THE COST OF THE AMERICAN DREAM: LOW-INCOME HOMEOWNERSHIP AND METROPOLITAN HOUSING OPPORTUNITY, 1990-2000

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THE COST OF THE AMERICAN DREAM: LOW-INCOME HOMEOWNERSHIP AND METROPOLITAN HOUSING OPPORTUNITY, 1990-2000

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Through the 1990s barriers to low-income homeownership decreased sharply, and by the early 2000s low-income mortgage borrowers enjoyed unprecedented access to expanded home financing options, lower downpayment requirements, increased governmental subsidy, and the lowest interest rates in decades. This happened not by accident but through determination: beginning in the early 1970s, federal housing policy makers began promoting the idea of increasing housing demand through expanded low-income household market participation as a strategy to solve the country's affordable housing crisis. Indeed, homeownership increased more rapidly amongst this group through the 1990s than for any other segment of the population.

This research examines housing opportunity outcomes for low-income black households by tenure (owning versus renting) in five large U.S. metropolitan areas— Chicago, Detroit, New York, Philadelphia and Washington DC— between 1990 and 2000 through analysis of U.S. Census Bureau Public Use Microdata Survey (PUMS) data. Housing opportunity is defined as a low-income household's ability to find a home that is 1) proportionately affordable to its income, 2) located in an area that provides access to higher quality public education, and 3) located in close proximity to employment. These housing characteristics encapsulate the most potent wealth creation benefits that policy makers maintain are inherent to homeownership.

The research findings indicate that a greater proportion of low-income black renter households as compared to homeowner households paid a smaller proportion of

their income for housing, commuted shorter distances to work, and had greater access to higher quality schools in 2000 in three of the five metropolitan areas studied (Chicago, Detroit and New York). Homeownership provided only slightly greater housing opportunity than renting in the other two metropolitan areas examined (Philadelphia and Washington DC). While outcomes varied by metropolitan area, between 1990 and 2000, low-income black renters experienced greater increases or smaller decreases in housing opportunity than did low-income black owners in four of the five metropolitan areas examined (Chicago, Detroit, New York and Philadelphia).

The research findings support a main study conclusion that under the present market structure low-income homeownership does not necessarily result in greater housing opportunity for low-income buyers as compared to renters, and that renting is often a better tenure choice for many low-income households in these metropolitan housing markets. The study findings also suggests that federal subsides supporting low-income homeownership should be reconsidered based on careful analysis of existing market conditions in the metropolitan area of purchase. The study concludes by making several federal housing policy recommendations, including expanding direct funding and support for the development of low-income rental property, and extending personal tax deductions to low-income renters to make renting a more financially attractive option for low-income households.

BIOGRAPHICAL SKETCH

Jonathan Martin was born in Liverpool, England and was raised in Hoylake and West Kirby on the Wirral Peninsula, Arad Israel, Boston Massachusetts, Newport Rhode Island, and in the suburbs of Phoenix, Arizona. He holds a B.S.D. in Architecture from Arizona State University and a Master's of City and Regional Planning from Cornell University. Jonathan became interested in housing issues while practicing architecture in Phoenix.

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CHAPTER 1
INTRODUCTION, OVERVIEW AND STUDY RELEVANCE

Introduction

Through the 1990s barriers to low-income homeownership decreased sharply, and by the early 2000s low-income mortgage borrowers enjoyed unprecedented access to expanded home financing options, lower downpayment requirements, increased governmental subsidy, and the lowest interest rates in decades. This happened not by accident but through determination: beginning in the early 1970s, federal housing policy makers began promoting the idea of increasing housing demand through expanded low-income household market participation as a strategy to solve the country's affordable housing crisis.

This strategy—to subsidize demand rather than supply—was a radical departure from prior federal housing policy, which had primarily focused on subsidized unit production (i.e. supply). While the roots of subsidizing housing demand can be found in federal programs aimed at mainly assisting the middle-class, demand-side subsidies for low-income households began in earnest with the passage the Housing and Community Development Act of 1974. This landmark bill introduced tenant-based subsidies such as housing certificates and vouchers and marked the onset of the federal government's steady withdrawal from unit-based subsidies—those that provided federally subsidized affordable rental housing units. In the decades that followed, federal housing policy moved increasingly towards subsidized tenant-based demand-side programs such as Low-Income Housing Tax Credits, Section 8 vouchers and, through the 1990s, subsidies for low-income homeownership, while it simultaneously curtailed unit-based

subsidies. By the mid-2000s U.S. Housing and Urban Development (HUD) dedicated over seventy percent of its budget to demand-side, tenant-based programs (author's analysis of HUD budgets FY2000-05).Together, these changes represented a dramatic shift in U.S. housing policy, from one based in subsidizing units to one based in subsidizing markets—from subsidizing housing supply to subsidizing housing demand (Barton 1996).

The economic logic behind this shift was quite simple: Policy makers hoped that, given low-income households' improved access to financing, demand for lower-priced housing would increase and the housing market would respond accordingly: i.e. supply would meet demand through expanded housing production. For affordable housing, this would occur in two dimensions: 1) with the expectation that, as demand for lower-priced homes increased, producers would build more affordable units, and more importantly, 2) more for-sale units would become available to the poor through market filtering. Filtering describes the process by which newer housing units depreciate over time and become affordable to lower income households (Green and Malpezzi 2003).

These anticipated market responses, however, never materialized. Buoyed by a strong economy and low interest rates, housing market participation expanded across the full spectrum of income levels through the 1990s and into the 2000s. In many fast growing metropolitan markets housing supply could not keep pace with demand and housing prices increased so rapidly that filtering failed. Thus, for example, small two-bedroom houses in modestly-priced California neighborhoods, once considered affordable by their size, amenity and location, began selling at hugely inflated prices. Conditions like these effectively priced the available stock of lower-priced for-sale

housing beyond the means of many low-income (and even middle-income) buyers. In many places, the poor no longer simply competed against one another for a limited supply of affordably-priced homes; they went head-to-head with much wealthier and more financially stable middle-income buyers for an increasingly anemic supply of lower-priced homes.

As a result, many low-income buyers bought homes priced well above their means and discovered that homeownership's long held promise of financial security was far from guaranteed. And while more low-income households were able to finance a mortgage through the 1990s—homeownership increased more rapidly amongst these groups between 1993 and 1999 than for any other segment of the population (Retsinas and Belsky 2003)—many discovered they could only afford a home that was located far from amenities and public services such as employment and good schools (Bier 2001).

The federal government's primary response at the time was to increase funding for demand-side programs and further expand available home financing options for low-income buyers. As home prices increased so did the federal government's commitment to facilitate greater low-income homeownership market participation. While overall federal government housing outlays stagnated in 1995 (Green and Malpezzi 2003), there was in the early- to mid-2000s an active shifting of funds amongst HUD's housing programs. Invariably, these shifts curtailed supply-side subsidy programs, those that subsidize unit development, in favor of demand-side programs aimed at expanding low-income participation in the housing market.

In 2008 the U.S. economy suffered its most significant economic downturn since the great depression. This "great recession" has been attributed to an inflated and

poorly regulated housing market, that has resulted in thousands of mortgage foreclosures and a decline in homeownership from its high point of 69.1% in the mid 2000s to 66.4% in 2011, a level not seen since the early 1990s (U.S. Census Bureau). This dissertation addresses a significant question that was raised during the housing bubble and has become even more important as low income people lose the homes they purchased to foreclosure. That question is does homeownership serve the needs of the low-income population? This dissertation looks at the period from 1990 to the mid-2000s when policies were still operating to foster low-income home ownership and at the outcomes that were becoming visible, and questions the degree to which federal housing policy came to rely on subsidies aimed at expanding low-income household market participation—specifically those policies that promoted low-income homeownership. The questions raised in this research challenge the dominant role homeownership assumed in federal housing policy through the 1990s and into the mid-2000s, and highlight the unintended consequences that often befall low income households under less than ideal homeownership circumstances.

My research findings suggest that, while the shift in federal housing policy from subsidizing supply to subsidizing demand resulted in greater numbers of low-income homeowners, it also allowed far too many of those buyers to purchase homes they could not afford. It also promoted a buying pattern where many low-income households purchased homes in areas that offered fewer of the purported financial returns or social amenities generally associated with homeownership, or both. While downpayment and other subsidies got more low-income buyers in the door, so to speak, the longer-term financial burden of homeownership led many buyers down a path of financial risk with

devastating consequences. Under such circumstances, this research argues that renting would be a better option for many low-income households and that the federal government should recognize and support such opportunities.

Of course, "affordability" and "affordable housing" are somewhat relative terms. What might be considered affordable in California may not be so in rural Ohio. Generally, to be considered affordable, a housing unit should cost its occupant no more than 30% of total household income (HUD 2005).[1] Naturally, income varies by household and location, and most income calculations are based on area median income (AMI) as reported by the U.S. Census Bureau or HUD. A "low-income" household is one that earns less than 80% of area median income, and a "moderate income" household earns between 80% and 100% of area median income. This income/cost quotient is the most accepted measure in use today, and one that I employ throughout this work.

This research examines housing opportunity outcomes for low-income black households by tenure (owning versus renting) in five large U.S. metropolitan areas— Chicago, Detroit, New York, Philadelphia and Washington DC— between 1990 and 2000 through analysis of U.S. Census Bureau Public Use Microdata Survey (PUMS) data. Housing opportunity is defined as a low-income household's ability to find a home

[1] All measures of housing affordability have two major components—income and price—and most measures use these components in their rawest forms to determine a percentage of income quotient, usually 30%, that serves as the upper limit of allowable income spent on housing (over time or at a given point in time) it to be considered affordable. This is the conventional public policy indicator of housing affordability in the U.S., and most agencies base calculations on area median income (AMI) as reported by the U.S. Census Bureau. Percentage of income measures offer several advantages including an ease of calculation and comprehension, availability of data and the fact that they are applicable across time and space (Bogdon and Can 1997). Analysts have relied on the home-price-to-income-ratio as a measure of affordability because home expenditure tends to rise comparably with home price (Megbolugbe 1992).

that is 1) proportionately affordable to its income, 2) located in an area that provides access to higher quality public education, and 3) located in close proximity to employment. These housing characteristics have been proven factors in making housing a viable means of wealth creation (Rohe et al. 1997, 2000). These factors also encapsulate the values imbued in homeownership as the “American Dream” and the accompanying rhetoric from both the federal government and homebuilding industry that holds that homeownership is good for all, good for America.

This research seeks to expand our knowledge of low-income homeownership and its benefits compared to renting by examining these three indicators, and measures homeownership as a means to provide appropriate affordable housing for low-income households. I examine how housing opportunity changed for low-income black home buyers versus renters through the 1990s as an increasing numbers of low-income households became homeowners.

Study Relevance

The need to investigate low-income housing opportunity has never been greater: homeownership for low-income and minorities expanded substantially through the 1990s, and we need to understand the outcomes of federal housing policy that promoted this change so we may better understand when, where and under what circumstances low-income homeownership makes sense. Such information has never carried more weight than it does today as increasing numbers of Americans are losing their homes to foreclosure or are struggling to hold on to them after having invested record proportions of their wealth in their homes. This is especially relevant because conditions through the early 2000s were such that housing prices increased faster in the

last 5 years than during any other period in history (Shiller 2005). While the housing market continued to defy economic analysts' predictions for an imminent cooling down period to come, the public and the federal government seemed to be increasingly sold on the idea that homeownership was a no-lose proposition.

This faith shared similarities with the "irrational exuberance" of the stock market of the 1990s (Shiller 2005). The difference is, of course, that relatively few low-income households played the stock market in the 1990s (although many saw their pensions evaporate when it crashed). Through the housing bubble, however, it was not just the wealthy at risk; the increases observed in low-income and minority homeowners through the 1990s suggest that a greater number of these households, the most financially vulnerable in our society, staked their financial future in the housing market. Another important difference worth considering is the active role the federal government played in encouraging and facilitating low-income participation in a housing market whose future stability was questionable at best. Those conditions were far from the norm, and therefore great capacity existed to provide a false sense of security. Yet, under such conditions, we seemed sure that, by directing a large proportion of our federal housing budget towards the goal of expanding low-income homeownership, we were making the right decision and that it was in the best interest of those it was intended to serve.

But, simply calling attention to the situation ex post facto or saying that we should have exercised more caution as we entered unfamiliar territory is not enough. To accurately assess the situation and determine when, where and under what conditions low-income homeownership makes sense, we must know more about how well low-

income buyers fared as homeowners through this period. While ample research exists on the benefits of homeownership generally, comparatively little is known about whether or the extent to which low-income homeowners experience these same benefits (Foundation 2005), and even less research exists on the outcomes of low-income buyers through the 1990s, the period that saw the fastest growth in history in low-income homeownership.

For many years questioning homeownership was anathema, and only recently have academics shifted their focus to seriously question the American Dream for low-income households. And the results are mixed at best. For example, there exists significant disagreement regarding the financial and social benefits of owning a home: some researchers question the investment logic of homeownership compared to other investment vehicles (see Goetzmann 2001), while others question whether the social benefits often attributed to homeownership are part and parcel of tenure choice. A prudent reading of this research suggests that the observed social benefits are attributable to factors more closely associated with the types of households that buy compared to those that rent than to tenure itself (Rohe and Basolo 1997) (Rohe, Van Zandt et al. 2000) (Foundation 2005).

Finally, as housing prices continued to rise faster than income in many parts of the country through the 1990s,[2] the financial logic of tenure choice became an increasingly important topic to many, not just those on the lowest rungs of the economic

[2] In late 2005, Moody's Economy.com, a leading independent provider of economic research, found that, while families in the vast majority of the country can still buy a house for a smaller share of their income than they could have 20-years ago, places that have become less affordable over the last generation accounted for only a quarter of the country's population. In major metropolitan areas like New York and Los Angeles, families who bought their first home often spent more than half of their income on mortgage payments, far more than they once did (Daley 2005).

ladder. As far back as September 25, 2005, a *New York Times* article entitled “Is It Better to Buy or Rent?” (Leonhardt 2005) was ranked the most popularly emailed article of the day, and remained in the top slot for more than a week following its publication. And as late as October 21, 2005, twenty-six days after its publication, it remained the paper’s most-emailed article for the 30-days prior. Its popularity attests to the public’s interest at the time not only in housing costs and affordability, but also increasingly in tenure choice.

Study Overview

Chapter 2 examines the relationship between housing demand and supply to answer the question: Is there enough affordable for-sale housing? This is accomplished through an examination of low-income housing outcomes through the 1990s, a period that saw record increases in low-income homebuyers. While policy makers celebrated these gains, academic research suggests that the national supply of affordable housing actually decreased during that period. This was due in part to decreasing production of affordably-priced units and unprecedented price appreciation of existing home values, which outpaced both inflation and income growth nationwide.

Also, despite the gains in the number of low-income and minority homeowners, in absolute terms there was very little change through this period in the overall low-income and minority homeownership rates or in the reduction of the gaps in homeownership rates between white and minority or wealthier and poorer households in this country. I close Chapter 2 by asserting that, while the increase in the actual number of low-income homeowners through the 1990s was promising, it by no means provides sufficient evidence to suggest that, even in the best of economic times, demand-side housing

subsidies alone are robust enough to address the nation's demand for affordable housing.

In **Chapter 3** I question federal housing policy's initiatives for market-based demand-side subsidies over those that traditionally subsidized unit supply, and discuss how and why federal housing policy came to rely so heavily the former. I assess the extent to which federal housing policy became entrenched in demand-side housing policies by auditing HUD's fiscal year budgets between 2000 and 2005, dividing program spending by line item for demand- versus supply-based programs.

In **Chapter 4** I examine the extent to which homeownership may be considered an appropriate tenure option for low-income households by assessing the financial costs and risks associated with low-income homeownership.

From these analyses, I craft a benchmark that employs three indicators factors to evaluate and measure successful low-income homeownership: 1) affordability, 2) access to better-performing elementary schools, and 3) proximity to work. While these variables encapsulate the most potent wealth creation characteristics that policy makers associated with successful homeownership, from a practical standpoint, these are three of the most basic characteristics most people consider when purchasing a home. Generally speaking, people want a home they can afford, a home in a good school district, and a home that is close to work, and in that order. Collectively these variables form a measure of low-income housing opportunity that I use in my analysis presented in **Chapters 5 and 6**.

It is not enough to question whether homeownership is an appropriate housing option for low-income households; we need to look at the conditions that affect low-

income housing opportunity within a specific geography. As a first step, I conduct a detailed analysis of low-income housing opportunity for low-income black households in five U.S. metropolitan areas between 1990 and 2000 (New York, Philadelphia, Washington, Chicago and Detroit). For this analysis, I draw on 1990 and 2000 U.S. Census Bureau Public Use Microdata Survey data to determine where low-income black homeowners maximized their housing opportunity compared to low-income black renters considering three variables discussed above: 1) housing costs as a percentage of household income, 2) access to better-performing elementary schools, and 3) proximity to workplace. I present my study methodology in **Chapter 5** and study findings in **Chapter 6**. The analysis supports a main study hypothesis that, despite the gains observed through the 1990s, homeownership did not result in demonstratively better housing outcomes as compared to renting for low-income black households in the five study metropolitan areas with respect to the three variables of interest.

In **Chapter 7** I employ study findings to support several study conclusions. These include a determination that, even under the most robust market conditions such as those observed through the 1990s, demand subsides alone cannot supply enough adequate affordable housing. Nor will these sorts of subsidies be potent enough to overcome market constraints that relegate a large proportion of low-income homeowners to properties that fall short of fulfilling the much-lauded promise that homeownership holds in our collective consciousness: the promise that homeownership guarantees desirable financial and social benefits. This dissertation is not at odds with research that has previously identified positive outcomes associated with homeownership; rather, the findings herein reinforce a notion that suggests that positive

outcomes are more likely to occur when a home is affordable, when it is located near places of employment, and when it provides low-income homeowners access to good public schools.

Also in **Chapter 7**, I recommend that the federal government reconsider programs based in supply-side subsidies, not as replacements for existing demand-oriented programs, but as supplements, especially in metropolitan markets where homeownership is less likely to provide good low-income housing opportunity. I outline what a new federal housing policy might look like, and argue that a new national housing policy should include a high degree of flexibility in how it balances these two policy approaches (supply versus demand) depending upon extant metropolitan housing market conditions.

CHAPTER 2
OUTCOMES FROM THE 1990S HOUSING BOOM AND THE SUPPLY OF AFFORDABLE HOUSING.

Introduction

In this chapter I examine the relationship between housing demand and housing supply to answer the question: Is there enough low-income affordable housing? I also assess the housing outcomes for low-income and minority households from the 1990s housing boom, a period that saw the largest increase in homeownership since the early 1950s and record growth in low-income and minority homeownership. It is necessary to examine these outcomes in greater detail in order to assess the efficacy of the demand-side incentives that policy makers claimed were instrumental to the gains in low-income homeownership through the 1990s. If we are to gauge policies' true import, it will be helpful to examine them relative to gains through the same period made by wealthier and non-minority households. Policy makers and planners would also find it helpful to know more about the kinds of housing—i.e. the supply—that low-income and minorities bought through the housing boom and where it is located geographically. I begin by reporting some of the good news—providing facts and figures on gains in low-income homeownership through the 1990s. I then put these figures into perspective through an examination of several key studies on the subject and through an examination of the supply and production of affordable housing.

Low-Income Homeownership and the 1990s Housing Boom

While reported homeownership rates vary, it is safe to say that in the early 2000s better than two-thirds of American households owned their homes. U.S. homeownership rates have risen steadily over the past century from less than half (47.8%) in 1890 to an all time high of about 69.1% in 2005 (U.S. Census Bureau 2004). Between 1890 and 1920 homeownership declined but it began an upswing through the prosperous 1920s. The onset of the Great Depression hit the homebuilding industry hard, and from 1929 through World War II homeownership declined to 43.6%, the lowest level of the 20th century. A booming post-war economy, favorable tax incentives and pro-homeownership government policies spurred exceptional market growth and homeownership surged to just over 60% in the two decades following WWII. Homeownership rates continued to rise through the 1960s and 70s reaching 64.4% by 1980. But economic conditions including record high interest rates, and federal cutbacks in social spending hindered growth through the 1980s, and homeownership fell by 0.2 percentage points to 64.2% by 1990. Buoyed by strong growth in the U.S. economy in the 90s, American homeownership rebounded, and between 1990 and 2000, owner-occupied units increased 18.3%, from 102.2 million to 115.9 million (U.S. Census Bureau 2001). This brought the U.S. homeownership rate to 66.2% by early 2000. The strong growth in the homeownership rate through the 1990s—specifically from 1994 to the end of the century during which a net 7 million more households became owners, and the homeownership rate increased by nearly 3 percentage points to 66.8%—became known as the “1990s housing boom” (Belsky and Duda 2003).

What is most noticeable about the 1990s housing boom is that for the first time in history, growth in the homeownership rate included low-income and minority households. Between 1993 and 1999, homeownership increased more rapidly for low-income and minority buyers than for any other segment of the population. Minority households accounted for only 15% of owners in 1993, but accounted for 41% of the net growth in owners over the following five years. And while the number of low-income (those earning less than 80% of the area median income) non-Hispanic white owners declined by 225,000 over that same period, the number of minority low-income owners increased by more than 800,000 (Belsky and Duda 2003). Similarly, between 1993 and 1999 the share of minority homebuyers among all first time buyers rose from 19% to 30% (Retsinas and Belsky 2003). Paralleling these increases in low-income homeownership rates were gains in the share of mortgage loans to both low-income and minority households, which increased 94% between 1993-99. Loans to black and Hispanic buyers increased 98% and 125% respectively during this same period.

Policy makers attributed the gains in low-income and minority homeownership to record low mortgage interest rates and federal housing policies aimed at increasing demand for low-income and minority homeownership, including the lowering of credit barriers and pre-purchase homeownership counseling (Hirad and Zorn 2003). Other contributing factors were technological advancements led to innovations in mortgage lending, including a wider range of mortgage products and purported increased accuracy in measuring risk. Together these enabled “more income constrained and cash-strapped borrowers at the margin to qualify for mortgage loans” than ever before (JCHS 1998). But as encouraging as the gains in low-income and minority

homeownership appear, little changed in the overall homeownership rates for these groups or in the homeownership gaps that separate these households from more affluent segments of society. The following section examines the evidence in greater detail.

The 1990s Housing Boom: A Qualified Success

The easing of low-income credit constraints and its accompanying low-income housing "boom," while impressive prima facie, did not greatly improve overall low-income and minority homeownership rates. Research on the structure of the lending industry found that the supply of affordable prime mortgage lending measured as a fraction of total prime market originations held about constant over the 1993-99 period (Nothaft and Surette 2003).[3] This suggests that, as the proportional share of low-income buyers outpaced other segments of the market, a good portion of low-income lending occurred in the more expensive and predatory sub-prime market. Further, this study found that while very small and very large depositories tend to devote larger percentages of their originations to the affordable segments of the market than do middle-sized firms, across the board, larger companies tend to originate less affordable lending than do smaller companies. The net effect of the easing of credit constraints on the overall low-income and minority homeownership gap was therefore negligible. And while improved credit and financing products expanded homeownership opportunities for many minority and low-income households, several negative outcomes have accompanied the 1990s increases in low-income and minority homeownership such as

[3] "Affordable lending" refers to prime rate (as opposed to sub-prime), regulated lending to low- and moderate-income families and families living in underserved areas.

a noticeable increase in the foreclosure rate among these groups, and a sharp rise in the low-income household debt-to-income ratio (Aizcorbe, Kennickell et al. 2003) (Pitcoff 2003).[4]

Evidence from HUD suggests that a significant portion of the gains observed in minority homeownership through the 1990s represented a rebound or catch-up to losses that occurred during the period prior to the 1990s housing boom. For example, for the 13 years between 1983 and 1996, white homeownership increased steadily from 69.1% to 71.6% (slipping in only one year from 70.2% to 70.1% in 1993-94), while black homeownership decreased from 45.6% to 45.0%, dropping as low as 42.0% in 1993. For all other minorities, homeownership rates during the same period decreased slightly from 52.5% to 52.6%, bottoming out at 48.7% in 1987 (HUD 1997).[5] While increases were observed in the years following (from 1998 to 2000), large gaps and shortfalls in minority and low-income homeownership rates remain despite the celebrated increases in the number of minority and low-income homebuyers through the 1990s. By the end of the 90s less than half (47.4% or 12.8 million) of all minority households owned their homes compared to better than 75% of white households (Staff 2004) (HUD 2002). And despite a 40% increase in minority homeownership from 9.5 million in 1994 to a record high of 13.3 million in 2001, minority rates—47% for blacks, 48% for Hispanics and 53%

[4] Data from the Federal Reserve's Survey of Consumer Finances suggest that among families with any type of home-secured debt (including a second mortgage, home equity line of credit, or home equity loan), the proportion of those who used such borrowing for a purpose other than simply financing their home increased from 22.1% to 32.1% between 1995 and 2001. And defaults on loans in 2000 amounted to approximately one million households losing their homes to foreclosure, during the height of an unprecedented economic expansion. As the economy has softened, those numbers have worsened, with delinquencies and foreclosures on all loans rising steadily and reaching a then all-time high in the second quarter of 2002. Foreclosures on FHA-backed loans to low-income households increased the fastest, to a rate of nearly 3%, with an additional 12% behind in their payments in the second quarter of 2002 (Author's tabulation of Survey of Consumer Finances).

for Asians—lagged far behind those of white American households in 2001 (Mozilo 2003) (Staff 2004). In 2003, the gap between minority and white homeownership was 25.8 percentage points—an improvement of just over one percentage point over the previous decade (Mozilo 2003)—and the gap between white and black households was wider at 26.6 percentage points. These numbers reflect only a slight narrowing since 1994, the year when homeownership rates began to surge (Harvard 2000), and do not, in my opinion, present a persuasive enough argument that current housing policy is working effectively.

While the 1990s saw marked gains in homeownership for some lower-income households, this was not the case for the poorest households. For example, homeownership declined from 46% to 41% between 1974 and 1995 for households with annual incomes of $10,000 or less (Joint Center for Housing Studies 1996) (Anonymous 1996). Less than 48% of very low-income households—those earning less than 50% of area median income—owned their homes at the end of the decade (Bratt 2002). While nearly one-third of new home loans in large metropolitan areas in 1999 went to households earning less than 80% of area median income (Joint Center for Housing Studies 2001, p.38), only a fraction of these loans went to very low-income households (Bratt 2002). Nor were the gains impressive for households earning just under U.S. median income: A 1997 Chicago Title and Trust Company survey of 20 major metropolitan areas found homeownership among households earning less than $30,000 (approximately 80% of national median income) increased just half a percentage point from 12% in 1996 to 12.5% in 1997 (Marcelonis 1998). These less than spectacular

[5] Source: http://www.huduser.org/periodicals/ushmc/spring97/histdat2.html#tbl4_31

outcomes for the poorest members of our society reflect reality that direct assistance for homeownership tends to serve the upper ends of the low-income scale, not those most in need (Dolbeare, Saraf et al. 2004).

Further evidence suggests that the housing boom failed to provide optimal outcomes for many low-income households who bought during the 1990s. A study conducted by the Joint Center for Housing Studies at Harvard University found that the increases in low-income and minority homeownership rates through the 90s may not have resulted in significantly lower levels of segregation by race and income (Belsky and Duda 2003). Similar to earlier studies by Frey et al. (1993, 1995, 1996 and 1998) on spatial trends of minority homeownership, Belsky and Duda look specifically at the 1990s housing boom. Citing studies by Stuart (2000) and Immergluck (1998), they argue convincingly that minority and low-income buyers in Boston and Chicago remain sharply segregated from non-Hispanic white and high-income home buyers.

In their analysis, Belsky and Duda (2003) found that, while all buyers are decentralizing, whites and Asians have done so to a greater extent than blacks and Hispanics (41). While acknowledging studies by Frey, Speare and colleagues (Spere 1993; Frey and Spere 1995; Frey and Farley 1996; Frey and Geverdt 1998) as the most notable body of work in this area, Belsky and Duda conceptualize concentric rings of distance-to-central business district to measure home purchase locations over the 1993-99 period in nine metropolitan areas. Mapping these findings for four metropolitan areas with large black and Hispanic population shares (two metros each for blacks and Hispanics), they determine that, while some of both groups are able to select homes in sectors further out from urban cores, both low-income and minority buyers are

concentrated near the city center (41). They conclude that, despite escalating homeownership in the 1990s and evidence to suggest that large shares of low-income and minority borrowers are purchasing in the suburbs and outside of low-income tracts, low-income homebuyer clustering near the poorer urban core remains the rule rather than the exception (57). This is more true for black and Hispanics than for Asians, which served to skew the results for all minorities as a group. Whites and Asians largely avoided buying homes in areas where a majority of other minority buyers purchased over the 1993-99 period (57).

