due to the time period studied, which coincided with a period when house prices declined in many markets.

To test the impact of holding stocks on changes in wealth between 1984 and 2001, Di et al. include a variable that indicates whether the household held a greater share of their 1984 wealth in stocks than in housing equity. Since the model already includes a measure of the overall level of wealth, this variable provides an indication of whether less concentration of wealth in housing produced greater financial returns given the same starting wealth. The estimated coefficient on this variable is both positive and statistically significant, indicating that holding more wealth in stocks did, in fact, result in higher wealth levels. But the results also indicate that the gains in wealth due to homeownership were much larger than the gains due to holding more wealth in stocks. For example, a household that rented for the entire 18-year period but held stock wealth in 1984 is estimated to have average wealth in 2001 of \$47,857. In comparison, if the household did not hold stock in 1984 but owned a home for only one to five years, their wealth is estimated to be \$80,899 on average, or nearly 70 percent more than if they had just invested in stocks. Thus, while holding more of wealth in stocks does increase wealth in the long run, it still the case that being a homeowner is associated with greater increases in wealth than if the household just held stocks. This result provides support for the argument that there is a “forced savings” aspect of homeownership that is nontrivial. Homeownership is thought to force savings by requiring owners to make payments toward mortgage principal each month. This accrual of equity in the home due to mortgage amortization can be a significant source of wealth over the life of a mortgage.

This result is similar to the findings of Krumm and Kelly (1989) who explored the impact of homeownership on total savings levels. They used data from the 1976 Survey on Consumer Credit to examine the relationship between household characteristics and both non-housing and total wealth. They explored several different modeling approaches to control for the fact that the level of savings and the level of non-housing wealth are endogenous with respect to the decision to own. They found that while the magnitude of their results were somewhat sensitive to the approach used, in general the findings were consistent across approaches. Specifically, they found that the level of non-housing savings was either no different or slightly lower when owners were compared with renters. This suggests that owning either has little impact on non-housing savings or actually reduces it. But, importantly, they found that *total* wealth levels were always higher for owners compared to renters as the accumulated wealth in home equity made up for lower non-housing savings. The differences in wealth levels were also substantial between owners and renters, with owners’ wealth anywhere from 95 to 180 percent greater depending upon the modeling specification used.

Another recent study that uses the PSID to examine the association between homeownership and changes in wealth over time is Reid (2004). While Reid does not model the factors associated with wealth levels, she is able to use the panel nature of the PSID to identify consistently low-income



households that remained renters throughout the period from 1976 through 1994. Reid defines low-income households as those whose income remained below 80 percent of the area median income in every year they were surveyed up until the year they purchased a home (or throughout the entire period if they never bought a home). Reid compares wealth levels in 1994 of low-income households who never purchased a home with those who did become owners. She finds that while both low-income whites and minorities who were always renters had essentially no wealth in 1994, those who had become owners had roughly \$25,000 to \$30,000 in wealth on average, with a large majority of this wealth in the form of home equity. It is also the case that she found wealth levels among low-income owners to be much less than for higher income owners. Thus, consistent with the findings of Di et al., Reid finds that low-income owners do not accumulate nearly the same amount of wealth as higher-income owners, but they nonetheless accumulate more wealth than renters.

Finally, Boehm and Schlottmann (2004c) provide further evidence of the importance of homeownership to overall wealth creation for low-income households, defined in their study as households with income below the area median income when they are first observed in 1984. Like the two previous studies discussed, they also use the PSID, this time covering the period from 1984 to 1992, although their approach is somewhat different. Their analysis begins by estimating a hazard model to predict movements into and out of homeownership over the nine-year period studied. They then model the value of homes purchased by movers. They combine the results of these models with information on average annual house price appreciation rates in the census tracts where respondents lived based on changes in median house values between the 1990 and 2000 decennial censuses. More specifically, their approach is to estimate the probability that a specific household will own a home in a given year and, if they do own, how much the home will be worth. They then apply the average annual change in house prices in the census tract where they live to predict the change in housing equity in that year. By mapping out the probability of different tenure paths over the nine year period, the combined models yield an estimate of the overall appreciation each individual would be likely to experience over the time span studied.

There are several points worth noting about their approach. Their estimates of housing wealth ignore the transaction costs of moving and so they may overstate the gains from homeownership. On the other hand, their basic analysis also ignores growth in equity from amortization of mortgage debt. However, they do present some estimates of the potential value of amortization, which illustrate that these gains over a nine-year period are likely to be small. Perhaps the most interesting aspect of their analysis is the fact that they track the neighborhood choices of these households over time. Thus, they provide some important insights into how differences in neighborhood choices of owners by income level and race can affect the financial returns to homeownership.

Their results indicate that the financial returns to homeownership are, in fact, greater for higher income groups and whites, but that low-income and minority owners are still likely to experience significant positive financial gains from homeownership. Over the period they study, the median high-income white household is estimated to accrue about \$4,500 annually in capital gains from homeownership, compared to \$3,400 for high-income minorities, \$2,700 for low-income whites, and \$1,700 for low-income minorities. The larger gains for whites and higher-income households reflects both the greater propensity for these households to be owners in any given year and the fact that they own more expensive houses and so have larger absolute gains from increases in house values. They also simulate the potential annual increase in housing wealth from amortization and find that this

would add between \$200 and \$400 a year to the financial gains realized, or roughly 10 percent of the wealth gained through appreciation.

But as the authors note, while the gains realized by low-income and minority owners are smaller than for other owners, the gains are still positive and non-trivial. To put these gains in perspective, Boehm and Schlottmann also use the panel nature of the PSID to estimate the annual gain in non-housing wealth for each of these household types over the period from 1984 to 1992. They find that the median low-income minority household did not accrue any non-housing savings over the period, while low-income whites only gained \$300 a year on average. They conclude that not only is homeownership an important means of wealth accumulation for low-income families, but for the majority of these households it is the only form of wealth accumulation.

## Summary and Conclusions

One of the principal factors underlying the strong support from policy makers for efforts to improve homeownership opportunities among low-income and minority families is the strong association between homeownership and the creation of household wealth. One of the key determinants of the financial gains to homeownership is appreciation in house values over time. Studies that have examined the financial return to homeownership taking into account average rates of appreciation as well as the value of housing services provided by the home, the income tax benefits of homeownership, and the use of financial leverage by the typical homebuyer have found that homeownership does belong as part of an optimal portfolio of household investments.

But given that low-income and minority homebuyers are buying homes in different market segments than higher-income and white households, it is possible that they would be less likely to realize financial gains from appreciating values. Looking collectively at a broad range of studies that have analyzed differences in housing appreciation rates across different market segments defined in terms of house values, it is clear that there is no systematic tendency for low-income areas or low-valued homes to appreciate less. Indeed, there have been a number of periods when low-valued homes in individual markets have appreciated more rapidly than higher-valued homes. Thus, it is not the case that low-income owners are less likely to experience real gains in home values.

But while there have been a large number of studies examining differences in appreciation rates by house value, there has not been nearly as much attention paid to differences in housing appreciation by either the race-ethnicity of the neighborhood or of individual owners. Among the studies that have been done two suggest that areas with a greater concentration of blacks have had lower rates of appreciation in housing values, while a single study has found that higher Hispanic shares were associated with greater price appreciation in two Florida markets. However, one study that examined differences in appreciation rates by the minority share in the neighborhood over a longer period of time and across several markets found that whether minority areas appreciated faster or slower than whites varied over time and across markets. In short, there is no evidence that house prices in minority areas systematically appreciate more slowly, but given the small number of studies on this topic it is not possible to draw general conclusions. Further study of the degree to which minority homebuyers experience housing appreciation would make a valuable addition to the literature.

Another factor to consider in evaluating differences in appreciation rates is whether there are differences in appreciation rates for different structure types. The vast majority of studies of appreciation rates have focused exclusively on single-family attached housing. But in the 1990s manufactured housing emerged as an important choice for low-income first-time buyers, accounting for nearly a quarter of homes bought by this group. Several studies have compared appreciation rates of manufactured homes using different methodologies and covering different geographic areas and time periods. But despite these differences the conclusions of these studies are consistent. Manufactured homes where the land is owned appreciate at rates close to that of site built homes, although there is greater variability in price trends. However, in cases where owners do not own the land along with their home, which is true of about half of manufactured home owners, there is essentially no appreciation in value. While owners of these homes may well experience other benefits of homeownership due to security of tenure and control over their home, they are very unlikely to realize any of the financial benefits of homeownership. To the extent that manufactured homes are seen as providing an affordable entry point into homeownership, policy makers should strongly encourage developments that give buyers the opportunity to own the land.

While manufactured homes are the most important alternative structure type for low-income buyers, it is also the case that in some market areas blacks are more likely to occupy single family attached housing, while in high cost markets first-time buyers are more likely to occupy condominiums in multiunit structures. There are very few studies that have analyzed differences in appreciation rates by structure type, but those that have generally conclude that rates of appreciation do differ. While there are too few studies to draw general conclusions, it does appear that the variation in house prices is higher for condominiums. Thus, first-time buyers in this type of home may face greater risk.

One important issue highlighted by the literature assessing differences in appreciation rates is that investments in homes are clearly not without risk. While over the longer run homes in the vast majority of markets do appreciate in real terms, in the short run there can be substantial fluctuations in home prices. A study by Belsky and Duda (2002) found that while homes affordable to low-income buyers experienced much greater appreciation than those affordable to either moderate- or high-income buyers, it was nonetheless the case that a large share of low-income buyers lost money in real terms on their housing investments during the 1980s and 1990s. Losses resulted both because of soft housing markets during the early 1990s and because of the high transaction costs associated with selling a home. This finding highlights the pitfalls of homeownership when owners are forced to sell homes into a down market. In order for owners to realize gains in house values it is important that they are able to sustain homeownership through periods of weak home prices. Belsky and Duda did find that homebuyers in the low-income segment were less likely to incur losses because buyers were less likely to buy during periods of peak home prices. But the authors speculate that support for low-income homeownership during the period of booming prices over the last few years could mean that these buyers will be more exposed to financial losses when housing prices next soften. The findings of Belsky and Duda provide further support for the need to ensure that low-income buyers are able to sustain homeownership in order to realize any financial benefits.

But while it may be that low-income and minority homeowners are as likely as other owners to experience appreciating home values, it is still possible that individuals could be financially better off by renting a home and devoting their savings to other investments. There are several reasons why renting might be a better deal for low-income and minority households compared to white and higher-

income owners. First, low-income households are less likely to realize tax benefits of any significance, which may tip the scales in favor of renting. Second, since low-income and minority owners are more likely to use subprime lending, the higher cost of owning may make it less attractive. On the other hand, one study found that rents are higher relative to house values in the low-cost segment of the market, which helps to tip the scales in favor of owning. However, there is very little research examining the issue of how the ratio of rents to house values differs across different segments of the housing market, so it is not clear whether this relationship holds up over time and across markets.

It is difficult to draw any definitive conclusions from studies that have compared the costs of owning and renting. It is fairly clear that given the high transaction costs associated with buying and selling a home, owning is rarely a wise choice if the household is unlikely to stay in the home for at least three years. Beyond that, the conclusions of these studies are highly sensitive to assumptions about the level of rents relative to house prices. When higher rents are assumed, low-income households are found to be better off owning even when they do not realize any tax benefits. However, at lower rent levels, the lack of any tax benefits from owning can make renting a better deal for low-income owners. Further research on the difference in rents relative to values for different segments of the housing market would help to clarify whether owning is cheaper than renting for low-income households. Nonetheless, the research that does exist indicates that it is likely that in situations where house prices are growing slowly or declining, households of all income levels may be financially better off renting.

In short, it is difficult to conclude whether low-income and minority households are likely to realize financial benefits from homeownership given the complex web of factors that contribute to the outcomes, including the location and timing of purchase and sale, the ability to sustain homeownership over time, the availability of tax benefits, and the choices made about financing, maintaining, and improving homes. One approach to account for all of the ways in which homeowners differ in all of these areas based on income and race-ethnicity is simply to observe changes in wealth of individual households over time and how this correlates with their tenure choices. In fact, there have been several studies that have used longitudinal survey data to undertake this type of analysis. Given their nature, these studies inherently account for the multifaceted array of factors that contribute to wealth accumulation through homeownership over time. An important caveat with these studies is that they do not incorporate any controls for selection bias in who becomes an owner, and so it is not clear whether the observed differences in wealth accumulation reflect solely the impact of homeownership or whether the result is due to other unobserved differences between owners and renters. Despite this important shortcoming these studies do shed light on whether homeownership is as likely to support wealth accumulation among low-income and minority households.

