



THE URBAN INSTITUTE

Promoting Homeownership among Low-Income Households



Edgar O. Olsen

Opportunity and Ownership Project
Report No. 2

Promoting Homeownership among Low-Income Households

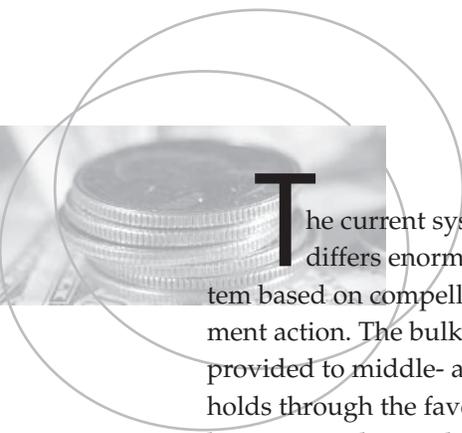


Edgar O. Olsen



THE URBAN INSTITUTE

Given the chance, many low-income families can acquire assets and become more financially secure. Conservatives and liberals increasingly agree that government's role in this transition requires going beyond traditional antipoverty programs to encourage savings, homeownership, private pensions, and microenterprise. The Urban Institute's *Opportunity and Ownership Project* reports present some of our findings, analyses, and recommendations. The Urban Institute is grateful to the Annie E. Casey Foundation and the Ford Foundation for funding the reports.



The current system of housing assistance differs enormously from an ideal system based on compelling arguments for government action. The bulk of housing subsidies is provided to middle- and upper-income households through the favorable tax treatment of homeownership under the federal individual income tax (Carasso et al. 2005; Ling and McGill 1992). These tax provisions induce more middle- and upper-income households to be homeowners than if the homeownership preferences were eliminated and tax rates were reduced proportionally to raise the same tax revenue, and they induce homeowners in these income categories to occupy better housing than under this alternative tax system (Rosen 1979). These distortions in individual choice serve no compelling social purpose.

In contrast to the housing subsidies provided under the tax code to middle- and upper-income households, the current system of low-income housing assistance is strongly biased against homeownership. Programs that subsidize homeownership account for only 10 percent of total spending on income-tested housing programs and for even less spending on programs that help the poorest households.¹ Calculations from the 2003 National American Housing Survey show that the average per capita income of the households served by low-income homeownership programs is about three times as large as the average for households served by low-income rental programs.

This paper takes no position on whether governments should encourage low-income households to become homeowners but does assume that governments should not actively discourage it. To neutralize the current bias in

government programs against homeownership, the paper suggests reforms that do not require additional spending. The appropriate level of spending is a separable question not addressed here.

One reform involves converting the U.S. Department of Housing and Urban Development's (HUD) Section 8 housing voucher program to one neutral with respect to homeownership. Two variations on that theme are to provide a down-payment subsidy for first-time homebuyers under the voucher program and to expand voucher opportunities for those in subsidized housing projects. Shifting public funds from programs that subsidize rental housing projects to the revised voucher program would increase homeownership among low-income households. A second possible reform would allow the Low-Income Housing Tax Credit to be used for homeownership as well as for rental housing projects. One way to achieve this second reform without spending more money would be to devote the annual increase in the tax credit allocation to a refundable tax credit for homeownership for low-income households. Such reforms would improve the current system's effectiveness in achieving its primary goal of helping people obtain good-quality housing.

The next section of the paper documents the anti-homeownership bias in the current system of low-income housing assistance. Drawing on the evidence concerning the performance of past housing programs, the paper then discusses its implications for the design of efficient low-income homeownership programs. Finally, the paper describes the proposed reforms and why they would enhance

the nation’s effort to improve housing outcomes for low-income families.

Anti-Homeownership Bias in the Current System of Low-Income Housing Assistance

Several pieces of evidence suggest that the current system of low-income housing assistance is biased against homeownership for the poorest households. The first is that the poorest homeowners are much less likely to obtain subsidies than renters with similarly low income. To document this differential, data from the 2003 National American Housing Survey are used to examine subsidy and homeownership patterns by income groups, incorporating area differences in living costs and adding an imputed return on home equity to homeowners’ incomes.² The results in table 1 highlight the disadvantage of the poorest households that want to be homeowners relative to those that prefer to rent. Of those in the bottom 10 percent of real household income, the government provided less than 5 percent of homeowners, but nearly 25 percent of renters, with a subsidy in 2003.³ For the near poor, those in the 10th to 20th percentiles of real income, the same pattern holds true. The pattern is also the same when households of each size are considered separately.

Another way to capture the subsidy patterns is to compare the homeownership rates of subsidized and unsubsidized low-income households. Table 1 shows that homeownership rates are much higher for unsubsidized than for subsidized households in the two lowest real income categories. Among the poorest 10 percent of households, less than 5 percent of subsidized households were homeowners, compared to about 25 percent of unsubsidized households. The gap is smaller, but still substantial, in the second decile of the distribution of real income.

The absence of subsidies for low-income homeowners and the extremely low homeownership rate among subsidized households

Table 1. Subsidy Rates by Homeownership Status and Homeownership Rates by Subsidy Status for Households in the Lowest Five Income Deciles, 2003

	Percent Receiving Subsidies				
	< 10	10–20	20–30	30–40	40–50
Homeowners	4.6	7.0	8.3	7.4	6.6
Renters	24.8	11.7	5.5	4.6	3.5
	Percent Owning Homes in Subsidized and Unsubsidized Households				
	< 10	10–20	20–30	30–40	40–50
Unsubsidized	24.7	31.5	41.8	55.7	65.8
Subsidized	4.6	20.6	52.6	67.5	78.8

Source: 2003 National American Housing Survey (AHS).