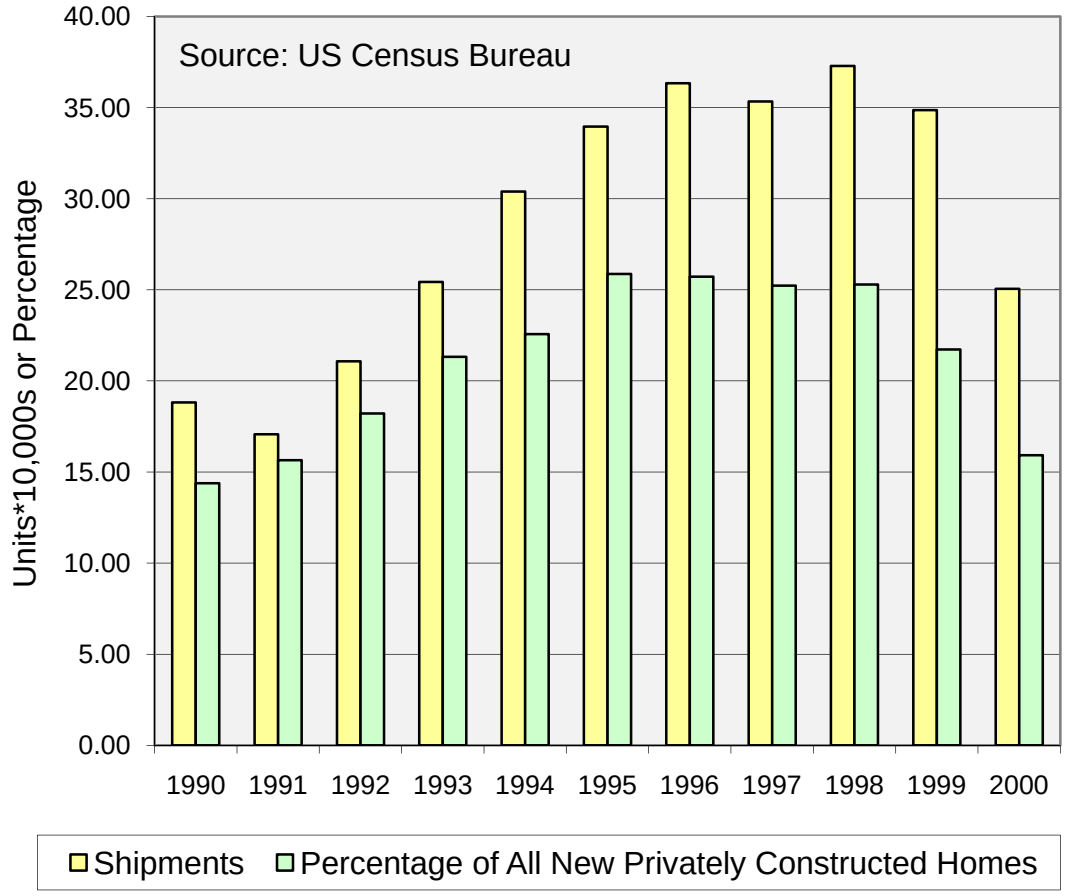
Official governmental figures and reports that celebrated the gains in low-income homeownership rarely mentioned the increasing share of low- and very low-income households occupying and buying manufactured homes. Collins, Crowe, et al. (2002) found that a significant proportion of low-income owned homes and a substantial majority of the affordable units added to the stock through the 1990s were manufactured homes. Manufactured (or mobile) homes differ from modular homes in that they are movable dwelling units, 8 feet or more wide and 40 feet or more long, and are built to standards defined by the Department of Housing and Urban Development. Because manufactured homes need no permanent foundation, no building permit is required for their placement. Modular homes, often leave the factory in multiple sections, require a building permit and are subject to local zoning and building code standards (U.S. Census Bureau 2004).

Collins, Crowe, et al. (2002) determined that the share of affordable units that were manufactured homes increased from about 16% to 18% between 1997 and 1999, while Apgar et al. (2002) determined that about two-thirds of all units added to the

nation's stock of affordable housing during that period were manufactured (Apgar, Calder et al. 2002). This trend is reflected in national manufactured home production (shipments), which increased 85% between 1990 and 1999, from approximately 188,172 units to 348,671 units (U.S. Census Bureau 2004). That growth represents an increasing proportion of all privately constructed homes during that period, from 14.3% in 1990 to 21.7% in 1999, an increase of 51% (see Figure 2-1).

Collins, Crowe, et al. (2002) found that while the overall share of manufactured homes occupied by low-income households increased through the late 90s, occupancy varied by region—low-income manufactured home occupancy was more prevalent in the South and West than in the Northeast and Midwest. That much of the growth in manufactured homes occurred in the South and West is most likely a function of climate and available open space allowing for easier occupancy and placement and development of mobile home parks in these regions.

Figure 2-1
Manufactured Home Shipments in US, 1990-2000



Low-income homebuyers are most likely to occupy manufactured home units because of their price relative to site-built housing. In 2004, the average price of a manufactured home was $58,100. The average price of a single-section manufactured home was $32,800 and the average price for a multi-section unit cost $63,300, prices far below the median price of $185,200 for a site-built home (NAR Quarterly Housing Affordability Index cited in Bandy 2002). These prices make manufactured homes a viable option for low-income household who desire to take advantage of available homeowner assistance and subsidy programs. Indeed, between 1993 and 1999, 23% of

the growth in homeownership among very low-income families[6] was in manufactured housing (CFED 2005).

While manufactured homes represent a potentially important source of affordable housing, the increasing share of homeownership in manufactured units amongst low- and very low-income households should be of concern for at least two reasons. First, while manufactured homes provide adequate shelter and can in many instances offer pleasant places to live, approximately two-thirds do not include ownership of the land on which they sit. This fact challenges conventional notions of homeownership and undermines many of the financial benefits championed in the pro-homeownership debate. For example, mortgage interest and real estate taxes can only be deducted from federal income taxes if a manufactured home occupant owns the land on which the unit sits. Mortgage interest on a rental home site is also deductible, but rent payments typically are not, unless the land is being leased for 15 or more years (LendingTree.Com 2005).[7] While land ownership among manufactured homeowners has increased in recent years, well over half of units do not include land ownership. Land tenure varies by location. Manufactured homes located in urbanized areas are more likely to be on rented land (usually in mobile home parks) than those in rural areas, and those in suburban and central city areas are almost twice as likely to be on rented land compared to those in the rural environs.

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[6] Very low-income households earn 50% or less of area median income.

[7] Renting a site, on the other hand, may mean that the occupant will not have to pay real estate taxes. According to Lending Tree, a clearinghouse that puts lenders in contact with borrowers, homes on rental sites are taxed as personal property, so they carry a book value (estimated average retail value based on age and condition of home) similar to a car. Since most manufactured homes depreciate over time, their book value declines, as do personal property taxes. The National Automobile Dealers Association publishes a manual on manufactured home prices.

This issue is important to housing advocates and the Corporation for Enterprise Development (CFED), a not for profit entity, which along with the Ford Foundation and the Manufactured Housing Institute launched a multi-million dollar program in 2005 to address the most pressing challenges facing low-income manufactured homeowners calls land tenure "…one of the most important determinants of whether a homeowner's investment in MH will appreciate in value" (CFED 2005).

The second reason cause for concern regarding growth in low-income manufactured homeownership is that, unlike site-built homes, manufactured homes typically depreciate quickly in value. So much so that they are legally deeded similarly to automobiles—prices are tracked and published by the National Automobile Dealers Association. I discuss returns to investment for low-income homeowners in Chapter 4, but, briefly, home appreciation (i.e. equity) is the most important financial variable in the equation of successful homeownership. Evidence suggests that manufactured homes typically do not offer returns to investment on par with site-built units, and manufactured homes typically depreciate in value over time or appreciate only slightly. For example, a study by the University of Michigan, the first to use repeat sales data for manufactured homes, examined 455 homes that sold twice between 1987 and 1990 and found that these homes sold on average for more than their purchase price but few units experienced unit appreciation greater than the general rate of inflation (Warner and Scheuer 1993). Another study determined that the average appreciation rate of manufactured homes on owner owned land is not consistently statistically different than the appreciation rate of site built homes. But that was not to say that manufactured homes performed in line with site-built units: manufactured homes on owned land

appreciated less than the site built homes in three of the four data series it examined—in one instance where manufactured homes and site built homes had a similar average appreciation rates: 13.9% of manufactured homes lost value compared to only 5.7% of site built homes (HAC 1996).

The dismal financial performance of manufactured homes is not necessarily associated with unit typology—evidence suggests that few inherent differences exist to explain why a home built in a factory should perform differently than one built on site.[8] Manufactured homes have deservedly emerged from the stereotypical negative reputation that once surrounded them, and units today are generally spacious, well built and last upwards of three to four decades (Vermeer and Louie 1997).

Several factors, however, contribute to manufactured homes' lackluster resale price performance; these include location, land tenure, sales price and maintenance. Not surprisingly, land tenure is the strongest determinant, boosting appreciation of the bundle of housing goods and services and as well as that of the unit itself. For example, on average between 1985 and 1999, manufactured homes appreciated on 6% less per year than site built homes, but manufactured homes that included land appreciated similarly to site-built units (Jewell 2003). Furthermore, manufactured home appreciation varies depending upon type of unit and location within the metropolitan area. For example, larger (double-wide) units hold their value better than smaller (single-wide)

[8] This is a far cry from the manufactured (or mobile) homes of the past and from the image they often carry. Manufactured homes today are comparable to site-built homes in terms of maintenance, wind safety, fire safety, and thermal efficiency (Vermeer, K. and J. Louie (1997). "The Future of Manufactured Housing." Cambridge MA, Joint Center for Housing Studies. This is due in large part to the passage of the *National Manufactured Housing Construction and Safety Standards Act*, which directed HUD to develop national building standards for a federal oversight program for the construction of manufactured homes. Those standards eventually became law in June 1976 with the passage of the Federal Manufactured Home Construction and Safety Standards on June 15, 1976 (also known as the "HUD Code").

units, and, according to one study using American Housing Survey data, manufactured units located in central cities appreciated approximately 14% compared to those sited in suburban or non-metropolitan areas, which depreciated 1% (HAC 1996) (Vermeer and Louie 1997). These studies suggests that on the whole price appreciation rates for manufactured homes vary greatly as compared to site built homes and that these rates do not appreciate as fast (HAC 1996).

In short, the gains in low-income and minority homeownership through the 1990s must be kept in perspective. While the gains observed provided some cause for celebration, it is important to bear in mind that there was effectively no change in the overall homeownership rate for low-income and minority groups (Asians excluded). Gains occurred primarily in the upper end of the low-income scale, and few of the poorest households were included in the boom. And research suggests that outcomes were not entirely positive for those who were included: it appears that low-income and minority buyers are not any less segregated than before, and that the foreclosure rate and income-to-debt ratio among these groups increased sharply. Finally, much of the increase in homeownership amongst low-income buyers included manufactured homes. This trend may be problematic for low-income homeowners because manufactured homes defy conventional notions of homeownership for various reasons, one being that approximately two-thirds do not include land ownership (Collins, Crowe, et al. 2001), and they do not, in most cases, match the financial returns of conventional site built homes.

Explaining Outcomes of the 1990s Housing Boom

Why were more low-income and minority households not able to prosper through the 1990s housing boom, the greatest surge in homeownership in half a decade? One explanation has to do with their financial position relative to other cohorts when the boom began. Race and income are inextricably related in America, and unlike their middle- and upper-income Caucasian counterparts, low-income minority households were by their very definition less financially equipped and prepared to participate in the housing market when the boom hit. Demand-oriented housing subsidies are designed to remedy this by providing buyers greater financial wherewithal (mostly in form of downpayment assistance but also in limited cases mortgage payment assistance), but the majority of these programs were designed reach moderate- to low-income buyers, generally those earning between 60% and 80% of area median income (about $35,000-$45,000 on a national basis) (Foundation 2005). The very poor earn too little to qualify to buy a home even with the subsidies available.

Income, race and program capacity and focus explain only part of the story. Another important factor is a shortage in the supply of affordable housing units in many metropolitan markets. A plentiful supply of affordable for-sale units contributes positively to low-income homeownership—where there is ample supply, prices remain lower and people can buy—but the market was not been able to supply enough affordably-priced units. For example, between 1999 and 2003, the market share of new homes priced affordably for low-income buyers (and even to those earning slightly above median income) decreased steadily, while the share of homes costing above $250,000 increased from 20% in 1999 to 34% in 2003. The share of those priced in the middle-range (between $150,000 and $249,999) remained constant at approximately 53%

(author's tabulation of U.S. Census Bureau data). Notably, as mentioned above, the figures on the number of homes priced affordable include manufactured homes, which comprise a majority of the affordable units added to the stock between 1997 and 1999, especially in the South.

Beyond the decreasing supply of affordable units, I argue in the remainder of the chapter that several additional factors also contributed to the less than stellar outcomes for low-income home buyers during the 1990s. These include a federal housing policy that relied too heavily on demand side subsidies to spur market behavior, a failure in filtering, a key mechanism in economic theory which purports that affordable housing can be supplied from existing stock when wealthier families move up into newer and more expensive housing, and changes in the structure of the homebuilding industry that prevented suppliers from building new affordable units.

The Supply of Affordable Housing

Generally, however, calculating affordability relies on two components—income and price—to determine a percentage of income to housing cost quotient. The conventional public policy indicator of housing affordability in the U.S. is a quotient of 30%, which serves as the upper limit of allowable income spent on housing for it to be considered affordable. Most agencies base calculations on area median income (AMI) as reported by the U.S. Census Bureau. A percentage of income measure offer several advantages including an ease of calculation and comprehension, availability of data, and the fact that it is applicable across time and space (Bogdon and Can 1997). Also, analysts have traditionally relied on the home-price-to-income-ratio as a measure of

affordability because home expenditure tends to rise comparably with home price (Megbolugbe 1992).

Between 1999 and 2003, the number and percentage of new homes priced affordable to low-income buyers and to those earning slightly above median income decreased steadily while the production of pricier homes increased. For illustrative purposes, assume a hypothetical low-income household earning $35,000 (approximately 80% of U.S. median) buying on a 30 year fixed rate mortgage at 6% interest (considering $2500 in local property taxes, annual homeowners insurance, $10,000 in liquid assets and no monthly debt obligations). In 1999, approximately 102,000 new units (12% of all new homes built) were affordable to this buyer (i.e. homes costing less than $100,000). By 2003, approximately 55,000 new units (less than 5% of all new homes built) were priced affordably for this buyer (inflation adjusted in calculation). While the annual number of units with middle-range prices—those between $150,000 and $249,999—increased steadily through this time period, their market share (percentage) remained steady at approximately 53%. However, higher priced homes—those costing more than $250,000—increased in market share from 20% (or 179,000 units) in 1999 to 34% (or 372,000 units) of all new homes built in 2003 (see Table 2-1). In short, the market is supplying fewer affordably-priced new units, keeping middle-range unit production steady, and increasing its output of higher priced houses.

Table 2-1: New Housing Production by Price: U.S. 1999-2003 (Thousands of Units)

Year	Total Units	Number of Housing Units and Percentage of Total (Real U.S. Dollars)							
		< $100K	%	$100K-$124,999	%	$150K-$249,999	%	>$250K	%
1999	880	102	12%	126	14%	473	54%	179	20%
2000	877	88	10%	112	13%	471	54%	205	23%
2001	908	75	8%	105	12%	499	55%	228	25%
2002	973	62	6%	94	10%	514	53%	303	31%
2003	1,085	55	5%	98	9%	560	52%	372	34%

Source: Author's tabulation U.S. Census Data—Manufacturing, Mining and Construction Statistics, Economic Census 1997 and 2002

Research suggests that despite the impressive gains in low-income and minority homeownership through the 1990s, home price appreciation, which outpaced inflation and income growth, actually reduced the supply of affordable for-sale units available to low-income households. In this study, Collins, Crowe, et al. (2001) used one set of mortgage underwriting assumptions for sixteen metropolitan areas in 1999 and found that approximately 44% of owner-occupied units were affordable to households with incomes below 80% of the area median income, a decreasing share from 1997. Further, approximately 78% of owner-occupied units affordable in 1997 continued to be affordable in 1999, and those homes affordable for homeownership are being lost specifically to house price inflation and vacancies. During this two-year period alone, a net 1.7 million units became unaffordable because of increases in their value, a net 153,000 units were lost from the affordable housing stock due to tenure switching (i.e. being converted to rental units), and 157,000 were lost to vacancies, meaning that they were no longer available in circulation. Overall there were approximately 500,000 fewer affordable owner-occupied homes in 1999 than in 1997 (Collins, Crowe, et al. 2001). Table 2-2 presents the proportion of units affordable to occupants by income level. The largest proportional losses of units were those affordable to households earning less than 50% of area median income (AMI).

Table 2-2: Percentage Existing Housing Units Affordable to Occupants by Income Level, 1997-1999				
Household Income	**Share of Affordable Housing Including Manufactured Homes**		**Share of Affordable Housing Excluding Manufactured Homes**	
	1997	**1999**	**1997**	**1999**
<50% of AMI	65.3	62.3	60.9	56.3
50-80% of AMI	61.8	59.1	57.9	54.7
80-120% of AMI	51.0	50.1	47.1	45.3
120% of AMI	27.1	26.1	25.0	23.3
All Owner Occupied Housing	47.3	44.2	43.3	39.4
Source: Collins, Crowe, et al. “Supply-Side Constraints on Low-Income Homeownership” (2001)				

According to Collins et al. the share of homes locally affordable to low-income households varied by region—it was highest in the South and Midwest and lowest in the West. However, much of the South’s affordable housing stock appears to be concentrated in manufactured homes, an ownership vehicle that escapes many of the traditional benefits associated with homeownership (as previously discussed in this chapter). Thus, the overall increasing low-income homeownership rates have to be qualified considering these details decreased appear to be decreasing, especially in markets in the Northeast and West.

In a second study, Collins et al. (2002) provides a more comprehensive examination of low-income homeownership through the 1990s. This research suggests that low-income and minority homebuyers are more concentrated than white and higher-income buyers, suggesting that they are buying in areas of town that are not experiencing the strong returns to investment as other homeowners.

Housing Filtering and the Supply of Affordable Housing

While the analysis above suggests that the market share and production of affordably-priced homes is decreasing, economic theory suggests that construction of higher priced homes can positively and indirectly affect the supply affordable housing through filtering. Filtering is a key mechanism in the economic theory of demand-side housing policy because it explains in theory the mechanics of how the market is supposed to work to meet increasing demand for affordable housing units. Simply put, as newer and more expensive housing is built, the theory states that wealthier families will move up and their existing units become affordable to the poor (due to age, wear and obsolescence, etc.). With fewer new affordable housing units in production and the number of low-income homebuyers increasing, filtering of existing units through the housing market price strata assumes greater importance.

Debate about what effects filtering has on the supply of affordable housing (i.e. housing that is price affordable to low-income households) has rested on primarily on the quality of the units themselves and the process of deterioration: new units displace older ones, which in turn become less expensive and “filter down” to lower-income households. Eventually, older substandard units are removed from the market. Researchers have identified at least three ways in which filtering occurs (Green and Malpezzi 2003) (Galster 1996): 1) by household income, 2) unit price and 3) unit quantity. While obvious inter-dependencies exist among these factors, they suggest three corresponding market conditions necessary for filtering to function properly.

Units will not “filter down” unless people can afford to move up to a home in the next price/value tier. This is tied directly to income, but the amount of available equity a buyer can apply to purchase from his/her existing home also contributes to successful

upward movement. Therefore, incomes must rise and housing values must increase, but not to the point where buyers at the lower end of the price spectrum will be priced out of the market.

The value unit's bundle of housing services must decrease over time so that it becomes outdated or less desirable in the market of comparative offerings. For example, houses built with only one bathroom are today considered outdated by most, and therefore are less desirable. When built, these units may have been considered a part of high quality stock and may have been priced accordingly, but have now "filtered down" to the lower segments of the market.

For quantity filtering to occur successfully, new home construction must keep pace with household formation and demolition (or removal) of existing older stock so that new units replace substandard units and keep pace with population growth and demographic change. Depending upon market conditions, if these conditions are in all in equilibrium "upward movement to higher-valued real estate (should) parallel the downward filtering of existing real estate" (Bier 2001).

A generally accepted indicator of housing market's capacity to effectively filter housing is its vacancy rate. The vacancy rate indicates the number of unoccupied units in a housing market and includes those units for rent and sale (including those rent and sold), units for seasonal, recreational or occasional use and units vacant for other reasons (e.g. migrant housing). A market with a very low vacancy rate is said to be "tight" (demand for housing is high relative to supply) and a market with a high vacancy rate is said to be loose—i.e. supply is high relative to demand, and therefore it presumably has enough capacity to accommodate growth and movement within and

among price levels. If we look at vacancy rates through the 1990s across the country for the 50 largest metropolitan areas we notice that vacancy rates decreased through the decade. Suggesting that filtering of existing stock down to lower-income households did not occur in many markets, especially in the rapidly growing cities in the Western and Southern regions of the country.

The average gross vacancy rate for the 50 largest metropolitan areas in the country decreased approximately 18 percent from 8.3% to 6.8% between 1990 and 2000 (author's tabulation of U.S. Census Bureau data). Regionally, this rate decreased in three of four Census Bureau regions with the largest declines occurring in the South (from 10.2% to 7.6%) and the West (from 7.8% to 6.1%). When rental units, housing units for seasonal and recreational uses, and units vacant for other reasons are removed—producing what can be interpreted as a net for-sale vacancy rate—the rate decreased approximately 28%. In fact, net for-sale vacancy rates increased in only 18 of 50 metropolitan areas examined through the 1990s, with over half of these occurring in the Midwest and, with a few exceptions, the remainder occurring in midsized markets in the south (Raleigh, Greensboro, Louisville and Charlotte) and Northeast (Pittsburgh, Rochester and Buffalo). Notable exceptions were Portland and Seattle in the West, in which net for-sale vacancy rates increased 101% and 35% respectively. Table 2-3 summarizes the findings from this analysis.

Table 2-3: Change in Population, Housing Units and Net For-Sale Vacancy Rates for 50 Largest Metropolitan Areas (U.S. 2000): 1990 to 2000 (Summary Table by Region)

Geography	Category	1990	2000	Change	Percent Change
U.S. (50 Metro Areas)	Total Population	135,178,768	162,514,411	27,335,643	20.2%
	Housing Units	54,194,250	64,311,028	10,116,778	18.7%
	For-Sale Units	657,076	564,622	(92,454)	-14.1%
	Net Vacancy Rate	**1.21%**	**0.88%**	**0.33**	**-27.6%**
Midwest	Total Population	28,632,142	32,813,205	4,181,063	14.6%
	Housing Units	11,364,686	13,214,300	1,849,614	16.3%
	For-Sale Units	97,698	103,999	6,301	6.4%
	Net Vacancy Rate	**0.86%**	**0.79%**	**0.07**	**-8.5%**
Northeast	Total Population	34,820,082	40,206,158	5,386,076	15.5%
	Housing Units	13,802,115	16,055,939	2,253,824	16.3%
	For-Sale Units	148,591	106,294	(42,297)	-28.5%
	Net Vacancy Rate	**1.08%**	**0.66%**	**0.42**	**-38.5%**
South	Total Population	37,141,421	46,920,790	9,779,369	26.3%
	Housing Units	15,604,425	19,084,610	3,480,185	22.3%
	For-Sale Units	253,667	206,046	(47,621)	-18.8%
	Net Vacancy Rate	**1.63%**	**1.08%**	**0.55**	**-33.6%**
West	Total Population	34,585,123	42,574,258	7,989,135	23.1%
	Housing Units	13,423,024	15,956,179	2,533,155	18.9%
	For-Sale Units	157,120	136,601	(20,519)	-13.1%
	Net Vacancy Rate	**1.17%**	**0.86%**	**0.31**	**-26.9%**

Source: Author's Tabulation of U.S. Census Bureau Data

The analysis suggests that between 1990 and 2000, there was a shorter supply of houses available for sale in the 50 largest housing markets and further suggests that these markets therefore had less capacity to effectively filter in 2000 than in 1990. While the net for-sale vacancy rates declined in all regions of the country, rate increases were observed in metropolitan areas throughout the Midwest—increases were observed in 8 of the 11 metropolitan areas analyzed.

But do very low vacancy rates automatically translate into housing price increases and/or shortages in the supply of affordably-priced homes? Bluestone (2006) examined data on the cost of living, internal net migration (between 2000 and 2004), and the change in employment levels during this period for 245 MSAs. By statistically fitting housing vacancy rates and housing price appreciation, he found a non-linear relationship: At very low vacancy rates, below 1.5 to 2 percent, housing prices accelerate rapidly. With fewer homes on the market, sellers have an edge over buyers. At higher vacancy rates, prices begin to moderate and may even fall slightly as buyers begin to gain some bargaining power. But as vacancy rates for single-family homes rise much above 4-percent, housing prices begin to decrease. The sellers' market turns into a buyers' market. This has occurred in a number of communities throughout the country (including Boston, Worcester, and Springfield between 1988 and 1995). In the worst case scenario, prices can fall by 20 percent or more and not recover to their peaks for twelve years or more.

Other research suggests that filtering is more successful in Midwestern markets, where new construction has outpaced household growth and unit abandonment for quite some time. For example, new construction outpaced household growth in the

Detroit metropolitan area through the 1980s. During this time about 144,000 housing units were built while the area gained only 49,000 new households. Nearly three units were built for each additional household, which enabled substantial filtering to occur (Bier 2001). In Cleveland, the ratio of housing units to households increased from 1.2 to 2.5 between 1950 and 1980, and significant new unit development occurred in places like Youngstown, Ohio area even when household growth was zero or negative.

My analysis of housing production from the early 70s to late 90s suggests that, while states in the South and West dominated housing production in terms of overall number of housing units built through the 25-year study period, Illinois, Ohio and Michigan remained solidly in the 80th percentile of housing unit production between 1972 and 1997 (ranking 6th, 7th and 10th respectively in overall unit production). The outcome has been the creation of a glut of housing at the core and in the older inner-ring suburbs of many Midwestern cities, thus creating conditions conducive to filtering and making housing more affordable where the urban poor are concentrated. Under these conditions, where housing production at the higher end of the market meets or outpaces household growth, filtering appears to work effectively.

For filtering to have desirable price effects on the housing consumed by low-income households (i.e. create more affordable for-sale housing), occupant incomes must outpace housing values, older houses must deteriorate and/or be removed from the market, and new housing production must outpace household growth. At a minimum, incomes must outpace housing prices and production must outpace household growth. When these market conditions are not met, filtering slows and/or stops working, housing prices rise and existing affordable units become scarce and

disappear from the ranks because demand drives up price. Reverse filtering can even occur—i.e. units pass from poor households to wealthier ones—if a neighborhood is undergoing “revitalization” or “gentrification” (Green and Malpezzi 2003). This appears to be what has happened in the hot markets of the South and West, and in certain markets in the Northeast, where rapid population growth and household formation outpaced unit production, and incomes outran housing price increases through the 1990s and into the early 2000s (Daley 2005) (Shiller 2005).

Further, analyses by Collin, Crowe et al. (2001, 2002) illustrate important limitations to filtering theory, especially in hot housing markets: As the authors point out, the correlation between house prices and incomes is far from perfect because evidence suggests that a large share of affordably valued units in the metropolitan areas examined are occupied not by low-income households but by those with moderate and higher incomes. This is not how filtering is supposed to work, but it appears to be what is happening in hot markets when housing demand outstrips supply.

Even when ideal market conditions are met and filtering occurs, there is little empirical evidence that its results positively affect the low-income housing submarket enough to lower rents, even in the long run. Weicher and Thibodeau (1988) found new unit production replaced dilapidated units at a rate of 4 to 1 between 1950 and 1970, but subsequent new housing production did not result in significantly fewer lower-quality units after 1970 (Weicher and Thibodeau 1988) (see Galster 1996). Further, Vitaliano found no statistically significant relationship between the numbers of new units built in a metropolitan area and reduction in the inhabited slum-quality stock 5-15 years later (Vitaliano 1983) (see also Galster 1996). Even when filtering does not occur to any

great extent—i.e. new units are not replacing units at the bottom but, rather, are simply increasing supply of the housing stock—it is unlikely that short run price effects will benefit the poor because neighborhood downgrading would erode such gains (Galster 1996). Eventually neighborhood property values and land rents bottom out creating conditions ripe for gentrification and real estate redevelopment, both of which are unlikely to include much housing for the poor (Smith 1996) (Fainstein 1994, 2001).