The general conclusion that emerges from these studies is that spells of homeownership are strongly associated with higher levels of wealth, with longer periods spent as an owner associated with ever-greater wealth. In contrast, those who remain renters for long periods of time accumulate much less wealth, even after accounting for income and starting wealth. It is the case that low-income owners accumulate much less wealth than higher income owners, both because low-income households own lower-valued homes and because they spend less time as owners. But on average low-income owners nonetheless accumulate non-trivial amounts of wealth through homeownership. Importantly, these

studies also find that there is little or no accumulation of non-housing wealth among low-income owners or renters. Thus, homeownership is often the only form of wealth accumulation for these households.

The general conclusion that emerges from the review of this literature is that homeownership can be a good investment for low-income and minority households—but it can be risky. While many households will experience financial losses, particularly over short spells as owners, on average low-income owners do accumulate wealth over time. But the literature once again highlights the importance of sustaining homeownership over time. Those who can sustain homeownership through periods of weak prices are extremely likely to realize real returns on their investments. As a result, it is vitally important that policy makers ensure that low-income owners have the support they need either to weather the crises that threaten their ability to keep their homes, or, if giving up homeownership temporarily is their best option, to regain homeownership in the future.

However, even if the financial benefits of homeownership are small or non-existent, low-income and minority households might still prefer to own given the appeal of various non-financial benefits of homeownership. To assess this issue, in the next chapter we review the literature that has assessed the degree to which homeowners are likely to experience positive outcomes in terms of impacts on their children, increased social involvement, and improved psychological and physical health.



## Chapter Five:

# Social Impacts of Homeownership

While the association between owning a home and wealth creation is an important part of the appeal of homeownership as a policy goal, policy makers are also quick to cite a variety of non-financial benefits as justification for efforts to increase homeownership. Some of these non-financial benefits were touched upon in Chapter 2, including greater satisfaction among owners with their homes and neighborhoods. But there are other non-financial benefits—generally referred to as social benefits—that go beyond merely being more satisfied with one’s home. These include positive impacts on children growing up in owner-occupied homes, increased involvement in community affairs by owners with potentially positive impacts on surrounding communities, and improved psychological and physical health among owners. This chapter reviews the literature that has examined homeownership’s impacts in each of these spheres.

Before turning to these specific topics, there are several broad issues about this literature to note. One significant challenge that plagues research on the social impacts of homeownership is the fact that people who choose to become owners are, on average, likely to be different from renters in important ways that may not be apparent from available data. This is largely because households with certain propensities self select into homeownership. For example, given the high transaction costs associated with buying and selling a home, households expecting to stay longer in one home are more apt to elect to own. This reduced residential mobility, rather than homeownership itself and the behaviors homeownership may evoke, may be in large part responsible for the impacts associated with homeownership, such as positive impacts on children and greater social involvement. Another reason why people may be more drawn to homeownership is that they prefer to live a more home-centered life, and so are motivated to invest in a larger, higher quality home. The increased quality of the house and the focus on spending more time at home as a family may also contribute to some of the impacts associated with homeownership. Finally, to the extent that homeowners tend to cluster in neighborhoods—and they do in many cases—there may be spillover benefits from living in areas where residential mobility is lower and where household incomes are higher. But again, to the extent that reduced residential mobility and greater income mixing yield positive social impacts, it may be possible to produce these conditions by means other than promoting homeownership (as discussed by Apgar (2004)).

While some of these factors might be captured by observable characteristics of the household, the home, or the neighborhood, many of these factors may not be easy to capture with survey data. As a result, one issue that plagues research on the impacts of homeownership, particularly with regard to these social impacts, is how to account for the unobservable factors that both lead people to choose whether to own and rent and are also likely to affect the outcomes of interest. In social science research, the issue of selection bias is ideally addressed through studies that employ an experimental design where participants in the study are randomly assigned into treatment and control groups. But for a variety of reasons, this approach has not been used to study the impacts of homeownership. As a fallback, researchers employ statistical techniques to try to account for this selection bias. The most common approach is to first estimate the likelihood of homeownership for a household using observable factors, at least some of which would not be expected to influence the social outcome of

interest. This estimate of whether a household is likely to be a homeowner is then used to test the influence of homeownership on the outcome of interest. While not a perfect solution for the problem of selection bias, such estimation techniques provide at least a partial test of whether homeownership's impacts are likely due to selection bias.<sup>46</sup> In the review that follows, studies that include such tests are regarded as providing greater evidence of homeownership's likely impacts.

Another concern with the existing literature is that many studies do not include measures of the confounding factors that may help produce the outcomes associated with homeownership, most notably residential stability and housing quality. Studies that do include measures of these factors provide a better test of homeownership's independent effect on social outcomes as well as the mechanism by which homeownership may produce the outcomes of interest.

Finally, the focus of this study is in assessing whether there are any differences in the likelihood of realizing the benefits of homeownership by the income or race-ethnicity of the owner. Much of the literature on the social impacts of homeownership is aimed at assessing whether there is an association generally between homeownership and the outcomes of interest and so shed little light on whether there are differences by income or race.<sup>47</sup> Nonetheless, there have been a few studies with a particular focus on assessing outcomes among low-income homeowners. These studies are given particular attention in our review. Virtually no studies have assessed differences in social outcomes by the owner's race-ethnicity, and so this issue is not addressed in this review.

## Impacts on Children

Homeownership is purported to have a variety of positive impacts on children, including higher educational attainment, greater success in labor markets, fewer behavioral problems, and higher rates of homeownership as adults. Synthesizing the various theories presented in the literature, Harkness and Newman (2002) identify four pathways by which homeownership may produce these positive impacts on children. To begin with, there is evidence that homeownership may be associated with a more stimulating and emotionally supportive home environment. In support of this view, Haurin, Parcel, and Haurin (2002) find that there is a statistically significant positive association between homeownership and indicators of a more nurturing home environment even after controlling for a variety of household characteristics and employing statistical controls for selection bias in who becomes an owner. What is not clear is exactly why homeownership would lead to a more supportive home environment. One hypothesis is that owners have greater life satisfaction and self-esteem, which helps foster this environment. Another argument is that owners are more likely to make investments in their home to tailor it to fit their tastes, which supports a more home-centered life.

Another way in which homeownership may have a positive impact is by providing a better physical environment for children. Better physical conditions may improve children's physical health by

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<sup>46</sup> For a thorough discussion of the issue of selection bias as it relates to the social benefits of homeownership and the statistical techniques available to address this problem, see Dietz and Haurin (2003).

<sup>47</sup> Two recent excellent reviews of this literature in general are Rohe, McCarthy, and Van Zandt (2002) and Dietz and Haurin (2003).



reducing the risk of illness or injury due to such factors as improperly functioning heating and cooling systems, infestations of insects or rodents, or exposure to hazards such as lead paint. Improved physical health in turn may contribute to better performance in school and to greater ability to interact socially with others. Furthermore, to the extent that owner-occupied homes tend to be larger single-family units, children may also benefit from having greater physical space and privacy to do school work or pursue other interests.

A third way in which homeownership may help produce positive outcomes for children is by helping to promote residential stability by insulating the family from the need to move at a property owner's discretion. Owners may also be more reluctant to move because of the higher transaction costs associated with moving. Residential stability has been found to be associated with better educational outcomes (Hanushek, Kain, and Rivkin, 2004), and may help foster greater social connections that enhance a child's self-esteem and provide greater opportunities for social engagement.

Finally, it is also hypothesized that the greater wealth accumulation associated with homeownership may confer a variety of benefits both by providing a financial cushion that can be used in times of need to provide a more stable home environment and by making it feasible to invest in education.

One of the issues that arises in the literature assessing the impact of homeownership on children is whether homeownership ought to be given credit for the benefits associated with characteristics of the living environment that could be achieved without being an owner. For example, while homeownership may be associated with better physical housing conditions, it should be possible to obtain high quality rental housing as well. Some of the literature addresses this issue by including controls for housing quality and assessing the effect of including these controls on the estimated homeownership impact.

Perhaps more challenging is the question of whether homeownership ought to be credited with the benefits associated with reduced residential mobility, which is consistently found to play an important role in a variety of outcomes. Homeownership does insulate households from the need to move as a result of choices made by the property owner about the use of the home. On the other hand, because of the high moving costs faced by owners, households that do not expect to move will be more attracted to homeownership. As a result, it is hard to identify the extent to which homeownership *produces* residential stability from the extent to which expected residential stability *leads* to the choice to own. In addition, some authors argue that to the extent that reduced mobility is the mechanism by which the benefits are realized, other policies to promote residential stability could produce the same result. There are differences of opinion in the literature regarding whether the benefits of reduced mobility ought to be attributed to homeownership. For example, while Harkness and Newman (2002) do not include controls for residential mobility in their analysis so that the tenure variable will capture this effect, Aaronson (2000) explicitly attempts to isolate the effects of residential stability from the effects of homeownership. To the extent that studies include controls for residential mobility the importance of this issue can be separated from other ways in which homeownership influences educational outcomes.

In the sections that follow we discuss in turn findings from the literature regarding the impacts of homeownership on children's educational outcomes, success in labor markets, behavioral problems, and homeownership.

## Educational Outcomes

There have been a number of high quality studies that have investigated the impacts of homeownership on the educational attainment of children. The studies differ in the types of educational outcomes examined, the data sets used, and the methodological approaches employed. Yet, these studies universally conclude that the children of homeowners have better educational outcomes than the children of renters even after controlling for a wide variety of other household characteristics and employing statistical methods to account for selection bias in who becomes an owner.

Among the first studies to address this question was Green and White (1997). Using data from the Panel Study of Income Dynamics, they estimate the probability that 17 year olds were either still in school or had graduated from high school. The explanatory variable of interest is whether the child's parents were homeowners, but they also control for race, household income, parental education, and other household characteristics. They attempt to control for selection bias in who becomes a homeowner by estimating a bivariate probit model of the joint outcomes of housing tenure and educational outcomes for children. Green and White find that the 17-year old children of owners are, in fact, more likely to be in school than the children of renters. Importantly, they also find that the impacts of homeownership on the probability of being in school are larger for low-income families. Children in homeowner households with incomes below \$10,000 are found to be 19 percentage points more likely to be in school than the children of renters, while among owner households with incomes above \$40,000 the difference between owners and renters is only 12 percentage points.

Green and White also test their results by examining another data source, the 1990 decennial census, and produce results that are similar to those found using the PSID. In order to test whether the homeownership effect found using the PSID could be attributed to homeowners living in higher quality housing or having longer duration of residence in a given location, their analysis using census data also incorporates measures of housing quality (as captured by house value or rent) as well as length of time residing in the house. Even after adding these additional control variables the results indicate that homeownership has a statistically significant independent effect on increasing the likelihood of being in school at age 17. However, they do not attempt to control for selection bias in who becomes an owner in their analysis of decennial census data.

In his analysis of data from the PSID, Aaronson (2000) attempts to extend the work of Green and White in two ways. First, he introduces a much broader set of control variables in order to explore the specific mechanism by which better educational outcomes are obtained. Second, he employs a different methodology to control for potential selection bias in who becomes a homeowner.

Aaronson begins by estimating a model that includes a similar set of explanatory variables as used by Green and White, including controls for family composition, income, and parental education. The results indicate that children of homeowners have a likelihood of graduating from high school that is 10 percentage points higher compared to the children of renters. He then examines whether this effect is the result of greater household stability by incorporating measures of change over time in employment, marital status, and household composition. He finds that adding these controls does not affect the estimated homeownership impact. He also employs a different data set to examine whether

a parental inclination toward education might account for homeownership's impacts. In this analysis he includes measures of parental IQ, membership in parent-teacher organizations, and whether parents read newspapers or have a library card. But none of these measures is found to diminish the estimated impact of homeownership on high school graduation rates.

When Aaronson adds measures of residential mobility, including both how often the household moved when children were between ages 7 and 16 and the maximum duration of continual residence during those years, he finds that the estimated impact of homeownership on high school graduation rates is halved, from 10 percentage points to 5. Aaronson concludes that a good deal of the impact of homeownership is, in fact, attributable to greater residential stability that is correlated with owning.