Notes: A 10 percent return on home equity is added to the income of each homeowner and a geographical consumer price index is used to express all incomes in the prices of a single locality. Except for home equity loans, the AHS does not report outstanding balances on mortgages. For households with fixed-rate first and (if applicable) second mortgages, outstanding balances on all mortgages are calculated using the procedures recommended by the U.S. Bureau of the Census. These outstanding balances are added to the reported outstanding balances on home equity loans and the result is subtracted from the owner’s estimate of the market value of the house to obtain an estimate of the owner’s home equity. For the small minority of households that do not have fixed-rate first and (if applicable) second mortgages, home equity is predicted based on a nonlinear regression of home equity on market value and date of purchase that is estimated using data from for the preceding group. The ACCRA geographical price index is used for metropolitan areas identified in the 2003 National AHS and regional metropolitan or nonmetropolitan averages of the ACCRA index are used for other observations.

suggests a strong policy bias against homeownership.⁴ Many locations would not require especially high subsidies for homeownership to become affordable. In 2005, over 20 percent of homes in the United States had values of \$80,000 or less (U.S. Bureau of the Census 2006). Even if a homebuyer were to borrow enough to pay the entire sum of \$80,000 at a 6 percent rate of interest, his payments on a 30-year loan would amount to about \$480 per month. Taxes and insurance would add to the cost. But, a combined cost of \$550 to \$600 would be well within the reach of families combining the housing subsidy with their own contributions. The national average subsidy to the poorest households of the most common size under the

Section 8 housing voucher program was about \$767 per month between April 2005 and April 2006.⁵ Therefore, even the poorest households could afford to buy modest homes with the help of a subsidy. With a subsidy that varies across areas in a manner similar to the voucher program, homeownership would be possible for the poorest people, even in metropolitan areas with the highest costs. Under the voucher program, the monthly subsidy to the poorest households of the most common size is \$1,519 in San Francisco, \$1,266 in Boston, and \$1,075 in New York City.

Although many policymakers have expressed interest in promoting homeownership for low-income families, not much actual help has materialized. HUD touts the homeownership option in its voucher program, but this option has touched few households.

The Section 8 housing voucher program is the federal government's largest low-income housing program, serving more than two million households. Until recently, it provided subsidies exclusively for rental housing. The Housing and Community Development Act of 1992 authorized the provision of homeownership assistance to first-time homebuyers under this program. However, HUD did not issue regulations for a homeownership option within the voucher program until after the Quality Housing and Work Responsibility Act of 1998 revised the earlier legislation. The final regulations were issued in September 2000 and became effective in October 2000. This legislation allows, but does not require, local public housing authorities to offer the homeownership option to voucher recipients.

To date, few housing authorities have offered the homeownership option, and these authorities have offered it to few recipients. Only about 450 of the 3,500 housing authorities had offered the homeownership option as of December 2005, and they provided it to only about 4,000 families (Locke et al. 2006). The limited use of the homeownership option is not due to a lack of interest on the part of low-

income families. As shown in table 1, about 28 percent of all unsubsidized households in the lowest real income quintile are homeowners. Furthermore, when the Rand Corporation operated tenure-neutral entitlement housing assistance programs in two metropolitan areas in the 1970s as a part of HUD's Experimental Housing Allowance Program (EHAP), about 42 percent of recipients were homeowners, even though only the poorest 16 and 21 percent of all households in the two sites were eligible for assistance.⁶

The primary reason adoption of the homeownership option within the Section 8 voucher program was limited prior to 2005 is that local public housing authorities did not receive additional administrative fees to defray the cost of creating and operating such a program.⁷ Therefore, only housing authorities whose directors and boards felt most strongly that the option was desirable had implemented it. In 2005, HUD began to provide \$5,000 to any housing authority that established a homeownership option in its voucher program and \$1,000 in administrative fees for each voucher recipient who became a homeowner under this program.⁸ In 2006, enough money had been allocated to provide \$1,000 in administrative fees for 2,000 additional homeowners, but the proposed one-time financial incentive for local housing authorities to establish a homeownership program was not funded.⁹

In short, the current homeownership option in the voucher program is extremely limited. It is unlikely to expand greatly as long as its size is left to the discretion of local housing authorities and the additional administrative fees to defray the extra costs of the homeownership option are limited to so few households.

Avoiding Past Mistakes

This section briefly describes and critically examines the major low-income homeownership programs. It explains why programs that subsidize the construction of new units or that

require intended beneficiaries to buy from selected sellers will likely involve excessive costs. It also points out why subsidized construction is not necessary to increase the supply of adequate housing, even in the tightest housing markets. In addition to presenting evidence on the cost-effectiveness of homeownership programs, the section summarizes the more abundant evidence on the cost-effectiveness of low-income rental programs.

Major Low-Income Homeownership Programs

The Housing Act of 1949 established the U.S. Department of Agriculture's (USDA) Section 502 Single Family Direct Loan Program to provide eligible families with subsidies to buy a new or existing house.¹⁰ Until 1968, the subsidy was modest and did not depend on the household's income. The subsidy consisted of lending at the federal borrowing rate to farmers and others living in rural areas. (Farmers now account for a small share of all borrowers.) The Housing Act of 1968 authorized the USDA to pay a portion of the loan repayments for low-income households. For the poorest households, the USDA paid the difference between principal and interest payments at the government's borrowing rate and 1 percent interest. For eligible households with higher incomes, the USDA paid the difference between the sum of property taxes, homeowners insurance, operating expenses, and principal and interest payments at the government's borrowing rate, and 20 percent of the household's adjusted income. During its first 50 years, the Section 502 Single Family Direct Loan Program has provided over \$51 billion in homeownership loans to about 1.9 million households. The program currently provides subsidies to about 550,000 households (Millennial Housing Commission 2002).

