
Does Affordable Housing Detrimentally Affect Property Values? A Review of the Literature

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Opposition to affordable housing is often motivated by homeowners' fear that their property values will decline. Responding to these fears, affordable housing advocates have claimed that there is little evidence from studies that have examined this topic to suggest that affordable housing detrimentally affects property values. Is this true? Does affordable housing have no effect on lowering property values? This review examines seventeen studies that have attempted to measure the effect of affordable housing on property values to try to answer this question. An analysis of these studies reveals that the extent to which property values are lowered depends on a variety of factors: design and management of affordable housing, compatibility between affordable housing and host neighborhood, and concentration of affordable housing.

Keywords: *affordable housing; low-income housing; property values; NIMBY*

For years, affordable housing advocates have disputed claims by property owners that affordable housing detrimentally affects property values. Affordable housing advocates have charged that there has been little scholarly evidence to show that property values are threatened by nearby affordable housing units. A report by the California Planning Roundtable (1993) asserts

that thirteen out of fourteen studies that have examined the impact of proximity to affordable housing on property values have found no significant negative effect. This evidence has provided affordable housing advocates with the defense they need to fight the resistance toward affordable housing siting and construction.

Within the last decade, there have been a surge of methodologically sophisticated studies employing large housing sales data sets that suggest that the relationship between affordable housing and property values is more complex than originally thought. These studies have shown that there are various effects on property values due to the structure of affordable housing units/sites, characteristics of the host neighborhood, compatibility between the affordable housing site and host neighborhood, and clustering of affordable housing units. The challenge that the results from these more recent studies pose to planners, policy makers, community members, and affordable housing advocates is a need to better understand the conditions under which affordable housing may have harmful

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effects on property values in order that this may be avoided.

This call to understand the effect of affordable housing on private market home values is especially pertinent currently, when the federal housing policies are emphasizing the integration of low-income households into more economically and socially advantageous neighborhoods. Federal programs, such as Moving to Opportunity, Gautreaux, Housing Choice Voucher Program (e.g., Section 8), and Hope VI are reliant on host communities accepting the entrance of low-income households and low-income housing. The belief that affordable housing reduces the value of property is the core argument among proponents of “not in my backyard” (NIMBY) attitudes. Without a better understanding of the relationship between affordable housing and property values, NIMBY attitudes may prove to be barriers to success for these federal housing policies (Finkel et al. 1996).

This article reviews all studies to date that examine the effect of affordable housing for low-income households on property values. Studies that look at the effect of housing for seniors,¹ persons with disabilities, or special populations are not considered here. Manufactured housing, as an affordable housing type, is also excluded in this review. The purpose of this review is to provide the relevant actors in the provision of affordable housing with an in-depth and comprehensive look at all studies to date, both published and unpublished, which have examined the relationship between affordable housing and property values. There is a brief discussion about early studies on this topic, but the focus here is on more methodologically rigorous studies that have been conducted most recently. This article tries to make sense of the results of these latter studies to inform and educate the planning and policy communities about the circumstances and reasons why affordable housing might or might not lower property values. It is hoped that this information may enable planners and policy makers to aid in the provision of affordable housing without detrimentally affecting the property values of host neighborhoods and help eliminate NIMBY-type opposition toward affordable housing.

BACKGROUND

At the close of the twentieth century, the United States experienced levels of unprecedented economic prosperity exemplified by such trends as escalating per capita income, low unemployment rates, and a booming stock market. Concurrently, the country also faced some of the greatest challenges in supplying adequate housing for its population. Federal cutbacks in expenditures on housing (Basolo 1999), coupled with escalat-

ing housing prices in metropolitan areas all over the country due to the booming “new economy” (Landis, Elmer, and Zook 2002), placed tremendous strains on households at all income levels, especially those households at the bottom of the socioeconomic hierarchy. Astounding numbers of extremely low- and very-low-income households having “severe housing problems” (e.g., paying a large portion of their income toward rent and/or living in substandard units) spurred a plea to the building community to look beyond making a profit and toward alleviating the housing affordability crisis that plagued the nation (Power 1999).

The insufficient supply of affordable housing was not the only contributor to the housing crisis. Opposition from community members toward the siting and construction of affordable housing in their community has interrupted and/or completely halted the development of affordable housing projects (Pendall 1999). The reasons behind the resistance to affordable housing are varied and complex. Community members have resisted affordable housing due to concerns regarding quality and design of structures, changing neighborhood character, negative externalities (e.g., traffic congestion and environmental degradation), entrance of “undesirables” into the neighborhood, and antigrowth sentiments in general (Downs 1992; California Planning Roundtable 1993; Pendall 1999; Turner, Popkin, and Cunningham 2000). Oftentimes, these expressed concerns are linked to the fear that their property values will be detrimentally affected.