This thinking is supported by research on the factors that affect change in the stock of market-rate housing affordable to low-income households, which found unit filtering more sensitive to variation in neighborhood conditions than to unit characteristics (DiPasquale 1997). This study also found that the affordable housing submarket is not strongly integrated with the larger housing market. The implications being that units located in better neighborhoods are more likely to filter-up than down, and will never become a part of the affordable housing submarket. Units that are most likely to “filter down” are located in the least desirable neighborhoods. These findings are supported by those mentioned previously in this chapter regarding the evident spatial segregation that occurred in the low-income homebuyer market through the 1990s.

At best, these findings suggest that filtering is likely to make available little, if any, affordable housing units in good neighborhoods thus supplying properties that could provide low-income buyers with much needed equity. At worst, they suggest that a substantive proportion of units made available to low-income households through the filtering process will be located in our cities’ least desirable neighborhoods, an outcome that will likely perpetuate economic and racial segregation. These findings strongly call

into question our federal housing policy that relied heavily on the theory of filtering by providing demand subsidies to low-income home buyers so they can participate in the housing market—a housing policy in which filtering became de facto affordable housing.

Given the findings presented in this chapter, I turn my attention in the next to federal housing policy in order to explain how and why federal housing policy came to champion subsidies that increase demand for low-income housing over those that subsidize supply, and assess the extent to which the federal housing policy has become entrenched these policies.

CHAPTER 3:
THE ORIGINS OF DEMAND-DRIVEN FEDERAL HOUSING POLICY

Introduction

I begin this chapter with a history of U.S. federal housing policy to explain how the shift from supply-side to demand-side programs occurred and why federal housing policy has come to rely on homeownership to remedy the nation's affordable housing crisis. I also assess the extent to which the federal housing policy has become entrenched in demand-side housing policies by auditing HUD's fiscal year budgets between 2000 and 2005, dividing program spending by line item to compare spending on demand- versus supply-based programs. These analyses provide background to explain the logic behind the shift in federal housing policy that occurred in the early 70s, and what has changed since then.

Federal Housing Policy 1970-2000: From Supply to Demand Subsidies

U.S. federal housing policy has long been and remains complicit in shaping the housing market, especially that for affordable housing. What began as an effort to spur economic growth and stability in the early 1930s, evolved in a relatively short period to a grand vision to provide "a decent home and a suitable living environment for every American." This in fact was the slogan of the 1949 Federal Housing Act. Early federal housing policy was comprised of a variety well-funded programs that collectively provided a multi-pronged approach to the housing shortage at hand. In fact, one of the great strengths of federal housing policy almost from its inception was that it generously funded two kinds of programs with more-or-less equal vigor—those that subsidized

demand for housing and those that subsidized supply. Since the early 1970s, however, federal housing budget authority has decreased 48% in real dollars (Changing Priorities NILC 4 2005), and federal housing policy slowly shifted its agenda to demand-side oriented and pro-homeownership subsidies (Barton 1996).

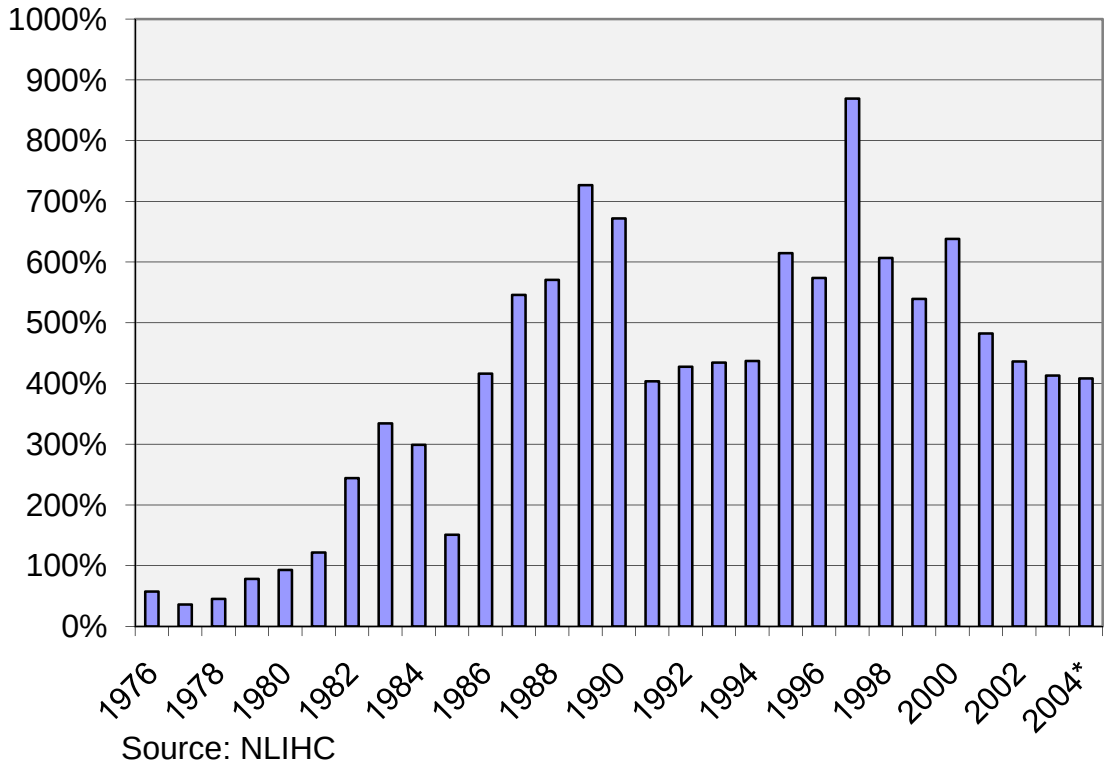
For example, overall housing assistance budget authority (i.e. money which legislation allows the federal government to dedicate to housing assistance in a fiscal year or over a specified multi-year period of program life) has decreased by almost half since 1976, from $57.7 billion to $29.2 billion in 2004 (in 2004 dollars). During that same period, housing assistance outlays (i.e. the money the federal government actually spends) increased by 403%, from $7.4 billion to $37.3 billion in 2004 (in 2004 dollars). While housing assistance outlays were 13% of budget authority in 1976 and 128% of budget authority in 2004, the increase is misleading. Outlays have caught up with budget authority because longer-term housing development commitments from past decades have been completed and are now being renewed annually.[9] Meanwhile, the federal government increased housing-related tax expenditures (i.e. “departures from the normal tax structure designed to favor a particular industry, activity or class of

[9] Federal budget outlays refer to housing spending in a particular fiscal year, whereas federal budget authority refers to new multi-year spending authorized over a future period of time. Therefore, when future program spending is curtailed or a program reaches its terminus years, outlays are often higher than budget authority in a given year. Some researchers argue that confusion between budget authority and outlays misleads housing advocates to contend that the federal government has reduced its support of housing since the early 1980s. Malpezzi and Green point out, for example, that, while federal budget authority for housing fell from around $70 billion in the late 1970s to about $12 billion in 2003, federal outlays (actual spending) increased virtually every year and only since 1995 have outlays begun to stagnate. Increases in budget outlays prima facie suggest increased federal support of housing, but thinking only about outlays also has pitfalls. First of all, unless it is expected that the affordable housing crisis will evaporate in the near future, it is important to balance current program spending with guarantees for spending in the future. Second, it is important to remember that a substantial proportion of current spending is being used to maintain existing supply programs for which cost are increasing or for moving people from existing public housing to market housing as Section-8 contracts expire.

persons" see Burman 2003) by 260% between 1976 and 2004, from $33.2 billion to $119.3 billion (in 2004 dollars) (Dolbeare, Saraf et al. 2004).

This change in the ratio between housing authority and housing-related tax expenditures is startling because it reveals a dramatic shift in spending from supply- to demand-side subsidies. In 1976, the law authorized the federal government to spend about twice as much on housing assistance subsidies than could be given-up in the form of tax revenue for housing-related subsidies. By 2004, this relationship had completely reversed itself: housing-related expenditures totaled four times that of housing assistance authority (see Figure 3-1).

Figure 3-1: Ratio of Federal Housing Budget Authority (i.e. Spending Authorization) to Federal Housing-Related Tax Expenditures (i.e. Tax Benefits), 1976-2004



Source: NLIHC

Demand-side subsidies took front seat with a) the effective abandonment of public (rental) housing programs in the early 1970s, b) the removal of depreciation and tax investment incentives for multi-family housing through the passage of the 1986 Tax Reform Act (TRA), and c) through the 80s and 90s, substantial expansion of funding for low-income and minority homeownership programs. Green and Malpezzi describe the shift accordingly: “From the 1930s to the 1960s the federal government (housing policies) focused on subsidizing units. Since the 1970s there has been a shift to subsidizing people” (Green and Malpezzi 2003). And Michael Teitz adds further definition:

> We (the federal government) have moved away from the assumption embodied in public housing, (that) the best way to approach the problem of supplying adequate and affordable housing for the poor should be the construction and supply of housing specifically for their use. In its place, we have assumed instead that the object of policy should be to ensure that the poor participate in housing markets in much the same way as other groups in society, and that public programs should support that participation (Teitz in Green and Malpezzi 2003).

In other words, federal housing policy for all practical purposes abandoned the philosophical foundation that underpinned just about every housing program it sponsored to help the poor between 1930 and 1970. How and why did this happen?

Federal subsidy for housing demand is nothing new: it has its roots in the homeownership programs of the Homeowners Loan Corporation Act of 1933 and with the creation of the Federal Housing Association (a year later). The concept was irreversibly institutionalized with the passage of the Servicemen’s Readjustment Act in 1944. These programs were solidly aimed at the middle-class; what was different in the

late 1990s and early 2000s was the application of demand-oriented subsidy to help the poor.

Federal leadership in social stewardship had emerged in the 1930s with the FDR's New Deal social and welfare programs and progressed through the post-war economic expansion to the programs of Johnson's Great Society. The strength of unionized labor and the Civil Rights Movement further established the federal government as a central force in social welfare. But by the end of the post-war expansion, marked most identifiably by the 1973 oil crisis, the federal leadership came under severe attack from conservatives. This ushered in a new era of federalism, one that brought massive reductions in federal social welfare and housing program spending. The Nixon administration launched the first large-scale welfare and housing dismantling efforts, but "New Federalism," as it became known, reached its apex in the 1980s with the Reagan presidency (Peterson and Lewis 1986). Most significantly in the area of housing policy, New Federalism formally introduced housing vouchers as a replacement for government subsidized units. This began gradually with the reduction of and eventual moratorium on unit production during the Nixon administration.

It is possible to view the shift within the larger context of economic restructuring that began in the early 1970s and the rise of deregulation and market reliance in everything from airline travel to pollution control. The shift was marked by, among other things, a substantial change in the pattern of state intervention in markets and the social welfare arena (Castells 1991; Sassen 2001; Fainstein 1994). New Federalism cannot be held solely responsible for the federal governments' shift in housing policy, however, because housing programs at the time produced housing so deficient that they were

popular with neither beneficiaries (tenants) nor benefactors (taxpayers). Even liberal thinkers at the time recognized the failures of U.S. housing policy. Possibly most emblematic were those of the urban renewal program (Title I of the 1949 Housing Act), which razed many vibrant communities replacing them with revenue generating commercial development (see Jacobs 1961 and others). Persistent racial and socio-economic segregation in public housing provided further pressure to shift the course of housing policy.[10] These failures were the catalyst for a shift in federal housing policy's focus from urban renewal to human renewal (Fainstein 1993). Housing programs that followed including Johnson's Model Cities Act (1966) and Nixon's Housing and Community Development Act (1974) placed greater emphasis on community development (i.e. people) and stressed local government flexibility over program production (i.e. units).

The Housing and Community Development Act of 1974 introduced housing certificates, an idea first advanced in the 1930s by the National Association of Real Estate Boards (Orlebeke 1983), and Community Development Block Grants, which provided housing funding directly to municipalities. While the shift to vouchers was gradual—Sections, 235 and 236 still provided federal subsidy for mortgage and building loans starting in 1968 (Hays 1995)—the Housing and Community Development Act effectively placed a moratorium on federally built units. In the mid- to late-70s, President Carter, although eager to address housing issues early in his term, later abandoned his modest proposals to increase public housing production and eventually succumbed to

[10] Interestingly, this subject was given minimal attention in the National Housing Review, HUD's comprehensive review of government housing programs and policies Nixon ordered in March 1974 when

the tide of Congressional support for increased production through market (demand) driven subsidies for private housing development. The Reagan administration's 1981 Omnibus Budget Reconciliation Act removed whatever was left of HUD's supply-side budget save Section 202 (housing for the elderly).

Since then, funding for new government-sponsored housing production has been all but non-existent and many of the incentives that once encouraged private developers to build affordable multi-family housing have disappeared. The 1986 Tax Reform Act (TRA) increased tax incentives favoring owner-occupied housing relative to rental housing by increasing the minimum standard home mortgage interest deduction and phasing out many tax incentives associated with building rental units (Follain, Hendershott et al. 1992) (Staff 2003). This effectively decreased the supply of housing accessible to low-income earners because they are more likely to occupy rental housing than owner-occupied units. The federal government, realizing its mistake, quickly offset this change by introducing Low-Income Housing Tax Credits (LIHTC) a few months later. These credits allocate funds directly to for-profit and not-for-profit developers for the production of low-income multi-family rental housing.[11] While the LIHTC program has resulted in the production of between 550,000 and 600,000 dwellings since its inception (Cummings and DiPasquale 1999), many observers criticize its high

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he suspended all federal housing programs. See Kain, J. F. (1974). "What Should Housing Policies Be?" *Journal of Finance* **29**(2): 683.

[11] A 2003 national survey of LIHTC property owners found that approximately 30% of LIHTC projects are developed by not-for-profit outfits and that the projects tend to be small, newly constructed, and managed by their owners (see Abravanel, M. D. and J. E. H. Johnson 2003). The Low-Income Housing Tax Credit Program: National Survey of Property Owners. Washington DC, U.S. Housing and Urban Development.

transaction costs; perhaps as much as 30% of the tax expenditures are never applied to bricks and mortar but remain in the hands of syndicators (Hartman 1998).[12]

The negative effects of the Tax Reform Act on multi-family housing development cannot be understated: it caused a substantial drop in multi-family housing production by eliminating the tax investment incentives for the production of that type of housing. While multi-family development has decreased steadily since the early 70s, it decreased far more rapidly post-Tax Reform Act, decreasing 26% in the ten years after enactment compared to only 9% in the decade prior (author's analysis of U.S. Census Building Permit data and 5-year Construction Industries data 1972-1997). While the annual number of multi-family units built between 1972 and 1997 decreased 69% from approximately 1.2 million units to 378,740 units, the largest percentage drop (-64%) in production occurred in 1987 to 1992, the period immediately following passage of the 1986 Tax Reform Act.[13]

Apart from Section 42 (LIHTC), the only other unit production program of any substantial measure (excluding the trickle of pre-funded pre-moratorium units) has been the Housing Opportunities for People Everywhere (HOPE) VI program. This program rehabilitates distressed low-income government housing to lower density "New Urbanism"-style town homes. Ultimately netting fewer units, HOPE VI programs marked the end of a long drought of federal funding for the construction of affordable housing

[12] Syndicators are third party partnerships or limited liability corporations that assemble a group of investors to whom a developer of low-income housing may sell future tax credits earned on a project for cash up front. This money is usually used to finance the project. Syndicators act as the investors' representative in the process and as general partners responsible for managing the project and partnership for which, according to HUD, they often receive a large share of any positive cash flow, often structured in the form of fees for services such as partnership management, incentive management, or investor services.

units, but HOPE VI funding has steadily dwindled in recent years. Since 2000, HOPE VI funding decreased from $628 million to $156 million in 2004 (in 2004 dollars), and will receive no funding at all in FY2005 according to HUD budget projections (HUD 2001; HUD 2002; HUD 2003; NLIHC 2003; HUD 2004).

As recently as the early 1970s, federal housing policy comprised a balance of supply- and demand-side programs subsidized a variety of housing opportunities, from homeownership assistance to the production, development and provision of affordable rental housing. By the mid-2000s, federal policy was firmly rooted in assisting the poor to participate in housing markets with the express goal of homeownership. This began in the early 1970s and steadily gained momentum through the 1980s and 90s. Whatever supply-oriented subsidies remain, they do so to fulfill housing development commitments from earlier decades. The following section outlines how this philosophy dominates HUD's budget in the early 2000s.

[13] Further analysis of the impacts of the 1986 Tax Reform Act on low-income households' wealth creation, specifically with respect to its effect on mortgage interest deductions, is presented on page 66.

Federal Housing Policy in the Mid-2000s: A Supply and Demand Subsidy Audit of HUD Budget 2000-2005

Following in the footsteps of President George H. W. Bush and President Bill Clinton, President George. W. Bush remained committed to homeownership as the solution to America's affordable housing crisis. In June 2002 he issued "*America's Homeownership Challenge* to increase minority homeownership by 5.5 million through 2010 and continue high overall homeownership rates" (OMB 2004). HUD's spending on demand-side programs under President G. W. Bush outpaced supply-side spending three to one: the agency dedicated over 72% of its budget between FY2000 and FY2005 (projected) to demand-side programs (author's tabulation of U.S. Census Bureau data). Tables 3-1 and 3-2 list budget allocations for HUD's primary housing programs—17 demand-side and 11 supply-side oriented programs—between 2000 and 2005 in 2004 dollars. While some programs could fit into either category, programs are categorized as either demand- or supply-oriented based on whether their funding streams are predominantly aimed at directly funding the development of new housing units or not.

Table 3-1: HUD Budget Allocations for Selected Demand-Side Housing Programs: 2000-05 (millions of 2004 U.S. dollars)

PROGRAM	2000	2001	2002	2003	2004	2005*	TOTAL
Housing Assistance for Needy Families	—	—	—	0	0	0	0
Contract Renewals (Section 8)	11,617	13,770	15,455	16,994	19,001	17,810	94,646
New Section 8 Vouchers	378	481	148	0	0	0	1,006
Resident Opportunity & Self Sufficiency	60	58	56	56	55	54	340
Rental Housing Assistance	—	—	—	0	0	0	0
Downpayment Assistance	—	—	51	77	87	196	411
Housing Counseling Assistance	16	21	20	41	40	44	183
Self-Help Homeownership Opportunity	22	21	23	26	27	64	182
Homeless Assistance Grants	1,114	1,088	1,151	1,243	1,260	1,230	7,086
Shelter Plus Care Renewals	0	106	0	0	0	0	106
Samaritan Housing	—	—	—	—	0	49	49
Housing for Persons with AIDS	253	274	284	296	295	289	1,691
Rural Housing and Economic Development	27	27	26	26	25	0	130
Housing Certificate Fund	12,420	14,798	16,024	17,483	19,257	18,073	98,056
FHA	822	1,058	916	778	778	717	5,069
GNMA	10	10	9	10	11	11	61
CDBG (Other Than A.H.)	1,572	1,610	1,537	1,503	1,476	1,356	9,055

* Requested/Estimated FY2005
Source: Author's tabulation U.S. HUD Data 2000-05 and Data from NLIHC (HUD 2001; HUD 2002; HUD 2003; NLIHC 2003; HUD 2004)

Table 3-2: HUD Budget Allocations for Selected Supply-Side Housing Programs: 2000-05 (millions of 2004 U.S. dollars)

PROGRAM	2000	2001	2002	2003	2004	2005*	TOTAL
Project-Based Rental Assistance	—	—	—	0	0	(20)	-20
Contract Administration	212	204	201	199	100	100	1,015
Public Housing Capital Fund	3,166	3,185	2,913	2,771	2,695	2,617	17,346
Public Housing Operating Fund	3,426	3,441	3,581	3,655	3,579	3,497	21,179
HOPE VI	628	610	588	582	149	0	2,558
Native American Housing Block Grants	677	690	665	659	650	633	3,974
Native Hawaiian Housing Block Grant	—	—	—	10	9	10	29
Elderly Housing (Section 202)	775	827	802	795	774	757	4,730
Disabled Housing (Section 811)	219	230	247	254	249	244	1,444
HOME Investment Partnership Program	1,747	1,911	1,891	2,030	2,005	2,040	11,624
CDBG (A.H. Production)	3,668	3,758	3,586	3,508	3,445	3,164	21,129
TOTAL (Tables 3-1 and 3-2)	**42,830**	**48,178**	**50,172**	**52,997**	**55,967**	**52,933**	**303,077**

* Requested/Estimated FY2005
Source: Author's tabulation U.S. HUD Data 2000-05 and Data from NLIHC (HUD 2001; HUD 2002; HUD 2003; NLIHC 2003; HUD 2004)

Spending (in real dollars) for demand-side programs during this period increased an average of 7% annually (approximately $2.3 billion/year) and totaled $280 billion (72% of HUD's budget) while spending for supply-side programs decreased an average of 2% annually (approximately $2.5 million/year) and totaled less than $122 billion (28% of budget) (see Table 3-2 and Figure 3-2).

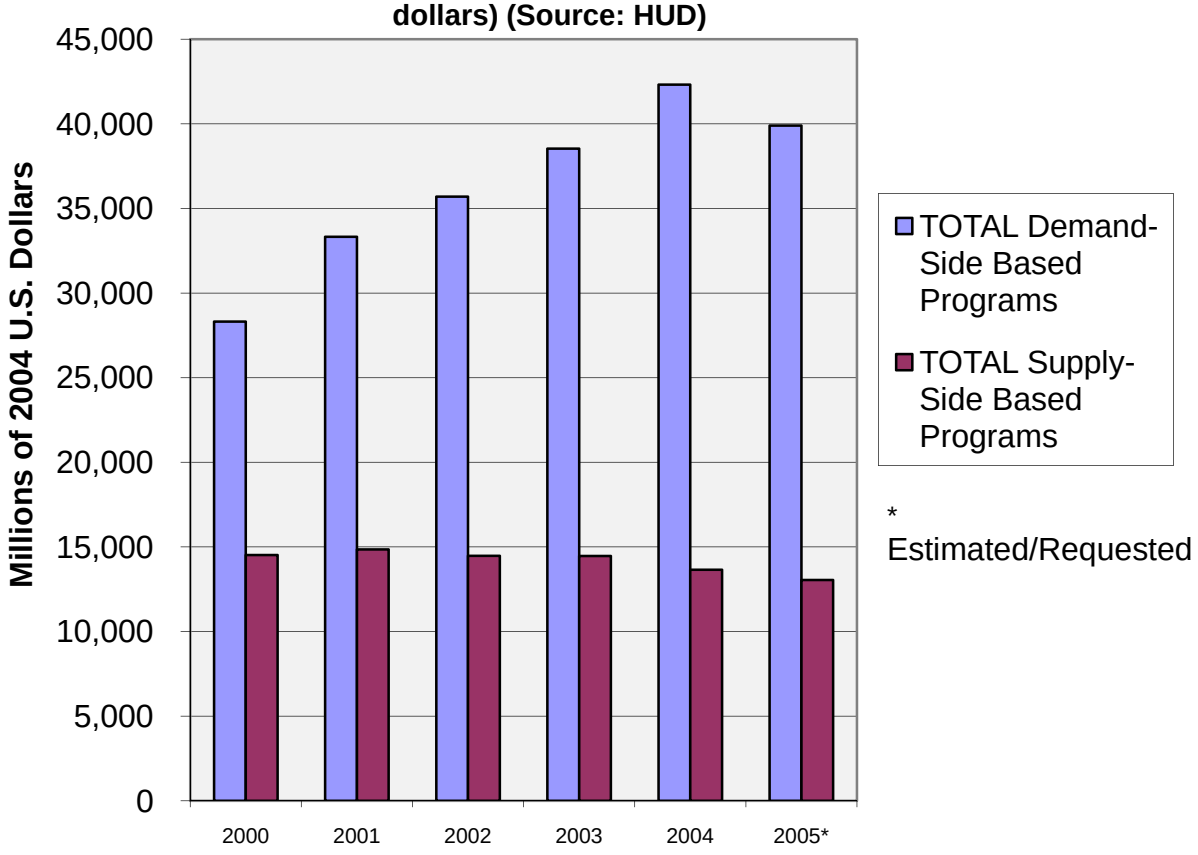
Three demand-subsidy programs in particular received exceptionally strong funding increases: American Dream Downpayment Assistance, Self-Help Homeownership Opportunity, and Housing Counseling Assistance. These programs saw average annual budgetary spending increases of 63%, 32% and 27% respectively. All but six demand-side programs experienced positive average annual funding increases, while only two of the eleven supply-side programs—Section 202-Elderly Housing and Section 811-Disabled Housing—received average annual increases, and even then averaged increases of only 2% and 3% annually.

Table 3-3: Summary of HUD Budget Allocations for Selected Demand- and Supply-Side Housing Programs: 2000-2005 (millions of 2004 U.S. dollars)

Fiscal Year	Unit	Supply-Side Program Spending	Demand-Side Program Spending	Total HUD Budget (Selected Programs)
2000	**$**	**14,519**	**28,311**	**42,830**
	%	34%	66%	100%
2001	**$**	**14,856**	**33,323**	**48,178**
	%	31%	69%	100%
2002	**$**	**14,473**	**35,699**	**50,172**
	%	29%	71%	100%
2003	**$**	**14,464**	**38,533**	**52,997**
	%	27%	73%	100%
2004	**$**	**13,655**	**42,312**	**55,967**
	%	24%	76%	100%
2005*	**$**	**13,042**	**39,892**	**52,933**
	%	25%	75%	100%

* Requested/Estimated FY2005
Source: Author's tabulation U.S. HUD Data 2000-05 and Data from NLIHC (HUD 2001; HUD 2002; HUD 2003; NLIHC 2003; HUD 2004)

Figure 3-2: HUD Budget Allocations for Selected Demand- and Supply-Side Housing Programs: 2000-05 (millions of 2004 U.S. dollars) (Source: HUD)



The President's FY2004 HUD budget illustrates the federal government's continuum of support for demand-side housing subsidies, and especially for those that subsidize low-income homeownership. In February 2003, the President requested significant cuts in public housing assistance to offset funding increases for homeownership programs. Congress did not grant all requests, but the net result was a smaller overall housing assistance budget from FY2003 (Crowley 2003) with notable increases to homeownership and demand-side programs and reductions to many existing supply-side programs, including vouchers. The figures below report those enacted for FY2004 (NLIHC 2003) (HUD 2003). For example, funding for the American Dream Downpayment Assistance program, which provides downpayment assistance to low-income homebuyers, increased by 160% from $75 million in FY2003 to $200 million in FY2004. The budget also included a 14% increase in funding for Housing Counseling Assistance, a centerpiece of the efforts to expand low-income homeownership (Hirad and Zorn 2003), from $35 million in FY2003 to $40 million in FY2004. Approximately two-thirds of these funds were allocated solely for homeownership counseling. The Self Help Homeownership Opportunity Program (SHOP) that funneled grants through faith-based and community organizations to low-income households willing to put "sweat equity" into building a home saw an 8% increase from $25 to $27 million.[14] The President had requested to triple funding for this program to $75 million.

The FY2004 budget also contained line items for several new homeownership programs, all demand-side subsidies:

[14] Sweat equity refers to a contribution to the construction or rehabilitation of a property by the homebuyer in the form of labor or services rather than cash (NAR 2005).

New Single-Family FHA Financing to assist low-income homeowners who establish a record of timely mortgage payments.

Single-Family Affordable Housing Tax Credit that provides tax credits of up to 50% of construction and/or rehabilitation (for existing homes) costs for single-family low-income homeowners (with incomes of 80% or less of area median income).

New FHA Mortgage Product that offers FHA loan insurance to families that, due to poor credit, would be subject to sub-prime market lending. The insurance applies to maintenance existing and/or purchase of a new home.

Housing Choice Voucher Program. The budget included a proposal to authorize PHAs to use Section 8 funds as down payment assistance for individuals already receiving assistance through the Housing Choice Voucher program. This program, Housing Assistance for Needy Families (HANF), would allow individuals to use up to one year's worth of rental assistance voucher funds as a down payment to purchase a home.

These budget proposals could be seen as part of a heroic effort to extend homeownership to low-income and minority households if they did not come in absence of any new supply-side subsidy programs and at the expense of those that were already in existence, or if the affordable housing supply was increasing as a result of existing demand-side subsidies. The President's Budget Summary FY2005 continued this trend: increasing support for homeownership-oriented programs (HUD 2004) at the expense of those that supported multi-family rental programs. Most alarming was the President's proposal for a reduction in Section 8 vouchers, the first reduction in that program's 30-year history. The proposal included converting the Section 8 housing voucher program into a block grant program to the states and provided an inadequate funding level for the voucher program in fiscal year 2004 (NLIHC 2004) (NLIHC 2003). The House VA-HUD appropriations subcommittee rejected much of the Section 8 funding cuts, but did so by robbing Peter to pay Paul—by cutting the HOME program, public housing, homelessness programs, and senior and disabled housing by more than 4% to fund

Section 8 (NLIHC 2004). These proposals underscored the President's pro-market and pro-homeownership agenda but they must also be viewed in the context of larger priority shifts in the federal budget, which was facing increasing funding pressures due in part to the Republican tax cuts for the wealthiest Americans.