Section 235 of the Housing Act of 1968 offered a similar subsidy but otherwise operated differently from the USDA's Section 502. The larger component of Section 235 authorized

selected developers to build units and sell them to eligible families. The smaller Section 235 component provided first-come, first-served subsidies to low-income buyers of existing houses. Section 235 was unique among low-income housing programs in that the major responsibility for informing the public of its existence fell upon the real estate industry. Local Federal Housing Administration (FHA) insuring offices did not advertise the program nor did they seek out potential eligible buyers (U.S. Commission on Civil Rights 1971). Unlike Section 502, this program suffered from scandals and high default rates (Carliner 1998). It was suspended in 1973, reactivated in 1975, severely limited geographically in 1983, and terminated in 1987. Over this period, it provided subsidies to more 500,000 low-income households. However, only about 5,000 households continue to receive subsidies.

The HOME Investment Partnerships Program enacted in 1990 is a block grant for housing assistance. It currently allocates about \$2 billion a year in federal funds by formula to state and local governments to spend on various types of housing assistance, subject to certain limits on the incomes of the households served, the cost to acquire and develop units, and the rents that may be charged for rental units. In 2002, state and local governments devoted about 48 percent of their HOME budgets to homeownership assistance. About 35 percent of homeownership assistance was in grants and below-market rate loans to low-income homeowners to rehabilitate their houses (Turnham et al. 2003). The remaining 65 percent was allocated to homebuyers. Local housing agencies are authorized to provide direct assistance to homebuyers or to allocate funds to selected developers who build units and sell them to eligible families. Although data are limited, they show that 44 percent of homebuyer programs provide direct assistance to homebuyers who are free to choose their units, and that 56 percent tie assistance to the purchase of particular units (Turnham et al. 2003).¹¹ The median per

unit subsidy under the direct assistance programs is much smaller than under the unit-based assistance programs—\$8,000 versus more than \$20,000 (Turnham et al. 2003). Through 2002, this program subsidized about 270,000 homebuyers and 143,000 existing homeowners (Turnham et al. 2003).

The Mortgage Revenue Bond Program uses the tax system to subsidize homeownership. Since its inception in 1913, the federal income tax has excluded the interest on state and local bonds from taxation. For decades, state and local housing agencies have issued mortgage revenue bonds and used the proceeds to provide below-market rate loans to homebuyers. The Mortgage Subsidy Bond Tax Act of 1980 and the Tax Reform Act of 1986 limited the mortgage revenue bonds that each political jurisdiction could issue, the borrower's income, and the house's purchase price. The Mortgage Revenue Bond Program currently provides about 100,000 loans each year at below-market interest rates to low-income, first-time homebuyers. Over its history, this program has subsidized about 2.4 million loans. In some cases, the authority to allocate loans has been given to selected builders. In others, loans have been allocated to homebuyers who are free to choose any unit. The division between these two types of assistance is not known. However, a 1988 U.S. General Accounting Office (GAO) report indicates that new housing loans accounted for about 40 percent of the loans and much of these funds were set aside for developers (U.S. GAO 1988).

The Community Development Block Grant Program, enacted in 1974, provides state and local agencies with block grants for community development. About a quarter of these grants is used to provide housing assistance to low- and moderate-income households. Homeowners receive about half of this money in grants and loans at below-market interest rates to rehabilitate their homes. In 2004, about 112,000 homeowners received such grants or loans, and another 14,000 households received other home-

ownership subsidies.¹² Subsidizing new construction is severely restricted by statute, and almost none of the block-grant budget is used for this purpose.

In summary, all major income-tested homeownership programs have provided recipient-based assistance. In addition, Section 235, HOME, and the Mortgage Revenue Bond Program have subsidized selected developers to build housing for eligible families. Many proposed programs would allocate their subsidies to selected developers, for example, the George W. Bush administration's proposed Single Family Affordable Housing Tax Credit and the Millennial Housing Commission's similar proposal (2002).

Subsidizing Construction Results in Excessive Cost for Housing

There are good theoretical reasons for expecting excessive costs from programs that subsidize new construction and allocate subsidies to selected developers. The modest evidence available on homeownership programs and the more abundant evidence on rental programs support these theoretical predictions. The remainder of this section presents the theoretical arguments and empirical evidence and explains why subsidized construction is not needed to increase the supply of adequate housing.

One low-cost way to increase homeownership is to convert existing rental units to owner-occupied units. Converting some of the 7 million single-family detached units and duplexes would add to the supply of homes for purchase while making fewer units available for rent. Indeed, entire townhouse projects and apartment buildings could be converted to condominiums. Newspaper real estate sections have recently been filled with stories about such conversions.¹³ Although changing ownership of existing rental units will require some transaction costs, these are miniscule compared with the cost of building new housing. Moreover, all units built under a homeownership construction program incur such transaction costs.

Subsidizing construction is a costly way to promote homeownership in any market conditions. It is especially difficult to justify now, when the vacancy rate is near a historic high. The national rental vacancy rate varied between 6.9 and 8.2 percent in the quarters from 1986 through 2000, began rising in 2001, peaked at 10.4 percent in first quarter of 2004, and was still at 9.6 percent in the fourth quarter of 2005.

Why should we subsidize the construction of new units when so many rental units are vacant? One tempting answer is that the vacancy rate varies enormously across geographical areas and subsidized construction is necessary to provide housing for low-income households in markets with the lowest vacancy rates. Among the 75 largest metropolitan areas in 2005, the rental vacancy rate varied from 3.1 percent in Albany to 18.3 percent in Cleveland.¹⁴ So if this argument were correct, it would support, at best, subsidized construction in some areas during some times.¹⁵

Increased construction is unquestionably desirable when vacancy rates are unusually low. However, subsidizing construction is not necessary to achieve this outcome. The argument for subsidized construction fails to recognize the self-corrective nature of the housing market. When vacancy rates are unusually low in an area, housing prices are unusually high relative to the cost of building housing. The unusually low vacancy rates and high prices of existing units induce an increase in unsubsidized construction. This construction is typically in the mid- and high-priced housing market. However, the movement of middle-income families out of existing units and into new ones filters these existing units into the lower-priced market if the vacancy rate is unusually low and rents are unusually high.