Although concerns regarding declining property values because of proximity to affordable housing sites have been echoed throughout communities across the nation, there has been limited scholarly investigation into this topic. Early research on this topic is often criticized for issues related to research design and data (Galster, Tatian, and Smith 1999). As a result, the validity of the conclusions in the early research remains in question. Within the last decade, there has been a handful of more sophisticated studies that employ multiple regression techniques on hedonic price models using large housing price data sets to test the relationship between affordable housing and property values (Lyons and Loveridge 1993; Cummings and Landis 1993; Goetz, Lam, and Heitlinger 1996; Briggs, Darden, and Aidala 1999; Galster, Tatian, and Smith 1999; Lee, Culhane, and Wachter 1999; Santiago, Galster, and Tatian 2001). These studies have attempted to analyze the impact of affordable housing on proximally located housing values by controlling for a number of characteristics related to the housing unit, neighborhood, or local area. The results from these more recent studies suggest that the relationship between affordable housing and property values is not a simple one and that

there is yet to be a definitive conclusion that can be made. Rather, the nature of the relationship depends on a variety of different factors.

What Makes Housing Affordable?

Before beginning a discussion of the empirical literature, it is pertinent to discuss the use of the term *affordable housing*. When affordable housing is discussed in association with NIMBY and property value decline, it usually involves the physical structure or aesthetic qualities of the affordable housing. Affordable housing, from the opponent's perspective, is conceptualized as a distinct form of housing. Yet within the academic literature, the term *affordable housing* is used more broadly than just to refer to the physical structure of the housing. The most conventional definition of affordable housing among academics and policy makers comes from the Department of Housing and Urban Development (HUD) and reflects the economic ability of a household to afford housing. HUD defines housing as affordable if a household pays no more than 30 percent of its annual income on housing.

HUD's definition of affordable housing is quite broad, considering that households from any income level that pay more than 30 percent of their income (even if by choice) would not be living in affordable housing. Furthermore, although many of the studies in this review use the term *affordable housing*, they do not define or measure it by HUD's definition. It is not clear in some of the reviewed studies whether the households who reside in the affordable housing units are paying no more than 30 percent of their income. Other terms, such as *below-market* or *low-income* have been suggested as better alternatives to affordable housing, but these terms also have their limitations. For example, Section 8 voucher recipients do not necessarily rent below-market housing units. Their units tend to be rented at fair market rates. The term *low-income* is also problematic because it requires some sort of threshold or cutoff; this decision is just as arbitrary as HUD's 30 percent income criterion. Some scholars have argued for more sophisticated measurements of housing affordability, such as a sliding scale that accounts for the number of people in the household as well as their income (Stone 1993).

This review does not analyze the merits of different terminology or measurement of affordable housing, although much work is needed in this area. Instead, the emphasis is on looking at the empirical studies in order to gain a better understanding of the effects of affordable housing, however defined by the researcher(s), on property values. These studies examine housing programs, sites, or units that are intended to make housing more affordable to low-income populations.

THE LINK BETWEEN AFFORDABLE HOUSING AND PROPERTY VALUES: EMPIRICAL FINDINGS

The debate over whether or not property values are detrimentally affected by nearby lower-income housing is not a new one. Studies examining this relationship date back to the 1960s, but there are a number of reasons to believe that there is not enough evidence to make a definitive statement about the nature of the relationship. One reason for this may be due to the multitude of different types of affordable housing programs studied, including public housing, subsidies to property owners providing affordable housing, subsidies to affordable housing tenants, and homeowner assistance. The nature of a program and the way in which it is implemented may differentially affect housing prices. For example, a six-story public housing structure may have substantially different impacts on a neighborhood than the addition of one Section 8 voucher household. Another reason is that, until recently, there have been few studies that employ sound research design and data analysis techniques. Finally, the available studies have focused on small geographic areas, usually a few neighborhoods, a city, or a county and therefore, the results may be context specific and difficult to generalize to other places. With these caveats, the available studies do provide some interesting insights into the relationship between affordable housing and private market housing values.