Finally, Aaronson adds further controls to account for differences in household wealth, including the amount of housing equity. Including housing wealth in the estimated model is found to further reduce the estimated impact of homeownership on high school graduation by about half, with greater levels of housing equity associated with a greater likelihood of graduation. While Aaronson hypothesizes that this result reflects the association between wealth and other household characteristics that affect well being, he also notes that non-housing wealth does not have the same positive association with graduation rates. This result is consistent with the argument made by others that housing wealth is indicative of larger and higher quality homes, which may support better educational outcomes.

Nonetheless, while Aaronson finds that including controls for residential mobility and wealth reduces the impact of homeownership, it is still the case that an independent and statistically significant association between homeownership and high school graduation remains. This is consistent with the results obtained by Green and White in their analysis of decennial census data with similar controls.

In two related studies, Harkness and Newman (2002, 2003) make several important contributions to the existing literature. First, they focus their analysis specifically on low-income households (defined as those with income less than 150 percent of the federal poverty definition) to examine whether low-income households are as likely as higher income groups to realize the benefits of homeownership. Second, they introduce controls for neighborhood characteristics in order to examine the extent to which the realization of benefits of homeownership may vary depending upon the socioeconomic status of the neighborhood. Their analysis of the PSID finds that by age 20 the children of homeowners have on average completed a half year more of schooling, are 13 percentage points more likely to have graduated from high school, and are 6 percentage points more likely to have obtained some postsecondary education.

Harkness and Newman (2003) also compare the magnitude of homeownership's effects between low- and higher-income households. They find that homeownership's positive impacts are consistently larger in low-income families. Aaronson's results also support this conclusion. While Aaronson does not sort his sample into low- and high-income households, he does estimate separate models for low- and high-income neighborhoods. He finds that the benefits of homeownership are statistically significant in low-income areas but not in high-income areas. Since low-income owners are more likely to live in low-income areas, this result is consistent with the findings of Harkness and Newman.

Harkness and Newman (2003) also test the sensitivity of their results to the use of four different instrumental variables to control for selection bias in who chooses to own a home. They find that for

three of the four instruments the homeownership effect is still statistically significant with regard to educational outcomes for low-income children. This result leads them to conclude that the findings are robust even when using a variety of controls for selection bias. However, they find that for higher-income families, the use of these instruments results in a loss of significance for the homeownership variable. Thus, for higher-income households there is less evidence of an impact of homeownership once controls are implemented for the selection bias in who becomes an owner.

While the basic model presented in Harkness and Newman (2002) does not include controls for residential mobility or housing equity, they do test for the impact of including these variables on the estimated homeownership effect. Consistent with Aaronson's results, the inclusion of measures of residential mobility does diminish the homeownership effect, but it still remains positive and statistically significant. Housing equity, on the other hand, is not statistically significant. Boehm and Schlottmann (1999) also use the PSID to estimate the impact of homeownership on children's educational attainment. They find that housing equity is not statistically significant in predicting graduation from high school, but it is significant in predicting graduation from college. This result is consistent with the hypothesis that the wealth generated through homeownership may make it financially feasible to attend college.

The other principal contribution made by Harkness and Newman is to incorporate measures of neighborhood socioeconomic status, as captured by the share of residents in their homes for five years or more, the poverty rate, and the homeownership rate. Their results indicate that the effect of neighborhood characteristics on educational outcomes is weak, with only neighborhood stability being marginally statistically significant. However, when they interact the individual's tenure status with neighborhood characteristics they find that neighborhood characteristics have a greater impact on owners compared to renters. In particular, greater neighborhood stability is found to have more of an impact on owners' children. This is consistent with findings by Aaronson that the positive impacts of homeownership on high school graduation rates are larger in neighborhoods with low mobility.

On its face, Harkness and Newman's finding that the children of low-income owners are more sensitive to neighborhood stability would suggest that homeownership in unstable communities would have more deleterious effects on owners than renters.<sup>48</sup> However, they find that when the positive effects of homeownership itself are considered, the children of owners living in unstable neighborhoods are still found to have higher educational outcomes than renters' children in these areas. In short, they conclude that homeownership is beneficial to low-income families even if they live in neighborhoods with low socioeconomic status.

Haurin, Parcel, and Haurin (2002) take a somewhat different approach to evaluating the impact of homeownership on educational outcomes. Rather than look at the level of educational attainment, they use data from the National Longitudinal Survey of Youth (NLSY) to examine the association between homeownership and results on math and reading achievement tests. They find that homeownership has a positive and significant effect on test results for the children of owners—on average raising math scores by 9 percent and reading scores by 7 percent. The positive influence of homeownership remains even when controls are incorporated to account for sample selection bias.

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<sup>48</sup> The fact that there are statistically significant, positive impacts of residential stability on educational outcomes implies that a *lack* of stability will have *negative* impacts on these outcomes.

Thus, in addition to evidence that owners' children are more likely to stay in school longer, Haurin, Parcel, and Haurin provide evidence that the academic achievement of these children is also higher.

### **Employment, Earnings, and Welfare Use**

Two studies have assessed the impact of homeownership on the labor market outcomes realized by the children of homeowners, including the wage rates they achieve as young adults, the likelihood that they will be idle at age 20 (that is, neither employed or in school), and whether they are more likely to receive welfare as young adults. The results suggest that homeownership is associated with at least moderately positive outcomes for children in labor markets. Harkness and Newman (2002) find that homeowners' children are 7 percentage points less likely to be idle at age 20, have average wage rates that are \$0.70 per hour higher between the ages of 24 and 28, and are 9 percentage points less likely to receive welfare between the ages of 24 and 28. However, when controls for neighborhood characteristics are introduced, the impacts on idleness and wage rates are no longer statistically significant, although owners' children are still less likely to receive welfare. When they employ instrumental variables to control for selection bias in who becomes an owner (Harkness and Newman, 2003), they do not find a statistically significant impact on idleness, but there is a significant and positive association between homeownership and both wages and reduced welfare use.

In their analysis of the PSID, Boehm and Schlottmann (1999) examine the association between homeownership and children's average wages 10 years after leaving their parents' home. While their results do not find a statistically significant direct effect of homeownership on children's earnings, they note that homeownership does have an indirect effect on wage rates through its statistically significant association with increased educational attainment. Using the results of their models, they find that the increase in educational attainment that is associated with growing up in an owner-occupied home produces an increase in average annual earnings of \$7,500.

### **Teenage Pregnancy and Behavioral Problems**

Several studies have investigated the association between homeownership and the incidence of teenage pregnancy or behavioral problems. Green and White (1997) use the High School and Beyond survey to evaluate whether the daughters of homeowners are less likely to have had a child by age 18. While they do find a positive impact of homeownership the magnitude is fairly small, reducing the likelihood of having a child by only 2 percentage points. Using the PSID, Harkness and Newman find that the children of homeowners have about a 3 percentage point lower chance of having a child by age 20, but this difference is not statistically significant in any of the specifications tested.

Haurin, Parcel, and Haurin (2002) evaluate the association between growing up in an owner-occupied home and an index of behavioral problems as measured by mothers' responses to 28 questions in the National Longitudinal Survey of Youth about the prevalence of behaviors such as acting out, having a strong temper, demanding attention, and being depressed or anxious. Their results indicate that homeownership is associated with a 3 percent reduction in the incidence of problematic behaviors, but the effect is not statistically significant.

Taken together these papers suggest that homeownership may have some positive impact on children's behaviors, but if so the magnitude of this impact is fairly small.

## Homeownership

One last outcome that has been examined in the literature is whether the children of homeowners are more likely themselves to become owners. Boehm and Schlottmann (1999) use the PSID to examine the homeownership rates of children 10 years after leaving their parents home. They find that even after controlling for the usual predictors of homeownership, such as income and marital status, the children of owners have homeownership rates that are 25 percentage points higher than the children of renters. This much greater tendency to own may reflect some combination of a greater preference for homeownership among those who have experienced it, greater comfort and familiarity with what is entailed in being a homeowner, or greater parental wealth that can be tapped to help achieve homeownership. While Boehm and Schlottmann do not attempt to control for the selection bias in who chooses to become an owner, the rather substantial increase in the propensity to own a home among those who grew up in owner-occupied housing would seem likely to remain even if such controls were employed.

## Conclusions Regarding Impacts on Children

The literature that has examined homeownership's impacts on children is among the most convincing work on the social impacts of homeownership. A series of studies have examined this issue using different data sets and employing a variety of methods to control for selection bias in who becomes an owner. These studies have also attempted to isolate the effect of homeownership from the impact of reduced residential mobility and neighborhood attributes. The results strongly suggest that homeownership has a significant, positive effect on children's educational attainment even after controlling for all of these potentially confounding factors. Importantly, the literature suggests that these positive impacts are larger for low-income families and outweigh any negative impacts associated with owning in distressed communities.

There is also somewhat weaker evidence that homeownership is associated with better labor market outcomes and reduced behavioral problems, although the magnitude of these impacts is small enough that the statistical significance of the results is sensitive to the controls employed. Finally, one study has also found a significant association between growing up in an owner-occupied home and the odds of becoming a homeowner as a young adult.

## Impacts on Social Involvement

One of the frequently touted benefits of homeownership is that owners are more engaged in efforts to improve the community. Thus, increases in homeownership are thought to create more stable and healthier neighborhoods. There are a number of arguments put forward in the literature to explain why homeowners are thought to be more likely to be engaged in efforts to improve their communities (Cox, 1982; Baum and Kingston, 1984; Rohe and Stegman, 1994; DiPasquale and Glaeser, 1999; Rohe, McCarthy, and Van Zandt, 2002; Dietz and Haurin, 2003). Since neighborhood conditions have an effect on housing values, owners have a strong financial incentive to work to improve their communities. In addition to their financial stake, owners are also likely to have an emotional stake in their homes and a pride of ownership that will motivate them to improve the surrounding community. Owners also face higher moving costs than renters, so they may be more motivated to work to solve

neighborhood problems since it is harder for them to move out. Finally, owners' longer duration of residence in a neighborhood may also increase the strength and number of relationships they have in the community, which increases both their willingness and ability to engage in efforts to improve the neighborhood.

The existing literature has examined several of dimensions of social involvement. One aspect is the likelihood that a household will be engaged in political affairs as evidenced by how frequently they vote or whether they know the names of elected officials. Another measure of social involvement is the degree to which individuals participate in local organizations and institutions. A final dimension is the extent to which households are familiar and interact with neighbors.

However, much of the existing literature suffers from either a failure to account for selection bias or does not attempt to evaluate whether homeownership's impacts differ with either the income or race of the owner. Also, studies on this topic are much less likely to include controls for residential duration to separate the effects of homeownership from the effects of residential stability. The most important study on this topic is DiPasquale and Glaeser (1999) because they not only introduce controls for selection bias in who becomes an owner but they also investigate whether there are differences in homeownership's impacts between low- and high-income owners and assess the impact of residential duration on estimated homeownership effect. Also of some importance are a series of studies by Rohe and various colleagues (Rohe and Stegman, 1994a; and Rohe and Basolo, 1997) based on surveys of participants in a low-income homeownership program in Baltimore and a pseudo-control group of low-income renters from the same geographic area. These studies are important because they focus explicitly on low-income households and because they examine changes in household behavior following a move to homeownership.

Aside from these studies, there is a variety of other research that examines the relationship between homeownership and measures of social involvement. While the lack of adequate controls for selection bias and other confounding factors makes it difficult to draw definitive conclusions, we will also briefly review these studies as they provide some indication of homeownership's potential impacts. In the sections that follow we examine findings regarding impacts on voting and political participation, involvement with local organizations, and the extent of involvement with neighbors.

### **Voting and Political Participation**

A number of studies have found that homeowners are more likely than renters both to vote in elections (Kingston and Fries, 1994; Gilderbloom and Markham 1995; Rossi and Weber, 1996) and to be knowledgeable about and engaged in the political process as evidenced by knowing the names of elected officials, engaging in lobbying activities, or attending meetings about public affairs (Rossi and Weber, 1996; Cox, 1982; Lyons and Lowery, 1989). However, none of these studies attempted to include any controls for the selection bias in who opts to become a homeowner and, with one exception, they do not investigate whether there are differences in owners' political engagement by income. The one exception is Gilderbloom and Markham (1995), who analyze data from the General Social Survey regarding voting in the 1992 presidential election. They find that while owners with incomes above the median had a greater likelihood of voting, owners with incomes below the median were no more likely than renters to have voted.