The view that recipient-based housing assistance cannot be used in tight housing markets and hence new construction must be subsidized is inconsistent with evidence on the performance of the rental housing voucher program. The data on utilization rates in the Section 8

housing voucher program and on rental vacancy rates in 71 of the 75 largest metropolitan areas indicate that the voucher utilization rate does not depend on market tightness. The average voucher utilization rate was 85.8 percent for housing agencies in metropolitan areas with higher than average vacancy rates and 87.9 percent for housing agencies in metropolitan areas with lower than average vacancy rates.¹⁶ That is, the voucher utilization rate was actually higher in the tightest housing markets.

One reason housing agencies use nearly all their vouchers is that they issue more than they have available, recognizing that some families offered a voucher will not use it. The agencies thus achieve high usage rates despite voucher success rates well below 100 percent.¹⁷ The voucher utilization rate, as opposed to the voucher success rate, depends primarily on housing agencies' aggressiveness in overissuing vouchers.¹⁸ Although some families offered vouchers do not find housing that suits them and meets the program's standards within their housing authority's time limits, other eligible families in the same locality do. This indicates that the problem is not an absence of vacant apartments that meet program standards (or could be repaired inexpensively to meet these standards) and are affordable to voucher recipients.

Recipient-based housing assistance is successful in the tightest housing markets in part because many voucher recipients already live in apartments that meet the program's minimum housing standards. Vacant apartments are not needed for these families. They can participate without moving. Other families offered vouchers live in housing that does not meet minimum standards. However, their apartments can be repaired at low cost to meet the standards. Similarly, vacant apartments that do not initially meet the minimum standards can be upgraded. That is, housing vouchers can increase the number of units meeting minimum housing standards even if they have no effect on new construction.

Allocating Subsidies to Selected Sellers Leads to Excessive Cost

Programs that allocate subsidies to selected sellers have consistently led to excessive unit costs, and they have sometimes led to corruption. The evidence on rental housing programs is more abundant, but some evidence exists for homeownership programs as well. This section explains the reason to expect these outcomes and summarizes the evidence.

Under some past homeownership programs, selected builders were authorized to build and sell a specified number of houses to eligible families. The number of houses authorized has always been a small fraction of the number of eligible families. The subsidy has usually been in down-payment assistance or reduced mortgage payments. Due to these subsidies, the number of eligible families that would want to participate in the program if builders charged market prices for the houses has greatly exceeded the number of houses authorized. As a result, the developers authorized to build and sell units under the program have been able to sell their units even if they charged above-market prices. Past homeownership programs tried to prevent excessive prices, primarily by limiting the sales price. However, these programs were not able to prevent inferior materials and workmanship that reduce the developer's cost and lower the market value of the house. The results have been excessive costs for the housing provided.

Since developers can earn more on their investment of money and time for subsidized than for unsubsidized construction, they apply for many more units than can be funded.¹⁹ This situation gives developers an incentive to pay bribes or use political influence to get their projects funded. In programs involving FHA mortgage insurance, FHA sent its own appraisers to mortgaged houses to protect its interest by certifying that the houses were not overpriced. Some of these appraisers were later convicted of accepting bribes to provide a false certifica-

tion when the house was greatly overpriced.²⁰ Other appraisers who did the same surely went undetected.

Direct evidence on the extent of overpricing of units under past homeownership programs is meager. Sa-Aadu, Benjamin, and Sirmans (1992) find that the mean sales price exceeded the mean market price by about 93 percent of the subsidy under the Mortgage Revenue Bond (MRB) Program for houses where sellers controlled the distribution of the MRB subsidy. However, their data is limited to sales of condominiums in only seven projects located in Baton Rouge. Twenty-four of the condominiums were financed with the help of a MRB subsidy and 102 were financed conventionally. Using data on home purchases financed with conventional loans and MRB loans that were not allocated to builders or brokers, McClure (1992) finds no evidence that sales prices were higher than market prices. These results are also based on small samples—126 sales financed with MRB loans and 159 financed with conventional loans in Kansas City and Independence, Missouri.

U.S. HUD (1974) reported no difference between the sales price and market value of units built under Section 235. However, the underlying analysis did not account for differences between subsidized and unsubsidized houses in the quality of the materials and workmanship. Skimping on these aspects of construction is arguably the primary mechanism through which developers could earn excess profits under a program that limits the sales price of a house.

The evidence on rental housing programs buttresses the evidence on homeownership programs. It shows that recipient-based housing assistance provides equivalent housing at much lower cost than assistance tied to particular housing projects. Four major studies (Mayo et al. 1980; Olsen and Barton 1983; Wallace et al. 1981; U.S. HUD 1974) estimate both the total cost per unit and the mean market rent of apartments provided by housing vouchers and the largest older production programs, namely Public Housing,

Section 236, and Section 8 New Construction.²¹ These studies are based on data from a wide variety of housing markets and for projects built in many different years. Two were expensive studies conducted for HUD by a respected research firm during the Nixon, Ford, Carter, and Reagan administrations. All find housing vouchers cost less than any of the production programs for the same quality of housing.

The studies with the most detailed information about housing characteristics found the largest excess costs for the production programs. Mayo and others (1980) estimated the cost of public housing exceeded the costs of housing vouchers for equally desirable housing by 64 percent and 91 percent in the two cities studied; the cost of Section 236 was 35 percent and 75 percent higher than vouchers in these cities. Another study with excellent data on housing characteristics estimated the excessive cost of Section 8 new construction compared to recipient-based Section 8 certificates to be between 44 and 78 percent.²²

Recent U.S. GAO studies (2001, 2002) produced similar results for the major active construction programs—LIHTC, HOPE VI, Section 202, Section 515, and Section 811.²³ Although the cost disadvantage relative to vouchers appeared smaller than for older programs of project-based assistance, ranging from 12 percent for Section 811 to 27 percent for HOPE VI (U.S. GAO 2001), these estimates did not take account of significant costs of the construction programs, such as the market value of the land, the cost of preparing the site for HOPE VI projects, and the costs to local taxpayers of property tax abatements.