First-Wave Studies: Test versus Control Area Methodology

While early studies examining the effects of affordable housing on neighboring property values were helpful in their attempts to reduce fears about declining property values, they lacked methodological rigor, which poses problems for the validity of their results. The majority of the studies that were conducted prior to the early 1990s used the test versus control area methodology,² which fueled much criticism. This methodology entails locating neighborhoods that contain affordable housing units and/or sites and "matched" neighborhoods that do not have affordable housing but have comparable characteristics. Then, property values of homes in neighborhoods that contain affordable housing are compared to those neighborhoods that do not have affordable housing. Although a variety of different affordable housing types are examined, all of the studies using this methodology note that either there is no statistically significant difference in property values between the test and control area or that affordable housing has a positive effect on nearby property values. Table 1 provides results of studies that use the test versus control area methodology.

The major problem with this methodology is that although investigators attempted to choose comparable neighborhoods, there may have been either differences not easily apparent to the investigator or nuances of the neighborhood that could not be captured by this type of methodology but that nonetheless affected housing prices. Neighborhood boundaries were often delineated by the investigators' judgment of neighborhood similarities, which could prove to be problematic. The inclusion or exclusion of one block may significantly affect study outcomes. Furthermore, this methodology does not allow for controlling a variety of pertinent factors that may influence housing values.³ Evidence that controls are important can be found in Lee, Culhane, and Wachter's (1999) study of Philadelphia federally assisted housing programs. When neighborhood controls and affordable housing type are included in their regression analyses, their results are different from when these factors are omitted.

Another limitation of this first wave of studies involves sampling design. First, there were many different types of affordable housing programs that were examined, including public housing, below-market interest rate (BMIR), Section 8, Section 23, Section 236, and others. It is difficult to compare studies that look at different housing programs because of the unique nature of each program. Second, these studies looked at a very small sample of affordable housing unit/sites in a small geographic region, usually a neighborhood or a city. Small sample sizes limit the statistical power of the study, and the limited geographic scope makes these studies difficult to generalize.

These early studies can also be criticized for not providing information on trends in housing prices over time (except Rabiega, Lin, and Robinson 1984). The majority of these studies are cross-sectional and, therefore, are not able to determine whether or not housing prices were on the rise or falling before the time of the study. Therefore, the results of the analyses may merely be capturing existing trends in housing prices and *not* the effect of affordable housing. Cross-sectional case studies only provide a snapshot of the current situation at the time of the study and are unable to assess whether the affordable housing caused the property values to change or if property value decline induced the entry of affordable housing. These are important matters to consider.

There are a number of reasons to be critical of the results of these early studies, yet they appear to come to the consensus that property values are not detrimentally affected by proximally located affordable housing units.⁴ In other words, there is no statistically significant relationship between affordable housing and nearby property values. According to these studies, there may

even be instances in which affordable housing has a positive influence on property values. Even though these investigators may argue that a positive relationship exists, the methodological shortcomings and the complexity of the problem make it difficult to ascertain the causal nature of the relationship.

Early studies leave unanswered many important questions about the relationship between property values and affordable housing. For example, does the introduction of affordable housing into a neighborhood lower property values, or are property values declining in neighborhoods where affordable housing is sited? How does the supply and demand of housing in the local housing market affect the relationship between affordable housing and property values? What are the existing housing price trends in the neighborhoods studied? What are the characteristics of the affordable housing unit/site that might influence property values? A second generation of analyses sought to tackle these tough questions.

Second-Wave Studies: Multiple Regression of Hedonic Price Models

Within the last decade, there has been a surge of studies on the topic of how affordable housing relates to housing prices. This is due in part to the desire of affordable-housing advocates and scholars to counter claims by community members regarding the decline in property values, but also because large amounts of housing price data are more readily available. Furthermore, advances in Geographic Information Systems (GIS) have enabled more sophisticated spatial analyses of this nature. These factors have spurred the second wave of studies on this topic. Employing multiple regression techniques (hedonic models⁵), the second wave of studies are better able to control for mediating factors that may influence the relationship between affordable housing and nearby property values. These mediating factors include demographics, quality of the affordable housing structure, characteristics of the neighborhood, macrolocational amenities, distance from affordable housing structure, housing sales cycle, and type of affordable housing program.