DiPasquale and Glaeser (1999) make a significant contribution to the literature both by introducing controls for the selection bias in choosing to be an owner and by assessing whether there are differences in political activity by owner income. Their analysis of the General Social Survey for 1987 finds that homeowners are 13 percent more likely to know the name of the head of local schools, 11 percent more likely to know the name of their U.S. Representative, and 16 percent more likely to vote in local elections. When they add controls for duration of residence, they find the impact of homeownership is roughly cut in half, but remains statistically significant. When they introduce statistical controls for selection bias all of these impacts are still positive, although the likelihood of knowing the name of the U.S. Representative is no longer statistically significant.

However, most importantly for our purposes, they also investigate whether there differences in the impacts across different income groups. They find that compared to renters, owners with incomes in the bottom quartile are only about 5 percent more likely to know the local school head, 7 percent more likely to know their U.S. Representative, and 2 percent more likely to vote in local elections, with none of these differences being statistically significant. Thus, while DiPasquale and Glaeser find fairly convincing evidence that homeowners generally are more likely to be engaged in the political process, they also find that owners in the bottom quartile of the income distribution are only slightly more engaged than renters, if at all. This result is consistent with the findings of Gilderblum and Markham regarding participation in the 1992 presidential election.

### **Involvement with Local Organizations and Institutions**

Several studies have found that owners are more likely to be involved with local organizations such as neighborhood associations, social organizations, school associations, nationality groups, or churches, (Cox, 1982; Baum and Kingston, 1984; Guest and Oropesa, 1996; and Rossi and Weber, 1996). Again, for the most part these studies do not attempt to control for selection bias or assess whether low-income owners behave differently than higher income owners.

The study by DiPasquale and Glaeser is once again important in this area. Analyzing data from the General Social Survey for 1986 to 1994 they find that ownership is associated with greater participation in non-professional organizations. This result is maintained even when instrumental variables are used to control for selection bias. However, most of the homeownership effect is eliminated when controls for residential duration are included. More importantly, they once again find that owners in the bottom quartile of the income distribution are no more likely than renters to belong to organizations. However, they also examine church attendance as another measure of involvement with local institutions. They find that owners are more likely to go to church, and this difference is statistically significant even when controlling for selection bias and length of residence. Also, while low-income owners are less likely to attend church than high-income owners, they are still more likely to attend church than renters.

Another measure of local involvement analyzed by DiPasquale and Glaeser is whether owners are more likely to work to solve local problems, a question that was asked in the 1987 General Social Survey. They find that owners are 10 percent more likely to be engaged in these efforts than renters, although when statistical controls are introduced for selection bias the result is not statistically significant. Interestingly, they do find that owners in the bottom quartile of the income distribution are more likely than renters and no less likely than other owners to work to solve local problems.



However, the failure of this effect to be evident when controls are used for selection bias suggests that the association between homeownership and working to solve local problems is at best weak.

As noted above, the studies by Rohe and Stegman (1994a) and Rohe and Basolo (1997) also make an important contribution on this topic both because of their explicit focus on low-income households and because they gather information on the behaviors of households both before and after becoming owners. When matched with a comparison group of households who are otherwise similar but who did not become owners, such a longitudinal study may be better able to identify household changes that are related to the move to homeownership. Specifically, these studies track participants in a low-income homeownership program in Baltimore from the early 1990s. As a comparison group, Rohe and Stegman identified a group of households receiving rental housing vouchers in the city who had demographic characteristics that were similar to participants in the homeownership program. The comparison group provides a measure of the degree of change in behaviors and attitudes that might have been expected over time due to such factors as aging of the respondents or changes in circumstances in Baltimore during this period. Both groups were surveyed prior to the move to homeownership to gather baseline information on their social and political involvement and measures of self-esteem, perceived control over their life, and life satisfaction. The households were then surveyed again approximately 18 months (as reported in Rohe and Stegman, 1994a) and 3 years after buying a home (as reported in Rohe and Basolo, 1997) to gauge whether the move to homeownership had been associated with any changes in these behaviors or attitudes that could be attributed with the move to homeownership.

Before turning to their findings, several important caveats regarding the study are worth noting. First, participants in the Baltimore homeownership program represent a unique group of low-income homebuyers both because they were provided with fairly substantial subsidies (including a forgivable loan worth nearly a quarter of the home's value) and because they purchased newly constructed homes that are clustered with other participants of this program. Another issue to note is that the sample sizes available for study are fairly small and ultimately represent somewhat small shares of those identified for study. Of the 171 homebuyers who participated in the program, 143 completed the baseline survey, 125 completed a survey 18 months after purchase, and 90 completed a survey 3 years after purchase. Among the 202 households selected as a comparison group, 140 completed the baseline survey, 101 completed a survey 18 months later, and 65 completed a survey 3 years later. Thus, ultimately only about half of all homebuyers and a third of all renters were represented in the survey 3 years after purchase. The small sample sizes will make it more difficult to detect an effect of homeownership if magnitude of the impact is not large.

The studies by Rohe and his colleagues assess the degree of involvement with local organizations by counting the number of school associations, political organizations, neighborhood associations, church groups, and social organizations that respondents belonged to as well as the number of meetings of each type they attended. Using multivariate techniques to control for other differences between the two groups, they find that homebuyers were more likely to belong to and attend meetings of neighborhood associations but were no more likely to be involved in other groups. This effect was evident both 18 months and 3 years following purchase. On the other hand, they also found that the comparison group of renters were more likely to be involved with church groups 3 years after the time of purchase.

## **Involvement with Neighbors**

Another aspect of social involvement that has been assessed in the literature is the degree to which homeowners interact with their neighbors. In general, there have been fewer studies that have investigated this issue and the results have been less favorable. Baum and Kingston find that owners were more likely to have social relationships with neighbors. Rossi and Weber (1996), however, found that renters were more likely to socialize with neighbors at night and to go out to bars, although measuring the degree of interaction with neighbors as the extent of socializing at night is a somewhat limited view of neighborly attachment. However, neither of these studies examine whether there are differences between low- and upper-income owners or attempt to control for selection bias in who becomes an owner.

Rohe and his colleagues again provide an important contribution on this topic. Their survey of Baltimore homeowners and renters also investigated the degree of “neighboring” as measured by summing responses to a series of questions asking how many of their neighbors respondents recognized, knew by name, had social interactions with, or thought of as friends. Using multivariate techniques to control for other differences between the two groups, they find that owners scored lower on this measure of neighboring 18 months after purchase. However, the authors note that this result might simply reflect the fact that their sample of owners had, by definition, recently moved, which was not necessarily true of renters. In fact, when they re-survey the group 3 years after purchase they find a positive association between neighboring and being an owner, although this difference is not statistically significant.

## **Conclusions Regarding Impacts on Social Involvement**

In general, there is not a rich literature examining the association between homeownership and social involvement by low-income families. Studies by DiPasquale and Glaeser (1999), Rohe and Stegman (1994a), and Rohe and Basolo (1997) stand out as making particularly important contributions on this subject. On the whole, the findings from these studies indicate that there is at best only a slight tendency for low-income owners to be more socially involved. With regard to voting and other indicators of engagement in the political process, while homeowners generally are more likely than renters to be engaged in political activities, this does not appear to be the case for low-income owners. DiPasquale and Glaeser do find that low-income owners are more likely than renters to work to solve local problems, but in general the association between homeownership and such efforts is fairly weak as it is not statistically significant when controls for selection bias are employed. The studies by Rohe and his colleagues do provide some indication that low-income owners are more likely to be involved with neighborhood associations, but since this study concerns participants in a low-income homeownership program that provided newly constructed homes in Baltimore, it is not clear how generalizable these results are. Finally, there is a scarcity of studies investigating differences in interactions with neighbors by tenure. Those that have been done provide little evidence that low-income owners, in particular, are more involved with neighbors.

## **Impacts on Psychological and Physical Health**

Another purported benefit of homeownership is a positive impact on both the psychological and the physical health of owners. Psychologically, homeownership is thought to increase self-esteem, the

perception of control over one's life (or self-efficacy), and overall life satisfaction. There are a variety of mechanisms by which homeownership is believed to contribute to these outcomes. Higher self-esteem can result from the greater social status associated with homeownership and from the achievement of what is often an important personal goal of purchasing a home. Owners are thought to have greater perceived control over their lives because they have greater control over their living situation. Finally, the wealth created through homeownership both can contribute to a greater sense of financial security and can help provide more of life's comforts. However, on the other hand, it may also be that the greater responsibilities of maintaining a home and meeting its financial obligations can produce higher levels of stress for some households. In particular, households facing a potential foreclosure may experience a significant degree of emotional strain leading to a loss of self-esteem, a feeling of having no control over one's life, and reduced life satisfaction.

Greater physical health may in part be attributable to greater psychological health based on the premise that lower stress and a better outlook on life will have positive repercussions for physical health. In addition, improved physical health could result from better quality of living conditions associated with enhanced home maintenance by owner-occupants. Finally, increases in wealth associated with homeownership may also improve physical health by supporting better access to health care.

In general, the literature examining the impacts of homeownership on psychological and physical health is not of high quality. With one notable exception, none of the existing studies employ any attempts to control for what is likely to be a fairly significant self-selection of individuals with better psychological and physical health to be more likely to choose to become a homeowner. Similarly, with one exception, none of the existing studies attempt to evaluate whether the impacts of homeownership on health differ between low- and high-income owners. In fact, many of the existing studies use homeownership as a proxy for overall socioeconomic status in the absence of measures for household income, wealth, or education, all of which would be expected to exert an important independent effect on health. Finally, ideally studies would include controls for housing quality and wealth to attempt to isolate whether an association between homeownership and positive psychological and physical health might result from improvements in these areas. However, few studies include controls for these factors.

The primary exception to these failures in the literature are the studies discussed above by Rohe and Stegman (1994b) and Rohe and Basolo (1997). Their analysis of survey data for participants in a Baltimore low-income homeownership program provide insights specifically on outcomes among low-income households and provide some controls for selection bias by observing changes in the households circumstances following a move to homeownership. However, the contributions of this study are with regard to the psychological benefits of homeownership. There is no work of similar quality that has assessed homeownership's impacts on households' physical health.

In the two sections that follow, we first describe the literature that has assessed impacts on psychological outcomes and then turn to studies that have assessed impacts on physical health.

## Impacts on Psychological Health

As noted above, the three main aspects of psychological health that are associated with homeownership are increases in self-esteem, perceived control over life or self-efficacy, and overall life satisfaction. Interestingly, while it seems fair to say that these impacts of homeownership are widely taken for granted, there has been little quantitative work that has assessed the validity of these claims. Qualitative research generally finds that participants in low-income homeownership programs express very positive views of homeownership. One oft-cited study is Balfour and Smith (1996) who conducted focus groups with participants in a lease-purchase program in Cleveland. The authors summarize the feedback from the focus groups as indicating that the opportunity to work toward homeownership “elevates their status in society and contributes to personal security and self-esteem.” However, since the program entailed a lengthy period of time (15 years) as renters prior to obtaining ownership, the focus-group participants also noted that during the lease period the lack of control over maintenance to their homes and the need to follow rules established by property managers was a source of irritation and frustration—which actually highlights the value owners attach to having greater control over their homes. Herbert et al. (2003) also conducted focus groups with participants in a low-income homeownership program in Michigan, who generally reported that becoming an owner enhanced their self-esteem and the feeling of control over their living environment.

Quantitative studies assessing homeownership’s psychological impacts are few. Attempting to fill this void in the literature, Rossi and Weber (1996) use data from the National Survey of Families and Households from 1988 to examine the association between homeownership and a range of indicators of psychological health, including degree of self-satisfaction, feelings of competence, degree of happiness and optimism, and feelings of depression. Their results confirm that homeowners do fare better than renters in all of these dimensions, although the magnitudes of these differences are not large. However, the conclusions of this study are fairly tentative as the study also only includes controls for the respondents’ age and social status (based on an index that incorporates information on income and education). The results do not shed any light on whether these outcomes vary with the income of the owner. Nor do the authors attempt to account for any selection bias in who decides to become an owner.

The most thorough research on this topic once again comes from Rohe and Stegman (1994b) and Rohe and Basolo (1997). As described previously, these studies track participants in a low-income homeownership program in Baltimore over time and compare changes in measures of psychological health to changes observed over the same time in a comparison group of low-income renters. Specifically, surveys were conducted prior to purchasing a home as well as 18 months and 3 years after purchase. Survey questions were designed to evaluate the respondents’ self-esteem, perception of control over their life, and overall life satisfaction. By examining changes in individual owners over time, the study provides some control for potential selection bias in who chooses to buy a home. The focus of these studies specifically on low-income households is also unique.