Making HUD's Housing Voucher Program Neutral with Respect to Homeownership

If promoting homeownership among low-income families is a national goal, local housing agencies should be required to offer this option to all eligible families who reach the top of the housing voucher waiting list. Furthermore, the

homeownership option should not be limited to first-time homebuyers. Each year, some low-income homeowners give up their homes and move to rental units in response to financial reversals. Since voucher assistance increases when income falls, it would cushion such financial reversals and allow some of these households to remain in their homes. More broadly, it seems inappropriate to deny assistance to homeowners who are as poor as assisted renters. Many homeowners have extremely low incomes even after accounting for the equity in their homes (table 1).

The homeownership option should include counseling for low-income first-time homebuyers to help them become homeowners and retain their homes. Stability of homeownership is important but often overlooked.²⁴ The cost of counseling for first-time homebuyers would be a small part of the budget of the revised voucher program. For existing homeowners, the only additional administrative burden would involve determining the equity in their houses and adding a return on this equity to their incomes to determine subsidy payments.

The operators of the Housing Assistance Supply Experiment (HASE) developed simple procedures for counting a return to home equity and reported no problems (Lowry 1980). Recipient homeowners had to document the assessed value of their houses and the outstanding balance on each mortgage. Program staff adjusted assessed values for the average difference between assessed and market value in each site and applied a uniform rate of return to the estimated equity on each house (Katagiri and Kingsley 1980; Rizor 1982).

How many additional families would be induced to buy homes if the voucher program were made tenure neutral? The HASE suggests that while many homeowners would take up the vouchers, few additional households would become homeowners. In the HASE, the overwhelming majority of participating homeowners were homeowners prior to receipt of housing assistance (Lowry 1983).²⁵

Still, the reform would make the homeownership option more attractive by allowing households to use their housing subsidy to buy instead of rent. Many households would find homeownership feasible at existing subsidy levels. Between April 2004 and April 2005, the average subsidy for a two-bedroom unit was about \$750 per month for the poorest families eligible and about \$450 per month for a family with an adjusted income of \$1,000 a month. The \$450 subsidy is sufficient to finance the full monthly payment for a \$75,000 mortgage repaid over 30 years at 6 percent interest. As noted above, homes valued at \$80,000 or less made up 21 percent of all owner-occupied dwellings in 2005 (U.S. Bureau of the Census 2006).

A common objection to assisting homeowners under the voucher program is the likelihood that assistance to eligible families with relatively higher incomes will come at the expense of poorer households. Because eligible homeowners have higher average incomes than eligible renters, a tenure-neutral program that selected recipients at random from all eligible households would serve higher-income households than a program restricted to renters would. But, recipients need not be selected at random. Indeed, the current voucher program has federal income-targeting rules that require at least 75 percent of new vouchers go to extremely low income households.²⁶ As a result, current rules restrict the bulk of voucher assistance to the poorest households. For a tenure-neutral program, modifying the income limits and targeting rules can counteract the distributional effects of the proposed reform and maintain the focus on the poorest households. Better yet, the housing voucher program could be converted into an entitlement by providing smaller subsidies to new recipients and serving more families with the current budget.

Encouraging Homeownership in the Housing Voucher Program

The Section 8 voucher program could further encourage homeownership among low-income

households by providing an upfront subsidy to voucher recipients who want to become first-time homebuyers. There are different ways of financing this type of subsidy without adding to the program's cost. Recipients of upfront subsidies, for instance, could exchange that benefit for lower subsidies later. Another way is to differently allocate the money made available when voucher recipients leave the program. These resources could be used to provide slightly less generous monthly subsidies to all new recipients and downpayment subsidies to those who want to become first-time homebuyers.

Administering a homeownership option within the voucher program need not be complicated. The proposed downpayment subsidy could be some multiple of the monthly subsidy for which the recipient is initially eligible. Public housing agencies need not involve themselves in negotiations with mortgage lenders or real estate brokers beyond certifying the amounts of assistance that would be provided to recipients, that is, a payment of X toward closing costs and the downpayment and Y per month for the first year. The certification would also state how the monthly payment from the government in each later year would vary with the household's income. From the lenders' viewpoint, the increase in subsidy when the recipient's income falls reduces the risk associated with the loan.

Although alternative types of financing were discussed above, some will object to the particular approach that involves lower subsidies for recipients in general (versus lower subsidies later for those choosing the option of upfront subsidies to help with downpayments), thinking that recipients who rent will be unable to find housing meeting the program's minimum housing standards. However, research has shown that the voucher program provides subsidies that are much larger than necessary to occupy units meeting the program's housing standards (Cutts and Olsen 2002; Olsen and Reeder 1983). In addition, the long waiting lists for vouchers guarantee that housing authorities

will have no difficulty using their vouchers despite a modest reduction in subsidy.²⁷ Since about 12 percent of recipients leave the program every year, this reform would ease the transition to a program that would better achieve the goals of low-income housing policy.

Expanding the Reformed Housing Voucher Program

The voucher program currently accounts for less than 25 percent of all households that receive low-income housing assistance. This limits the impact the proposed modifications of its structure could have on low-income homeownership. A few simple changes in other low-income housing programs can overcome this limitation.

Most low-income housing assistance consists of rental assistance in designated public and private subsidized projects. Unfortunately, project-based assistance is an excessively costly way to provide housing compared with recipient-based vouchers.²⁸ Project-based assistance also needlessly restricts recipient choice. Recipient-based assistance allows a family to use its subsidy to rent (or in some cases buy) from any supplier who provides housing meeting the program's standards. If the subsidy is attached to a housing project, the family must accept the particular unit offered in order to receive assistance and loses the subsidy when it moves. These restrictions concentrate recipients of project-based subsidies—public housing projects are found in only 8 percent of census tracts in the 50 largest metropolitan areas, and privately owned HUD-subsidized projects are in only 17 percent (Devine et al. 2003). In contrast, the choices afforded by the voucher program have dispersed the recipient population; voucher recipients living in the 50 largest metropolitan areas are in units in more than 80 percent of census tracts. Choice enables voucher recipients to live in better neighborhoods than public and private subsidized projects. Only 5 percent of voucher recipients live in census tracts with a

poverty rate exceeding 40 percent, compared to 10 percent of the occupants of private subsidized projects and 36 percent of public housing tenants (Newman and Schnare 1997).