Implicit in the assumption of hedonic price models is the idea that home buyers place a monetary value on characteristics of the home that they are purchasing. For example, home buyers might value the square footage of the home more than an additional garage space. With hedonic estimation techniques, it is possible to determine how much more the home buyer values the added square footage over the additional garage space. If affordable housing does indeed cause lower property values, hedonic price models capture the monetary

TABLE 1. First-Wave Studies: Test versus Control Area Methodology

Author(s)	Year	Sample Size	Study Area	Program	Relationship with Property Values
Nourse	1963	3 sites	St. Louis, Missouri	Public housing	2 sites: None 1 site: (+)
Schafer	1972	132 units	Los Angeles, California	Below-market interest rate (BMIR)	None
DeSalvo	1974	62 housing projects	New York	Mitchell-Lama housing projects	(+)
Saunders and Woodford	1979	50-unit housing project	Jefferson County, Colorado	Section 236	None
Baird	1980	4 subsidized housing projects	Fairfax County, Virginia	50-unit public housing 92 townhouse mixed-income complex 37-unit subsidized apartment complex 204-unit Section 236 development	(+) (+) (+) (-)
Sedway and Associates	1983	4 affordable housing developments	Marin County, California	75-unit low-income rental development, owner-built affordable housing development, market rate with inclusionary units development, inclusionary rentals and below-market-rate condos	None
Warren, Aduddell, and Tatalovich	1983	4 subsidized housing sites	Chicago and Cook County, Chicago	Section 8, Section 23, Section 236, Section 221 (d)(3), and public housing	(+)
Babb, Pol, and Guy	1984	22 subsidized housing sites	Memphis, Tennessee	Section 8, Section 23, Section 236, Section 221 (d)(3), and public housing	None
Rabiega, Lin, and Robinson	1984	6 sites	Portland, Oregon	Public housing	(+)
Guy, Hysom, and Ruth	1985	4 sites	Fairfax County, Virginia	BMIR	(-)

impact of locating near an affordable housing site, while controlling for other relevant factors.

A careful review of these hedonic price studies leads the reader to conclude that property values *can* be detrimentally affected by proximally located affordable housing, but that there are ways to reduce the chance of this occurring. There are various measures that affordable housing suppliers can take to reduce the likelihood that property values will fall. These measures include ensuring that the affordable housing unit is (1) of quality design and management, (2) compatible with the host neighborhood, and (3) not concentrated among other affordable housing. Furthermore, different types

of affordable housing, such as rehabilitated, newly constructed, and existing housing, affect property values that are conditional on a variety of factors. A list of results for the hedonic price studies can be found in Table 2. Included in the table are details about type of affordable housing included in the study as well as their effects—whether positive, negative, or mixed—on property values.

QUALITY CONTROL MATTERS

On the whole, extant research suggests that locating near affordable housing can indeed have harmful

TABLE 2. Second-Wave Studies: Hedonic Price Estimation Methodology

Author(s)	Year	Sample Size	Study Area	Program or Type	Relationship with Property Values
Cummings and Landis	1993	2 developments	San Mateo County, California San Francisco County, California	42-unit condominium project for families and seniors 96-unit condominium project for families	None Mixed: Not significant if located within 1/8 or 1/4 mile but (-) effect at 1/2 mile
Lyons and Loveridge	1993	120 projects	Ramsey County, Minnesota	Section 8 EV, Section 236, below-market interest rate (BMIR) Section 221(d)(3) Public housing Section 8 NC&R	None (+) (+) Mixed
Goetz, Lam, and Heitlinger	1996	100 projects with 3,600 units	Minneapolis, Minnesota	Community Development Corporations (CDC)-developed subsidized housing Privately owned and publicly subsidized housing, public housing	(+) (-)
Briggs, Darden, and Aidala	1999	7 developments	Yonkers, New York	Scattered-site public housing	None
Galster, Tatian, and Smith	1999	4,969 sites	Baltimore County, Maryland	Section 8 certificate and voucher	Aggregate Data: (+) 6+ sites within 500 feet: (-)
Lee, Culhane, and Wachter	1999	not provided	Philadelphia, Pennsylvania	Public housing, scattered-site public housing, Section 8 certificate and voucher, LIHTC FHA housing, PHA home ownership programs, Section 8 NC&R	(-) (+)
Santiago, Galster, and Tatian	2001	167 sites	Denver, Colorado	Dispersed rehabilitated public housing	(+)

NOTE: LIHTC = Low-Income Housing Tax Credit (program); FHA = Federal Housing Administration; PHA = Public Housing Administration.

effects on proximally located property values. But, when negative effects exist, the magnitude of the effect appears to be relatively small, controlling for other factors of the property, such as quality and management of the affordable housing structure. Lyons and Loveridge (1993) placed the devaluation of property into perspective by stating, "Adding one subsidized unit within a quarter mile radius of a house has the same dollar

impact on that house's value as removing half a square footage in their houses" (p. 59). This suggests that when effects on property value are found, they tend to be quite small.