In Chapter 4, I discuss the financial risks associated with homeownership for low-income households, from mobility to return on investment, and question the benefits of increasing low-income homeownership given these risks. I assess the extent to which homeownership—the then present objective of federal housing policy—can be considered an appropriate strategy for low-income households by examining the financial benefits and costs if offers.

CHAPTER 4:
THE RISKS ASSOCIATED WITH LOW-INCOME HOMEOWNERSHIP

Introduction

In order to assess the impacts of the change in federal housing policy, we need to examine and understand the risks facing low-income homebuyers. While homeownership offers many benefits for many people—both financial and social—the distribution of financial benefits, which were the heart of its appeal for policy makers, is less equitable for poorer than wealthier households, and many low-income homeowners experience increased financial risk over other tenure choices, such as renting, or investment strategies. This is due in part to lower equity returns on home purchase associated with property location and sale/resale timing, inequitable tax benefits, and burdensome mortgage and maintenance costs.

For many low-income homeowners, the long- and popularly-held financial benefits associated with homeownership can be elusive. Evidence suggests that for many poorer households the use of traditional investment vehicles and renting is a better choice for wealth creation than homeownership. Finally, homeownership may not be the best choice for many low-income households because of the restrictions it places on mobility (see Rohe et al. 2000).

Given the degree to which the federal housing policy promoted homeownership, if we are to better grasp policy success we need to consider not only the increase in number of low-income families that have become homeowners, but also the outcomes of homeownership for low-income households. In this chapter, I assess the extent to which homeownership may be considered appropriate for low-income households by

examining the financial benefits and costs it offers. I begin by assessing the costs low-income households incur in ownership, including maintenance costs, and the incidence and effects of debt accumulation and foreclosures. Further, I review recent studies that analyze the returns on investment that low-income homeowners have received and how the mortgage interest income tax deduction eludes many low-income homeowners.

Low-Income Homeownership: Wealth Creation and Financial Risk

Academics have long questioned the benefits of homeownership for lower-income households (Marcuse 1972, Roulac 1974, Rosen 1980, Linneman 1985, Mills 1990, Barta 2001, McCarthy et al. 2001, Coulson 2002). Much of this analysis has revolved around the financial and tax benefits associated with homeownership. Most analyses have found the federal mortgage interest tax deduction to be negligible for low-income households post 1986 Tax Reform Act.

For middle- or upper-income households the substantial tax benefits afforded through the federal mortgage interest deduction and capital gains represent the most important economic benefits of owning a home. These have been and remain the primary basis for popular federal support for homeownership—in the early 2000s these deductions total about $100 billion each year, more than three times HUD's current annual budget to support affordable housing (Pitcoff 2003).

However, as early as the 1970s, academics began to question the disproportional benefits these deductions provide higher-income households. According to Marcuse (1972), "there are no tax advantages to homeownership" for low-income families, defined in his study as those earning less than $4,950 in 1973 ($20,893 in 2004 dollars) or about 50% of U.S. median income. More recently, McCarthy et al.

(2001) questioned the benefits of the mortgage interest deduction for low-income households holding that, because their gross taxable income is so small, the standard deduction available to all taxpayers quite often outweighs any benefits gained through itemizing. In this section, I explain how the federal mortgage interest deduction works, update Marcuse's calculations using 2005 allowable deductions and income levels, and present my own findings on why the federal mortgage interest deduction treats low-income homeowners unfairly.

To understand the economic advantages the mortgage interest deduction provides it is helpful to think of homeowners as investors and compare them to other property investors (i.e. those who do not occupy as their primary residence the property in which they have invested). Federal law requires both types of investors to report gross income, but does not require a homeowner to report rent that s/he could have obtained on the market for housing services on a primary (owner-occupied) residence because s/he effectively leased it him/herself. For both investors, the difference between gross rental income and allowable deductions would be taxable income. But by not requiring homeowners to report net imputed rental income—i.e. the difference between what a property would earn for the housing services provided and allowable federal deductions (e.g. mortgage interest, property taxes, maintenance expenditures and economic depreciation)—federal tax law provides a substantial subsidy to homeowners compared to other property investors. Under this system, all homeowners are entitled to deduct from their taxable income the interest they paid on their mortgage. Because a wealthier household can afford higher priced housing and carry a larger

mortgage, tax deductions are more valuable to wealthier households than lower-income households on three counts:

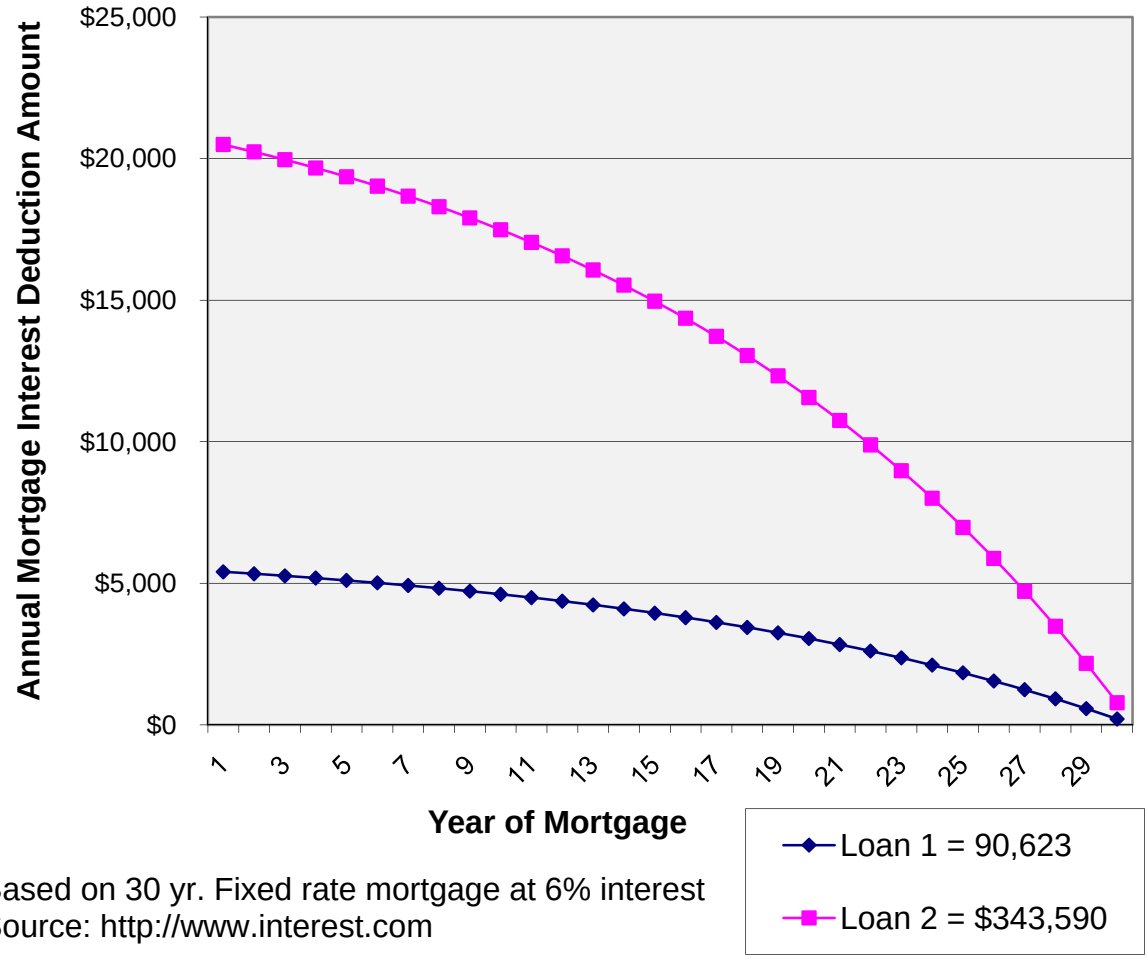
1. Wealthier households have more financial incentive to itemize on their tax returns and take advantage allowable deductions;
2. Wealthier households are more likely to own higher value housing, and hence receive greater mortgage interest deduction and none taxable imputed rental income; and
3. Wealthier households are more likely to operate in a higher tax bracket and thus receive a greater value of the deduction of a given amount (Green 2003).

These entitlements allow wealthier a household to deduct more interest than a lower-income household, and thus receive a larger subsidy per unit of housing.

A hypothetical example explains this inequity more clearly. Consider two home-owning households—one wealthy (earning greater than 80% of median U.S. income) and another low-income (earning 80% of median U.S. income). In 2004 on a 30 year fixed rate mortgage at 6% interest (considering $2500 in local property taxes, annual homeowners insurance, $10,000 in liquid assets and no monthly debt obligations) the wealthy household (earning $100,000 or 2.85 times U.S. median income) could qualify for approximately $343,590 in mortgage loan and could deduct approximately $20,500.00 in mortgage interest and taxes during the first year of that loan. Over the 30-year life of the loan, this household could potentially deduct a total of $393,008 in interest payments. By contrast, a household earning $35,000 (approximately 80% of U.S. median income) with identical taxes and assets as the wealthier household could

qualify for approximately $90,623 in mortgage debt (see Figure 4-1). This household would deduct approximately $5,407 in mortgage interest and taxes during the first year of the loan and would potentially deduct a total of $104,976 over the life of the loan. First year deductions might be greater for both households depending on closing costs such as loan origination points, but these evaporate for both households after the first year of ownership.

Figure 4-1: Hypothetical Annual Mortgage Interest Deductions: 2004
Loan 1 for Houshold Income = $35,000
(Approx. 80% of Median U.S. Income)
Loan 2 for Household Income = $100,000
(2.9 times Median U.S. Income)



Based on 30 yr. Fixed rate mortgage at 6% interest
Source: http://www.interest.com

This deduction scenario was, according to Follain and Ling (1991), a reasonable characterization of the tax-benefit subsidy available to homeowners before the 1986 Tax Reform Act (TRA), which raised the standard deduction and lowered the benefits of itemizing deductions for households in tax brackets with lower marginal rates. The TRA sought to simplify tax law by broadening the tax base and eliminating many tax shelters, but it also increased incentives for homeownership by increasing the home mortgage interest deduction while simultaneously phasing out many investment incentives for rental housing (Staff 2003) (Garson 2003).

The TRA affected lower-income homeowners in two ways: 1) it raised the allowable standard deduction amount and 2) reduced the amount of allowable non-housing itemized deductions.

These provisions had a combined effect of eliminating any benefit derived from the mortgage interest deduction for lower-income homeowners (Follain, Hendershott et al. 1992), who could suddenly deduct more through the standardized deduction than by itemizing. The net result of this legislation for most lower- and moderate-income households was that it negated the tax advantages of ownership (Capone 1995), (Follain and Ling 1991). In 1991 it was estimated that "the homeowner subsidy from interest, discount points, and property taxes is worth less than $50 for the first year [of ownership] and zero after that" (McCarthy, Van Zandt et al. 2001).

At first glance, a higher standard deduction might seem to provide a greater benefit for lower-income households—after all it allows them to deduct a higher dollar amount from their gross taxable income than by itemizing deductions. But by using the

standard deduction, lower-income households in effect increase their after-tax cost of owner-occupied housing.

To understand the mechanics of the TRA in this context, consider again the two previously discussed households from the mortgage interest deduction example. Looking only at the first year of mortgage under the TRA, the low-income household earning $35,000/year would realize greater benefit by taking the standard allowable deduction of $9,700 (in 2004) than it would by itemizing deductions, while the household earning $100,000/year would find more benefit by itemizing. If we consider the allowable standardized deduction to be a benefit available to all (either household may opt to take it), the wealthier household pays $10,800 less per unit of housing over the first year ($20,500-$9,700=$10,800) than the low-income household, because it can itemize that amount above and beyond the standardized deduction available to all households.

While studies suggest that low-income renters could have been economically better off than homeowners under this tax policy, ironically, the TRA discouraged multi-family rental unit production. In short, the TRA increased a low-income households' marginal after-tax cost of owner-occupied housing and sharply raised the costs relevant to their tenure and quantity decisions (Follain, Hendershott et al. 1992). Simultaneously, the TRA removed many investment incentives for multi-family rental housing and therefore investors built less. In fact, the U.S. Census Bureau's 5-year Economic Censuses reports that the number of multi-family units built annually in the U.S. decreased 69% between 1972 and 1997, with the most dramatic decreased in production occurring post-1986 TRA period (see Table 4-1 and Figure 4-2). Multi-family

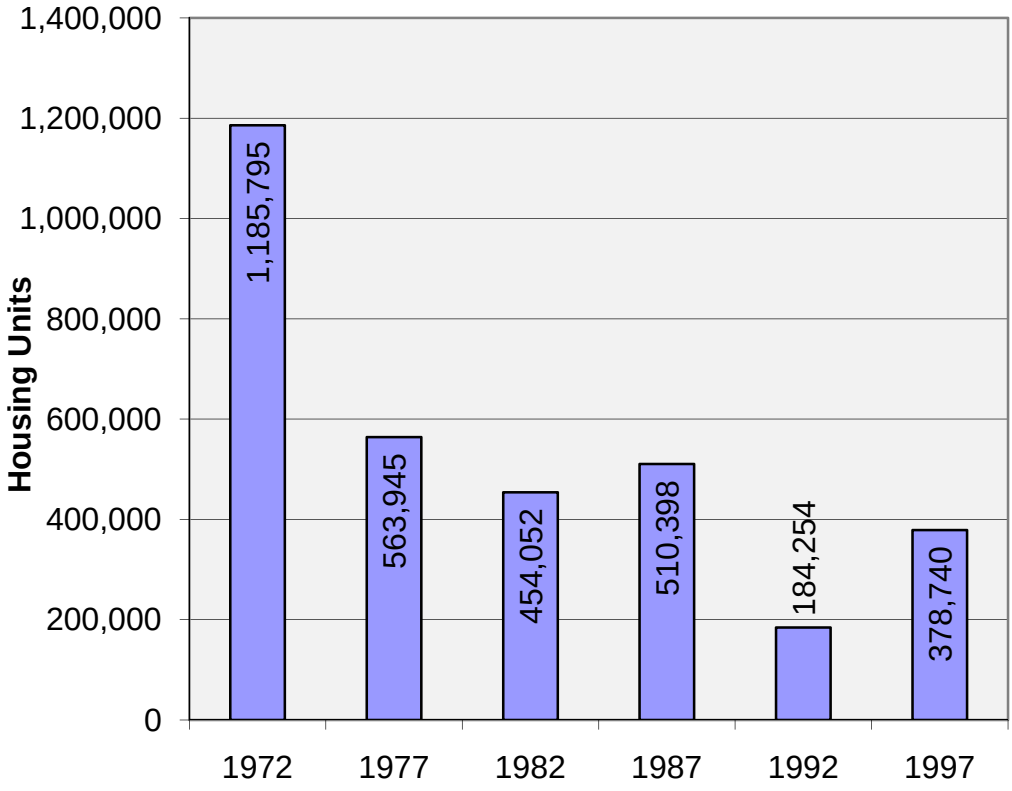
units as a percentage of all housing units decreased over the period studied, from approximately 53% in 1972 to 26% in 1997.

Table 4-1: Production of Multi-Family Units in U.S. 1972, 1977, 1982, 1987, 1992, 1997): Number of Units, Percentage of All Units and Change per 5-Year Period.

	1972	1977	1982	1987	1992	1997	Avg. All Years
Multi-Family Units Built	1,185,795	563,945	454,052	510,398	184,254	378,740	546,197
Percentage of All Housing Units Built	53.4%	33.4%	45.4%	33.3%	16.8%	26.3%	34.8%
Percent Change	—	-52%	-19%	12%	-64%	106%	—

SOURCE: U.S. Census Bureau

Figure 4-2
Multi-Family Housing Production in the US (1972-97)



SOURCE: US Census Bureau

U.S. tax policy post TRA put low-income households at a disadvantage in two ways. First, TRA's net result was to amplify the already inequitable distribution of benefits available from the federal mortgage interest deduction making renting a more economically attractive option. Since the mortgage interest deduction and related benefits are available only to those with incomes high enough to itemize, the National Housing Institute, a not-for-profit housing advocacy group, estimates that in the early 2000s approximately 63% of these deductions went to those in the top one-fifth of the income distribution, and only 18% went to those in the bottom fifth (Pitcoff 2003). The second way in which tax policy disadvantages low-income households is by effectively removing market incentive to build affordable rental units.

Risk of Overpayment: Housing Costs and Low-Income Homeowners

The risk of overpayment for housing is of particular concern for low-income households. Many families often believe ownership to be a sure-fire way to build wealth, and that success will surely be forthcoming if they only work hard enough and endure temporary hardship. This belief is so strong that many are willing to risk everything for a chance to do so.

A Historical Analysis of Housing Overpayment

Two variables determine overpayment: income and costs, and, for housing, costs are a function of price. Shiller (2005) examined national home prices from 1890 to 2004 and found that real housing prices in the U.S. increased 66% between 1890 and 2004, and that most of the gain occurred during two periods: one following WWII and another between 1997 and 2004. For this latter period, real home prices increased 52% and,

while gains were higher in some places than in others, home prices increased much faster than incomes. These findings explain the historical relationship between housing prices, other goods and services, construction costs and interest rates, but reports less on the historical relationship between housing costs and incomes.

To investigate this further, I present an index of home prices and rents and incomes back to 1930 to examine the cost of housing relative to what people earned through the years. Using data from U.S. Census Bureau and Bureau of Labor Statistics, the analysis compares median decennial rents and home values to incomes between 1930 and 2000 in four cities—Boston, San Francisco, Los Angeles and Chicago (see Tables 4-2 and 4-3)—selected for their enduring dominance in the urban hierarchy and similarity in population size.[15] Housing cost is measured as the proportion of a median-priced house that a median income earner could buy at a given point in time; a measure referred to as a household's "income housing quotient."

$$\textbf{INCOME HOUSING QUOTIENT} = \frac{\text{Median Area Annual Income}}{\text{Median House Value}}$$

While price-to-income ratio measures are admittedly imperfect (see Appendix C for details), they serve to sketch an illuminating picture of housing affordability through the period of study. I discuss results in the following section.

[15] Boston and Chicago were also analyzed in Belsky and Duda's 2001 comparative study of asset appreciation and returns to low-income homeownership. Boston, Chicago and Los Angeles were analyzed by Case and Maynchenko's (2003) in their examination of the performance of housing submarkets between 1983-1998. I discuss both studies in detail in the section after next.

Table 4-2: Median Housing Costs versus Income—Boston, San Francisco, Los Angeles and Chicago: 1930-2000 (Current U.S. Dollars)

	Median Area Income	Median Housing Value	Median Contract Rent	Income Housing Quotient	Income Rental Quotient	Decade Change Housing Value	Decade Change Contract Rent
Boston							
1930	N/A	$ 7,449	—	—	—	—	—
1940	N/A	$ 3,954	$388	—	—	53%	—
1950	$ 2,171	$ 10,878	$438	0.20	4.96	275%	113%
1960	$ 6,481	$ 15,900	$756	0.41	8.57	146%	172%
1970	$ 11,449	$ 23,800	$1,272	0.48	9.00	150%	168%
1980	$ 18,649	$ 59,600	$2,676	0.31	6.97	250%	210%
1990	$ 40,089	$ 186,100	$6,972	0.22	5.75	312%	261%
2000	$ 42,091	$ 191,000	$8,976	0.22	4.69	103%	129%
San Francisco							
1930	N/A	$ 6,783	—	—	—	—	—
1940	N/A	$ 4,967	$395	—	—	73%	—
1950	$ 2,470	$ 11,333	$482	0.22	5.12	228%	122%
1960	$ 7,092	$ 16,300	$996	0.44	7.12	144%	207%
1970	$ 10,064	$ 26,900	$1,560	0.37	6.45	165%	157%
1980	$ 20,017	$ 99,000	$3,192	0.20	6.27	368%	205%
1990	$ 40,093	$ 332,400	$7,956	0.12	5.04	336%	249%
2000	$ 57,259	$ 427,938	$10,788	0.13	5.31	129%	136%
Los Angeles							
1930	N/A	$ 6,628	—	—	—	—	—
1940	N/A	$ 3,639	$352	—	—	55%	—
1950	$ 2,171	$ 9,899	$520	0.22	4.18	272%	148%
1960	$ 7,066	$ 15,908	$864	0.44	8.18	161%	166%
1970	$ 9,280	$ 24,300	$1,320	0.38	7.03	153%	153%
1980	$ 17,551	$ 87,400	$2,928	0.20	5.99	360%	222%
1990	$ 34,498	$ 226,400	$6,840	0.15	5.04	259%	234%
2000	$ 35,546	$ 199,011	$7,956	0.18	4.47	88%	116%
Chicago							
1930	N/A	$ 8,228	—	—	—	—	—
1940	N/A	$ 4,167	$431	—	—	51%	—
1950	$ 2,505	$ 11,977	$530	0.21	4.73	287%	123%
1960	$ 7,393	$ 18,600	$960	0.40	7.70	155%	181%
1970	$ 11,931	$ 24,300	$1,284	0.49	9.29	131%	134%
1980	$ 20,726	$ 67,900	$2,868	0.31	7.23	279%	223%
1990	$ 34,555	$ 111,200	$5,052	0.31	6.84	164%	176%
2000	$ 38,213	$ 147,742	$7,644	0.26	5.00	133%	151%

Source: U.S. Census Bureau SF-1; U.S. Census Bureau American Housing Survey; Bureau of Labor Statistics

Table 4-3: Median Housing Costs versus Income—Boston, San Francisco, Los Angeles and Chicago: 1930-2000 (Y2000 U.S. Dollars)

	Median Area Income	Median Housing Value	Median Contract Rent	Income Housing Quotient	Income Rental Quotient	Decade Change Housing Value	Decade Change Contract Rent
Boston							
1930	N/A	$76,810	—	—	—	—	—
1940	N/A	$48,634	$4,776	—	—	63%	—
1950	$15,512	$77,725	$3,132	0.20	4.95	160%	66%
1960	$37,704	$92,500	$4,404	0.41	8.56	119%	141%
1970	$50,812	$105,627	$5,640	0.48	9.01	114%	128%
1980	$38,973	$124,552	$5,592	0.31	6.97	118%	99%
1990	$52,817	$245,187	$9,180	0.22	5.75	197%	164%
2000	$42,091	$191,000	$8,976	0.22	4.69	78%	98%
San Francisco							
1930	N/A	$69,942	—	—	—	—	—
1940	N/A	$61,094	$4,860	—	—	87%	—
1950	$17,649	$80,977	$3,444	0.22	5.12	133%	71%
1960	$41,258	$94,827	$5,796	0.44	7.12	117%	168%
1970	$44,665	$119,385	$6,924	0.37	6.45	126%	119%
1980	$41,832	$206,890	$6,672	0.20	6.27	173%	96%
1990	$52,823	$437,937	$10,488	0.12	5.04	212%	157%
2000	$57,259	$427,938	$10,788	0.13	5.31	98%	103%
Los Angeles							
1930	N/A	$68,340	—	—	—	—	—
1940	N/A	$44,760	$4,332	—	—	65%	—
1950	$15,512	$70,730	$3,720	0.22	4.17	158%	86%
1960	$41,107	$92,546	$5,028	0.44	8.18	131%	135%
1970	$41,186	$107,846	$5,856	0.38	7.03	117%	117%
1980	$36,678	$182,649	$6,120	0.20	5.99	169%	104%
1990	$45,451	$298,282	$9,012	0.15	5.04	163%	147%
2000	$35,546	$199,011	$7,956	0.18	4.47	67%	88%
Chicago							
1930	N/A	$84,842	—				
1940	N/A	$51,254	$5,292			60%	
1950	$17,899	$85,578	$3,792	0.21	4.72	167%	71%
1960	$43,010	$108,207	$5,580	0.40	7.71	126%	147%
1970	$52,951	$107,846	$5,700	0.49	9.29	100%	102%
1980	$43,313	$141,897	$5,988	0.31	7.23	132%	105%
1990	$34,555	$146,506	$6,660	0.24	5.19	103%	111%
2000	$38,213	$147,742	$7,644	0.26	5.00	101%	115%

Source: U.S. Census Bureau SF-1; U.S. Census Bureau American Housing Survey; Bureau of Labor Statistics

This figures above suggests that median home prices increased in all four cities between 1930 and 1950, but not as fast as income. The cost of housing relative to income improved significantly in all four cities through the 1950's and continued to improve through the 60s in Chicago and Boston. But in San Francisco and Los Angeles, the proportion of a median priced home that a median income could buy declined significantly through the 60s. By 1970, the four cities separate into two distinct groups in terms of their income housing quotients: median income equaled approximately 50% the value of a median home in Boston and Chicago, but only 37% in San Francisco and Los Angeles. By 2000, income-housing quotients had a fallen from their respective peaks in the 60s and 70s, and quotients were widely dispersed, ranging between 13% and 26%. In 2000, median-earning households could afford the largest proportion of a median priced home in Chicago and the smallest proportion in San Francisco (see Figure 4-3).

If we look at changes since 1950, when incomes started to rise relative to home values, we see that the ratio between income and home value increased only slightly in two of the four cities—Boston and Chicago—and declined in San Francisco and Los Angeles. In Boston, median income equaled 20% of the median priced home in 1950; by 2000 this improved to 22%. In Chicago median income bought approximately 21% of a median home in 1950, and this improved to 26% by 2000. In Los Angeles in 1950, median income bought 22% of the median priced home; this declined to 17% in 2000. And in San Francisco, median income bought approximately 22% of a median priced home in 1950; by 2000 this declined to approximately 13% (see Table 4-4 and Figure 4-3).

Looking at these results slightly differently, it took approximately 4.5 year's worth of 2000 median income to buy a median priced home in Boston, 7.5 year's income in San Francisco, 5.6 year's income in Los Angeles, and 3.9 year's income in Chicago (see Table 4-4). What is most startling about these figures is that median income earners' home purchasing power in 2000 seems to have regressed to levels approximate to those in 1950.

Figure 4-3
Income Housing Quotient
Boston, San Francisco, Los Angeles and Chicago, 1950 to 2000

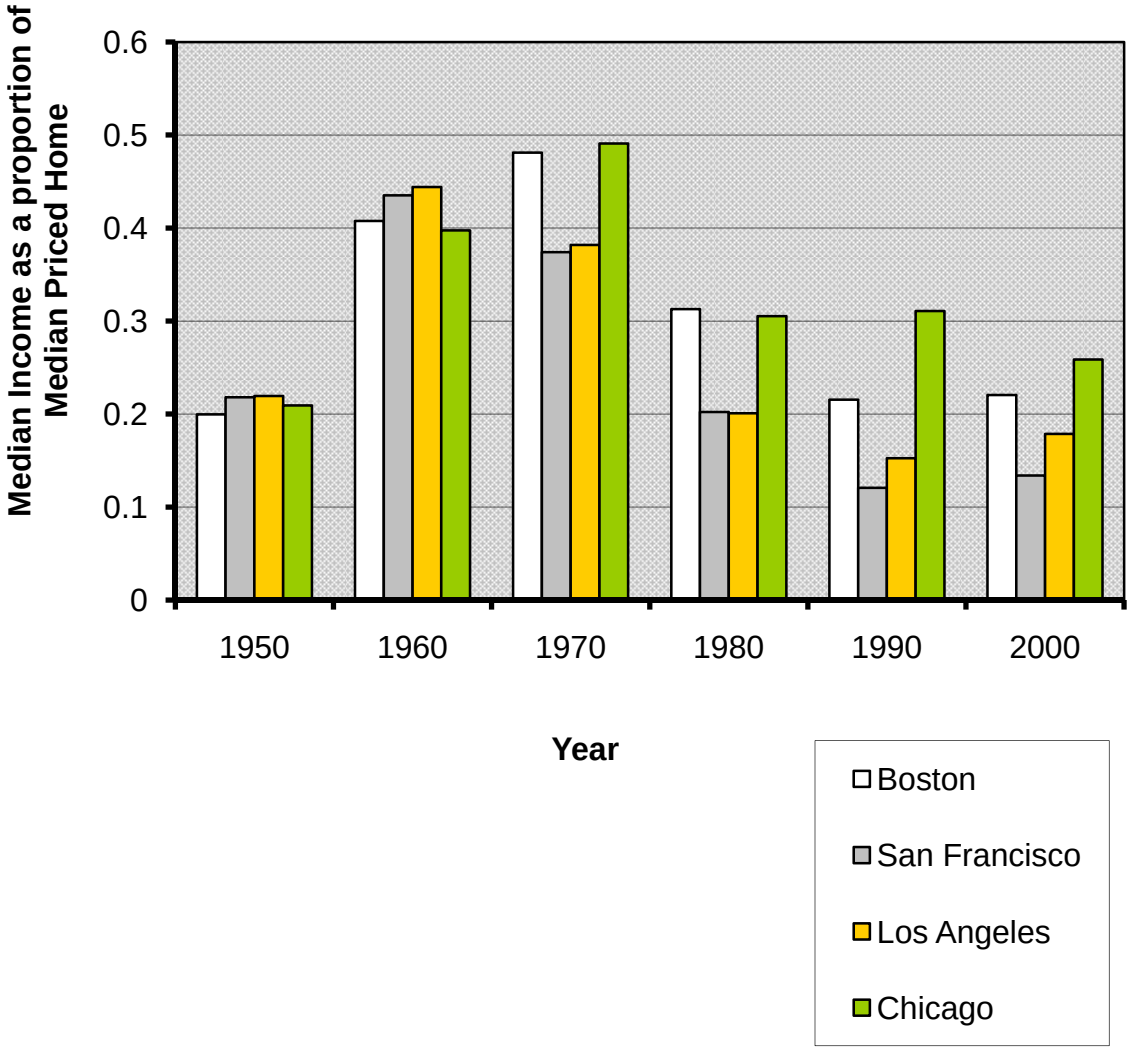


Table 4-4: Per Capita Year's Median Income Required to Purchase Median Valued Home in Boston, San Francisco, Los Angeles and Chicago, 1950, 1970 and 2000.