The authors measure self-esteem using an index based on responses to five questions asking the respondent to give a self-assessment of their skills and ability. Their analysis of survey responses both 18 months and 3 years after purchase does not find a statistically positive association between homeownership and self-esteem. Interestingly, the only variable that is significant is the self-

assessment of housing condition, which is positively associated with self-esteem in both periods. A comparison of simple mean differences in self-esteem reveals that owners had greater gains over time in self-esteem than renters. Thus, the modeling results indicate that the one factor that explains this difference is difference in housing conditions between owners and renters. This result suggests that to the extent that homeownership affects self-esteem it may be as a result of increases in housing quality. However, this result suggests that a move to higher quality housing—whether owned or rented—could produce the same result.

These same studies assess the association between homeownership and the perception of having control over one's life based on the responses to nine questions related to respondents' perceived ability to have an impact on events in their life. They do not find a statistically significant association between owning and the perception of control either 18 months or 3 years after purchasing. However, they find few factors that are associated with perceived control over one's life. But once again survey results from 3 years after purchasing do find a positive association between housing condition and perceived control over life, although this effect was not evident 18 months after purchase. This suggests that homeownership's impacts may again be related to helping to increase housing quality, but this conclusion is weakened by the fact that housing quality does not have a consistent relationship over time with perceived control over life.

Finally, these studies also ask respondents to rate their overall satisfaction with their life. The results for this variable are the most consistent of the various psychological measures they test. Both 18 months and 3 years after purchase they find a strong positive and significant association between owning and life satisfaction. Interestingly, housing condition is also positive and significant in both surveys. Thus, the results of their analysis of the factors associated with life satisfaction suggest that homeownership may have both a direct impact in increasing satisfaction and an indirect effect by increasing housing quality.

### **Impacts on Physical Health**

Compared to studies assessing impacts on psychological health, many more studies have examined the relationship between homeownership and physical health. In part, the literature is broader on this topic because in many cases studies of factors associated with physical health have used homeownership as a proxy for a respondent's income, wealth, and education in data sets where this information is not available. But since these studies do not include controls for these factors, it is not possible to tell whether homeownership has an independent effect on physical health or if the association found is due to these other unaccounted for factors. These studies use a variety of indicators of health, including indexes for overall health (Baker and Taylor, 1997; Kind et al., 1998; Rossi and Weber, 1996; and Fogelman, Fox, and Power, 1989), frequency of visits to doctors (Baker and Taylor, 1997; and Carr-Hill, Rice, and Roland, 1996), mortality (Sundquist and Johansson, 1997), and degree of neurotic disorders (Lewis et al., 1998). These studies all find some significant association between homeownership and positive health outcomes. But given the lack of controls generally for economic status they shed little light on whether these outcomes are truly associated with homeownership.

A few studies do incorporate controls for income and other key characteristics that are likely to affect health outcomes, such as education. In an analysis of the American's Changing Lives data set, Robert

and House (1996) include controls for respondents' income and education and find that homeownership is still associated with better functional health, although it is not associated with the incidence of chronic conditions or self-rated health. In an analysis of a Scottish health survey, Macintyre et al. (1998) add controls for income and find that homeownership is still associated with a range of positive health outcomes, including overall responses to a general health questionnaire, respiratory function, the number of long-standing illnesses, and the number of symptoms of poor health. Interestingly, the authors also add a measure of self-esteem as a control variable but find that this factor has only an imperceptible effect on the association between homeownership and health outcomes. This result suggests that improvements in self-esteem may not be an important mechanism by which homeownership affects physical health.

However, neither of these studies provide any indication of whether health outcomes might vary with the owner's income level. One study with a particular focus on moderate-income households is Page-Adams and Vosler (1997). These authors surveyed nearly 200 workers from two automobile plants that were affected by the economic recession of the early 1990s, including one that was closed. The survey sought to assess the incidence among these workers of signs of economic strain, depression, and problematic alcohol use. The study also assessed whether workers had access to a social support network as evidenced by having someone they could turn to for understanding and advice other than their spouse. Incorporating controls for respondents' education, income, and financial assets, they study examined the association between homeownership and these outcomes. They find that homeowners were less likely to suffer signs of economic strain, depression, or problematic alcohol use, although they were not more likely to have access to a social support network. The results suggest that homeownership may help ease the psychological stress of a financial crisis, in part by helping to reduce the economic strain caused by lost or reduced employment. However, an important caveat is that the study does not make any attempt to control for potential selection bias in which workers chose to become homeowners.

While the findings of Page-Adams and Vosler suggest that homeownership can provide financial and psychological support in times of economic crisis, in an analysis of survey data from Great Britain from two time periods in the early 1990s, Nettleton and Burrows (1998) find that homeowners who have difficulty making mortgage payments are more likely to experience indicators of poor health. Specifically, these owners are found to have lower scores on a general health questionnaire and to be more likely to have visited a doctor. The results of this study highlight the potential negative effects of homeownership on physical health should the owner experience difficulty in making mortgage payments and face loss of their home. However, one weakness of the study by Nettleton and Burrows is that they do not attempt to compare the experience of owners and renters who experience financial hardship. While it is undoubtedly true that owners who face foreclosure will experience stress that is sufficiently severe to affect physical health, it is not clear from these results whether these impacts would be any worse for renters. The findings of Page-Adams and Vosler suggest that homeownership may provide some protection against these stresses. In general, the results of these two studies serve to highlight how little is known about differences in the impacts of financial stress on owners and renters.

## Conclusions Regarding Impacts on Psychological and Physical Health

In general, the literature assessing the impacts of homeownership on the psychological and physical health of homeowners is too thin to draw any firm conclusions, particularly with regard to whether these impacts may differ with household income. The studies by Rohe and Stegman (1994b) and Rohe and Basolo (1997) represent the most compelling work on the issue of psychological impacts. Their results suggest that homeownership may have a positive impact on overall life satisfaction of low-income owners, but they find little support for the hypothesis that homeownership increases self-esteem or perceived control over life. However, they do find that improved housing conditions are associated with increase self-esteem and perceived control over life, which is consistent with the idea that homeownership indirectly influences these outcomes by helping to improve housing quality. But since efforts to improve the quality of rental housing might have the same result, if this is the mechanism by which homeownership improves these outcomes, it may be possible to achieve the same results by means other than promoting homeownership. With regard to physical health, there are some indications that owners do enjoy better health, but since most studies do not employ adequate controls for other aspects of a households' socioeconomic status or for housing quality, it is not possible to firmly conclude that this association exists. These studies generally do not shed light on whether these impacts vary with homeowners' income. In short, the question of whether homeownership has an impact on physical health is very much an open question and one that requires further research.

## Summary and Conclusions

The most convincing work on the social impacts of homeownership has been concerned with impacts on children. A series of studies have examined a variety of outcomes using different data sets and different approaches to control for selection bias in who becomes an owner. Many of these studies have also included controls to determine whether the association of positive outcomes with homeownership may be due to reductions in residential mobility or differences in neighborhood attributes. These studies have universally concluded that homeownership does have a positive and statistically significant impact on children even after controlling for a variety of potentially confounding factors. Importantly, the literature suggests that these positive impacts are actually larger among low-income families and are large enough to outweigh any negative influences of living in distressed communities. By far the most significant impacts are found with regard to educational outcomes. The most common educational outcomes are that homeownership increases the number of years of schooling completed, particularly that children are more likely to graduate from high school. But one study also found positive impacts in terms of scores on reading and math achievement tests. There is also some evidence that homeownership is associated with better labor market outcomes, reduced behavioral problems, and increased homeownership for the children of owners, but these results are not as strong as those for educational outcomes.

As far as the impact of homeownership on the owners themselves, there is less convincing evidence that ownership is associated with increased social involvement among low-income owners. While owners generally have been found to be more likely to vote and more likely to know the names of elected officials, the few studies that have examined whether this impact differs by income have found that this result is not evident among low-income owners. There is some indication that low-

income owners are more likely to work to solve local problems and to be involved in neighborhood organizations, but given the small number of studies assessing these issues and the unique circumstances of these studies, this conclusion is by no means definitive.

Research on homeownership's impacts on owners' psychological and physical health is particularly weak. Only one series of studies of a low-income homeownership program in Baltimore provide any convincing information on the psychological impacts of homeownership. These studies find that while owners do exhibit higher life satisfaction, there is no evidence that they have higher self-esteem or perceived control over their lives. However, these studies do find that improved housing conditions are associated with higher self-esteem and greater perceived control over life, which may be an indirect effect of homeownership. Unfortunately, there are no studies that provide any convincing evidence about the impacts of homeownership on physical health.

Taken as a whole, the literature on social impacts suggests that there may be few significant social benefits aside from impacts on children. However, the impacts on children alone may be important enough to provide significant support for low-income homeownership. Nonetheless, further research on the social impacts of homeownership is needed to come to a more definitive conclusion about whether low-income households are likely to realize these benefits. Whether low-income owners are more socially involved than renters is an important question to the extent that homeownership is justified on the basis of benefits that accrue to the broader community. Given the lack of solid research on the impacts of homeownership on a household's psychological and physical health, further well-designed research in this area would make a significant contribution to the literature. Within this area, a particular interesting question is whether during times of economic crisis the negative impacts on an owner's psychological and physical health due to the stress of facing the loss of a home through foreclosure outweigh any positive impacts from the accumulated wealth and security of tenure that comes with homeownership. Perhaps more importantly, differences in homeownership's impacts by the race-ethnicity of the owner has essentially been completely ignored across all spheres of this literature, creating a significant gap in our knowledge.



# Chapter Six: Summary of Findings, Policy Implications, and Areas for Further Research

## Summary of Findings

Aided by a favorable economic climate, concerted efforts by the public and private sectors alike have succeeded in significantly increasing homeownership rates for low-income and minority households across the country over the last decade. Despite these gains, efforts to increase homeownership opportunities continue to receive important emphasis from policy makers as significant gaps still remain in homeownership rates by income and race/ethnicity. But the success of efforts to increase homeownership has highlighted the need for policy makers to evaluate the extent to which these new low-income and minority homeowners are reaping the expected benefits of homeownership, and, if not, what can be done to increase the chances that they will realize these benefits. In fact, in recent years both housing advocates and the popular press have raised concerns that the emphasis on promoting homeownership may be luring families and individuals into buying homes when they would be better off renting. These critiques cite rising foreclosure rates, increases in the share of buyers shouldering substantial financial burdens, and accounts of buyers being trapped in poor quality homes as evidence that a move to homeownership is in many cases not beneficial for the low-income and minority households who are the focus of these efforts.

In the interest of supporting the development of effective policies for promoting and supporting homeownership, as well as to address the concerns raised about those who fear there is too great an emphasis on promoting homeownership, the purpose of this report has been to review and synthesize what is known about the homeownership experience of low-income and minority households to assess the extent to which homeownership is likely to benefit these groups. While there have been several recent reviews of the literature that have assessed the empirical evidence on the benefits of homeownership, this study is unique in an explicit focus on what is known about the homeownership experience of low-income and minority households.

Efforts to promote homeownership are routinely justified by a range of financial and social benefits that are thought to result from owning a home. One of the key rationales for encouraging homeownership is that it is the principal source of wealth accumulation for a majority of Americans. Other financial benefits include reduced income tax obligations, protection from inflation in housing costs, and a resulting increased ability to amass other savings. But equally important are a range of non-financial or social benefits, including improved housing quality and satisfaction, increased social engagement (with positive repercussions for the surrounding community), enhanced conditions for childhood development, and improved psychological and physical health. Often the benefits of homeownership are taken to be so self-evident that little effort is made to document these claims. Yet, empirical validation of these benefits is less robust than one would suppose. In part, this reflects the fact that the benefits associated with homeownership are not realized instantaneously, but rather accrue only slowly over time. As a result, to assess whether an individual has benefited from homeownership they must be followed over time to observe a sequence of housing choices made over

a number of years. However, relatively few studies take such a longitudinal approach. Another challenge in attributing beneficial outcomes to homeownership is that renters and owners are likely to differ in fundamental ways that are not readily captured by observable household traits—for example, in the degree to which they prefer to put down roots in a community and in their interest and motivation to save. Studies assessing the impacts of homeownership must wrestle with the problem of disentangling the effects of homeownership from other household differences.