Some researchers argue that property value decline may be mitigated. Cummings and Landis (1993), for example, argued that the quality and design of the affordable housing structure is a stronger predictor of prop-

erty values than proximity to it. Their cross-sectional study of six affordable housing developments, of which four were strictly elderly, one was both elderly and family, and one was a family-only-type development, found that overall, proximity to these affordable housing developments did not significantly affect single-family housing values. They attribute this to the conscientious effort of the nonprofit builders to design the affordable housing to “match their neighborhoods in terms of size, scale, design, and amenities” (Cummings and Landis 1993, 3). Examining the two units that housed families, there were no robust findings to support the claim that affordable housing causes property value decline. There was a negative effect found for one affordable family development when private market homes were located within a 1/2-mile radius, but no effect at closer distances (1/4 and 1/8 miles). Cummings and Landis point out that if property values are truly affected, the homes closer to the affordable housing should be more negatively affected. Yet, their findings do not reveal this and, therefore, leave doubt that a negative relationship between affordable housing and property value exists.

Not only can a well-maintained affordable housing development *not* detrimentally affect property values, it is conceivable that it can raise property values in neighborhoods, such as those that contain abandoned homes and neglected or physically deteriorating properties. Evidence of this is found by Santiago, Galster, and Tatian’s (2001) study of rehabilitated public housing in Denver. The sites that were chosen to be rehabilitated were more likely to be located in deteriorating areas. Upon rehabilitation of these sites, surrounding housing values significantly appreciated due to the visible difference between the quality of the rehabilitated housing and the existing housing in the neighborhood.

Others suggest that it is not just quality of design but also good management of affordable housing as well as owner-occupied housing in a neighborhood that can bolster property values (Goetz, Lam, and Heitlinger 1996). Studying the impact of nonprofit multifamily subsidized housing developed by Community Development Corporations (CDC) in Minneapolis, Goetz, Lam, and Heitlinger (1996) found positive effects on property values. They maintain that for every 100 feet closer to CDC-developed housing, a property was valued \$86 more than if it was not. Goetz and colleagues also examined the effect of public housing and privately owned, publicly subsidized housing and found that, in contrast to CDC-developed subsidized housing, these types of affordable housing depressed nearby property values. They found that for every 100 feet closer to a public housing unit or privately owned, publicly subsidized housing unit, a property’s value decreased by \$46 and \$82, respectively, than if it was

not. They maintained that the differential effect between the affordable housing types on housing values was due to the quality of management. CDC housing is usually run by neighborhood-based organizations and, therefore, management is quicker to respond to community concerns and is more in tune with community needs than are private owners of subsidized housing or public housing managers. It is interesting that Goetz and colleagues also contended that the actions of private landowners had more of an impact on housing values than the mere existence of subsidized housing in a neighborhood. For example, they found that proximity to an abandoned home reduced a property’s assessed total value by \$859.98, and substandard homes compared with homes in standard condition were \$7,473 less, on average. These numbers reveal that locating near a property that has not been kept up or has been abandoned by private owners can have a more significant effect on property values than locating near subsidized housing. A conclusion that can be made from their results is that quality and management of property affects property values, regardless of whether it is an affordable housing or privately owned unit.

Quality is important for various types of affordable housing (e.g., newly constructed, rehabilitated, and existing) for a number of different reasons. Newly constructed affordable housing units, depending on the design and size of the structure, may attract much attention. If nearby residents react negatively toward the construction of the affordable housing, this may induce “panic” sales of nearby housing at reduced rates. On the other hand, Briggs, Darden, and Aidala (1999) suggested that attention to the quality and design of the structure may curtail these panic sales and subsequent deterioration of property values. Theirs was the only study that examined before- and aftereffects of new affordable housing developments, and they found no harmful effects, even in the face of fierce public opposition. These results suggest that new construction of affordable housing, when done well, does not necessarily bring about lower property values.

Rehabilitated affordable housing brings about different issues than new housing construction. Theoretically, there is little reason to believe that newly rehabilitated housing would lower property values; the very goal of rehabilitated housing is to improve the quality and appearance of the housing structure, which results in an upgrade in the quality of the host neighborhood as a whole. Consequently, rehabilitation should encourage greater growth in housing values in surrounding neighborhoods. The magnitude of the property value increase may depend on the difference in quality between the rehabilitated structure and the surrounding housing. If the rehabilitated structure is dramati-

cally better improved than its neighbors, this could boost property values in the neighborhood significantly. If after rehabilitation, the structure is still below par in quality to existing housing, the effect on property values in the neighborhood may not be as dramatic. Two studies looking at the effects of rehabilitation—Goetz, Lam, and Heitlinger (1996) and Santiago, Galster, and Tatian (2001)—find strong support for the beneficial impacts of rehabilitated affordable housing. They suggest that when rehabilitation occurs in depreciating and deteriorating neighborhoods, the positive benefits to nearby property values are greater. In addition, conscientious maintenance and management of these properties may also help to boost nearby property values. The evidence shows that rehabilitating housing can be an effective means to provide low-income households with a home while also improving the condition, both aesthetically and financially, of the host neighborhood.