Metropolitan Area	1950	1970	2000	Change: 1950-2000
Boston	5.0	2.1	4.5	-0.5
San Francisco	4.6	2.7	7.5	2.9
Los Angeles	4.6	2.6	5.6	1.0
Chicago	4.8	2.0	3.9	-0.9

Source: Author's Tabulation of U.S. Census Bureau SF-1; U.S. Census Bureau American Housing Survey

It is impossible to capture a national trend by examining four cities, but these findings as well as those of other studies indicate that nationally the disparity between home prices and income has increased through time, especially through the 1990s and early 2000s. For example, Shiller (2005) found that the median price of a home in the eight states with the most volatile home price increases between 1985 and 2002 increased from 4.9 years' per capita income to 7.7 years' per capita income.

While there is little evidence in support of a national housing market, there appeared to be enough rapidly moving regional markets in the mid 2000s to suggest the semblance of uniformity in the national series (Shiller 2005). In a report released in January 2005, the National Association of Realtors (NAR) reported that a record number of metropolitan areas showed double-digit annual price appreciation in median existing-home prices in the fourth quarter of 2004, and the overall pace of annual price growth accelerated from the third quarter. The national median existing-home price increased 8.8% to $187,500 from $172,400 the year previous. Of the 129 metropolitan areas the NAR covers, 62 showed double-digit increases in median existing home

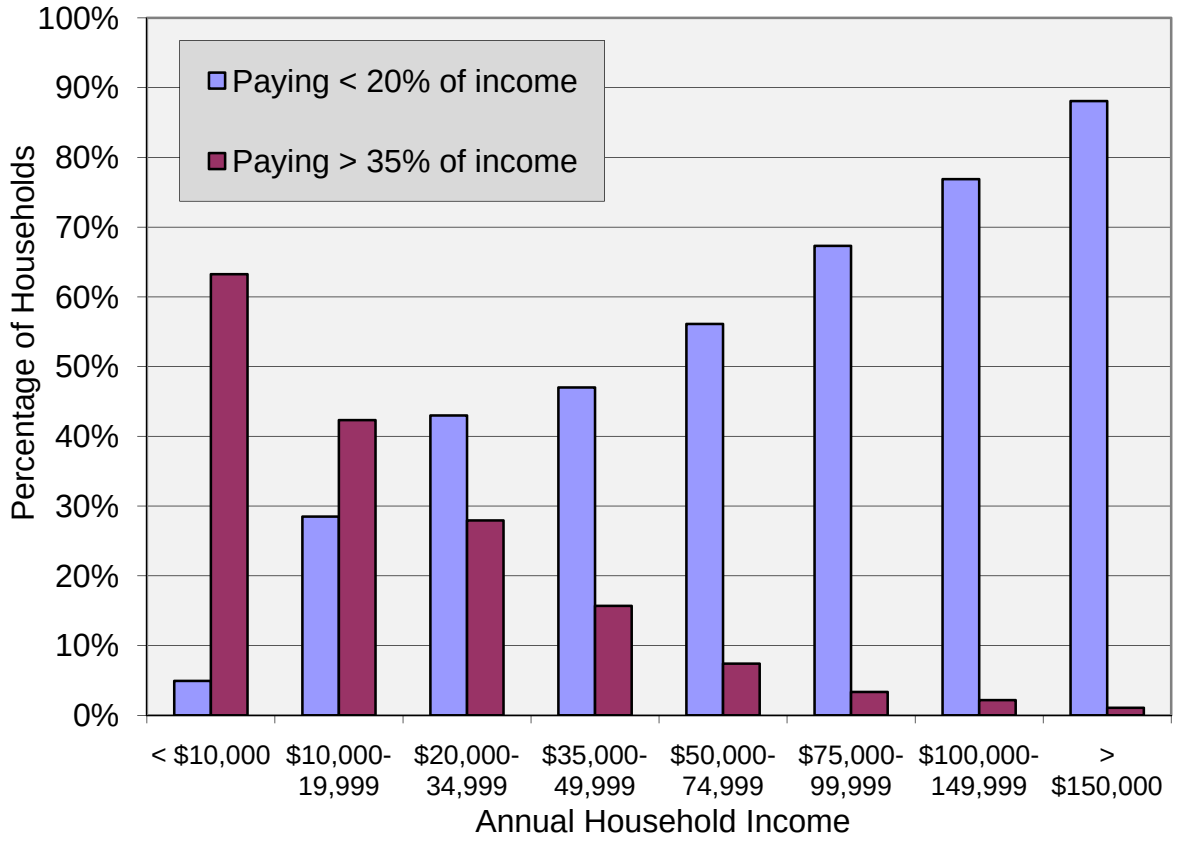
prices and only four posted modest declines. The previous record was in the second quarter of 2004 when 49 metropolitan areas showed double-digit median price appreciation (Molony and Salvant 2005).

The sustained increases in housing prices occurring through the 1990s and early 2000s, the convergence of price performance in local markets, and the erosion of median income home buying power should have raised strong concerns about housing overpayment. The data discussed thus far has included figures for median income households only. In the following section, I turn my attention to housing overpayment in low-income households.

Housing Overpayment Among Low-Income Households

Low-income homeowners pay a significantly larger portion of their income for housing costs than higher income households. Households that earned less than 80% of AMI paid disproportionately more for housing in 2000 than in 1990. Chart 4-4 show the percentages of household by income paying less than 20% of household income or greater than 35% of household income for selected housing costs (including mortgage, taxes, insurance and utilities) in 2000 and 1990. Households with incomes of $34,999 or less, a figure just below 80% of the 2000 national median income of $41,994, paid an average of approximately 44% of their monthly income for housing costs. By contrast, those with incomes above $35,000 paid an average of approximately 26% of their monthly income.

Figure 4-4: Percentage of Households by Income Bracket Paying <20% or >35% of H.H. Income for Housing Costs: U.S. 2000
(Source: US Census Bureau)



Between 1990 and 2000, the percentage of homeowner households paying more than 35% of their income for housing increased across all income groups, but households with incomes of less than $34,999 absorbed the greatest increases (see Tables 4-5 and 4-6, and Figure 4-4). For example, the share of households earning less than $10,000 per year increased 13 percentage points from 50% to 63% while the increase for households earning more than $50,000 per year was less than one percentage point from 3.8% to 4.6%. Larger increases were observed in the $10,000-19,999 and the $20,000-34,999 income brackets, which increased 18 and 14

percentage points respectively between 1990 and 2000. In short, while housing costs as a percentage of income increased for all income groups, households with incomes of less than 80% of national median paid proportionately more for housing in 2000 than in 1990 compared to those with higher incomes.

Table 4-5: Specified Owner-Occupied Housing Units and Selected Housing Costs by Income: U.S. 1990

	Annual Household Income				
	< $10,000	**$10,000-19,999**	**$20,000-34,999**	**$35,000-49,999**	**> $50,000**
Housing Units	4,120,388	5,972,698	10,132,103	9,505,388	15,819,482
Percentage of Total	9.0%	13.1%	22.2%	20.9%	34.7%
Paying < 20% of H.H. Income	14.4%	23.9%	13.6%	7.1%	3.8%
Paying > 35% of H.H. Income	50.3%	47.0%	54.3%	59.3%	71.5%

Source: Author's tabulation of U.S. Census Data STF3, 1990

More troubling, the proportion of households living in very affordable owner-occupied housing—i.e. those paying less than 20% of their income for housing costs—decreased across all income groups between 1990 and 2000. The decrease was especially sharp for lower-income households. For example, approximately 14% of households with incomes of less than $10,000 paid less than 20% of their income for housing costs in 1990: By 2000, this fell to less than 5%. Similarly, the percentage of households with incomes of $10,000-19,999 paying less than 20% for housing costs decreased 19 percentage points from 47% in 1990 to less than 29% by 2000. For households with incomes between $20,000-34,999, the percentage fell over eleven

points from 54% to 43%. Much less dramatic were decreases in the higher household income brackets (see Table 4-6).

Table 4-6: Percent of Owner-Occupied Households Paying <20% or >35% of Income for Selected Housing Costs by Income Group: U.S. 1990-2000 (2000 dollars)

Annual Household Income	Percent of Households Paying <20% of Income for Housing			Percent of Households Paying >35% of Income for Housing		
	1990	2000	Change	1990	2000	Change
<10,000	14.4	4.9	**-9.5**	50.3	63.2	**12.9**
$10,000-19,999	47.0	28.5	**-18.5**	23.9	42.3	**18.4**
$20,000-34,999	54.3	43.0	**-11.3**	13.6	27.9	**14.4**
$35,000-49,999	59.3	47.0	**-12.3**	7.1	15.7	**8.6**
>$50,000	71.5	67.0	**-4.5**	3.8	4.6	**0.8**

Source: U.S. Census STF3, 1990 and 2000

Maintenance Costs and the Low-Income Homeowner

The costs of maintaining a home are not included in the percentage of income figures and calculations discussed in the previous sections and are absent from the studies on the benefits of homeownership discussed earlier in this chapter. Maintenance is an important aspect of protecting a home's value, but costs can be substantial. Data from the U.S. Census 2000 indicate that poorer households paid a significantly larger share of their income for maintenance costs: Households with incomes of less than $20,000 annually paid a little more than one percent of their income on maintenance, while households earning $100,000 or more paid less than .07%.

According to the U.S. Census Bureau, home maintenance consists of "regular activities for the prevention and care of the structure itself, the property it sits on, and any fixed equipment" (U.S. Census Bureau 1994). These activities include painting, floor

repair/replacement, repairing fences, roofs and plumbing, replacing furnace filters or broken windows, and HVAC repairs/replacement. The Census Bureau does not include landscaping and gardening costs and tasks that involve homeowner labor (or sweat equity) or used materials already on premises in their estimates.

Estimates on what it costs to maintain a home vary, but several studies offer insightful data. One study conducted by Robert Sheehan (2000) for the *Wall Street Journal* found that annual home maintenance costs averaged 4% of original purchase price over a 30-year life of the mortgage, and thus exceeded the home's original purchase price through the period of debt (Fletcher 2000). More conservative estimates placed home maintenance at one to two percent of a home's value per year (Clements 2002).

In 1991, just over six in ten homeowners spent a median of $315 on home maintenance (U.S. Census Bureau 1994). More recent data from the American Housing Survey suggest that by 1999 and 2001 the median amount people spent on home maintenance declined slightly, but the 1991 data proves useful in this discussion because it breaks costs down by household income. The findings suggest that the median amount a household spends on maintenance generally increases with income: disproportionately more high-income (those with an income of $100,000 or more) spent $1000/year or more on maintenance compared to lower-income households. But, while lower-income households (those with an income of $20,000 or less) comprised 20% of all households that paid for home maintenance, they represented 13% of all households that spent $1,000/year or more on maintenance. Also, from figures provided in Table 4-7, lower-income homeowners paid a disproportionately greater share of their income

and house value for home maintenance than did higher income homeowners. Households with incomes less than $20,000 pay a little more than one percent of their income on maintenance while households earning $100,000 or more pay less than .07%.

Table 4-7: Percent of Owner-Occupied Households Paying for Home Maintenance and Median Amount Paid (1991 dollars) by Income: U.S. 1991

Household Income	Percent Paying for Maintenance (1991)	Median Amount Spent
Less than $20,000	48%	$227
$20,000-$39,999	60%	$245
$40,000-$59,999	68%	$338
$60,000-$79,999	71%	$405
$80,000-$99,999	71%	$495
$100,000 or more	68%	$683

Source: U.S. Census Bureau Statistical Brief SB/94-7

Surprisingly, the age of a home does not appear to be a factor in inducing higher maintenance costs. Older homes—those most likely to be owned by lower-income households—were less likely to have maintenance performed than those built in the 1970s and 1980s. Rather, the size of home and the age of household factored more strongly in whether or not and how much a household spent on maintenance. Also elderly and single-person households were less likely to spend money on maintenance than other types of households. Structure type also proved a strong determinant: a disproportionate percentage of households living in manufactured homes were less likely to pay for home maintenance. Long-term owners (those who lived in the same home in 1985, 1987, 1989 and 1991) were consistent spenders: only 8% of this group paid nothing for maintenance each of those years compared to 39% of all homeowners.

Returns on Investment: Home Equity and the Low-Income Homeowner

One of the most commonly discussed benefits of homeownership is its potential to build equity, and therefore wealth for the homeowner. It is a hard held belief and an oft-repeated reason why the federal government stands so staunchly behind its efforts to expand homeownership for the poor. Indeed, in a report issued in 2002 on the economic benefits of increasing minority (and therefore low-income) homeownership, HUD stated “buyers stand to benefit by building equity through house appreciation and paying off their mortgage principal” (HUD 2002). And in discussing the “Blueprint for the American Dream,” President Bush’s initiative to expand minority homeownership, HUD secretary Mel Martinez cited home equity as a principal economic benefit in the goal to help “minority families reap the economic benefits of homeownership” (Martinez 2003). But for many, especially the poor, homeownership fails to produce the expected returns on investment, and does not match those of other long-term investment vehicles such as stocks and bonds.

This may seem counter-intuitive: homeownership is generally thought of as an infallible and strong investment opportunity, a no-lose proposition especially over the long haul. Certainly, that thinking influenced much of the government and homebuilding industry’s arguments in favor of subsidizing homeownership. The commonly held belief that homeownership builds wealth is probably why we believed it is so important to put low-income families on the path to homeownership: *homeownership first and foremost builds equity, so if we can just get them on the first rung of the ladder, they will make it the rest of the way*.

Why are these beliefs so ingrained in our thinking? Part of the reason has to be the anecdotes we have all heard about houses bought for a few thousand dollars years ago and sold for substantially more years later. Quite often, I believe, we forget to do the math. For example, a home purchased in Boston in 1950 for $11,000 (a figure slightly above median at the time) and sold for the median $190,000 in 2004 has every appearance of a good investment—after all, its value increased better than seventeen times. But taking into account inflation (CPI index) through the period, the real value of that house increased approximately 145% over 54 years, an average increase of less than 6.5% per year. This is not an unusual figure. In the four cities for which I constructed my housing price/income index, housing values appreciated an average only 1.8% per year (in real dollars) for the period between 1930 and 2000. Inflation during that same period averaged approximately 4.5% per year.

Checking these findings against other studies, I find no evidence to suggest that homeownership offers exceedingly greater financial gains over the long run, i.e. financial gains better than other available investment vehicles. For example, Shiller (2005) found that, while real home prices for the United States as a whole were 66% higher in 2004 than in 1890, all the increase occurred in two brief periods: right after World War II and the period from 1998 to 2004, which he points out seems to reflect a lagged response to the 1990s stock market boom. Except for these two brief periods, real home prices overall have been mostly flat or declining. Moreover, the overall price increase averages out to an unimpressive 0.6% per year (with real prices up 66% in 114 years from 1890 to 2004).

Admittedly, this is considerably less than the 1.8% increases suggested by my four-city analysis, but there are reasons why we might expect these results. First, we should expect metropolitan markets (especially those in our largest and "hottest" cities) to outperform the national data, which includes less volatile rural markets. Second, we must consider differences in reporting between the price data used by Shiller and the owners' estimated home value data that I used in my analysis. Shiller (2005) found using decennial owner-estimated home values that the median reported value of homes in real inflations-corrected terms increased by 2% per year from 1940 to 2000. And, third, as Shiller points out, decennial census data do not account for the increases in size or improvements in quality of housing through the study period.

Another study suggests that homeownership has historically not been a particularly lucrative investment vehicle. The Joint Center for Housing Studies at Harvard University found that capital appreciation of housing from 1980 to 1999 was substantially less than the return to U.S. stocks, bond and mortgage-backed securities over the same period (Goetzmann and Spiegel 2001). Basing their analysis on quarterly housing price indices from the Office of Housing Enterprise Oversight (OFHEO) (an independent agency within the Department of Housing and Urban Development), Goeztmann and Spiegel found that homeowners could have earned more by investing in Long-Term U.S. Treasury Bonds. Treasury Bonds are one of the safest and most conservative long-term investment vehicle available: these increased 6.4% in real terms over the same period. For a home maintained at the same quality level as other homes in its neighborhood, OFHEO neighborhood-level price indexes typically explain 80% to 90% of the change in any one home's value. Comparing OFHEO home values to other

forms of investments, they found that the nominal value of a single-family home in the U.S. increased by 138% over the period 1980 to March 2000, an annualized rate of 4.2% over the past 21 years. Compared to the Consumer Price Index, which increased at a 3.7% annual rate over the same period, housing represents a relatively modest form of asset growth. But, looking at real housing investment returns (i.e. adjusted for inflation which was 4.0% for the same period) for 12 of the largest U.S. cities, returns ranged from –1.9% to 3.3%. Many homeowners experienced negative equity and "nearly all markets displayed negative risk-adjusted returns over the period" (p. 9).

Perhaps more troubling is that when comparing differences between housing investments in 12 of the largest U.S. metropolitan areas and returns on investment in mortgage-backed securities, Goeztmann and Spiegel (2001) found that "on average the cost of money to purchase a home far exceeds the growth in that same home's value"(p. 8): the nominal after-tax mortgage income return exceeded home price appreciation in 9 of the 12 cities.

Additionally, while price indexes provide some idea of the growth in housing values, they overstate the relative return a family can expect from their house because they do not include costs unique to housing such as maintenance and property taxes. Taxes vary by location, but annual maintenance costs average between one and two percent of a home's value each year, which can easily wipe out the slight gains that returns on homeownership offers over inflation (Clements 2002). In addition, there are the statutory and third party costs, lender and finance charges, and other up-front costs associated with buying or selling a home. The National Association of Realtors

estimates these to be between $3,335 and $8,660 on a $50,000 mortgage and between $6,800 and $16,975 on a $150,000 mortgage, not including downpayment (NAR 2005).

Together these studies provide a reasonably clear picture of aggregate home price performance over the long run. The problem is that housing market performance varies by location. While the national data suggest flat or declining home prices over the last seventy-years or so, the fact is that home prices have increased much faster in some places than in others. For example, in the four cities I studied, home appreciation varied not just by city but also by decade. Through the seven decades analyzed, median home values increased at an average annual rate of 2.62% in San Francisco but by less than 1.0% in Chicago during the same period, while average annual appreciation in Boston and Los Angeles fell somewhere in between (see Table 4-8)

Table 4-8: Average Annual Median Home Value Increases (Inflation-Corrected) in Boston, San Francisco, Los Angeles and Chicago, 1930 to 2000.

Metropolitan Area	1930	2000	% Change	Annual Rate (%)
Boston	$ 78,810	$191,000	149%	1.28%
San Francisco	$ 69,942	$427,938	512%	2.62%
Los Angeles	$ 68,344	$199,011	191%	2.54%
Chicago	$ 84,842	$147,742	231%	0.79%

Source: Author's Tabulation of U.S. Census Bureau SF-1; U.S. Census Bureau American Housing Survey

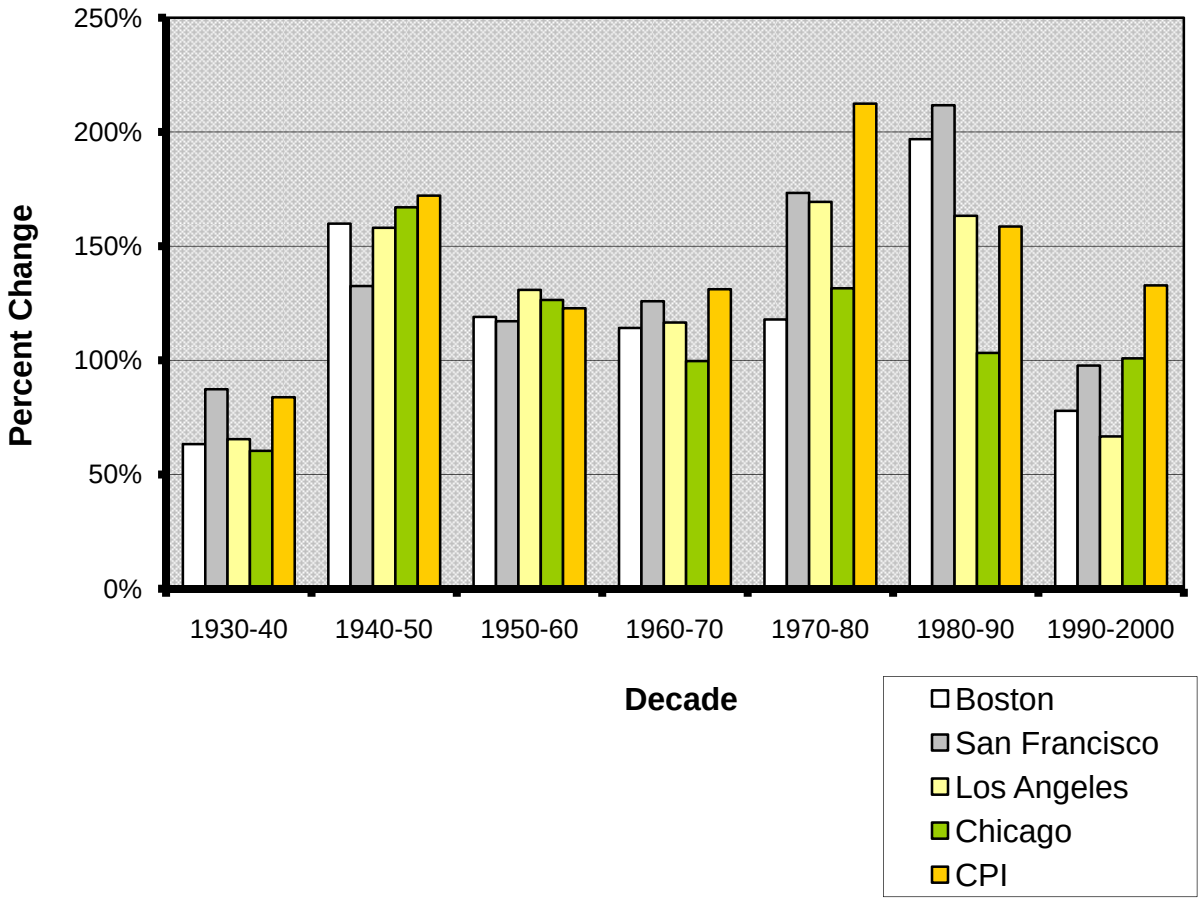
The way in which home values varied through time in these cities suggests that both the timing of sale and the location of the property affect the profitability of residential real estate. For example, there exists an overall trend: home values increased up until the 1950s, declined through the 50s and 60s, and increased again through the 1970s and 80s only to fall again through the 90s. This varied slightly by location, but housing values in these four cities started outpacing inflation beginning in

1940, making owning a median-valued home during that decade a reasonable investment in all four cities. This was especially true in San Francisco, where housing values increased at a rate slightly better than inflation between 1940 and 1950.

By 1960, however, housing price appreciation converged with the Consumer Price Index and housing prices barely outpaced inflation for the decade previous. Through the 60s, housing increased steadily in Boston (150%), San Francisco (165%) and LA (153%), while home values in Chicago's lagged behind, increasing at a pace equal to inflation at approximately 131%. Housing values saw marked appreciation beginning in the 1970s: median house value rose in all four cities, especially in San Francisco and LA, whose median housing values increased 350% or better for the decade compared to inflation at 212%.

The trend of housing prices outpacing inflation continued through the following three decades to 2000, and remained more pronounced in San Francisco and Boston than in Los Angeles and Chicago. Median house prices increased 312% in Boston, 336% in San Francisco and 259% in LA between 1980 and 1990. Home values increased only slightly better than inflation in Chicago for the same period (see Figure 4-5).

Figure 4-5
Change in Percent Increases in Median House Value (Inflation-Corrected) Compared with Percent Increases in CPI by Decade
Boston, San Francisco, Los Angeles and Chicago, 1930 to 2000.
(Source: US Census Bureau)



Another problem with long- term investment analyses such as this is that Americans do not stay in their homes for very long. We change location for schools, jobs or family; we move up in value; and we are generally a mobile society. An argument can be made that long-term returns in home value matter less under these circumstances.

In the late 1990s, on average approximately 16% of Americans moved every year (Klien 1998). This varied by age with younger people moving at about twice the national average and with the elderly moving much less than the average (Reynolds 2004). Variation also happened across racial lines: Hispanics moved the most, but whites moved the farthest, with blacks and Asians and Pacific Islanders somewhere in the middle (Klien 1998). Renters moved more often than owners and length of tenure peaks for middle-income households, especially for those in the best neighborhoods. Tenure duration was shorter for those in higher income brackets because the rich can afford to move up into more expensive housing and better neighborhoods. For the poor, relocation is more complicated. Some low-income households never establish a stable home while others stay in subsidized housing for extended periods. At all age levels and tenures, it is those in the lower-income brackets that move most often (Long 1990).

This being the case, we might get a clearer and more realistic picture of home returns by looking at home appreciation over a shorter run of time. Previous short-term analyses compare the housing market returns to stock market returns over a given period of time (10 to 15 years) usually using a nationally recognized indicator such as

the Standard and Poors (S&P) 500 index.[16] But this period may still be too long in terms of representing realistic returns on housing given the frequency that Americans move.

For example, the National Association of Realtors examined asset growth in sliding six-year increments (approximating the frequency that American households move) between 1988 and 2003, and found returns on residential real estate investment beat those from the S&P index in better than half (six of eleven) of the 6-year periods since 1988. But this study did not consider transaction costs of buying and selling. Calculating in a very conservative figure to cover home transaction costs[17] using the same data in the National Association of Realtors' study, housing returns bettered the S&P index in only three of eleven 6-year periods from 1988 to 2003. And all of the periods in which housing returns bettered those of the S&P index included years immediately following the stock market crash of 2000—years in which housing values saw unprecedented (and unrealistically maintainable) growth (see Table 4-9).

[16] Many of these studies have been conducted by or in association with the National Association of Realtors or National Home Builders Association, and have, predictably, reported positive results for homeownership. One study, by David Lereah, senior vice president and chief economist at the National Association of Realtors, suggests, “Housing builds more wealth than stocks.” In his book, *Are You Missing the Real Estate Boom?,* he compares an investment of $50,000 in the stock market versus real estate between the years 1988 and 2003. The $50,000 was calculated as a 20% downpayment on a $250,000 home. For the sixteen-year period, home price appreciation averages 4.4% per year, generating an average *leveraged* annual return rate of 22%, compared to an annual return of 14% on the Standard and Poors (S&P) 500 index (Lereah 2005).

[17] Home Closing and Transactions Costs Calculation:
Loan application fees and credit report = $75 to $300; Loan origination fee (1%) = $500; Points (1 to 3%) = $500 to $1,500; Title search and insurance fees = $450 to $600; Lender's attorney = $150 to $400; Appraisal = $150 to $400; Homeowner's insurance = $300 to $600; PMI = $350 to $675; Inspections = $175 to $300; Survey = $125 to $400; Recording fees = $40 to $60; Transfer taxes = $75 to $1,125; Buyer's attorney = $400 to $700; Escrow deposit for taxes = $100 to $800; Partial month's interest = $20 to $400; Totals = $3,335 to $8,660. Lower figure ($3,335) used in calculations.