In recognition of the importance of the sequence of housing choices made over time for the long-run realization of homeownership's benefits, this study began by examining the initial housing choices made by low-income and minority first-time homebuyers since the early 1990s to identify whether there are indications from these choices that they are less likely to benefit from owning. We then examined what is known about key choices of these households after becoming owners and the impact of these choices on the odds of realizing homeownership's financial and social benefits. Chapters 4 and 5 then reviewed the literature that has specifically assessed the financial and social benefits of homeownership. Of no small importance for this review, among the studies that have assessed the benefits of homeownership few have had an explicit focus on assessing whether these benefits are more or less likely to accrue to low-income and minority households. Our review focused primarily on studies that shed light on differences in homeownership outcomes by income and race-ethnicity.

An examination of the housing choices made by low-income and minority homebuyers finds that, in general, these households do have more living space, a lower incidence of inadequate housing, and higher satisfaction with their homes than low-income renters. While this analysis does not take into account other differences between owners and renters that might account for the improved housing outcomes for owners, in general there does not appear to be any evidence that low-income and minority first-time buyers face a significant risk of living in poor quality housing. There have also been concerns raised that in order to be able to afford a home, low-income and minority homebuyers may be more likely to purchase in distressed neighborhoods. Studies that have examined the neighborhood choices of these buyers have found that while low-income and minority buyers do tend to buy in areas with lower household incomes and higher minority concentrations than other buyers, for the most part the neighborhoods where they live are decent neighborhoods of modest income—but they are not distressed. Finally, there is no indication that first-time buyers were systematically using higher cost or riskier mortgage products—at least not as evidenced by data from the American Housing Survey covering the period up through 2003. Of course, the conclusion that most low-income and minority first-time buyers were obtaining decent housing in decent neighborhoods with reasonable mortgage terms does not mean that there were not cases where buyers did not fare so well. But our analysis of data from the American Housing Survey suggests that these poor initial outcomes were relatively rare.

There were several notable trends evident over the last decade in the characteristics of first-time homebuyers. First, the share of low-income buyers with severe payment burdens—that is, devoting over half of their income to housing costs—rose fairly substantially from 14.5 percent of buyers in the first part of the 1990s to 20.1 percent in the period from 1997 to 2003. This trend suggests that the rise in homeownership may well have been fueled by more liberal mortgage underwriting, with a consequence that more first-time owners were subject to severe housing cost burdens. Another trend that was evident was a notable rise in the share of low-income first-time homebuyers that consist of

households with a single adult—either a single person or a single parent with children—from 39 to 49 percent. While the expansion of homeownership opportunities for these households is commendable, it can be more challenging for these families and individuals to cope with unexpected crises and so they likely face a greater risk of losing their homes. Finally, nearly a quarter of low-income households made the leap to homeownership by purchasing manufactured housing. While these homes have been found to represent an affordable option for good quality housing, they will not provide opportunities for wealth accumulation for the half of all owners who do not own the land on which their homes are sited.

One of the choices made by homeowners that plays a key role in determining whether a household benefits from homeownership is how long the household occupies the home. The costs of buying and selling a home are substantial, so those who move frequently will be less likely to benefit financially from owning. In addition, many of the social benefits of homeownership are associated with residential stability. There is fairly limited evidence on differences in mobility rates for owners by income and race-ethnicity, but studies that have been done suggest that these households may be less likely to move, making homeownership more attractive. On the other hand, low-income and minority owners are also at greater risk of foreclosure. However, even though foreclosure is more common among these owners, it is still a fairly rare event, affecting less than five percent of low-income and minority owners using prime, conventional financing. Of no small concern, the advent of subprime lending has clearly raised the risk of foreclosure, particularly for low-income and minority buyers who account for a large share of this market, but even among these borrowers the vast majority of cases do not end in foreclosure. In short, while there is a clear need to ensure that homebuyers are aware of the risks of foreclosure and that safeguards are in place to protect buyers from making ill-informed choices, the incidence of foreclosure is not high enough for low-income buyers generally to avoid homeownership.

But while a small share of buyers may experience foreclosure, the share of low-income and minority first-time buyers that fail to maintain homeownership for at least five years is fairly substantial. Several recent studies have used longitudinal panel surveys to trace the tenure choices of households over fairly lengthy periods of time and found that between 43 and 53 percent of low-income buyers will not sustain homeownership for more than five years, compared to between 23 and 30 percent of high-income buyers. These studies also find that minorities at all income levels are between 22 and 39 percent more likely to leave homeownership than whites. These statistics reveal that the notion that “once an owner, always an owner” is not at all true—especially for low-income and minority families.

These studies cannot identify why these households leave homeownership. The exits will include cases where a change in circumstances make it impossible for owners to sustain homeownership—including both instances where owners are forced out of their homes by foreclosure as well as instances where owners leave to avoid foreclosure. But some share of these exits are also voluntary and likely represent sound decisions given changes in household circumstances that impose few costs on the owners. Assuming that high-income owners are only rarely forced out of homeownership by an inability to meet their financial obligations, then the exit rate for these households of between 23 and 30 percent may be taken as an indication of the share of cases where households voluntarily leave homeownership within five years. This assumption would suggest that roughly a fifth of low-income owners generally and about a quarter of low-income minority owners may involuntarily be forced to

give up on homeownership within five years of buying. Clearly, a non-trivial share of low-income first-time buyers may not be able to sustain homeownership long enough to realize its benefits.

It is important to note that much of the information on how long households sustain homeownership is based on survey data from the 1980s. Thus, the difficulty faced by low-income first-time buyers in sustaining homeownership is not a new phenomenon. It is not clear whether the risk of leaving homeownership have risen as the number of low-income first-time buyers has increased, although the continued rise in homeownership rates for this group suggests that their rate of exit from homeownership has not risen substantially—at least not yet. One of these studies also tracked households' tenure choices following an exit from homeownership and found that many low-income and minority families do manage to regain homeownership. Among whites, 86 percent of those who become owners either continually sustain ownership or return to owning, compared to 81 percent of blacks and 84 percent of Hispanics. These figures suggest that, despite fairly high shares of households leaving homeownership at some point after they buy their first home, ultimately a large majority of first-time buyers of all racial-ethnic groups do succeed as owners. But these subsequent transitions have not been the subject of as much study and so this conclusion may be less definitive.

Another key decision made by owners after purchase is whether to refinance their mortgage to obtain a lower interest rate. Homeowners can substantially reduce their long-term costs of owning by taking advantage of refinance opportunities, which means a failure to pursue these opportunities represents a substantial loss. Analyses of the likelihood that owners will take advantage of refinance opportunities have found that low-income and, to a greater extent, minority owners are more likely to miss these chances than other owners. Among low-income borrowers these missed chances appear to be explained by their greater difficulty in meeting the underwriting requirements for a new loan. While these factors also explain some of the reduced refinancing activity by minorities, it also appears that minorities may miss opportunities where they would likely qualify for a loan. Blacks who refinance are also found to obtain interest rates that are about one percentage point higher on average than the rates obtained by whites. Taken together, missed refinance opportunities and higher costs of refinance loans are estimated to increase the collective costs of mortgage finance for black homeowners by tens of billions of dollars. Clearly, a failure to take full advantage of refinance opportunities imposes significant costs on these owners.

Another mortgage decision faced by owners is whether to borrow against their home equity for other purposes, such as to finance home improvement, education, or business investment or simply to support consumer spending such as by consolidating other debt. While such uses of home equity are one of the benefits of homeownership, there is also concern that the ease of obtaining a cash-out refinance mortgage or home equity loans may encourage owners to draw down their equity and diminish their wealth accumulation. Existing studies suggest that low-income and minority owners do not, in fact, have a greater tendency to draw down their home equity—perhaps because they have less equity to draw down. However, an important caveat to this conclusion is that more recent data indicates that there has been a substantial increase in cash-out refinancings since 2001—a trend that may not yet be captured by national survey data that were used in these studies.

A final important choice faced by owners relates to investment in home maintenance and improvements. These investments are important in several respects. First, spending on home maintenance is important to ensure that the home continues to provide adequate shelter and to protect

the value of the home. Required home maintenance spending can also add to housing costs and increases the financial burden on low-income owners. Finally, investments in home improvement increase the benefits received by owners from their homes and help to support increases in value. In general, studies have found that low-income and minority households are less likely to invest in home improvements, although the differences are not large. However, existing studies mostly focus on home improvements and shed little light on the incidence of maintenance expenditures. Maintenance expenditures are arguably more important, since they are needed to maintain the quality of the home and can impose an unexpected financial burden on the owner. One study of participants in a low-income homeownership program found that within 18-months of home purchase about half had experienced a major unexpected need to invest in home maintenance, with a little more than a quarter reported having such a need and being unable to make this investment. This finding suggests that maintenance costs can be an important issue for low-income owners, but relatively little research has been done on this topic.

All of the post-purchase decisions discussed above will have an impact on the financial returns to homeownership. But perhaps the most important factor for producing wealth is the rate of house price appreciation. Given that low-income and minority owners do tend to live in different neighborhoods than upper-income white households, it cannot be assumed that the likelihood of house price gains are the same for these groups. A large number of studies have examined whether there are systematic differences in house price appreciation for low-valued homes. Looking broadly at the findings from these studies it is clear that low-valued homes are no less likely to appreciate than higher-valued homes. Thus, there is no reason to believe that low-income owners are less likely to experience rising house prices than other owners. There has been much less study of differences in appreciation rates by race-ethnicity, but the few studies that have been suggest a similar conclusion for homes in minority communities.

However, these studies also highlight the fact that the rates of home price appreciation do vary substantially over time and across markets. When both the variation in housing prices and the high costs of buying and selling homes is taken into account, a significant share of homebuyers are found to lose money on their homes if they move within nine years of buying. Studies examining housing price cycles have found that the timing of buying and selling a home is critical in determining whether a household will profit from owning. In short, these studies highlight that housing can be a risky investment—particularly for those who do stay in their homes for only a few years.

But even if steady housing appreciation is realized, it may still be the case that low-income households would financially be better off renting. Since low-income households are less likely to realize any income tax benefits, owning will have fewer financial advantages over renting compared to higher-income households. Low-income and minority households may also face higher interest rates than other households, further eroding the potential advantage of owning. Studies comparing the costs of owning and renting have found that a critical factor is the relationship between rents and values—the higher that rents are relative to house values, the more attractive ownership becomes. If the rent-to-value ratio is assumed to be around the long-run average for the country as a whole, these studies generally conclude that low-income households would be better off renting unless they expect to stay in their home for seven years or more. However, one author has argued that rents are higher relative to values in low-valued segments of the housing market, perhaps in part due to the fact that the reduced value of tax benefits for these households decreases the amounts bid for these homes. If a

higher ratio of rent to value is assumed to prevail among low-valued homes, owning can be a better financial deal than renting even in the absence of any tax benefits. Since the relationship between rents and values at different points in the distribution of home values has not been the subject of much study, it is difficult to draw definitive conclusions regarding whether low-income households would systematically be better off financially by renting.

As the forgoing discussion demonstrates, there is a complex web of factors that contribute to the financial returns realized from homeownership, including the location and timing of purchase and sale, the ability to sustain homeownership over time, the availability of tax benefits, the choices made about financing, maintaining, and improving homes, and the cost of housing in the rental market. It is nearly impossible to piece together the findings from the literature that examines each of these aspects of homeownership to conclude whether low-income and minority owners are likely to be better off financially by owning rather than renting. In an effort to simultaneously account for this multifaceted array of factors, one group of studies has used longitudinal household surveys to relate cumulative tenure choices over time to household wealth accumulation. An important caveat with these studies is that they do not incorporate any controls for selection bias in who becomes an owner, and so it is not clear whether the observed differences in wealth accumulation reflect solely the impact of homeownership or whether the result is due to other unobserved differences between owners and renters. Despite this important shortcoming, these studies do shed light on whether homeownership is as likely to support wealth accumulation among low-income and minority households as it is for higher-income owners. In fact, these studies consistently find that households that have experienced even short spells of homeownership accumulate more wealth than those who rent. While higher-income households do accumulate much greater wealth through ownership, the disparity in wealth accumulation between low-income households who own and those who only rent is actually greater. Homeownership is found to be a particularly important avenue of wealth creation for low-income households as these studies consistently find that housing equity is often the only form of wealth accumulated among these households. In short, these studies suggest that it is hard to refute the importance of homeownership for wealth creation among low-income and minority households.