Existing housing that is converted to affordable, or that is newly rented by affordable housing tenants, does not necessarily affect property values because there may be no visible changes to the structure. Moreover, neighbors may never be aware that these structures are affordable or that the tenants are low-income. This is often true of the Section 8 certificate and voucher program, which allows households the possibility of confidentially renting housing in the neighborhood of their choice (within the designated rent level). In this case, there should be no perceptible effect on property values if the quality of the structure is comparable to that of neighboring properties. Lyons and Loveridge's (1993) examination of Section 8 existing program, which provides recipients certificates that subsidize housing in the private market, found that there was no effect on property values of properties located near a Section 8 residence. If property values do decline, it may be related to the socioeconomic status (e.g., driving an older used car) or the race of the residents that marks a real or perceived transition in the neighborhood, triggering sales of homes at lower rates. It could also be due to a concentration effect of low-income households rather than the proximity to a single affordable housing unit (Galster, Tatian, and Smith 1999).

Characteristics of Host Neighborhood

The compatibility of the affordable housing unit/site with the host neighborhood may have a substantial impact on housing values. Lee, Culhane, and Wachter's (1999) study of a multitude of different federally assisted housing programs in Philadelphia found that when affordable housing was located in suburban versus urban neighborhoods, there was a 35 percent difference in the decline of property values. Their explana-

tion was that "suburban homes are probably more adversely affected by new subsidized housing units than urban houses . . . [because of] the difference in the value of homes in the city and in the suburbs" (p. 58). Their assessment suggests that it is important to look at the compatibility of the affordable housing unit/site with the surrounding area. If there are large differences in value between affordable housing and neighboring homes, it may not be wise to site affordable housing in areas where there are wide discrepancies in property values between existing housing and the newly constructed affordable housing.

Similarly, demographics of host neighborhoods may also play a factor in mitigating property value decline. Galster, Tatian, and Smith (1999) examined the effects of Section 8 sites on housing sales prices in Baltimore County. Using hedonic price estimation, they analyzed the effect of pre- and postentry of Section 8 households on surrounding property values. They found that the property values were more often positively affected when Section 8 households located in wealthier white neighborhoods that were appreciating in value. In neighborhoods that they called "vulnerable" (i.e., lower priced homes that are depreciating in value), there was a negative association. They noted that this was true regardless of the racial makeup of the neighborhood, although all racially mixed neighborhoods in Baltimore County were also vulnerable neighborhoods.

The same researchers, using identical methodology, studied the effects of Denver's dispersed subsidized housing on nearby property values (Santiago, Galster, and Tatian 2001). This program required that investments must be made toward physical improvement of the subsidized housing structure. On average, each subsidized housing unit acquired under this program spent \$21,432 on rehabilitation, which may have helped to increase the value of surrounding homes. Overall, the results indicated that there were positive effects on property values located near the subsidized housing. Yet, when the sample was stratified by racial/ethnic composition of neighborhood, the researchers found that the benefits of locating close to subsidized housing (which was found when all neighborhoods were examined) were not present when studying only neighborhoods with large numbers of blacks. The reason for this may have been due to the correlation between concentrated black neighborhoods and social problems (e.g., poverty, out-of-wedlock births), as well as larger concentrations of different types of subsidized housing in Denver.

In line with the results of the last two studies discussed, Briggs, Darden, and Aidala (1999) concluded from their study that public housing that was built in predominantly white middle-income areas had no sig-

nificant effect on property values. The authors analyzed housing sales data before and after occupancy of seven newly constructed public housing developments that were built between 1990 and 1993. The design of the structures and traits of occupants were the same for all seven developments, but the size, location, and political environments varied. One of the most interesting aspects of this study was that the issue of public housing construction in Yonkers, New York, the site of the study, was quite politically charged and highly contested. Furthermore, there were stark contrasts in demographics between the residents of the public housing developments and the surrounding neighbors. Public housing residents were primarily very-low-income minorities (African American and Hispanic), while their neighbors were predominantly middle-class whites. The factors surrounding the construction of public housing, and the contrast between public housing residents and their neighbors, could have signaled “panic” sales in the area, but there appears to be no evidence that this occurred in the short run (for the three years of housing sales examined after occupancy of the sites). These positive outcomes may be a product of siting public housing in nondisadvantaged communities.