Given the higher cost-effectiveness of vouchers and the virtues of choice, the case is strong for shifting low-income housing assistance from project based to recipient based as soon as current contractual commitments permit. One approach would be to offer all public housing tenants housing vouchers using the money currently provided to housing authorities as operating and modernization subsidies for their projects. Occupants of private subsidized projects would receive portable vouchers at the end of the project's use agreement.

Phasing out subsidized private projects would not require new administrative procedures. Currently, each year, some of these projects' owners remove their units from the subsidy programs at the end of their use agreements. Under existing procedures, the programs continue to subsidize the households that have been living in these projects by providing portable housing vouchers. This proposal simplifies this process because housing authorities would not have to use administrative resources to determine what new incentives to offer owners to remain in the program or to negotiate a new use agreement.

The public housing reform requires elaboration. The proposal is that Congress should require every local public housing agency to offer each current public housing family the option of either taking a portable housing voucher or remaining in its current unit on the previous terms. The latter option insures that no public housing tenant is harmed by the legislation. Families that accept a voucher would benefit by moving to housing, neighborhoods, or locations that they prefer to their public housing units. Some might buy a house under the reformed voucher program. Each housing agency would receive the same total federal funding but would have to devote some of its budget to the voucher program. Housing agencies could

sell their projects but would not have to do so. The sales would yield money to operate, maintain, and modernize the housing agency's remaining projects. Many housing agencies would surely sell their worst projects. These are the most expensive projects to renovate and the projects that the public housing families offered vouchers are most likely to abandon. When a project is sold, its remaining tenants would be offered the choice between vacant units in other public housing projects or a housing voucher.²⁹

When public housing units are vacated for whatever reason, the housing agency would be required to offer a housing voucher to a family from its public housing waiting list using its existing preference system. This policy insures that the housing agency will continue to provide housing assistance to the same number and type of families. However, agencies would be allowed the freedom to charge market rents for vacated units. These higher rents will provide agencies with additional revenue. More importantly, the new policy would make agency revenues depend partly on the desirability of their housing. The current disconnect between revenue and quality is a primary cause of public housing's excessive cost.

To insure that the housing authority could provide vouchers to all public housing tenants who want them, using a different subsidy formula than the regular Section 8 voucher program may be necessary. The standard formula for the voucher subsidy begins with a *payment standard*, or the subsidy level to a household with no income. The actual subsidy is the standard less a tenant payment of 30 percent of the tenant's adjusted income. Housing agencies might maintain the percentage difference in the payment standard between families of different sizes and compositions as in the regular Section 8 voucher program, but the payment standards would be different. The payment standards would have to yield subsidies that satisfy the budget constraint. These payment standards could be easily calculated from the housing authority's administrative records. Indeed,

HUD's Office of Policy Development and Research could make these calculations for all housing authorities.

Administering voucher programs with different payment standards might seem awkward, but local public housing authorities already maintain separate waiting lists for public housing and housing vouchers, and these programs provide different subsidies to identical households. Furthermore, the Section 8 voucher program has long applied different payment standards to subsets of its participants; for example, a certain fraction of families has been given higher than average subsidies to live in more expensive neighborhoods. Except for payment standards, the voucher program for public housing tenants would be administered exactly like the regular voucher program.

Under the proposal, public housing authorities would charge market rents for their vacated public housing units. Estimating these market rents is not a new activity for housing authorities. Since the 1998 Housing Act was implemented, housing authorities have been required to estimate their units' market rents.³⁰ Now, each public housing tenant is offered the option of either paying a rent determined by the traditional formula or paying the market rent.

To promote economic integration in public housing projects, Congress could eliminate the income limits on families that move into vacated public housing units. Since the new occupants would receive little or no public subsidy, income targeting would serve little or no public purpose. This change would also reduce the public housing authorities' administrative workload.

Creating a Refundable Tax Credit to Promote Homeownership

Modifying the Low-Income Housing Tax Credit (LIHTC) provides another excellent opportunity to promote homeownership among low-income households. The LIHTC subsidizes the construction and substantial rehabilitation of rental housing for low-income households. It has accounted

for about half of additional households subsidized under all low-income rental housing programs over the past decade. In 2000, Congress increased new commitments of these tax credits by 40 percent and tied future tax expenditures to the consumer price index. Shortly thereafter, the GAO completed the first independent analysis of the LIHTC's cost-effectiveness (U.S. GAO 2001, 2002).³¹ According to the GAO study, the tax credit program is an excessively costly way to provide housing compared with housing vouchers. These findings suggest that the current program should be replaced with a more cost-effective approach to delivering housing assistance.

A minimal response to the GAO study would be to freeze the credits allocated to state agencies under the current program while undertaking a new independent cost-effectiveness analysis. In the meantime, the reduced tax expenditures on the rental tax credits could be diverted to a refundable tax credit for low-income first-time homebuyers. Like the earned income tax credit, this tax credit for homeownership would be available to all low-income households. It would not be funneled through builders. It would be largest for the poorest households and decline to zero for households at some income level below the median.

In its first year, only modest tax credits would be available. However, additional money would be available each year in real terms, allowing the homeownership tax credit to become more generous and serve more households. When sufficient money becomes available, the tax credit might be offered to all low-income homeowners. These tax credits would enable some low-income homeowners to keep their homes—homes they would otherwise lose because of a decline in income and an inability to make mortgage and property tax payments.