In justifying efforts to support homeownership, policy makers cite not just the financial benefits of homeownership, but also a range of social benefits, including an improved environment for raising children, increases in community involvement (with resulting positive impacts on the surrounding community), and improved psychological and physical health. In general, evidence supporting these claims for low-income and minority households is fairly limited. But there is fairly compelling evidence that the children of homeowners do have higher educational attainment. Importantly, low-income owners are more likely to experience these positive impacts and these impacts are evident even when owners live in distressed neighborhoods. There is also evidence that homeownership has positive impacts on children in terms of better labor market outcomes, reduced behavioral problems, and an increased propensity to own homes as adults.

There is a much thinner literature assessing other social impacts of homeownership, including the degree of social involvement and impacts on psychological and physical health, making it difficult to come to conclusions about whether low-income and minority owners are likely to realize these benefits. Of the studies that have addressed these issues, the results provide little evidence that low-income owners are more socially involved than renters. Studies employing quantitative measures find some support for the notion that homeownership improves overall life satisfaction, but no

support for the idea that ownership increases self-esteem or perceived control over one's life—despite the fact that these aspects of homeownership are generally supported by qualitative research. The literature is particularly thin on homeownership's impact on physical health, either generally or specifically for low-income or minority owners, so that no conclusions can be drawn about association between homeownership and better health.

Overall, our review of the literature indicates that in most cases low-income and minority households are as likely to realize the financial and social benefits of homeownership as upper-income, white households. Nonetheless, it is also clearly the case that these households face a greater risk of being unable to sustain homeownership. Since the benefits of homeownership mostly accrue slowly over time, a failure to maintain homeownership will greatly reduce the chance of realizing these benefits. While it can be argued that the risk of foreclosure remains fairly low for most owners, recent research on the rate at which households exit homeownership find that roughly half of low-income buyers—and even higher shares of low-income minority owners—are unable to sustain homeownership for five years. While there may be substantial benefits from sustained homeownership, there are also significant costs of failed attempts at owning. Cases ending in foreclosure undoubtedly impose significant financial and personal costs on these families. While much less is known about other forced exits from homeownership, these situations are also likely to impose non-trivial financial and personal costs.

Given the benefits that result from sustained homeownership, we see no reason to retreat from the goal of increasing homeownership opportunities for low-income and minority households. But there is also a clear need for policies to help insure that these families and individuals approach the decision to purchase with a clear sense of the risks involved and an understanding of the implications of their initial housing choices. Policy makers also need to place increased emphasis on efforts to support low-income and minority families once they become owners to increase the likelihood that homeownership will be sustained and its full benefits realized. The next section discusses these policy implications in more detail.

## **Policy Implications**

While it is beyond the scope of this report to provide detailed policy recommendations, in this section we do identify broad areas where policy makers should focus their attention to help improve homeownership outcomes for low-income and minority owners. In short, a concerted policy effort to improve homeownership experiences will have three broad thrusts: efforts to improve the initial homebuying choices made by these families and individuals—including whether owning is the right choice; efforts to ensure that homeowners optimize their mortgage choices after purchase and make appropriate investments in maintenance and improvements to their homes; and efforts to help owners resolve crises that threaten their ability to sustain homeownership. Policy goals in each of these broad policy areas are discussed in the sections that follow.

For the most part, the policy directions outlined here do not represent new ideas. As a result, the recommendations may be thought of more as an indication of where greater emphasis is needed rather than where there has been a complete lack of effort. However, it seems to fair to conclude that there has been much greater emphasis on efforts to promote homeownership than there have been on efforts

to support and sustain homeownership. For this reason, there is likely to be a greater need to expand efforts for these latter goals. It is also important to note that there are very few studies that have assessed whether first-time buyers are making the most appropriate housing and mortgage choices or the effectiveness of policies to either promote or sustain homeownership.<sup>49</sup> A better understanding of what policy approaches are most likely to be successful in various circumstances is clearly needed to better inform policy choices.

### **Improving Initial Choices**

The initial decisions made by individuals and families about whether to own, what house to buy, and how to finance the purchase all have important implications for the outcomes realized. There are a variety of ways in which policy efforts can help prospective homebuyers in each of these choices. The most obvious approach for improving these initial decisions is through homebuyer education and counseling. In many respects, this is a policy approach that has been well established over the last decade, as the volume of homebuyer education and counseling services has increased significantly since the early 1990s through the combined efforts of all levels of government and non-profit and for-profit organizations. However, while such efforts are well established, what may be needed is a review of these efforts to ensure that they place sufficient emphasis on the quality of buyers' decisions and not just on helping buyers to succeed in purchasing a home. There is no systematic information on the extent or nature of existing counseling efforts, so one can only speculate as to the degree to which current efforts address these concerns.

Nonetheless, since the goal of homebuyer education and counseling programs is to help clients achieve homeownership, there may be a tendency to place more emphasis on accentuating the positive—that the program can help clients realize their dream of homeownership—and less emphasis on assessing the question of whether homeownership is, in fact, an appropriate choice for these households. Homebuyer education and counseling efforts ought to help clients to confront important issues such as their likelihood of needing to move in the next few years, their ability and desire to handle maintenance responsibilities, and their financial capability for responding to unexpected costs or reductions in income. Clients of these programs ought to be made aware of the real risks associated with buying a home and the chances that they may not be able to maintain homeownership. While it is not often highlighted in descriptions of the outcomes of homebuyer education and counseling, it ought to be considered a positive outcome of these efforts if a client chooses *not* to pursue homeownership if they would not truly benefit from owning.

The importance of making careful choices about what home to buy also needs to be stressed, including the value of a thorough home inspection to identify potential problems with the home. Since low-income families may have little money to spare beyond requirements for a downpayment and closing costs, a home inspection may seem like an unaffordable luxury. Clients need to understand that a high quality home inspection is money well spent. To further encourage buyers to take this step, financial assistance for these home inspections may also be warranted. As an indication of the challenge of getting buyers to take this step, a program to support low-income

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<sup>49</sup> See Herbert et al. (2005) for a review of the existing literature assessing the efficacy of efforts to promote homeownership).



homeownership in Michigan found that despite an offer by the state to pay for a home inspection, few buyers actually took advantage of this aspect of the program (Herbert et al., 2003).

Finally, these efforts should also emphasize the importance of choosing a mortgage product that will keep housing costs low while also not exposing the household to payment shocks that will make it difficult to sustain homeownership. Since many counseling and education programs are linked to affordable lending efforts, it is likely that the issue of mortgage choice receives a fair amount of attention in existing efforts. In this regard, the problem facing counseling efforts may be less a question of whether the right message is communicated to clients and more a question of whether these counseling programs can effectively compete with the sales efforts of subprime lending programs. The housing counseling industry developed in the 1990s in response to problems that low-income and minority households had in accessing mortgage credit. During the 1990s, more relaxed underwriting guidelines by conventional lenders as well as the growth of subprime lending have diminished the problem of getting access to credit. Borrowers with low-incomes and poor credit now face a range of mortgage choices—many of which can be obtained almost instantaneously without the need for a prolonged counseling effort. Thus, the challenge for the homebuyer education and counseling industry is how to meet the needs of their clientele with the same speed and ease as their subprime competitors. This may require expedited approaches for assisting borrowers that get them to “yes” more quickly while maintaining contact after purchase to deliver more in depth counseling and support.

However, one challenge in recommending an emphasis on providing homebuyer education and counseling to address the need for improving initial housing choices is that so little is known about which approaches work and which do not. There have been a handful of studies that have assessed the efficacy of homebuyer education, but the emphasis of these studies has been on examining whether default rates are lower for those assisted by these efforts. The issues raised here go beyond whether they are able to meet their mortgage payments to questions of whether the decision to buy, what to buy, and how to finance the home are optimal. While a default is an indication that a poor choice was made, these are only the most visible examples of poor decisions. Further study both about the nature of existing counseling efforts and the efficacy of different approaches for achieving the goals discussed here is needed.

Another obvious area where policy makers can influence homebuyers’ initial choices is through efforts to regulate the mortgage industry to ensure that lending practices help buyers to make adequately informed choices. Along these lines, there have been a variety of efforts by state governments to impose stricter guidelines on lenders to eliminate deceptive practices that came to light in the late 1990s. Critics of these state regulations contend that they impose liabilities and requirements that result in more costs than benefits for consumers. Advocates contend that these laws have provided an important safeguard for consumers who are making choices with significant personal and financial ramifications. It seems clear that if the government is encouraging individuals and families with little experience in mortgage markets to pursue homeownership, there needs to be adequate regulatory protections to ensure that they are likely to make choices that keep homeownership affordable while mitigating its risks.

One final issue that should be the focus of policy efforts concerns manufactured housing. As noted in Chapter 2, nearly a quarter of low-income first-time buyers over the last decade have purchased

manufactured homes. While there is evidence that these homes provide good quality homes at a reasonable price, in cases where the land is not owned along with the unit buyers are unlikely to realize any of the potential financial benefits of homeownership. Given the importance of these homes for low-income buyers, one policy goal could be to increase the share of these homes where occupants also own the land. Perhaps tax incentives for developers of manufactured home parks could be used to encourage greater land ownership among buyers.

### **Improving Choices Made After Purchase**

The post-purchase issue that may be most ripe for greater policy effort is the need to enhance refinance activity by low-income and minority homeowners—both in terms of whether the option to refinance is exercised when the opportunity arises, what mortgage terms (particularly the interest rate) are obtained upon refinancing, and how much it costs to refinance. Analysis of refinance activity has found that low-income buyers are less likely to exercise options to refinance when the opportunities arise, most likely due to credit constraints. More notably, minority owners are both less likely to refinance, even when credit constraints are not evident, and also end up with interest rates that are about one percentage point higher than the rates obtained by whites who refinance.

For several years now, policy makers have paid considerable attention to the issue of predatory lending, which refers to a grab bag of lending practices that impose excessive costs and strip equity from homeowners who refinance their homes. As discussed above, regulatory efforts are clearly an important part of the policy response to this problem. But efforts to enhance affordable lending options for existing owners are needed to address this need. Up to now, the focus of most affordable lending programs has squarely been on helping first-time buyers to purchase homes. What is needed is an equally strong emphasis on lending and counseling programs designed to help existing homeowners to act on refinancing opportunities and to obtain affordable products when they do refinance. As discussed above, a challenge for enacting such an effort is to effectively compete with subprime lenders who both aggressively market their products and can make loans quickly. Efforts to promote affordable refinance options for low-income and minority homebuyers need to be developed that can provide an effective counterweight to the more expensive options available in the market.

Another issue that likely would benefit from greater attention is the need to support owners in identifying and addressing home maintenance issues. This support could include counseling and education to recognize and successfully manage home maintenance issues as well as lending programs to help finance larger scale needs. This type of post-purchase counseling is widely recognized as an important pillar of support for low-income homeowners, with the most notable example being the “full-cycle” lending approach developed by Neighborhood Reinvestment Corporation that is intended to support borrowers not just up to the point of home purchase, but also after they are in their homes. However, despite the recognition of the potential benefits of post-purchase counseling, these services appear to be much more rarely used. For example, in fiscal year 2003 the NeighborWorks network provided pre-purchase counseling to about 57,000 clients, while post-purchase services were provided to about 18,000, or about a third of the volume.<sup>50</sup> Prior to the 1990s, many of the community-based organizations that are among the leaders in efforts to promote

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<sup>50</sup> See <http://www.nw.org/network/policy/pdf/goalsFY03-FY05.pdf> for statistics on the volume of clients served.

homeownership played an important role in operating lending programs to support home improvement and maintenance. While many of these efforts still exist, they appear to receive less emphasis than efforts to support home purchase. Again, data from the NeighborWorks network is instructive. While the network helped about 12,000 individuals to become homeowners in fiscal year 2003, they also assisted a little less than 8,000 owners with support for rehabilitation and repair services.<sup>51</sup> Although it is worth noting that the volume of NeighborWorks' clients receiving support for rehabilitation and repair services has been growing in recent years.

### **Helping to Sustain Homeownership**

One of the important innovations in mortgage markets during the 1990s was an increased emphasis on efforts by lenders to provide delinquent borrowers with a range of options for addressing their financial difficulties to avoid having these situations end in foreclosure (see Herbert et al. 2000 for a description of the efforts developed by Fannie Mae, Freddie Mac, and FHA). Loss mitigation programs, as these efforts are called, offer solutions such as providing periods of reduced or suspended mortgage payments or opportunities to refinance loans to extend the term or lower the interest rate as a way of reducing mortgage obligations. FHA offers a particularly generous option called a partial claim that allows borrowers to turn missed payments into a non-interest bearing loan that is only payable upon sale of the house or fulfillment of their primary mortgage obligation, whichever comes first. Loss mitigation programs also offer options that do not result in owners retaining the home, but avoid a foreclosure and the associated negative consequences for a borrowers' financial circumstances and credit history. These options include pre-foreclosure sales, where owners are allowed to sell their homes for less than their debts, and a deed-in-lieu of foreclosure, where owners turn over their properties to the lender without the need for a foreclosure process.