Table 4-9: Homeownership Returns versus Standard and Poor's 500 in 6-year Periods of Investment, 1988 to 2003 (Assuming $50,000 as 20% Downpayment on a $250,000 Home)

Sliding 6-year Investment Periods	$50,000 Invested in Mortgage (i.e. leveraged on $250,000 home)			$50,000 Invested in S&P Indexed Stocks		Difference in Avg. Annual Returns (S&P minus Real Estate) in each 6-yr. period
	Avg. Annual Percent Return on Investment	Gross Capital Gains	Net Capital Gains (after closing costs*)	Avg. Annual Percent Return on Investment	Net Capital Gains	
1988-1993	15.42%	$ 7,708	$ 4,373	15.57%	$ 7,783	$ 3,410
1989-1994	15.33%	$ 7,667	$ 4,332	13.02%	$ 6,508	$ 2,177
1990-1995	17.42%	$ 8,708	$ 5,373	14.00%	$ 7,000	$ 1,627
1991-1996	19.50%	$ 9,750	$ 6,415	18.35%	$ 9,175	$ 2,760
1992-1997	19.25%	$ 9,625	$ 6,290	18.83%	$ 9,417	$ 3,127
1993-1998	21.25%	$ 10,625	$ 7,290	22.33%	$ 11,167	$ 3,877
1994-1999	22.00%	$ 11,000	$ 7,665	24.15%	$ 12,075	$ 4,410
1995-2000	22.00%	$ 11,000	$ 7,665	22.42%	$ 11,208	$ 3,543
1996-2001	24.58%	$ 12,292	$ 8,957	14.17%	$ 7,083	$ -1,873
1997-2002	26.50%	$ 13,250	$ 9,915	6.65%	$ 3,325	$ -6,590
1998-2003	28.58%	$ 14,292	$ 10,957	5.87%	$ 2,933	$ -8,023

Source: National Association of Realtors, Standard and Poor's in Lereah 2005.
* Closing costs calculated at $3,335 (or 1.3% of home's value)
Source: http://www.homefair.com

Another problem with long-term investment analyses is that they use aggregated national data. But as we have seen with the comparison of long-term home values for Boston, San Francisco, Los Angeles and Chicago, place matters. Loss of equity can be harmful for any homeowner, but it can be disastrous for low-income households who hold a proportionately greater share of their wealth in their home than wealthier households (Wolff 1996) (Di 2001) (Author's analysis of *Survey of Consumer Finances* data).

In the early 2000s, two studies looked at the returns to investment (equity) for low-income homeowners. In the first, Case and Maynchenko (2001) examined the performance of housing submarkets in Boston, Chicago and Los Angeles between 1983-1998. They found a complex pattern of house price changes from which generalization is difficult to ascertain: optimum location and timing of purchase and re-sale varied greatly between metropolitan areas, providing good returns in periods of economic expansion and losses and/or negative equity in two of the three cities during periods of economic decline.

In the other study, Belsky and Duda (2001) paired home purchases and sales between 1982 and 1999 in Boston, Chicago, Denver and Philadelphia and found that homeowners frequently sell homes for less than what they paid for them in nominal terms, and that it was notable that large shares of homeowners resell after experiencing real house price appreciation insufficient to cover even transaction costs.

Finally, low-income households unable to meet their financial responsibilities face loan default and foreclosure, both of which increased steadily through the 90s. Defaults on loans in 2000 amounted to approximately one million households losing their homes to foreclosure during the height of an unprecedented economic expansion. As the economy softened, those numbers worsened to a point that delinquencies and foreclosures on all loans reached a then all-time high of 1.23% in the second quarter of 2002, a 35% increase from the year previous (Fleishman 2002). Foreclosures on FHA-backed loans to low-income households increased the fastest to a rate of nearly 3%, with an additional 12% who were behind in their payments in the second quarter of 2002 (Pitcoff 2003). One very troubling factor about these increases in low-income

mortgage foreclosures is that they occurred while the housing market remained exceedingly strong. Typically, foreclosures fall when home prices increase because houses can be sold quickly to pay debts and avert default.

Possibly more troubling about the increases in low-income foreclosures was that they appear to have occurred without favoritism in both the manufactured and traditional home markets. For example, easy available qualifying terms and broad access to credit contributed to a deluge of unstable manufactured home sales in 2000, and well over 75,000 manufactured homes were repossessed, approximately 30% of all units delivered that year (EAB 2005). In 2004, the industry repossessed approximately 100,000 units because so many customers could not meet their payments under arranged financing agreements (Hagerty 2004). Successively, these defaults adversely affected the manufactured home market: as the repossessed units flooded the market, some marked down to less than 20% of their original price, resale values for existing manufactured homes plummeted, and shipments of new houses fell to the lowest level in 41-years.

Sustained high incidence of foreclosures among low-income manufactured homeowners should serve to question conventional thinking about the viability of these units for low-income buyers. While it is clear that manufactured homes do not appreciate as fast or hold their value as well as site-built units (see Chapter 2), conventional thinking suggests that such shortcomings should be overlooked because manufactured homes are often more affordable. And, while not considered a lucrative investment, manufactured homes are often viewed as a reasonably secure starter homes or an acceptable first rung on the homeownership ladder. The high incidence of

foreclosures among manufactured homeowners and the fact that these units account for such a substantial proportion of the increase in low-income homeowner population that occurred through the 1990s, should challenge such thinking. It would prudent to consider what long term outcomes may be ahead for low-income manufactured homeowners under the existing and emerging market conditions observed in the late 1990s, and how those outcomes fulfilled or hindered housing policy objectives.

Homeownership and Low-Income Household Debt

For most American families, the investment in their home will be the largest they will ever make. Between 1989 and 2001, borrowing to purchase a primary residence (including improvements) as a percentage of total family debt has increased from 66% to 73% (author's analysis of the Federal Reserve Survey of Consumer Finance 1989-2001). But mortgage borrowing is not the only form of debt associated with homeownership. Homeownership provides access to a wide-variety of home equity credit options, which, while seductive, may prove disastrous for financially strapped lower-income families. And since the 1986 Tax Reform Act phased out the deductibility of interest payments on most debt other than that secured by a primary residence, a household's incentive to use home-secured borrowing increased. Admittedly, declining interest rates since 1998 may have also provided many families with further incentive to borrow against their homes and/or refinance existing mortgages for more than existing the existing balance (Aizcorbe, Kennickell et al. 2003).

Whatever the causes, data from the Federal Reserve's Survey of Consumer Finances suggest that among families with any type of home-secured debt (including a second mortgage, home equity line of credit, or home equity loan), the proportion of

those who used such borrowing for a purpose other than simply financing their home increased 10 percentage points between 1995 and 2001. The figure was 32.1% in 2001 compared to 22.2% in 1995 (Aizcorbe, Kennickell et al. 2003).

These findings are especially troubling given the higher proportion of wealth that lower-income households carry in their homes. For example in 1992, owner-occupied housing for all U.S. households represented 28.7% of gross household wealth (assets). But households in the bottom wealth class—i.e. those with net worth less than $180,700 (1992 dollars)—held 62.8% of their net worth in their homes. The top one percent of wealthiest households (i.e. those with net worth greater than $2,420,000 in 1992 dollars) held less than 8% of their net worth in their homes and the next 19% wealthiest households (i.e. with net worth between $180,700 and $2,420,000 in 1992 dollars) held less than 31% of their wealth in their homes (Wolff 1996). While about two-thirds of American households owned their homes in 1998, less than half owned stocks and approximately 60% of households that owned both stocks and homes still held more value in home equity than in stocks. In 1998 a majority of homeowners held more of their wealth in housing than in stocks, except for those with incomes higher than $100,000.

Data from the 1989 Federal Reserve Bank's Survey of Consumer Finance show that families earning at or below the 20th percentile of the national income range held approximately 32% of all non-financial holdings in their primary residence, while families at the 80th percentile and above held approximately 15%. These data also suggest that by 2001 families in both income brackets divested the percentage of asset holdings in their homes slightly. Households in the 20th percentile of earners divested the

percentage of asset holding in their homes to 26%, and those in the 80th percentile to 14%. But low-income families still hold a disproportionate share of their wealth in their homes (Federal Reserve Bank 2003). Ultimately, this places low-income homeowners in a very vulnerable position relative to wealthier homeowners, and promotes home value to a position of utmost importance and concern in the homeownership debate.

Chapter Summary

In the next chapter (5), I turn my attention to the consumers of housing and present a methodology for an empirical study of housing outcomes for low-income black households through the 1990s in five metropolitan areas: New York, Los Angeles, Detroit, Philadelphia and Washington DC. The purpose of this analysis is to investigate housing opportunities the market has or has not provided low-income black homeowners and renters. In short, to answer the question: have demand subsidies provided low-income minority homeowners with demonstratively better housing opportunity than their renting counterparts. The results of the analysis are presented in Chapter 6.

CHAPTER 5

LOW-INCOME HOUSING OPPORTUNITY IN FIVE LARGE METROPOLITAN AREAS: STUDY METHODOLOGY

Introduction:

When it comes to putting low-income households into homes, it would seem that policy makers hoped to accomplish two things by subsidizing homeownership. The first was to expand low-income participation in the housing market by subsidizing a household's ability to qualify for a mortgage. Homeownership has long exemplified middle-class success, and it was hoped that giving low-income families a foothold in the housing market would lead them to the promised land of middle class economic security. Second, policy makers argued that increasing demand would encourage the housing market to produce more affordably-priced housing, a response that was necessary for demand programs to be successful. Barton (1996) identifies the response accordingly:

> Improvements in the overall quality of the [private] housing supply in the United States over the previous forty years made it plausible to argue that the housing problems of the poor were primarily problems of affordability and of constraints that prevented the market from responding to higher rents by producing more units.

In other words, federal housing policy was predicated, for all practical purposes, on the market meeting demand through expanded production of units that would be affordable to low-income families, and/or though more efficient filtering of existing units in the housing market.

In theory, these goals approach the affordable housing problem on two fronts—the first lowers the bar of entry for low-income buyers, thus increasing demand. The

second encourages greater housing production (presumably at the top-end of the price market), which should lower prices of older housing stock and thus enhance filtering. Together, the net expected result would be expanded market choice at a lower market equilibrium price, thus making housing more affordable to low-income households. [18]

It appears, however, that subsidizing low-income credit and financing options for homeownership did not spur any significant increases in the production of affordably-priced units or necessarily result in enhanced filtering. As discussed in Chapter 2, in the late 1990s and early 2000s (at the height of the 1990s housing boom), a time when the lending industry saw its lowest interest rates in 40-years and the broadest market participation in its history, production of units priced affordably to low- and even median-income earners decreased, and housing prices increased faster during this period than at any other time in recent history. By affordable, I mean housing units that cost low-income households (those earning no more than 80% of AMI) no more than 30% of total household income.

There is evidence, however, that subsidizing low-income credit and financing options positively affected low-income participation in the housing market. Through the same period, and indeed through much of the 90s, home purchases by low-income and minority households increased, especially among first-time buyers. This leads one to wonder about the kinds of housing low-income and minority buyers bought through the 1990s—e.g. how much did it cost and where is it located?

[18] It should also be noted, as Barton (1996) points out, subsidized new construction (i.e. supply) clearly costs more than simply providing housing allowances (i.e. demand subsidies) (see also Bradbury and Downs, 1981; Dolbeare 1983, 30; Downs 1991)

To investigate this question, I draw on 1990 and 2000 U.S. Census Bureau Public Use Microdata Survey data to conduct a detailed analysis of how housing outcomes varied by tenure for low-income black households in five large U.S. metropolitan areas (Chicago, Detroit, New York, Philadelphia and Washington DC) with respect to three indicator variables:

1. Housing affordability by comparing the proportion of low-income black homeowners versus renters who spend greater than 30% of their income for housing costs.
2. Access to elementary schools with low pupil/teacher ratios (P/T-ratios) by measuring the proportion of low-income black homeowners versus renters that reside in PUMAs with schools that have lower P/T-ratios (i.e. better) than the metro-wide average P/T-ratio.
3. Proximity to workplace by comparing average employment commutes (travel time to work measured in minutes) of low-income black homeowners versus renters, and comparing those to metro-wide average work commutes.

These variables encapsulate the most potent wealth creation benefits inherent to homeownership. Collectively they constitute a more comprehensive measure of low-income housing outcomes than housing cost alone, something I am calling "low-income housing opportunity."[19] In my analysis, I compare housing outcomes by tenure with

[19] Other researchers and organizations have used the term "housing opportunity" to convey the importance of considering factors beyond price to gauge successful homeownership. For example, the National Association of Realtors' (NAR) Housing Opportunity Program initiative is structured around the finding that "the lack of available and affordable housing is reflected in several ways including access to employment, education, a good environment and safe neighborhoods" NAR, N. A. o. R. (2005). Housing Opportunity Program.

respect to these three variables to determine where low-income black homeowners maximize their housing opportunity versus low-income black renters.

Because housing is a heterogeneous good in the sense that each unit offers a unique set of features or bundle of services, all buyers must consider a number of factors when purchasing a home. In an effort to satisfy individual needs, buyers shop for the best combination of housing features and services given their budgets and preferences including size, amenities and location (Heikkila 2000). Whether renting or owning, these three components must be recognized as contributing positively to a household's financial well being.

While housing costs are a primary consideration for all low-income households, homeownership can offer numerous other financial and social benefits, many of which are tied to location (McCarthy, Van Zandt et al. 2001) (Rohe, Van Zandt et al. 2000) (Rossi and Weber 1996). Two of the most important are proximity to a "good" school and one's workplace. Living closer to higher quality schools means better educational opportunities for children. Proximity to better schools is also recognized to be important to households who do not have school-aged children because that factor strongly affects a home's resale value (NAHB 2005) (Bogart and Cromwell 1997) (Crone 1998). Proximity to work is probably less important than proximity to schools—most families are probably willing to accept a longer commute if it means that their children will attend better schools (or they believe that by being located in a higher quality school district their home will hold or appreciate in value). Most credible guides on home buying rank these variables—price, access to schools, and proximity to work—in that order of importance in the home buying process (NAHB 2005) (HUD 2005) (NAR 2002).

These three factors consistently resonated with respondents of an extensive national public opinion survey conducted by the Fannie Mae Foundation in 2003. The survey included focus groups and individual interviews among representatives from the fields of public policy and housing, experts in public policy campaigns, and opinion leaders. Researchers also conducted 22 focus groups and more than 2,800 phone interviews with business and community leaders, journalists, policy makers, and individuals active in civic affairs (Stewart 2004). The research found several issues that were of great concern with respect to affordable housing costs: a) whether families were unfairly strained financially, b) whether costs prevented education or retirement opportunities, and c) whether costs prevented parents spending time with children due to long commutes (GMHF 2004). These issues are not arbitrary or inconsequential; in fact, they matter to most buyers, experts and the general public.

In this research, I compare housing outcomes by tenure to determine where low-income black homeowners maximize their housing opportunity versus low-income black renters. Low-income level is calculated at 80% of Census reported area median income (AMI) (at the PMSA level) for 1990 and 2000. Several reasons make low-income black households an appropriate choice for this study:

1) Low-income black households have historically had poorer housing options;
2) Low-income blacks were a target population for many of the changes in federal housing (homeownership) policy that occurred during the period of study; and
3) Low-income black homeownership increased markedly through the 1990s.

Finally, one other consideration factored into the selection of this population. By contrasting like-race populations of renters and owners (as opposed to similarly tenured

populations inclusive of all races), the analysis avoids the not easily quantified variable of discrimination in the housing market—in short, this approach holds race more or less constant. However, the influence of past discrimination in the housing market cannot be avoided and thus any housing outcomes for this population have to be viewed on balance with historical discrimination.

Study Structure, Data and Methodology

My analysis draws on 1990 and 2000 U.S. Census Bureau Public Use Microdata Survey (PUMS) data for black low-income renter and homeowner households in 24 primary metropolitan statistical areas (PMSAs) that comprise five large consolidated metropolitan statistical areas (CMSAs) (1999 division): Chicago, Detroit, New York, Philadelphia and Washington DC. PUMS data provides a 5% random sample of household and person counts at the Public Use Microdata Area (PUMA) level that, when weighted and calculated appropriately, produces a representative metropolitan area population for study.

Two difficulties arise when making metropolitan-level comparisons across census years with PUMS data: a) changes in census-defined metropolitan geography; and b) changes in Public Use Microdata Areas boundaries. For this study, spatial differences between 1990 and 2000 geographies were reconciled by “building” new GIS coverages for each metropolitan area using 1990 and 2000 PUMAs as building blocks. These constructed coverages approximate as closely as possible those of the 1999 U.S. Census-defined metropolitan areas (see Appendix B) and are referred to nominally as the "study metropolitan areas" or "metro areas" in this dissertation.

Indicator 1: Overpayment for Housing

For this study, a percentage of income measure is used to determine the proportion of low-income black homeowners versus renters that overpaid for housing costs. All housing affordability measures rely on two major components—income and price. The simplest and most accepted measure is the income/price quotient based on area median income (AMI) as reported by the U.S. Census Bureau. The measure usually sets the upper limit of allowable income spent (over time or at a given point in time) at no more than 30% for those earning 80% of AMI. While percentage of income measures have some limitations (e.g. they do not control for differences in housing quality/features and location, nor do they always account for a household's real financial constraints) (see Linnedman and Megbolugbe 1992; Stone 1993; Bogdon 1996, Weicher 1977), they offer several advantages including ease of calculation and comprehension, availability of data, and applicability across time and space (Bogdon and Can 1997). Analysts continue to rely on the home-price-to-income-ratio because home expenditures tend to rise comparably with home price making it an appropriate measure across the spectrum of income levels (Megbolugbe 1992).

The study at hand calculates housing costs for the population of interest in two ways: 1) selected monthly housing costs as a percentage of income for owners and 2) gross rent as a percentage of income for renters. The U.S. Census Bureau defines gross rent as the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if paid for by renter (or paid for the renter by someone else). Gross rent is intended to eliminate

differentials, which result from varying practices with respect to the inclusion of utilities and fuels as part of the rental payment.

The U.S. Census Bureau defines selected monthly owner costs as the sum of payments for mortgages, deeds of trust, contracts to purchase, or similar debts on the property (including payments for the first mortgage, second mortgage, home equity loans, and other junior mortgages); real estate taxes; fire, hazard, and flood insurance on the property; utilities (electricity, gas, and water and sewer); and fuels (oil, coal, kerosene, wood, etc.). It also includes, where appropriate, monthly condominium fees or manufactured home costs (installment loan payments, personal property taxes, site rent, registration fees, and license fees).

Because the PUMS data does not provide a ready-calculated variable for "selected monthly owner costs" I calculated one to approximate the Census Bureau's definition as closely as possible. This includes first and second mortgage payments, property taxes, property insurance costs, housing association or condo fee when applicable, and utility costs (gas, electric, heating fuels, and water). Income level is calculated as 80% of Census reported AMI in 1990 and 2000. Using HUD's standard benchmark for housing affordability, a household overpays if it spends greater than 30 percent of its income for housing costs.

Indicator 2: Access to Higher Quality Schools

Elementary school pupil/teacher ratios (P/T-ratios) are used to measure low-income black homeowners' versus renters' access to higher quality elementary schools. The P/T-ratio is the number of full-time teachers divided by the number of full-time students. While also an approximation of average class size, P/T-ratios tend to be

smaller than average class size because, at some point during the day, some teachers do not teach (e.g. their day includes preparation time and other non-classroom duties). The P/T-ratio has long been an accepted indicator of school quality used by the U.S. Department of Education, National Center for Education Statistics (NCES), United Nations Education, Scientific and Cultural Organization (UNESCO) and other governmental and non-governmental agencies. More important for this study, it is one of the most valued neighborhood quality indicators that are consistently capitalized into housing market prices (Brasington 1999) (NAHB 2005). According to the U.S. Department of Education, the median pupil/teacher ratio for primary schools in the U.S. in 2001 was 16.0 (DOE 2003).

To measure low-income black household access to better schools, I compare the percentage of homeowners versus renters who reside in PUMAs with average elementary school pupil/teacher ratios lower (i.e. better) than the metro-wide average P/T-ratio. Using data from the U.S. Department of Education's National Center for Education Statistics (NCES) and data from the U.S. Census Bureau, this variable evaluates the proximities of low-income black homeowners and renters to elementary schools ("regular," "special education," "vocational" and "other/alternative" schools included—see www.nces.ed.gov for exact definitions) with low pupil/teacher ratios. NCES data provides pupil/teacher ratios for schools selected by type and location and output is provided with a variety of spatial identifiers including state, county, city, zip code and longitude and latitude coordinates.

Indicator 3: Travel Time to Work

Living closer to work can result in substantial household savings not only in time but also in money (Calthorpe 1996; Calthorpe and Fulton 2000; Duany 1999). This is especially important for low-income households who dedicate a higher proportion of their budget to transportations costs than wealthier families.[20] But desirable housing locations such as those in good school districts and/or close to homebuyers' places of employment may be financially out of reach for low-income buyers. They may therefore settle for a location that requires a longer work commute than they might otherwise choose. In California, even for middle-income earners, this has become known as "driving to qualify" (NAR 2004). Solving metropolitan housing/jobs imbalance has long been recognized as an important aspect of the Smart Growth movement (Weitz 2003), and more critical perspectives recognize this relationship as well. For example, researchers note that commuting times have increased in many metropolitan areas over the last decade as a result of increasing land and housing costs, thus affecting low-income households in particular (Sassen 2001). But more broadly, living closer to where one works is a benefit that most households appreciate as a matter of convenience: less time spent commuting means greater opportunity to spend with family, tend to domestic concerns and/or pursue leisure interests.

The U.S. Census Bureau defines *travel time to work* as the "total amount of time in minutes that it usually took the respondent to get from home to work last week, including any stops the worker usually made on the way to work" (U.S. Census Bureau). For this analysis, I considered only employed persons in households in the population of

interest, including those who reported no commuting time because possibly they worked at or very close to home. I compare average commuting times between low-income black renters and homeowners to the average commuting times for the metropolitan region (CMSA) at large.

Methodology Summary and Qualifications:

The indicators presented in this chapter are sufficient to provide a meaningful picture of successful homeownership for low-income black households. There are, however, important limitations to the variables, data and methodology employed. First the data used for the analysis, while refined in its level of detail, is coarse in its geographic coverage. PUMS data is sample data, and therefore has expected variation and error, which is controllable but still limits accuracy. PUMAs coverages are large geographic areas with a minimum population of 100,000 people, which also limits accuracy.

Second, the variables employed to measure housing opportunity have limitations. For example, comparing average low-income household travel times to those for the metropolitan area at the large tells us little about changes in inter-tenure travel times themselves. In an effort to make fair and accurate inter-metropolitan and inter-regional comparisons for the variables at hand, I normalized all variables by their regional and/or metropolitan geographies respectively. For example, households were selected as low-income by determining whether they earned 80% of the median area income or less for their PMSA, a slightly finer benchmark that the more popular county-level threshold.

[20] According to a 2004 report on low-income transportation costs in California urban areas, while low-income households spend less on transportation than wealthier households, transportation costs consumed 19% of their household budget compared to 16% for higher-income households (PPIC 2004)

Third, while I am convinced that the variables selected are valid measures for the research questions at hand, they are complex, tentative and open to other interpretations. For example, pupil/teacher-ratio offers certain insights into the qualitative aspects of a classroom environment, but it is hardly the definitive measure of school excellence.

Finally, there are obvious limitations associated with selecting low-income black households as a population of interest. These include differences in settlement and intra-urban migration patterns as they relate and are affected by the presence of racial discrimination. These conditions are not accounted for in this study, and therefore the analysis should be viewed as a first cut at investigating the research questions at hand, and should serve more as a foundation for further research and investigation than as a definitive study on the subject.

CHAPTER 6

LOW-INCOME HOUSING OPPORTUNITY IN 5 LARGE METROPOLITAN AREAS: STUDY FINDINGS

Introduction

In this chapter I present an empirical analysis of housing outcomes for low-income black household housing with respect to three indicator variables: 1) housing costs, 2) access to schools with lower (i.e. better) than metro-average pupil-teacher ratios (P/T-ratios) and 3) proximity to workplace expressed in community time. Evidence from 1990 and 2000 U.S. Census Bureau Public-Use Micro Sample (PUMS) data suggests that, compared to renters, low-income black homeowners in the five study metropolitan areas paid more for housing, commuted longer and lived nearer to schools with higher P/T ratios than the average school in their metropolitan area. Outcomes varied by metropolitan area and my discussion focuses on broader metropolitan changes over the decade.

Examined separately, the three indicators of interest provide ample information on inter-tenure differences in overpayment, commuting time, and access to better schools, but tell little about their combined effects on low-income black housing opportunity. If we are to understand which tenure provides greater housing opportunity, these variables must be measured simultaneously. To do this, after presenting separately the findings for each indicator variable, I develop a single, simplified summary metric called "housing opportunity" that assigns weighted values to each of the three indicator variables above, and evaluate the percentages of low-income black households by tenure by metropolitan area based on this weighted index summary indicator.

Indicator 1: Housing Overpayment

In 1990, PUMS data report a representative population of 713,028 low-income black households in the five metropolitan areas examined.[21] Representative population in the five metropolitan areas increased by 196,386 households (or 28%) to approximately 909,386 households by 2000. In 1990, approximately 162,198 (or 23%) of black households owned their homes and 550,820 (or 77%) rented. By 2000, the number of low-income black homeowners increased by 123,348 households to 285,546: an effective increase in the black homeownership rate of 9.0 percentage points from 23% to 32%. By contrast, the number of renter households increased by 13% (or by 73,020 households) from 550,820 in 1990 to 623,840 in 2000. This translates into an effective rentership rate of 78% in 1990 and 68% in 2000.

Table 6-1: Increases in Black Household Housing Cost Overpayment by Tenure and Income, 1990 versus 2000: Study Metropolitan Areas

BLACK HOUSEHOLDS	1990	2000	CHANGE	GROWTH RATE
Low-Income Black Households (total)	711,028	909,386	198,358	28%
Low-Income Black Homeowner HH	162,198	285,546	123,348	76%
Low-Income Black Renter HH	550,820	623,840	73,020	13%
Burdened Low-Income Black Homeowner HH	72,183	136,724	64,541	89%
Burdened Low-Income Black Renter HH	280,642	310,611	29,969	11%

Source: Author's analysis of 1990 and 2000 Public Use Micro Data Survey (U.S. Census Bureau) accessed through IPUMS (University of Minnesota)

[21] For the purposes of this study, low-income black households include those earning less than 80% of AMI and have an employed head of householder.

Table 6-1 reports the increases in the numbers of black households with housing cost overpayment by tenure and income in 1990 and 2000. What is most noticeable is the very high growth rate for burdened low-income homeowner households. While the number of low-income black households increased approximately 28% and low-income black homeownership increased approximately 76%, cost burden[22] amongst low-income black homeowner households increased approximately 89% through the decade. Analysis of renter households suggests a very different outcome: while low-income black renter households increased 13%, distress among low-income black renter households increased by only 11%.

These changes resulted in a shift in the percentages of low-income renters and homeowners overpaying for housing. While a greater number low-income black renter households overpaid for housing compared to owners in 1990 and 2000, the gap between the proportion of burdened owners and renters narrowed considerably through the decade. This is likely due more to the growth in household overpayment among low-income homeowners than to any significant improvement in financial conditions for renters. The odds that a low-income black homeowner overpaid for housing in 1990 was approximately 0.88 that for low-income black renters. By 2000, those odds increased to 0.96 (see Table 6-2).

[22] "Cost burden" refers to households paying greater than 30% of total household income for housing.

Table 6-2: Comparison of Odds Ratios for Burdened Low-Income Black Households by Tenure, 1990 versus 2000: Study Metropolitan Areas					
LOW-INCOME BLACK HOUSEHOLDS					
Year & Household Tenure	**Not Burdened**	**Burdened**	**Total**	**Odds**	**Odds Ratio**
1990	**A**	**B**	**A+B**	**B/A**	**1990**
Homeowner LI Household	162,198	72,183	234,381	0.45	**0.87**
Renter LI Household	550,820	280,642	831,462	0.51	
Total	713,018	352,825			
2000	**A**	**B**	**A+B**	**B/A**	**2000**
Homeowner LI Household	285,546	136,724	422,270	0.48	**0.96**
Renter LI Household	623,840	310,611	934,451	0.50	
Total	909,386	447,335			
Source: Author's analysis of 1990 and 2000 Public Use Micro Data Survey (U.S. Census Bureau) accessed through IPUMS (University of Minnesota)					

Renter and Homeowner Overpayment Quotients

As startling as the increases in homeowner overpayment appear, comparisons of the number of owner-occupied versus renters that overpaid neglects the nuances of these changes and their spatial distribution. To better understand the magnitude and spatial distribution of the changes already introduced, a basic housing "overpayment quotient" was developed to compare the decade change in the percentage of low-income households by tenure paying excessively for housing costs in each metropolitan area:

$$HOpQ_{tenure} = \frac{\dfrac{\text{Burdened Low-Income Black } HH_{Mi2000}}{\text{Low-Income Black } HH_{Mi2000}}}{\dfrac{\text{Burdened Low-Income Black } HH_{Mi1990}}{\text{Low-Income Black } HH_{Mi1990}}}$$

Similar to a location quotient (essentially the quotient of two percentages), the overpayment quotient returns a figure between <1 and >1 for each metropolitan area based on its decade change in the proportion of burdened tenure-specific low-income households. Metropolitan areas with an index rating equal to 1.0 experienced no change in the percentage of burdened low-income households relative to all low-income households between 1990 and 2000. Metropolitan areas with an index rating of less than 1.0 experienced a reduction in the percentage of burdened low-income households, and those with an index rating greater than 1.0 experienced an increase in the percentage of burdened low-income households through the decade. Ideally, overpayment quotients of less than 1 for both renters and owners would be a desirable outcome because it suggests that the proportion of burdened low-income renters and owners decreased in a particular metropolitan area over the study period.