Dispersing Affordable Housing

As the trend in federal housing policies continues to emphasize moving low-income and minority residents into more socially and economically advantaged neighborhoods, questions arise about the effect on property values. Galster, Tatian, and Smith (1999) analyzed the effect of Section 8 sites on price of housing sales located at three different distances: 500 feet, 501-1,000 feet, and 1,001-2,000 feet. They evaluated housing price trends before entrance of Section 8 voucher holder(s) and then how these trends might have changed after occupancy. Galster and colleagues found that, *ceteris paribus*, proximity to a Section 8 site was associated with greater housing values. Upon closer examination, when the data were disaggregated, they found that this was true under specific conditions. A positive association existed when there were few numbers of Section 8 households in the neighborhood. However, if the number of Section 8 households in any neighborhood reached a certain threshold (six or more within 500 feet), there was a downward shift in housing values. Thus, it would not be a wise policy decision to cluster affordable housing.

Lyons and Loveridge (1993) also found negative effects of clustering in their study of subsidized housing in Ramsey County, Minnesota. Their hedonic analysis revealed that an addition of one subsidized unit lowered the value of property located within a quarter-mile

radius by \$21, whereas the siting of a subsidized housing project had a \$1,600 reduction on property values located within the same radius. This was a substantial reduction in property values when subsidized housing was clustered in an area.

Lee, Culhane, and Wachter’s (1999) results for the effects of public housing and lower density scattered-site public housing on property values revealed a slight negative relationship when controlling for neighborhood characteristics. Although public housing has been commonly found to have deleterious effects to host neighborhoods, it is surprising that scattered-site public housing does also. The intent of scattered-site public housing is to deconcentrate poverty and, therefore, reduce the negative effects on the host neighborhood. Lee and colleagues attributed the effects of lowered property values to the concentration of scattered-site public housing, suggesting that scattered site was perhaps not scattered enough. When larger-scale public housing (e.g., high-rise and large developments) was examined, there was surprisingly no statistically significant effect of size of public housing on property values. This is quite contrary to what would be expected.

MAKING SENSE OF THE RESULTS: GENERAL CONCLUSIONS

Studies from the last decade have exemplified sophisticated analysis in an attempt to answer the research question, “Does affordable housing affect nearby property values?” Any scholar would be hard-pressed to provide a simple “yes” or “no” answer to this question. The answer lies in understanding the circumstances in which property values are more likely to be detrimentally affected, if they are at all. This understanding advances the scholarship beyond merely answering the question and moves toward providing effective policy solutions.

After forty years and seventeen studies, there are more unanswered questions about the relationship between affordable housing and property values now than ever before. In their desire to provide more affordable housing to those populations in need, there are many promoters of affordable housing who would like to say that neighboring property values do not decline. However, recent studies tell us that affordable housing can indeed lower property values. But, there is more to the story. The likelihood that property values will decline as a result of proximity to affordable housing increases when (1) the quality, design, and management of the affordable housing is poor; (2) affordable housing is located in dilapidated neighborhoods that contain disadvantaged populations (i.e., usually low-income and predominantly minority); and (3) when

affordable housing residents are clustered. In contrast, instances in which affordable housing appears to have no effect occur when (1) affordable housing is sited in healthy and vibrant neighborhoods, (2) the structure of the affordable housing does not change the quality or character of the neighborhood, (3) the management of affordable housing is responsive to problems and concerns, and (4) affordable housing is dispersed. Furthermore, the evidence reveals that rehabilitated housing always has beneficial outcomes for neighboring property values.

What can be gleaned from the literature can be summarized as follows:

1. *When negative effects exist, they are small.* The magnitude of the effect of affordable housing on property values is quite small when compared with other factors that influence property values.
2. *Characteristics about the affordable housing unit/site can lead to greater chances of property value decline.* When design and management are poor and the affordable housing is not compatible or comparable with the host neighborhood, this can lead to a reduction in nearby property values.
3. *Neighborhood composition is important.* Negative effects on property values are more likely to occur when affordable housing is clustered and located in disadvantaged and declining neighborhoods.
4. *More studies are needed.* The limited number of methodologically sound studies only enable tentative conclusions to be made. More studies of this nature, in a broader range of regions in the country, may provide more conclusive evidence.