These loss mitigation programs are an important tool in efforts to help homeowners sustain homeownership or to mitigate the consequences of losing a home so that a return to homeownership will be easier. In an analysis of loans purchased by Freddie Mac, Cutts and Green (2004) find that among low- and moderate-income owners who enter into a repayment plan, the risk of home loss is reduced by 68 percent. However, there are a number of ways in which these efforts could be strengthened. Recent papers by the Neighborhood Housing Services of Chicago (2004) and Collins and Gorey (2005) present a detailed discussion of approaches used to respond to mortgage delinquency along with recommendations for improvements in the safety net available to support owners. One of the key issues raised by these studies is the need for better methods for contacting borrowers who have fallen behind in their payments. Cutts and Green (2004) note that Freddie Mac loan servicers are only able to contact about half of all delinquent borrowers, while NHSC presents information for highly-rated subprime servicers showing that these lenders only succeed in contacting between 17 and 36 percent of delinquent borrowers. If lenders are unable to connect with these owners, they are not able to negotiate a workout arrangement to help mitigate their circumstances. As Collins and Gorey (2005) discuss in depth, there are promising examples of programs implemented in a few markets around the country that use non-profit organizations as an "honest broker" to reach out to borrowers assist them in their negotiations with lenders.

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<sup>51</sup> See *Bright Ideas* Volume 24, Number 2, Spring 2005, page 7 for data on home repair and rehabilitation volumes.

While in some cases, telephone counseling may be sufficient to gather the necessary information from borrowers to develop an appropriate strategy to remedy their default. However, in other cases, more intensive in-person counseling may be needed. A significant challenge in providing this type of service is how to pay for these efforts. Similarly, while many lenders will offer borrowers repayment plans or loan modifications to help resolve delinquency, in some cases financial assistance is needed to pay off the accumulated delinquency. FHA's partial claim is an example of the type of assistance that may be needed to get borrowers back on track, but this option is not generally available from other lenders or insurers. There are several city- or state-level programs that provide this type of support, most notably Pennsylvania's Homeowners' Emergency Mortgage Assistance Program (HEMAP) and the Minnesota's Foreclosure Prevention Assistance Program. But there are only a handful of such efforts in selected market areas around the country.

Although there are a number of foreclosure prevention programs operating either through specific lenders or in specific markets, many borrowers find themselves without access to some or all of the supportive services they need. As Collins and Gorey observe:

While there are instructive aspects of all of these programs, a universal roadmap for foreclosure prevention does not exist. Ideally borrowers struggling to pay their mortgage would have access to a multi-tiered system of supportive services, including lender referrals, counseling, financial assistance, property services, and referrals to other social-service agencies.

In short, while there have been great strides in the last decade in developing loss mitigation approaches, much more can be done to increase access to these important services.

Finally, in addition to loss mitigation for delinquent mortgage borrowers, there is also a need to provide support for owners who are facing crises even before they miss a mortgage payment. The relatively high rate of exit from homeownership within five years by low-income and minority owners suggests that a fairly large share of these owners may be experiencing difficulties that make it difficult to sustain homeownership. It is not known how many of these crises may not even reach the stage of missing mortgage payments and so represents a silent failure of homeownership. Improved methods for identifying and supporting these owners are also needed. The most common reasons for mortgage delinquency indicate the types of crises that are likely to arise—including job loss, health problems, divorce or death of a spouse, and large financial obligations, such as maintenance costs, tax bills, or consumer debt. Policy efforts to provide greater support for low-income households generally to confront these types of emergencies would also help to sustain homeownership. Such efforts would include support for the unemployed, an expansion of health care insurance, and emergency loan programs for unexpected costs.

## **Areas for Further Research**

Throughout this report we have identified areas in the literature where not enough work has been done to fully understand either the circumstances facing homeowners, the nature of their decisions, or the outcomes realized. This section presents a brief description of the areas where further research would be most valuable to enhance our understanding of the homeownership experience of low-

income and minority homeowners with an eye toward informing policy efforts to improve the outcomes realized.

- ***Is homeownership associated with greater housing size and quality for low-income and minority homebuyers?*** The simple comparison of average housing characteristics of owners and renters presented in Chapter 2 of this study found that homeowners did enjoy larger and higher quality homes. However, this result may simply reflect the fact that owners and renters differ in important ways. A multivariate analysis would shed more light on the extent to which homeownership is associated with getting access to better quality housing.
- ***How do housing costs and quality change when households move into homeownership?*** The data presented in Chapter 2 found that an increasing share of low-income first-time buyers were experiencing severe housing cost burdens. However, this type of cross sectional analysis does not shed light on whether these owner households were worse off owning than they were renting, as their previous rental cost burden may have been as high. An analysis of panel survey data could be used to examine how housing consumption and costs change when low-income and minority households first become owners.
- ***Have the initial mortgage choices of homebuyers become riskier in recent years?*** Analysis of the American Housing Survey through 2003 suggests that first-time buyers were not making particularly risky mortgage choices. However, recent reports in the popular and trade press indicate that the use of interest-only and payment-option mortgages have become more widespread. An analysis of data from the 2005 AHS (or perhaps private data sources such as Loan Performance Inc.) are needed to understand the extent to which these riskier loans are being used and what the characteristics of these borrowers are.
- ***Has the likelihood that low-income and minority homebuyers will sustain homeownership for at least five years changed over the last decade?*** Several recent studies have spotlighted the fact that low-income and minority homebuyers face fairly substantial risks of not being able to sustain homeownership. However, these studies do not address the question of whether the likelihood of maintaining homeownership has changed over time. While more liberal underwriting guidelines may mean that more first-time buyers face high risks of being unable to sustain homeownership, these higher risks may be offset by the growth of loss mitigation efforts that provide options for responding to financial crises that were not available in the 1980s. An examination of the changing risks of failing to sustain homeownership is needed to assess whether efforts to support homeownership may be going too far.
- ***What are the implications for households of an unsuccessful attempt at homeownership?*** Several recent studies have highlighted the fact that many low-income and minority first-time buyers experience relatively short tenures as owners. Only one of these studies examines the subsequent housing choices of these households, with findings that suggest a large share of these households do regain homeownership. Further examination of those who leave homeownership quickly would help illuminate whether these early exits are indeed a cause for concern or whether most of these cases are only

temporary setbacks. Panel data could be used to identify these cases and examine both the likelihood of returning to homeownership and how these exits impact these families and individuals in terms of their housing consumption and economic and physical well-being.

- ***What circumstances make it difficult to sustain homeownership and under what conditions are households best able to respond to these circumstances?*** Very little is understood about the dynamics of the homeownership experience of low-income households. Several existing studies have used multivariate analysis to analyze the factors associated with exits from homeownership. However, given the nature of the data available, these studies leave unanswered a number of questions about the process by which households are forced out of owning. For example, how often do these households experience crises that affect either their income or their expenses? What are the most common shocks? How do different owners respond to these shocks (including whether they can draw upon savings, debt, insurance, or resources provided by family and friends), and how are variations in these responses associated with different outcomes? This type of understanding is needed to understand what circumstances are most likely to expose owners to risks and what types of interventions are needed to help address these risks. While at least a portion of this type of analysis may be possible with existing panel survey data, many of the questions of interest may not be addressed by existing survey questions reflecting the fact that most of these surveys were designed to examine labor market outcomes and not housing outcomes. To adequately address these issues, it may be necessary to add modules of questions to existing surveys related to whether the household has experienced challenges in meeting mortgage obligations and how they have coped with these challenges.
- ***What are the maintenance and repair needs and activities of low-income and minority owners?*** Very little research has assessed the extent to which owners are confronted by maintenance problems and how they respond to these problems. One study of participants in a low-income homeownership program found that such problems were not at all uncommon and that in many cases owners were unable to address these needs. A better understanding of the extent of these problems would help inform policy makers about the need for intervention and what type of approaches would be most useful.
- ***What has been the house price appreciation experience of minority homeowners and how does this experience vary by the racial-ethnic composition of where they buy?*** While a number of studies have assessed differences in house price appreciation by house value, much less research has examined differences by race-ethnicity of either the buyer or the neighborhood. While existing research suggests that there may not be any systematic differences in appreciation expectations, further research is needed to support this conclusion.
- ***Are there differences in the ratio between market rents and values across different segments of the housing market?*** A critical factor for determining whether low-income households would financially be better off renting is how high rents are relative to house values. The little research that has examined this issue suggests that, in fact, rents are higher relative to values at the low-end of the value spectrum. Further analysis of this

issue would help shed light on whether there is a point at which low-income households would be better off renting.

- ***What are the impacts of homeownership on the social involvement and health of low-income and minority owners?*** While the social benefits of homeownership are widely assumed to exist, there is little good quality research to document these benefits—particularly for low-income and minority owners. Well-designed studies that control for the selection issues of who becomes an owner are needed to assess whether owners do realize these benefits and whether they vary with the income or race-ethnicity of the owner.
- ***What approaches are most effective at enhancing the initial homeownership choices of low-income and minority individuals and families, improving choices made after homeownership is achieved, and helping to sustain homeownership?*** Very little evaluative research has been conducted to assess the effectiveness of policies to encourage or support homeownership. Further study is needed to ensure that the most effective strategies are used to help optimize the homeownership experience of low-income and minority families.





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## Appendix A: Estimate of Tax Benefits of Homeownership by Income

This appendix describes the assumptions used to estimate the value of the tax benefits of homeownership as of 2004 as presented in Chapter 4. Three household types are considered: a married couple with two children, a single parent with one child, and a single person. These households correspond to the income tax filing status of married couple, head of household, and individual, respectively. We examine each of these households at five different income levels: \$15,000, \$30,000, \$45,000, \$60,000, and \$75,000. The first step in estimating the tax benefits of homeownership for these prototypical households is to make assumptions about the value of the home purchased and the costs associated with this home. We assume that households purchase a home using a 5 percent downpayment and obtain a 30-year fixed-rate mortgage at 6 percent interest that results in a monthly housing payment (including property taxes and insurance) equal to 33 percent of their gross income. Based on available information on the average effective property tax rate and property insurance costs across the country we assume that property taxes are 1.7 percent and property insurance costs 0.4 percent of the home's value.<sup>52</sup> These assumptions result in an estimation that households at the five income levels considered would purchase homes worth from \$55,000 for households earning \$15,000 to \$277,000 for households earning \$75,000, with each intervening \$15,000 increment in income associated with house values worth about \$55,000 more.

The next step is to make an assumption about the level of other itemized deductions available to the household in addition to mortgage interest and property tax payments.<sup>53</sup> The most common itemized deduction is for state and local taxes (Joint Committee on Taxation, 2005). For simplicity, we assume tax filers pay 5 percent of their income in state and local taxes, which is about the average income tax paid across the states ([www.taxfoundation.org](http://www.taxfoundation.org)). The next most common deduction is for charitable contributions, but the average amounts claimed are small so we ignore this item. Other deductions are much less commonly claimed, so they are also ignored in our simulation.

For each household type and income level, we then compare the amount of itemized deductions that could be claimed in the first year of ownership (based on the mortgage interest paid, property taxes, and state and local income taxes) to the available standard deduction. If the itemized deductions exceed the standard deduction, the tax benefits of homeownership are then estimated by multiplying the excess deduction that could be claimed by the marginal tax rate for the household taking into account standard adjustments to gross income.<sup>54</sup> The value of these tax benefits is then divided by total estimated housing costs including mortgage payments, property taxes, and hazard insurance to derive the share of housing costs offset by tax benefits.

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<sup>52</sup> These assumptions are based on information from the Tax Foundation ([www.taxfoundation.org](http://www.taxfoundation.org)) the Insurance Information Institute ([www.iii.org](http://www.iii.org)).

<sup>53</sup> Buyers can also deduct the value of prepaid interest, or discount points, but these costs are amortized over time. We assume that no discount points were paid.

<sup>54</sup> Specifically, we reduce household income by \$3,100 per family member to account for the personal exemption available for each member of the household claimed on the tax return