Table 6-3 reports overpayment quotients by tenure for the five study metropolitan areas. The overpayment quotient measures the change in burdened low-income black households as percentage of all low-income black households by tenure.

Table 6-3: Housing Overpayment Index Calculations for Low-Income Black Households by Tenure, 1990-2000: Study Metropolitan Areas

Metro Area (CMSA)	1990		2000		$HOpQ_{tenure}$ (Housing Overpayment Quotient)	
	(A) % Low-Income Burdened **Owner HH**	**(B)** % Low-Income Burdened **Renter HH**	**(C)** % Low-Income Burdened **Owner HH**	**(D)** % Low-Income Burdened **Renter HH**	**(C/A) FOR OWNERS**	**(D/B) FOR RENTERS**
Chicago	**0.45**	**0.50**	**0.62**	**0.47**	**1.38**	**0.95**
Detroit	**0.36**	**0.48**	**0.45**	**0.44**	**1.24**	**0.91**
New York	**0.43**	**0.53**	**0.68**	**0.57**	**1.58**	**1.07**
Philadelphia	**0.48**	**0.62**	**0.48**	**0.51**	**1.01**	**0.82**
Washington DC	**0.50**	**0.46**	**0.37**	**0.43**	**0.73**	**0.94**
TOTAL (All Metros Combined)	**0.45**	**0.51**	**0.48**	**0.50**	**1.06**	**0.98**

Source: Author's analysis of 1990 and 2000 Public Use Micro Data Survey (U.S. Census Bureau) accessed through IPUMS (University of Minnesota)

Overall, for all five metropolitan areas studied, the analysis suggests a 6% increase in the proportion of burdened low-income black homeowner households and a 2% decrease in the proportion of burdened low-income black renter households between 1990 and 2000. Results varied by metropolitan area with Philadelphia and Detroit showing greatest improvement for renters (housing overpayment quotients of 0.82 and 0.91 respectively) and New York showing least improvement for both tenures with increases in the proportion of renters and homeowners. In New York, the proportion of burdened renters worsened slightly as indicated by a overpayment quotient of 1.07, but distress amongst homeowners increased as indicated with an overpayment quotient of 1.58. All but one metropolitan area saw increases in the

proportion of burdened homeowners. The one exception was Washington DC where it appears that a smaller proportion of homeowners overpaid in 2000 than in 1990 expressed by a housing overpayment quotient for homeowners of 0.73, suggesting that the proportion of burdened homeowners in this city in 2000 was 73% of that in 1990.

Indicator 2: Access to Higher Quality Schools

The National Center for Education Statistics provided data for elementary schools in both study years (1989 and 1999) located within the five study-defined metropolitan areas. The average pupil-teacher ratio (P/T-ratio) for these schools in 1989 was 18.9 students per teacher with a SD of 7.88. The pupil-teacher ratio improved (i.e. decreased) to 17.1 students per teacher by 1999 and showed less variance (std. dev. 5.49827) by 2000.

For this study, the P/T-ratios used to determine school quality were normalized by two geographic scales:

1. The average P/T ratio for all schools in the PUMA in which a school is located; and
2. The average P/T ratio for all schools in the metropolitan area (CMSA) in which a school is located.

Normalizing by the metro-wide average P/T-ratio provided for a fairer location-specific metric than would a nation-wide average: For example, a P/T-ratio of 21:1 would be considered acceptable (and even average) in Riverside-San Bernardino CA PMSA but would probably represent a crisis-level ratio in Rochester NY PMSA, where class sizes are generally much smaller than in Riverside.

The second geographic calibration—normalizing the school P/T ratios by the average P/T-ratio for all schools in the PUMA—was necessary because it corresponds to the smallest geographic component for which population and income data are available in the Public Use Microdata Survey (PUMS). Another reason for normalizing at the PUMA level concerns the spatial relationship between home and school. Where a child lives usually dictates where s/he will attend school: School access is generally a function of proximity, and most children attend school close to where they live. While PUMA boundaries are imperfect for delineating school attendance, they represent the smallest geography available for the "race by tenure by income" census data for the population of interest.[23]

With these considerations in mind, I use two criteria to define school quality in each PUMA in the five study metropolitan areas by decade:

1. The average school P/T-ratio was lower (i.e. better) than the average P/T-ratio for all schools in the metropolitan area in 1990 and remained so through 2000; and
2. The P/T-ratio improved or declined through the study period compared to the average for all schools in the metropolitan area by 2000.

Overall, in the five metropolitan areas studied, the number of low-income black households residing in areas with schools with higher than average (i.e. worse) P/T ratios increased substantially between 1990 and 2000. In 1990, a total of 250,183 households resided in such areas compared to 440,464 in 2000, an increase of 76%.

[23] Other political boundaries such as city/town borders and, more important, school district boundaries provide better delineation about where children attend schools locally, but no "race by tenure by income" census data are readily available for these geographies for the periods analyzed.

Approximately 35% of all low-income black households resided in areas with higher than metro-average P/T ratios in 1990 compared to 48% in 2000.

Table 6-4: Change in Low-Income Black Household Residing in Areas with Lower Performing Schools, 1990 versus 2000: Study Metropolitan Areas

BLACK HOUSEHOLDS	1990	2000	CHANGE	PERCENT CHANGE
Low-Income Black Households	250,183	440,464	190,281	76%
Low-Income Black Homeowner HH	54,595	123,713	69,118	127%
Low-Income Black Renter HH	189,844	316,751	126,907	67%
Burdened Low-Income Black Homeowner HH	27,142	116,855	89,713	331%
Burdened Low-Income Black Renter HH	104,442	157,141	52,699	50%

Source: Author's analysis of 1990 and 2000 Public Use Micro Data Survey (U.S. Census Bureau) accessed through IPUMS (University of Minnesota)

Table 6-4 reports the increases in the numbers of black households with housing cost overpayment by tenure and income in 1990 and 2000. Substantial increases are observed for low-income black homeowner households as compared to renter households. For example, the number of homeowner households residing in areas with schools with higher than average P/T ratios increased by 69,118 (or 127%) as compared to renter households which increased by 67% (or by 126,907). The results for burdened low-income households were more stark. Burdened homeowner households living in areas with higher than average P/T ratios increased 331% (or by 89,713) compared to burdened renters which increased by only 50% (or 52,699). Approximately 38% of burdened homeowner households were located in areas with poorer performing schools in 1990 as compared to 43% in 2000.

The odds ratio that a low-income black homeowner lived in an area with a school with a higher P/T ratio than the metropolitan area average in 1990 was approximately 0.94 that for low-income black renters. By 2000, the odds ratio had decreased to 0.74 (see Table 6-5). This suggests that the probability of a low-income black household living in an area with an underperforming school increased for homeowners and renters alike.

Table 6-5: Comparison of Odds Ratios for Low-Income Black Household Residing in Areas with Lower Performing Schools, 1990 versus 2000: Study Metropolitan Areas

LOW-INCOME BLACK HOUSEHOLDS					
Year & Household Tenure	**Better Schools**	**Poorer Schools**	**Total**	**Odds**	**Odds Ratio**
1990	**A**	**B**	**A+B**	**B/A**	**1990**
Homeowner Household	105,613	54,595	160,208	0.52	**0.94**
Renter Household	344,717	189,844	534,561	0.55	
Total	450,330	244,439			
2000	**A**	**B**	**A+B**	**B/A**	**2000**
Homeowner Household	161,833	123,713	285,546	0.76	**0.74**
Renter Household	307,089	316,751	623,840	1.03	
Total	468,922	440,464			

Source: Author's analysis of 1990 and 2000 Public Use Micro Data Survey (U.S. Census Bureau) accessed through IPUMS (University of Minnesota)

Table 6-6 presents a comparison of the percentage of low-income black households by tenure in each study metropolitan area residing in areas (PUMAs) with schools with higher P/T ratios than their metropolitan area average. In 1990, there were

smaller percentages of homeowners than renters residing in areas with poorer schools. In terms of relative advantage, homeowners had access greater to better schools than renters in four of five metropolitan areas examined in 1990 and 2000: Chicago, Detroit, Philadelphia, and Washington DC. For burdened households, homeowners had relative advantage in three of the five metropolitan areas examined in 1990: Detroit, Philadelphia, and Washington DC. By 2000, homeowners maintained advantage in Washington DC only: Burdened renters had greater access to better schools in Detroit and Philadelphia and burdened homeowners had greater access in New York and Chicago.

Table 6-6: Comparison of Percentage of Low-Income Black Household by Tenure Residing in Areas with Lower Performing Schools, 1990 versus 2000: Study Metropolitan Areas

LOW-INCOME BLACK HOUSEHOLDS						
Year & Metro Area	Owner	Renter	Advantage	Burdened Owner	Burdened Renter	Advantage
1990						
Chicago	28.7	32.5	Owner	34.1	33.5	Renter
Detroit	17.7	25.3	Owner	25.1	27.8	Owner
New York	36.3	34.2	Renter	36.8	32.8	Renter
Philadelphia	55.2	64.7	Owner	52.7	66.2	Owner
Washington DC	31.9	34.1	Owner	36.6	39.5	Owner
2000						
Chicago	20.6	29.6	Owner	29.6	31.6	Owner
Detroit	69.4	68.9	Renter	68.9	67.4	Renter
New York	50.3	59.3	Owner	50.3	58.2	Owner
Philadelphia	36.0	42.5	Owner	43.1	41.9	Renter
Washington DC	43.8	50.3	Owner	38.0	49.1	Owner

Source: Author's analysis of 1990 and 2000 Public Use Micro Data Survey (U.S. Census Bureau) accessed through IPUMS (University of Minnesota)

Low-Income Renter and Homeowner School-Housing Quotients

The analysis above suggest that low-income black renters found equal or better access to schools with lower than metro-average P/T-ratios compared to owners through the 1990s. But these findings provide little insight into where tenure choice expanded or limited low-income households' access to schools with smaller class size. To do this, we need to look at where the greatest changes occurred, and the degree to which school access improved for renters compared to owners in individual cities (PMSA). To better understand the magnitude and spatial distribution of changes at the metropolitan level, I develop a school-housing quotient to compare the decade change in the percentage of low-income households by tenure with access to schools with better than metro-average P/T-ratios in each metropolitan area:

$$ShQ_{tenure} = \frac{\text{Low-Income Black HH living in PUMAs with Avg. P/T-ratio =< Avg. CMSA P/T-ratio}_{Mi2000}}{\text{Low-Income Black HH}_{Mi2000}} \Big/ \frac{\text{Low-Income Black HH living in PUMAs with Avg. P/T-ratio =< Avg. CMSA P/T-ratio}_{Mi1990}}{\text{Low-Income Black HH}_{Mi1990}}$$

Similar to a location quotient (essentially the quotient of two percentages), the school-housing quotient returns a figure between <1 and >1 for each metropolitan area examined based on its decade change in the proportion of tenure-specific low-income black households living in PUMAs with schools with lower than metro-average P/T-

ratios. Cities with an index rating equal to 1.0 experienced no change between 1990 and 2000 in the percentage of low-income households by tenure living in PUMA with schools with a lower than metro-average P/T-ratio. Metropolitan areas with an index rating of less than 1.0 experienced a decrease in the percentage of low-income black households living in PUMAs with schools with lower than metro-average P/T-ratios. Metropolitan areas with an index rating greater than 1.0 experienced an increase through the decade in the percentage of low-income black households living in PUMAs with schools with lower than metro-average P/T-ratios. Ideally, for any metropolitan area, school-housing quotients of greater than 1.0 for both tenure groups would be desirable because that would suggest access to better than average schools increased for both low-income black renters and owners through the study period.

The school-housing quotient presented in Table 6-7 measures the change in the proportion of burdened low-income black low-income black households (as a percentage of all burdened low-income black households) by tenure living in PUMAs with lower than average school P/T-ratios (i.e. better quality schools) than that for its metropolitan area as a whole. For the five metropolitan areas studied, the school-housing quotient between 1990 and 2000 for low-income black renters was 0.8 compared to 0.9 for owners. This suggests that the percentage of low-income black renter households living in PUMAs with schools with higher average P/T-ratios than their surrounding metropolitan areas decreased approximately 20% between 1990 and 2000 compared to about 10% for owners.

The proportion of burdened low-income black households living in areas with schools with lower than metro-average P/T-ratios varied by metropolitan areas. For

example, for homeowner households, access to such schools improved or remained constant between 1990 and 2000 in three of the five metropolitan areas studied: Chicago, Philadelphia and Washington DC. Homeowners in Detroit and New York saw access to better schools decrease substantially: by about 20% in New York and 60% in Detroit. For renters, access to schools with lower P/T ratios improved or remained constant between 1990 and 2000 in two of the five metropolitan areas studied: Chicago and Philadelphia. In Philadelphia, approximately the proportion of burdened low-income black households with access to better schools almost doubled. Renters' school-housing quotients were less than one, suggesting that a smaller proportion of renters had access to better schools in 2000 than in 1990 in three of the five metropolitan areas examined: Detroit, New York and Washington DC. As for homeowners, the sharpest decrease occurred in Detroit where approximately half the proportion of renters had access to schools with lower than metro-average P/T ratios (see Table 6-7).

Table 6-7: School-Housing Quotient for Low-Income Black Burdened Households by Tenure, 1990-2000: Study Metropolitan Areas

Metropolitan Area	1990		2000		ShQ_{tenure} (School-Housing Quotient)	
	(A) % Low-Income **Owner** HH in PUMA w/ P/T-ratio =< MSA P/T-ratio	**(B)** % Low-Income **Renter** HH in PUMA w/ P/T-ratio =< MSA P/T-ratio	**(C)** % Low-Income **Owner** HH in PUMA w/ P/T-ratio =< MSA P/T-ratio	**(D)** % Low-Income **Renter** HH in PUMA w/ P/T-ratio =< MSA P/T-ratio	**(C/A) FOR OWNERS**	**(D/B) FOR RENTERS**
Chicago	65.9	66.5	70.4	68.4	1.1	1.0
Detroit	74.9	72.2	31.1	32.6	0.4	0.5
New York	63.2	67.2	49.7	41.8	0.8	0.6
Philadelphia	47.3	33.8	56.9	58.1	1.2	1.7
Washington DC	63.4	60.5	62.0	50.9	1.0	0.8
TOTAL	62.4	62.8	56.7	49.4	0.9	0.8

Source: Author's analysis of 1990 and 2000 Public Use Micro Data Survey (U.S. Census Bureau) accessed through IPUMS (University of Minnesota)

Indicator 3: Travel Time to Work

Collectively, in the 5 metropolitan areas analyzed, between 1990 and 2000 average commuting times increased for both low-income black homeowners and renters, from 29.09 minutes to 30:37 minutes for homeowners and from 29.78 minutes to 31.75 minutes for renters. For burdened households (those paying greater than 30% of income for housing costs) average commuting times also increased through the decade, from 29.65 minutes to 31:33 minutes for homeowners and from 29.28 minutes to 32.51 minutes for renters.

Outcomes varied by metropolitan area (see Table 6-8). For example, in Chicago average homeowner commutes decreased 5% from 32.89 minutes to 31.14 minutes, while average renter commuting times increased 5% from 33.00 to 34.71 minutes. Burdened households in Chicago saw similar results: average commutes for burdened homeowners decreased 4% from 33.07 to 31.87 minutes compared to an 8% increase in average commuting times for burdened renters from 33.44 to 35.95 minutes. These differences between tenure groups were found to be statistically significant (p =0.000).

In Detroit, renters did slightly better than homeowners. Average homeowner commutes in Detroit increased 4% from 23.28 minutes to 24.26 minutes, while average renter commuting times increased 3% from 22.68 to 23.40 minutes. Burdened households in Detroit saw similar results: average commutes for burdened homeowners increased 2% from 23.82 to 24.31 minutes compared to a 1% increase in average commuting times for burdened renters from 22.94 to 23.24 minutes. These differences between tenure groups were found to be statistically significant (p =0.000). In Detroit, while commuting time increased for both renters and homeowners, renters had shorter

commutes in 1990 and 2000, and renters experienced a smaller increase in average commuting time through the decade.

New York saw mixed results across tenure. Homeowners had shorter commutes than renters in both 1990 and 2000, but homeowner average commuting time increased 12% from 30.55 minutes to 34.12 minutes while renter average commuting time increased by 8% from 33.54 in 1990 to 36.31 in 2000. For burdened households, burdened owners had shorter commutes in both 1990 and 2000, and owners saw a 14% increase in commuting time from 30.84 minutes to 35.06 minutes in 2000 compared to renters' commutes which increased 16% from 32.40 minutes in 1990 to 37.70 minutes in 2000. These differences between tenure groups were found to be statistically significant (p =0.000).

Commuting times in Philadelphia increased for all tenure groups, although the increase for homeowners was less than that for renters. Homeowners experienced longer average commutes than did renters in 1990, but slightly shorter average commutes than renters in 2000. Homeowner average commuting time increased 10% from 27.39 minutes to 30.21 minutes in 2000, while renter average commuting time increased by 16% from 26.24 minutes to 31.94 minutes in 2000. These differences between tenure groups were found to be statistically significant (p =0.000). For burdened households, homeowners had shorter commutes than renters in 1990 and 2000. Both burdened tenure groups saw approximately similar increases of about 4.5 minutes (or 17%) through the decade.

Commuting times in Washington DC increased for all tenure groups. Homeowners had shorter commutes than renters in 1990 and 2000, but only slightly

shorter in 1990. Average commuting times increased 6% from 29.04 minutes to 30.67 minutes for owners and 6% from 30.14 minutes in 1990 to 31.94 minutes for renters. For burdened households, burdened homeowners had longer commutes than burdened renters in 1990 but shorter commutes than burdened renters in 2000. Burdened homeowners saw only a 3% increase in commuting time from 30.67 minutes in 1990 to 31.52 minutes in 2000 compared to renters' commutes which increased 11% from 29.27 minutes in 1990 to 32.37 minutes in 2000. These differences between tenure groups were found to be statistically significant (p =0.000).

Table 6-8: Comparison of Travel Time to Work in Minutes for Low-Income Black Household Residing by Tenure, 1990 versus 2000: Study Metropolitan Areas

Metropolitan Area & Household Tenure	Travel Time 1990	Travel Time 2000	Change	Percent Change
Chicago				
Homeowners	32.89	31.14	-1.75	-5%
Renters	33.00	34.71	1.71	5%
Burdened Homeowner	33.07	31.87	-1.20	-4%
Burdened Renter	33.44	35.95	2.51	8%
Detroit				
Homeowners	23.28	24.26	0.98	4%
Renters	22.68	23.40	0.72	3%
Burdened Homeowner	23.82	24.31	0.49	2%
Burdened Renter	22.94	23.24	0.30	1%
New York				
Homeowners	30.55	34.12	3.57	12%
Renters	33.54	36.31	2.77	8%
Burdened Homeowner	30.84	35.06	4.22	14%
Burdened Renter	32.40	37.07	5.30	16%
Philadelphia				
Homeowners	27.39	30.21	2.82	10%
Renters	26.24	30.49	4.25	16%
Burdened Homeowner	26.15	30.72	4.57	17%
Burdened Renter	26.34	30.90	4.56	17%
Washington DC				
Homeowners	29.04	30.67	1.63	6%
Renters	30.14	31.94	1.80	6%
Burdened Homeowner	30.67	31.52	0.85	3%
Burdened Renter	29.27	32.37	3.10	11%

Source: Author's analysis of 1990 and 2000 Public Use Micro Data Survey (U.S. Census Bureau) accessed through IPUMS (University of Minnesota)

Summary Indicator: Low-Income Housing Opportunity

In this part of the study, I examine key variables related to the attainment of housing opportunity by comparing differences and changes in overpayment, access to schools, and commuting times for burdened low-income black renters and homeowners between 1990 and 2000. Findings suggest that homeownership did not result in substantially greater percentages (or numbers) of homeowner households paying 30% or less of their income for housing, having shorter commutes to work, or improved access to better schools in the five metropolitan areas examined.

Examined individually, indicator variables discussed previously in this chapter—overpayment, access to better schools and commuting times—tell us little about the combined affects these factors have on low-income black housing opportunity. Again, good housing opportunity means that low-income buyers can find housing that is proportionately affordable to their income; that provides a reasonable financial return on investment; and that is located in close proximity to social amenities and public services, such as employment and educational opportunities. If we are to understand whether one tenure choice provides clearly superior housing opportunity with respect to these variables, we must measure these variables simultaneously.

To measure the overall change in housing opportunity between 1990 and 2000 in each study metropolitan area, a simplified metric was developed to assign a weighted score for the change in the percentage of population in each metro that minimized housing overpayment, minimized work commute time, and maximized access to schools. This metric effectively summarizes my findings to answer two important questions: 1) Where and in which cities did low-income housing opportunity increase

(i.e. improve) or decrease (i.e. worsen) through the 1990s housing boom? And 2) in 2000, in which cities do low-income homeowners (and renters) find the most and least housing opportunity based on the three variables of interest?

Based on an examination of relevant literature, the three variables of interest—housing overpayment, access to better schools and shorter than metro-average work commutes—were ranked and weighted according to their relative importance to low-income households as follows.

The most important factor low-income buyers or renters consider when looking for a home is cost. Location matters, but cost overrides. While all buyers (and renters) look for the most they can afford in the best location, low-income households must consider price and affordability more carefully than wealthier buyers and renters. Once price has been sorted, families then consider proximity to good schools as their second most important factor. Proximity to good schools is important even to households who do not have school-aged children because, as just about every real estate buyer's guide book tells us, that factor affects every home's resale value (NAHB 2005). Third, while commuting time is important to most households, many consider it less important than price or proximity to good schools. This assumes that most families are willing to accept more time behind the wheel and/or on the bus if it means that their children will attend a better school or if they know that they are about to buy a house that will appreciate more rapidly because of its location nearer better schools. Many authorities and guides on home buying rank these three variables in the same order of importance (NAHB 2005) (HUD 2005) (NAR 2002).

According to this ranking, I weight the numerical percentages of burdened low-income black households by tenure for each city for each variable of interest. These weighted variable scores are then summed to produce a single weighted housing opportunity score by tenure for each city. I then compare the change in cumulative scores for cities and regions between 1990 and 2000 to see where improvements occurred for each tenure group respectively. For example, I multiply by a factor of two-and-a-half (2.5) the percentage of low-income households that paid 30% or less of their household income for housing costs in 1990 and 2000. For these same years, I multiply by a factor of one-and-a-half (1.5) the percentages of low-income households by tenure that that lived in PUMAs with schools with lower than metro-average pupil-teacher ratios. Finally, I multiply by three-quarters (0.75) the percentages of low-income households by tenure with shorter than metro-average commutes to work. In this calculus, housing cost is considered 1.6 times more important to low-income buyer than proximity to a good school and 3.3 times more important than travel time to work. These weighted variable scores are then summed to produce a single weighted housing opportunity score for each tenure group in each metropolitan area studied. Therefore, housing opportunity for any one metropolitan area is measured by the summed value of the percentages of the three variables of study weighted by their rank order of importance as follows:

$$Housing\ Opportunity_{tenureMi} = (A_{tenureMi}*2.5)+(B_{tenureMi}*1.5)+(C_{tenureMi}*0.75)$$

where:

A = Percentage of low-income black HH that pay 30%< of HH income for housing;

B = Percentage of low-income black HH that reside in PUMAs with lower than metro-average school P/T-ratios;

C = Percentage of low-income black HH that have shorter than metro-average commuting times.

Table 6-9 summarizes housing opportunity scores for the five metropolitan areas examined. The analysis indicates that in 1990 low-income black homeowner households found greater housing opportunity as compared to low-income black renter households in four of the five metropolitan areas examined. This difference ranged from 4.9% more in Chicago to 22.2% more in Washington DC. Homeowners found 10.8% more housing opportunity in Detroit in 1990 and 8.5% more New York. Washington DC was the only metropolitan area where renters found greater housing opportunity in 1990 (by 4.1%).

By 2000, renters found greater housing opportunity in three of the five metropolitan areas examined—i.e. between 1990 and 2000 the hierarchy reversed to

favor renting versus homeownership for low-income households. Renters found 12.7% more housing opportunity in Chicago, 1.4% more in Detroit, and 6.3% more in New York. Homeowners maintained an advantage in Philadelphia between 1990 and 2000, although this margin decreased significantly from 22.2% in 1990 to just 2.5% by 2000. Housing opportunity in Washington DC favored renters by 4.1% in 1990, but by 2000 homeowners had 11.2% more housing opportunity in this metropolitan area. This was the only metropolitan area that reversed housing opportunity to favor of homeowners (see Table 6-9).

Table 6-9: Housing Opportunity Scores (1990-2000): Study Metropolitan Areas

LOW-INCOME BLACK HOUSEHOLDS					
Metropolitan Area	**Owner Housing Opportunity**	**Renter Housing Opportunity**	**Points Difference**	**Percent Difference**	**Tenure with Greater Housing Opportunity**
1990					
Chicago	271	258	13	5%	Owners
Detroit	318	283	34	11%	Owners
New York	288	263	25	9%	Owners
Philadelphia	241	187	53	22%	Owners
Washington DC	254	264	-10	-4%	Renters
2000					
Chicago	247	279	-31	-13%	Renters
Detroit	246	250	-3	-1%	Renters
New York	200	213	-13	-6%	Renters
Philadelphia	254	248	6	2%	Owners
Washington DC	299	266	33	11%	Owners

Source: Author's analysis of 1990 and 2000 Public Use Micro Data Survey (U.S. Census Bureau) accessed through IPUMS (University of Minnesota)
*NOTE: 1990 and 2000 Housing Opportunity Scores = (Indicator 1 * 2.5)+(Indicator 2 * 1.5)+(Indicator 3 * 0.75)

These summary findings are based on the weighted housing opportunity metric presented earlier in this section,[24] the calculus of which assigns subjective relative importance to the three indicator variables (housing overpayment, access to schools, and travel time to work). While I am confident that the metric helps construct a clearer picture of housing opportunity as it relates to low-income households' concerns, the measure biases housing costs over school access and both of these over travel time to work. The weighted metric could therefore present a misleading picture for cities in which the percentage of households overpaying is very high or low compared to differences in commuting times and/or access to schools with lower than metro-average P/T-ratios. With this in mind, I verified my results using un-weighted percentages for each indicator variable, and found very little change in the overall metropolitan ranking and spatial distribution for housing opportunity.

Chapter Summary

Table 6-10 presents summary results for the three indicators above (housing overpayment, access to higher quality schools, and travel time to work) and the summary indicator variable, housing opportunity metric. The results suggest compelling evidence that in many respects low-income black renters fared better than owners through the 1990s.

[24] Weighted point-in-time Housing Opportunity = (A*2.0)+(B*1.5)+(C*1.0), where A = % of low-income black HH that pay 30% or less for housing; B = % of low-income black HH that reside in PUMAs with lower than metro-average school P/T-ratios; and C = % of low-income black HH that have shorter than metro-average commuting times.