Conclusions

Helping low-income families obtain decent housing is a major public policy priority. The

federal government devotes over \$40 billion to the effort, mainly to subsidize rental housing. But, while housing policies for middle- and upper-income groups encourage homeownership, programs for low-income families include a strong anti-homeownership bias. Why should the government favor ownership for one group and discourage ownership for another?

Recognizing this bias is the first step toward reform. The next step is to understand why existing rental and homeownership programs are beset by other structural problems. A central problem is that channeling subsidies through construction-related programs, where subsidies are allocated to selected sellers, is an excessively costly way to help low-income families obtain housing. Programs adopting this approach also increase the concentration of the poor and minority families.

This paper presents several cost-neutral approaches for reducing the anti-homeownership bias, along with related suggestions for improving outcomes in the main rental-subsidy programs. The goals are not only to encourage families to select the best housing option available, whether rental or owner occupied, but to increase the system's cost-effectiveness as a whole.

The primary proposal presented here is to require local public housing authorities to offer the homeownership option to families that reach the top of its voucher waiting list. Methods were discussed on how to ensure that the benefits were distributed as progressively as under current law. Two possible extensions of that approach are also presented: to provide a down-payment subsidy for first-time homebuyers within the voucher program and to expand the reformed voucher program by offering portable vouchers to all families living in public housing projects (financed by existing operating and modernization subsidies for public housing projects) and to all families living in private subsidized projects (at the end of their use agreements). A second proposal is to gradually convert the LIHTC for rental housing develop-

ers into one that can also be used for homeownership, for example, by converting the existing credit into a refundable homeownership tax credit for low-income families. Of course, there are alternative ways of removing the bias of this credit against homeownership.

These proposals avoid the two biggest mistakes in past attempts to subsidize homeownership—subsidizing the construction of new units and requiring intended beneficiaries to buy from selected sellers. If implemented, the reforms could improve housing outcomes at no new cost by providing low-income families with new choices for meeting their housing needs.

Notes

1. This result is based on outlays for the U.S. Department of Housing and Urban Development's tenant-based voucher program, public housing program, and programs of private subsidized projects, and for its major block grants that provide housing assistance (HOME, CDBG, and Native American); the U.S. Department of Agriculture's programs that subsidize privately owned rental projects and its single family direct loan program for homeowners; and the tax expenditures under the Low-Income Housing Tax Credit, mortgage revenue bonds, and multifamily housing bonds.
2. Rates of return on home equity are not routinely reported. However, they surely vary greatly from time to time and from place to place. Since the return on home equity is untaxed, the relevant rate of return is the after-tax return on a taxed investment of the same risk. Capital will flow between home equity and the taxed investment until the untaxed rate of return on home equity is equal to the after-tax rate of return on a taxed investment of the same risk. Index funds based on the S&P 500 and the Wilshire 4500 are plausible candidates for taxed investments with the same risk as home equity. The returns on both indices vary greatly from year to year. Between 1996 and 2005, the return on the S&P index fund varied from a high of 33.17 percent in 1997 to a low of -22.05 percent in 2002. The before-tax rate of return on the stocks in the S&P 500 averaged about 9.01 percent over this period and the rate of return on the stocks in the Wilshire 4500 averaged about 9.75 percent. Because the marginal tax rate is zero for the poorest households, 10 percent is arguably a reasonable estimate of their return for home equity. For richer households, it is perhaps too high.
3. A similar pattern emerges when income is not adjusted for home equity or geographical price differences, but the homeownership rates in the first two deciles are higher. For example, without the adjustments, 52.5, rather than 24.7, percent of unsubsidized households in the lowest income decile are homeowners and 6.5, rather than 4.6, percent of subsidized households are homeowners.
4. The decisions of state and local governmental bodies play a small role in this outcome. Under the HOME, CDBG, and Native American block-grant programs, recipient governments choose how much of the federal grant to allocate to subsidizing renters and homeowners in various income categories. However, these block grants account for only 8 percent of the budget for low-income housing assistance.
5. This would be the average subsidy if each housing authority set its payment standards equal to the so-called fair market rents for households of each size. Housing authorities are allowed to deviate from these amounts by up to 10 percent in either direction without HUD approval, and some deviate in each direction.
6. The two sites were Brown County, Wisconsin (containing Green Bay), and St. Joseph County, Indiana (containing South Bend). To say that a housing program is tenure neutral is to say that a recipient is offered the same subsidy on the same terms whether he owns or rents his dwelling unit. Olsen (2003) provides an overview of the Housing Assistance Supply Experiment (HASE) and the other components of EHAP. Lowry (1983) gives a more detailed account of the HASE results.
7. Beyond the administrative resources needed to establish the procedures for the new program, the major administrative burden of the voucher option is to provide homeownership counseling to prospective homeowners. HUD regulations give local housing authorities considerable discretion concerning the details of the counseling. To date, much of this counseling has been done by agencies that receive their funding from other government programs. However, 15 percent of local public housing agencies use their own staff to provide all of the counseling and 34 percent use their staff to provide some of it. About 53 percent of these agencies use their general voucher administrative fees to fund these activities (Locke et al. 2006).
8. Notice PIH 2005-14 (HA).
9. Notice PIH 2006-5 (HA).
10. See Carliner (1998) for a brief history of the development of the program and Mikesell and others (1999) for both descriptive statistics and the first analysis of this program based on a nationally representative survey.
11. Individual participating jurisdictions often have more than one homebuyer program (Turnham et al. 2003). The result in the text is based on these individual programs. Each individual program is in only one of the two categories.