FUTURE RESEARCH

It is evident from the review of the literature that much progress has been made in the last decade toward understanding the impact of affordable housing on property values, but there is still a need for further research. The second wave of studies (multiple regression of hedonistic price models) addressed the issue of controlling for neighborhood characteristics and conditions, which was a limiting factor in the first wave of studies. Yet the other two concerns raised in the first-wave studies, pre- and postanalysis of affordable housing entry and limited geographic scope, were not adequately addressed in the latter studies. There were three later studies that included pre- and postmeasurements of property values, but they looked at different types of affordable housing. Galster, Tatian, and Smith (1999) examined entry of Section 8 households; Briggs, Darden, and Aidala (1999) looked at the development of new public housing; and Santiago, Galster, and

Tatian (2001) studied rehabilitated housing. Future studies should provide housing trend data before and after the siting of affordable housing in order to determine whether the inclusion of affordable housing affects property values beyond the already existing trends.

The majority of study sites were located in older, northeastern cities. It would be interesting to see if similar patterns exist in newer places in the west and south. Although a national study would be ideal, it is likely not feasible. A more realistic approach might be to compare the same housing programs or policies in a number of different cities.

Only a few of these studies analyzed the role of racial/ethnic factors in association with affordable housing and property values. Galster, Tatian, and Smith (1999) were the only ones to look at racial effects, examining the relationship between Section 8 head of household and property values. This study attempted to determine whether the race of the Section 8 head of household relative to the racial composition of the U.S. census block group affected property values. They found that there was no significant effect. The block group racial composition may not have provided enough detailed information on the changing racial makeup of the neighborhood. It may have been that the change in racial makeup over time, not the current racial composition, triggered housing price effects due to real (e.g., increased crime) or perceived (racial discrimination against minorities by whites) changes to the neighborhood. A richer understanding of the relationship between Section 8 householders, race, and property values might look at race of the home seller, race of buyer, race of Section 8 household, and the changing racial makeup of the neighborhood over time. This would enable researchers to determine whether the race of a Section 8 household, along with the changing racial composition of the neighborhood, affects housing prices. Moreover, researchers can examine whether increased concentration of racial minorities due to Section 8 concentration is producing a "white flight" effect that consequently affects property values. There is a related stream of literature looking at the relationship between racially transitioning neighborhoods and property values that is not discussed here but is relevant to these concerns.⁶

It is necessary for policy makers to understand the relationship between socioeconomic status, race, affordable housing, and property values to craft better policies. If there are "real" deleterious effects of concentrating affordable housing residents, then local housing authorities must do a better job at siting affordable housing in economically and racially integrated neighborhoods. If housing prices are affected because whites

believe that the neighborhood is in decline due to perceived but false notions about the class and race of the Section 8 householder, then public education may prove a useful tool toward acceptance of Section 8 households.

All the work on this topic thus far have used quantitative methodologies. Future work on this topic might employ qualitative techniques to provide deeper insights into the reasons why different types of affordable housing might signal price changes in property values that are nearby. Does price decline because of the structure or because of the tenants of affordable housing? What are the reasons homeowners are willing to sell their homes at lower prices? Is it because they predict negative changes to the neighborhood? Are these predictions real or perceived? These are all questions that may be better answered using qualitative research, such as case studies of neighborhoods and in-depth interviews with buyers and sellers to understand the motives for their actions.

Finally, because of the variation in the different types of affordable housing studied (e.g., newly constructed, rehabilitated, and existing), there is a need for more studies on each of these types to understand their differential effects. More attention should be paid to different community attitudes toward these different types of affordable housing.

NOTES

1. There are several studies in this review that have analyzed senior housing as one of several types of affordable housing that are analyzed; however, the results for senior housing will not be discussed in this review.

2. Annotated bibliographies can be found for these studies; see Martinez (1988) and Matulef (1988).

3. There were two studies that employed multiple regression techniques to control for important variables that may influence property values. Their results showed conflicting evidence: Warren, Aduddell, and Tatalovich (1983) found that affordable housing had a slight positive effect on property values, while the results from Guy, Hysom, and Ruth (1985) revealed negative consequences on property values located near below-market interest rate housing. The latter study was one of the first to suggest that affordable housing was detrimental to property values.

4. With the exception of the study by Guy, Hysom, and Ruth (1985).

5. For a detailed explanation of hedonic modeling, see Rosen (1974).

6. See, for example, Weaver (1948), Abrams (1955), Gillette (1957), Laurenti (1960), Palmore and Howe (1962), Ladd (1962), Downings (1970), Phares (1971), Mullendore and Cooper (1972), Berry (1976), Rent and Lord (1978), Chambers (1992), and Harris (1999).

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