Table 6-10: Study Findings—Summary of Indicators (1990-2000): Study Metropolitan Areas

	Tenure Advantage 1990	Tenure Advantage 2000	Percentage Change (1990-2000) (Greatest Improvement Shown in Bold)	
			Owners	Renters
Indicator 1: Housing Overpayment				
Chicago	Owner	Renter	+38%	**-5%**
Detroit	Owner	Renter	+24%	**-9%**
New York	Owner	Renter	+58%	**+7%**
Philadelphia	Owner	Renter	+1%	**-18%**
Washington DC	Renter	Owner	**-26%**	-6%
Indicator 2: Access to Higher Quality Schools				
Chicago	Renter	Owner	**+10%**	0%
Detroit	Owner	Renter	-60%	**-50%**
New York	Owner	Renter	**-20%**	-40%
Philadelphia	Owner	Renter	+20%	**+70%**
Washington DC	Owner	Owner	**0%**	-20%
Indicator 3: Travel Time to Work				
Chicago	Owner	Owner	**-4%**	+8%
Detroit	Renter	Renter	+2%	**+1%**
New York	Owner	Renter	**+14%**	+16%
Philadelphia	Owner	Owner	+17%	+17%
Washington DC	Renter	Owner	**+3%**	+11%
Summary Indicator: Housing Opportunity				
Chicago	Owner	Renter	-9%	**+8%**
Detroit	Owner	Renter	-22%	**-12%**
New York	Owner	Renter	-30%	**-19%**
Philadelphia	Owner	Owner	+6%	**+33%**
Washington DC	Renter	Owner	**+18%**	+1%

Source: Author's Tabulation of data from U.S. Census Bureau Public Use Microdata Surveys, 1990 and 2000

Results for Indicator 1, housing overpayment, suggest that the proportion of burdened low-income black renters (i.e. those paying greater than 30% of household income for housing) either decreased more or increased less than the proportion of burdened low-income black owners in four of the five metropolitan areas analyzed (see Table 6-10). The only exception occurred in Washington DC where a smaller proportion of renters than owners were burdened in 1990 and a greater proportion or renters than owners were burdened in 2000. While the percentages of burdened households in Washington DC decreased for both tenure groups through the decade, the percentage of burdened owners decreased more (-26%) as compared to renters, whose proportion decreased by only -6%.

Results for Indicator 2, access to higher quality schools, suggest that low-income black owners fared better than low-income black renters, but only slightly better. Change in the proportion of burdened low-income black owners with access to higher quality schools either increased more or decreased less than the proportion of burdened low-income black renters in three of the five metropolitan areas analyzed: Chicago, New York and Washington DC (see Table 6-10). Renters fared better in Detroit and Philadelphia. In Detroit, the proportion of both tenure groups with access to higher quality schools decreased substantially suggesting a severe worsening for both owners and renters but more for owners. Approximately 50% fewer renters in Detroit had access to higher quality schools in 1990 than in 2000 compared to 60% fewer owners. In Philadelphia, access to higher quality schools improved for both tenure groups between 1990 and 2000, but more for renters than owners. Access to higher quality

schools for renters in Philadelphia increased 70% through the decade compared to only 20% for owners.

Results for Indicator 3, travel time to work in minutes, suggest that commuting times for burdened low-income black owners either decreased or increased less than those for burdened low-income black renters in three of the five metropolitan areas examined: Chicago, New York and Washington DC (see Table 6-10). Owner's commutes increased equally with renters' in one metropolitan area (Philadelphia). The only exception occurred in Detroit where commuting times increased for both tenure groups but increased more for owners than renters. Homeowner and renter commuting times increased equally (17% longer) in Philadelphia between 1990 and 2000.

Results for the Summary Indicator, housing opportunity, which combines the three indicators just discussed, suggest that burdened low-income black renters experienced greater increases or smaller decreases in housing opportunity through the decade than did low-income black owners in four of the five metropolitan areas examined (see Table 6-10). In Chicago, housing opportunity decreased 9% for low-income black homeowners through the decade compared to an 8% increase (i.e. improvement) for low-income black renters. In 1990, owning a home provided low-income households with greater housing opportunity compared to renting, but by 2000 renting provided greater housing opportunity. In Detroit, housing opportunity decreased for both tenure groups, but did so less (-12%) for renters than for owners (-22%). In New York, housing opportunity also decreased for both tenure groups, but did so less for renters (-19%) than for owners (-30%).

Philadelphia and Washington DC were the only two metropolitan areas where owning a home provided low-income black households with greater housing opportunity than renting. In Philadelphia, ownership provided greater housing opportunity in both 1990 and 2000. Notable is that while housing opportunity improved for both renters and owners in Philadelphia through the decade, the increase was substantially greater for renters (33%) than for owners (6%). This increase in housing opportunity for renters made rental tenure very close (but not quite on par) with ownership in 2000 in Philadelphia (Housing Opportunity scores of 254 for owners versus 248 for renters—see Table 6-9).

Washington DC was the only other metropolitan area examined where owning a home provided greater housing opportunity than renting in 2000. Unlike outcomes in Philadelphia, which were close and arguably better given the increases in housing opportunity that renters experienced through the decade, homeownership was clearly a better tenure choice for low-income households in both 1990 and 2000. Housing opportunity in Washington DC improved for both tenure groups through the decade, but did so significantly more for owners (18%) than for renters (1%).

What explains this outcome for the Washington DC metropolitan area? Why did owners do so much better there as compared to the other four metropolitan areas examined? Several hypotheses suggest explanation. One explanation could be that the DC CMSA includes some areas which could provide fairly inexpensive homeownership options, thus reducing the housing overpayment element, which factors heavily in my summary "housing opportunity" indicator. The Washington DC CMSA is quite expansive and includes substantial parts of Maryland, including the Baltimore metropolitan area,

and also very rural areas found in Virginia, West Virginia, and in far northern portions of Maryland. For example, once you get about an hour south, north or west of Washington DC, say near Fredericksburg VA, Martinsburg WV or Hagerstown, MD, there are many pockets of rather poor areas with surprisingly low housing costs. But, this fails to fully explain why Washington DC was the exception in my analysis because the same could be said for the other metro areas examined, including the New York CMSA for example, where inexpensive housing (relatively speaking) can be found in the rural areas to the north and west of NYC in Orange, Rockland, Putnam and Dutchess Counties.

A more viable explanation for Washington DC's exceptional performance and something that does set it apart from the other metropolitan areas examined are the land use regulations/regimes operating in the Washington DC CMSA during the time of analysis (1990-2000). These include Maryland's *1992 Economic Growth, Resource Protection and Planning Act* and the *1997 Priority Funding Areas Act*, as well as county- and local-level inclusionary housing elements. While both of Maryland's state acts were primarily anti-sprawl measures, which according to recent ex post facto research actually produced questionable results towards this objective (see Lewis, Knapp and Sohn 2009), both acts included provisions that indirectly supported affordable housing production through statewide goals, local compliance to these goals, and associated preferred funding objectives (DeGrove 2005).

More important is the long standing practice of inclusionary housing legislation in the Washington DC area. Studies suggest that in the Washington DC metro area, four county- level programs (passed in 1973, 1990, 1993, and 1991) produced over 15,000 units over between 1973 and 2000 (Fox and Rose 2003). Two inclusionary programs

are particularly noteworthy when it comes to affordable housing production, and are considered national models. Montgomery County, Maryland's program alone produced over 11,500 affordable units between its inception in 1973 and the early 2000s. This program also generated $477.4 million of private sector investment in affordable housing (Brunick 2003). Fairfax County, Virginia, produced approximately 2,000 units between passage of its program in 1991 and 2000 (Fox and Rose 2003). Additionally, in the Washington DC metro area, where the four separate inclusionary housing programs operated, there was (and continues to be I believe) little private sector developer and realtor opposition to building affordable housing. A Center for Housing Policy (2000) study found that a number of key developers and realtors even expressed support for and affirmed their ability to profitably build affordable housing.

I also believe that factors associated the actions of local community-based and housing advocacy groups in relation to the way portions of inner-city Washington DC and Baltimore were being redeveloped during the period of study are important. While inner-city redevelopment efforts especially in Washington DC were often viewed at the time as gentrification, community-based and housing advocacy groups in these cities fought gallantly to ensure inclusion of substantial affordable housing units in the redevelopment process. Such units were likely included either outright as a function of the inclusionary programs mentioned above, or as part of land use incentive programs that included density bonuses for affordable housing or as units to mitigate primary displacement of existing lower-income households displaced during redevelopment. I do not think that these community based efforts can be overstated.

Together, these suggest strong explanatory factors as to why the Washington DC CMSA stands out in my analysis.

In conjunction with evidence already presented, the next chapter draws broader study conclusions and reviews the key findings of this research to support a main study conclusion that under the present market structure, low-income homeownership does not necessarily result in greater housing opportunity for low-income buyers as compared to renters, and demand-side homeownership subsides that encourage and support this tenure choice should be reconsidered.

CHAPTER 7:
SUMMARY OF STUDY FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter reviews the key research findings in support of a study conclusion that, under present market conditions, demand-oriented subsidies for homeownership are insufficient to substantially expand housing opportunity for low-income black households as compared to renting. In many places and in many cases, renting rather than buying would better serve low-income households.

In the first part of the chapter, I summarize the key findings, putting them into a national perspective. I then recommend that the federal government undertake another shift in housing policy, one equally as dramatic as the one that took place in the early 1970s. This policy shift would entail re-introducing supply-side housing subsidies to supplement the present subsidies in place and to . To be clear, the questions raised in this research are not critical of low-income homeownership per se or the policies that encourage and support it. Rather, they call into question the dominant role homeownership has assumed in federal housing policy and the unintended consequences for low income households it has produced. In closing this chapter, I offer some thoughts on what a new more balanced housing policy might look like, and recommend directions for future research.

Summary/Analysis of Key Findings:

This dissertation sought to answer several questions regarding housing outcomes of low-income homeownership through the 1990s. To do this, several

qualitative and quantitative methods were used to survey the landscape of low-income homeownership and to identify issues of concern that have been not been broadly discussed in the reporting of the gains in low-income and minority homeownership that occurred through the housing boom. At the core of the analysis is a concept of housing opportunity: a metric that includes factors that have been proven instrumental in successful homeownership, including affordability, employment accessibility and educational opportunity. These are especially important for low-income owners if they are to build wealth and move up the socio-economic ladder.

Chapter 1 introduced the main research question: are the demand subsidies that promote low-income homeownership on which federal housing policy based potent enough to remedy our affordable housing crisis? From there I lay out the conceptual framework by which I planned to investigate and described the need for such a study.

Chapter 2 examined the relationship between the demand for low-income housing the supply to answer the question—is there enough affordable for-sale housing—and by assessing low-income housing outcomes from the 1990s housing boom. Evidence presented suggested while there were gains made in low-income housing through the 1990s, much of the growth happened in manufactured homes, a significant proportion of low-income mortgage lending occurred in the predatory sub-prime market, and that the increases in low-income and minority homeownership rates that occurred through the 1990s may not have resulted in significantly lower levels of segregation by race and income. Evidence was presented on the shortage in supply and production of affordably-priced housing units, and why production of these units is

necessary given the questionable performance of filtering, a key mechanism in the economic theory of demand-side housing policy.

Chapter 3 discussed the origins of demand-side subsidies in federal housing policy. It described the shift federal housing policy made from supply- to demand-oriented programs within the contexts of dismal public housing failures and a larger context of economic restructuring that began in the early 1970s. This shift was marked by, among other things, a substantial change in the pattern of state intervention in the housing market and the social welfare arena. This chapter also presented an audit of HUD's fiscal year budgets between 2000 and 2005, dividing program spending by line item for demand- versus supply-based programs. This analysis found that the dollar amount and proportion of HUD budgetary spending occurs increasingly in demand-side programs, and helps illustrate the extent to which the federal housing policy has become entrenched in demand-side housing subsidies. Collectively these analyses help explain why U.S. housing policy shifted its focus from supply to demand in the early 70s, and what has changed since then.

Chapter 4 assessed the potential risks associated with homeownership for low-income households. This began with an assessment of the costs many low-income households incur through homeownership, including higher income-proportional rents and maintenance costs, lower returns on investment, and how and why the mortgage interest income tax deduction disproportionately benefits wealthier households while eluding many low-income homeowners. Primary evidence was presented that suggests that the housing's expected financial returns in the long run are no better than other investment vehicles, even in times of exuberant housing market price growth and a

falling stock market. Evidence, both primary and secondary, was presented on the importance of timing of sale and location in improving housing financial returns on investment. When the risks presented in this chapter are not sufficiently considered in the calculus of the purchase, debt accumulation and foreclosure can easily ensue.

Chapters 5 and 6 presented the methodology and findings of a detailed analysis of 1990 and 2000 U.S. Census Bureau Public Use Microdata Survey data to determine how housing outcomes vary by tenure for low-income black households in five large metropolitan areas—Chicago, Detroit, New York, Philadelphia and Washington DC. Ho—with respect to three indicators: housing costs, proximity to workplace, and access to elementary schools with lower (i.e. better) than metro-average pupil/teacher-ratios (P/T-ratios). The analysis developed a housing opportunity metric, which combines the three indicators of housing overpayment, access to higher quality schools, and travel time to work.

The research findings suggest that a greater proportion of low-income black renter households as compared to homeowner households paid a smaller proportion of their income for housing, commuted shorter distances to work, and had greater access to higher quality schools, in 2000 in three of the five metropolitan areas studied (Chicago, Detroit and New York). While outcomes varied by metropolitan area, between 1990 and 2000 low-income black renters experienced greater increases or smaller decreases in housing opportunity than did low-income black owners in four of the five metropolitan areas examined (Chicago, Detroit, New York and Philadelphia).

Homeownership might therefore prove a less desirable tenure choice for low-income households in these places because it appears to provide less housing

opportunity under present market conditions. Low-income renters will likely find more affordable homes that are closer to where they work and in closer proximity to better schools in these cities. This suggests that subsidies aimed at increasing increase demand for low-income homeownership by allowing increasing numbers of low-income buyers to participate in the market should be reconsidered.

Recommendations for a New Supply-Side Housing Policy

Since the 1970s federal housing policy has focused primarily on subsidizing demand for affordable housing by expanding low-income participation in the private housing market. This research addressed two questions surrounding this philosophy:

1. Are these subsidies potent enough to remedy our affordable housing crisis; and
2. Can the housing market meet the demand for housing that these subsidies create?

Related are questions surrounding the types of housing the market can provide and the location of units with respect to proximity to workplaces and good schools. There is evidence to suggest that in many of the markets where supply is short and housing is least affordable, demand-subsidies are not potent enough to encourage sufficient production or induce efficient filtering. Also, in four of the five metropolitan areas examined, renters experienced greater increases or smaller decreases in housing opportunity than did owners. With these findings in mind, how should a new housing policy be structured?

Broadly, beyond re-introducing limited supply-oriented subsidies, any new housing policy would have to encompass and accomplish three things:

1. It would need to be flexible in how it balances demand- and supply-side subsidies;
2. It would need to operate solidly within the private housing market by encouraging public/private partnerships and enlisting the participation and expertise of the homebuilding and real estate industries; and
3. It would need to be tied to overall regional housing goals that are clearly and collectively defined and equitably balanced.

Any new housing policy that is to be successful in effectively addressing the affordable housing crisis would require a high degree of flexibility in how it balances supply- and demand-side subsidies. Program flexibility is necessary not only because local housing requirements and markets vary widely, but also because political realities necessitate local autonomy in application. Such demand for autonomy has been part and parcel of housing policy since the early 1970s when local jurisdictions won legal victories over where federally-funded public housing was to be built (see Hays 1995). But beyond the political support it could foster, providing a high-degree of local program flexibility could produce some very positive housing outcomes in relation to local comprehensive planning goals. Housing problems are often framed only in the context of affordability, but housing advocates recognize that successful housing means much more than a roof overhead, and that broader, more meaningful metrics have to be employed to solve the problem in the long term, such as those used in this dissertation.

Presently, homeownership subsidies take aim at little more than housing affordability—their main objective is to allow low-income households to participate in the housing market (i.e. afford to buy a home). After that, the buyer is on his/her own.

Several attempts have been made to council buyers before and after the sale (Restinas 2003), but homebuyer subsidies do little to ensure that a buyer buys wisely, that the home s/he buys will provide a reasonable return, or that it is located near good schools and/or near places of employment.

The second point necessary to any new housing policy is the requirement that it function as a part of private housing market and homebuilding industry. This vital for two reasons: political reality and economic success. New programs should not replicate the structure of public housing programs of earlier years; Rather, programs should draw on best case example of successful partnerships with local developers and not-for-profit community development corporations. Presently, we do some of this in the form of public/private partnerships and the small stream of HUD supply programs like Section 202 (housing for the elderly) and the LIHTC. But the process for developers to access programs like these is extremely complicated, costly and time consuming. Therefore much of the thinking about encouraging affordable housing development in the market seems to revolve around providing developers with tax breaks and development incentives, especially land-based incentives such as density bonuses, inclusionary housing, etc. Density bonuses appear to be effective, especially when they are attached to some form of mandatory inclusionary zoning ordinance, but have very high demand requirements, and therefore work best in very hot housing markets where developers can financially justify the exchange of more units for increased density (otherwise developers simply build elsewhere). Funding more inclusionary housing directly is one form of supply-oriented subsidy that could be very successful in many markets.

Of course, program flexibility and/or market participation would not guarantee positive housing outcomes, especially given our present political environment in which local governments continually seek to minimize their fiscal responsibility to the poor. More apartments often mean more children and increased spending in areas such as schools and social services. That is why I believe any housing policy that is to be successful would have to be tied into to a fair-share regional housing goal in terms of the number, location and type of units needed. Regional goals would vary by metropolitan area but each region's goal would be collectively determined to meet locally appropriate and adequate levels of housing based on need and fair distribution. Goals and objectives of each regional fair housing plan could be tied to funding.

If housing cost alone were an acceptable criterion, the outcomes observed in the five metropolitan housing markets studied in this research convey that much more needs to be done to assist low-income home buyers. As my research argues, successful homeownership entails more than enabling a low-income buyer to qualify (or even afford) a home. Successful homeownership entails at least two other dimensions of housing opportunity, namely proximity to workplace and access to good schools. The history of public housing in the U.S. clearly demonstrates that affordability alone should never be an acceptable criterion for U.S. housing policy. Location matters, and public housing operating at the zenith of supply-subsidy grappled with the socio-economic dimensions of location and the problems of segregation and low-income concentration it produced. When and where a low-income household buys is almost as important price because financial success that homeownership can offer is often contingent on these dimensional aspects.

Housing policy based in demand subsidy, if it is to be successful, must ensure that low-income buyers are able to do more than participate in the market. It must ensure that they find good housing opportunity. Thus far it has not been demonstrated that these kinds of subsidies alone can accomplish this task—while a greater number of low-income households were able to purchase homes through the 1990s, this research suggests that the outcomes were less than ideal. Therefore, it may be more effective to tandem demand-subsidies with supply-oriented subsidies directly to builders and developers willing to build affordable units.

This policy approach would expand direct funding and support for low-income rentership, preferably in mixed-income development. Present funding for rentership occurs primarily through HUD Section 8 vouchers, the Low-Income Housing Tax Credit (LIHTC) and Community Development Block Grants (CDBG) used at the municipal and county levels of government. The Section 8 voucher program operates on the demand-side by providing a direct subsidy to a participating landlord on behalf of the family, and is the federal government's primary program for assisting low-income families to afford affordable rental housing in the private market.[25] Because the program is voluntary in that it relies on landlords to agree to rent under the program, insufficient supply exists and that which does is often located in underserved and distressed neighborhoods (Pendall 2000).

LIHTC and CDBG programs fund supply directly and increasing funding to these programs offers the greatest opportunity to expand the supply of affordable rental housing. Again, because location matters, expanded funding should be tied to a fair-

share regional housing plan. The CDBG program offers communities fairly broad discretion in how such funds are spent (e.g. funding can be used for infrastructure improvements and a wide variety of other project aside from housing). Therefore adjusting the spending requirements to focus more directly on rental unit creation and tying eligibility requirements to local jurisdictions' participation in a fair share regional housing plan could provide substantially greater number of rental units and expand low-income housing opportunity.

Finally, one last policy shift to expand housing opportunity would be to expand tax incentives for low-income renters. Presently, renters are generally better off taking the standardized income tax deduction rather than itemizing on their personal tax returns. As discussed in Chapter 2, this is generally the case for low-income homeowners as well. Beyond the standardized deduction, there are relatively few other deductions that renters (and all taxpayers) may be able to claim, including interest on student loans and classroom expenses if one is a teacher. Extending a personal income tax deduction to low-income renters similar to those offered owners would put renting on a more equal footing with homeownership, thus providing low-income renters with more incentive to rent.

At least two states (Connecticut and Maryland) provide grants to certain low-income renters (generally the very poor and elderly) to offset local property taxes renters pay through rent and utility bills. These programs reduce the property tax burden for certain low-income renters without depriving local municipalities of needed revenue. The federal government could expand this type of program nationally to low-income

[25] Under certain instances, if authorized by the local housing authority, a family may use its voucher to purchase a modest home.

renters and also allow renters to deduct a portion of their rent on their federal tax returns as homeowners are allowed to do with the mortgage interest deduction. These types of renter assistance programs could be funded by shifting present line items in the HUD homeownership (and other demand-side) program funding streams.

Recommendations for Future Research:

This research has sought to expand our knowledge of low-income homeownership and the benefits it offers low-income households as compared to renting. Three specific areas of concern were addressed: 1) housing overpayment; 2) commuting time to work; and 3) access to better quality schools. In doing so, it has raised other questions.

There are three main questions that would provide fruitful avenues for future research. First, what is happening at the intra-metropolitan level with respect to housing opportunity? While the geographic coarseness of PUMS data is inappropriate for many markets, fruitful intra-metropolitan analysis could be conducted for the five large housing markets examined. This might involve more detailed analysis of smaller subsets of metropolitan regions, reducing the unit of analysis to the PUMA level for all variables to illuminate finer details in intra-metropolitan differences in housing opportunity.

Second, what explanations can be found for the results presented through a set of on-site case studies including interviews and other qualitative methods to seek possible explanations for the observed outcomes?

Third, are the outcomes observed for low-income black household consistent across other low-income tenure groups? This would include running similar analysis of the same variables for other racial groups and noting similarities and differences.

Finally, future research should include in-depth investigation of particular explanatory aspects of the study, including more research on manufactured homes and their function in the low-income housing market, how producer consolidation in the housing market affects low-income housing production, and the relative importance of proximity to work and access to good schools as compared to price for low-income households.

APPENDIX A

DESCRIPTION OF POPULATION OF INTEREST FOR STUDY: LOW-INCOME BLACK RENTER AND OWNER HOUSEHOLDS

The 2000 Census identifies 280 MSAs with a cumulative population of 229,192,868 and a black population of 29,885,785 (or 13%). These metropolitan areas have 85,373,906 occupied housing units, of which 64.3% (54,936,840) are owner-occupied and 35.7% (30,437,066) are renter-occupied.

Of the owner-occupied housing units, 36.8% (20,235,149) are low-income (defined by households with incomes at or below 80% of median income for census defined metropolitan areas) and the remaining 63.2% (34,701,691) have incomes greater than 80% of metropolitan area median income. Of the 20,235,149 owner-occupied low-income housing units, 11.1% (2,241,151) are black head-of-household households and the remaining 88.9% (17,993,998) are non-black head-of-household households (i.e. some other race). Of the renter-occupied housing units, 70.4% (21,428,839) are low-income and the remaining 29.6% percent (9,008,207) have incomes greater than 80% of metropolitan area median income.

Of the 21,428,839 renter-occupied low-income housing units, 21.7% (4,644,350) are black head-of-household-households and the remaining 78.3% percent (16,784,509) are non-head-of-household households (i.e. some other race). The potential cumulative population of interest for this study in the U.S. is 6,885,501 households. The population of interest for the five study metropolitan areas in this research —Chicago, Detroit, New York, Philadelphia and Washington DC—was drawn from this assembled population.

APPENDIX B

BUILDING THE STUDY GEOGRAPHY—RECONCILIATION OF 1990 AND 2000 PUMA DEFINED METROPOLITAN AREAS

INTRODUCTION

Two difficulties that arise when comparing metropolitan-level Public Use Microdata Survey (PUMS) data across census years: a) changes in census-defined metropolitan geography and b) changes in Public Use Microdata Areas (PUMAs) boundaries. While the Office of Management and Budget's definition for metropolitan area allows the Census Bureau to use county boundaries as its primary spatial building block for both metropolitan areas (this varies in New England states) and PUMAs, the latter must maintain a minimum population threshold of 100,000 people for confidentiality purposes. Therefore, PUMA boundaries do not necessarily conform to county boundaries: In less densely populated metropolitan areas PUMAs tend to be large and often contain more than one county in their spatial coverage, and, in more densely populated metropolitan areas, counties often contain more than one PUMA. This creates several unavoidable (and intentional, on the part of the Census Bureau) geographic inconsistencies in the spatial coverages for 1990 and 2000 decennial PUMS data, which must be discussed at this point.

METHODOLOGY

For this study, in order to improve the accuracy of making household and population metropolitan area comparisons across time using U.S. Census Bureau's 1990 and 2000

PUMS data, spatial differences between 1990 and 2000 geographies were reconciled by “building” new matching coverages for each metropolitan area using 1990 and 2000 PUMAs as building blocks. Where a metropolitan area saw no change in area between 1990 and 2000, the same counties comprise these metropolitan areas in the study in 1990 and 2000. In cases where the PUMA or metropolitan area census geography changed, differences were resolved in by adding to the 1990 metropolitan area coverages additional PUMA data files required to build a representative coverage of the 2000 metropolitan area spatial footprint. Additional PUMA coverages were drawn from the 5% PUMS state samples from the U.S. Census Bureau.

APPENDIX C

METHODOLOGY FOR LONG-TERM HOUSING AFFORDABILITY ANALYSIS: BOSTON, SAN FRANCISCO, LOS ANGELES AND CHICAGO, 1930-2000

Introduction

Rental and owner-occupied housing costs were compared to each city's median household income (see Table 1). All data were collected from the U.S. Census Bureau and the Bureau of Labor Statistics unless otherwise noted. Understanding that census geography has changed through time, I made efforts to collect data consistently from the appropriate metropolitan statistical area or district measured for each city during each decennial period. When household variables were not available, the closest reasonable equivalent (usually a family unit measurement) was substituted consistently. Results are compared with a decade's inflation rate to provide a clearer picture of how housing costs have changed through time. Inflation (a process of a continuously falling value of money) can be best explained with the following example. A basket of CPI goods that cost $100.00 in 1970 cost $212.40 in 1980 due to a decade-long price inflation rate of 112%. Any conservative estimate of changes in the housing market would expect housing prices to inflate at approximately the same rate. Median house values, rents and incomes were trended between decennial periods when necessary.

The cost of housing is expressed as the proportion of a median priced house that an area's median income buys at a given point in time, a measure referred to as a household's "**income housing opportunity**." Because median house value is greater than median annual income for all time periods and locations surveyed, a high absolute value of income housing opportunity indicates greater housing affordability. That is, a

median income will buy a larger proportion of the median priced home at a given time and location.

$$\textbf{INCOME HOUSING OPPORTUNITY} = \frac{\text{Median Area Annual Income}}{\text{Median House Value}}$$

A similar calculation was performed using median contract rent producing a measure referred to as a household's "**income rental opportunity**." This is expressed as the division of an area's median annual income by its median annual contract rent. Because median house value is greater than median annual income for all time periods and locations surveyed, a high absolute value of income rental opportunity indicates greater housing affordability. Measured on this scale, a rough benchmark for rental affordability translates to an income rental opportunity of 3.33. Further, I reduced median income by 25% in the income rental opportunity calculation to better approximate the after tax scenario from where most rents are paid. I did not reduce median income in the housing calculation because homeowners benefit from federal and state tax breaks that, while not constituting 25% of income, do amount to a consistently sizable income benefit.

$$\textbf{INCOME RENTAL OPPORTUNITY} = \frac{\text{Median Area Monthly Income}}{\text{Median Area Rent}}$$

Strengths and Limitations of the Methodology

There is no perfect measure of housing affordability. This section discusses some of the strengths and weaknesses of the methodology employed. **First**, median house value serves as a proxy for median house price, although it is understood that the latter can be substantially higher than appraised value and can vary greatly between census periods. **Second**, census income and housing figures suffer from inaccuracies in self-reporting and any statistical variation due to the fact that they are estimates developed from a sample. **Three**, any measure that uses percentage of income for housing affordability has at least the following limitations:

A) It does not control for quality changes over time or differences in preferences amongst householders. Some people, mainly the wealthy, are willing to spend a greater proportion of their income for certain housing amenities such as more space, and this method cannot capture these differences;

B) It does not account for differences in location or accessibility requirements. For example, being close to where one works can mean substantial savings in time and money. This alone qualifies as a worthy variable in affordability analysis.

C) It may not accurately reflect a household's real financial constraints—as Stone (1993, 1994) points out in his "Shelter Poverty" measure, not everyone can afford to pay 30% of their income for housing and pay for other necessities. This may especially be the case for low-wage households with children and elderly households.

Finally, a percentage of income measure is based on transitory income (earnings) rather than permanent income (wealth) and does not account for true housing costs, which must include maintenance and appreciation.

Despite these shortcomings a percentage of income measure offers several positives including an ease of calculation and comprehension, availability of data and the fact that it is applicable across time and space. This last point is germane to my

study because reports on the worsening conditions for the poor in the cities of the new economy often rely on nominal increases in the number of people living at or below the national poverty line. This can be misleading because it fails to account for the differences in true costs of living between geographic locations, which must include changing local costs relative to changes in local income.

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