12. For data on this program, see http://www.hud.gov/offices/cpd/communitydevelopment/library/accomplishments/CDBGAccomplishmentsI_National.xls and http://www.hud.gov/offices/cpd/communitydevelopment/budget/disbursementreports/disbursements_all.xls (accessed July 9, 2007).
13. See, for example, David Cho, "Putting Renters on the Spot: Condominium Conversions Force Residents to Find New Housing," *Washington Post*, June 7, 2005, p. B01.
14. See <http://www.census.gov/hhes/www/housing/hvs/annual06/ann06t5.html> (accessed July 13, 2007).
15. The argument that subsidized construction is necessary to provide rental or ownership assistance to low-income households in markets with the lowest vacancy rates has been influential in debates on the creation and funding of housing programs. Yet, it has had no effect on policy design. No subsidized construction program has ever been limited to tight housing markets, and funding for these programs has never been routinely reduced in response to rising vacancy rates. The Low-Income Housing Tax Credit has subsidized an increasing number of units since 2000 despite the soaring rental vacancy rate.
16. HUD's Office of Policy Development and Research collected voucher utilization information in 2002; vacancy rates come from the U.S. Bureau of the Census.
17. The voucher utilization rate is the fraction of all vouchers in use during a period of time. The success rate is the fraction of families offered vouchers that find a unit meeting the program's housing standards within the time allowed.
18. Current regulations call for penalties on agencies with usage rates below 97 percent. Recently, Congress restricted housing authorities' ability to overissue vouchers. Modifications of the program's rules that will achieve the purposes of these restrictions but make it easier for housing authorities to use their entire voucher budgets may be desirable. To help housing authorities adjust their issuance of vouchers to exhaust their yearly voucher budgets, HUD's Office of Policy Development and Research has developed a user-friendly, web-based computer program. See <http://www.huduser.org/vip/index.cfm> (accessed July 16, 2007).
19. For the excess developer demand for low-income housing tax credits, see National Council of State Housing Agencies (2005).
20. See, for example, Edith Evans Asbury, "F.H.A. Aide Pleads Guilty to Fraud," *New York Times*, September 13, 1972, p. 17; Edith Evans Asbury, "F.H.A. Will Close Hempstead Unit," *New York Times*, January 21, 1973, p. 37; and Morris Kaplan, "6 Named in Indictment on Mortgage-Fraud Plot," *New York Times*, August 17, 1973, p. 64.
21. Olsen (2000) provides a description and critical appraisal of the data and methods used in these studies as well as a summary of their results.
22. Wallace and others (1981) make predictions of the market rents of subsidized units based on two data sets on the rent and characteristics of unsubsidized units. The study did not collect information on the indirect costs of the Section 8 New Construction program. These indirect subsidies include the Government National Mortgage Association's Tandem Plan interest subsidies for FHA-insured projects and the tax revenue forgone due to the tax-exempt status of interest on the bonds that fund state housing-finance agency projects. Based on previous studies, the authors argue that these indirect costs would add 20 to 30 percent to the total cost of the Section 8 New Construction program. The range of estimates reported in the text is based on the four combinations of the two predictions of market rent and the lower and upper limits on the indirect costs.
23. Active construction programs are programs that continue to produce additional units. HOPE VI is an initiative within the public housing program to demolish its worst units and rebuild at lower densities.
24. Haurin and Rosenthal (2004) show that the differences between the homeownership rates of whites, blacks, and Hispanics at a point in time are much greater than the differences in the percentage of the members of these groups who are homeowners sometime during their lives. This is not simply due to delayed onset of homeownership. "Once a homeowner, always a homeowner" is far from true. Minorities have shorter homeownership spells followed by longer rental spells.
25. Evidence from the Supply Experiment is not a perfect guide to the outcome of the proposed reform of the Section 8 voucher program, because the programs differ in important respects. The voucher program has higher real income limits, and it is not an entitlement housing assistance program. The families offered assistance under the voucher program are determined by federal income-targeting rules and local preference systems. The income targeting rules require local public housing authorities to offer at least 75 percent of new vouchers to recipients with incomes below limits based on 30 percent of the local median. Within this constraint, the preference systems of local public housing authorities determine which families participate in the Section 8 voucher program. Furthermore, HASE provided little homeownership counseling to potential recipients. Only a part of one voluntary counseling session dealt with homeownership (Rand 1978).
26. For four-person households, these are households with incomes less than 30 percent of the local median. The income limits are lower for smaller families and higher for larger families.
27. Olsen, Davis, and Carrillo (2005) have estimated that a \$100 decrease in the monthly subsidy at each income

level due a reduction in the program's payment standard would increase attrition in the voucher program by only 3 percent. Replacing these households with the poorest households on the waiting lists would be no problem.

28. Olsen (2004) summarizes this evidence. Olsen (2000) provides more details.
29. This is a possible exception to the assertion that no tenants would be hurt by the proposal. Some tenants might want to remain in the projects that the housing authority decides to sell, even if the housing authority sells its worst projects. In practice, designing reforms that hurt no one is impossible. The losses to these tenants must be weighed against the gains to other tenants. It is difficult to justify renovating structures that reach a certain level of obsolescence and dilapidation, and Congress has made a policy decision to tear down the worst public housing projects even if some tenants would like to remain in them. About 80,000 distressed public housing units have been torn down under the HOPE VI program, and others were torn down earlier.
30. 65FR16692.
31. Olsen (2004) summarizes this evidence.

About the Author



Edgar O. Olsen is a professor of economics at the University of Virginia. His research on low-income housing policy has been published in leading professional journals and edited volumes, he

has served as a consultant on housing policy issues to federal and state agencies, and he has testified on these matters before congressional committees.

References

- Carasso, Adam, Elizabeth Bell, Edgar O. Olsen, and C. Eugene Steuerle. 2005. "Improving Homeownership among Poor and Moderate-Income Households." Washington, DC: The Urban Institute. Opportunity and Ownership Project Brief 2. <http://www.urban.org/url.cfm?ID=311184>. (Accessed July 9, 2007.)
- Carliner, Michael S. 1998. "Development of Federal Homeownership 'Policy'." *Housing Policy Debate* 9(2): 299–321.
- Cutts, Amy Crews, and Edgar O. Olsen. 2002. "Are Section 8 Housing Subsidies Too High?" *Journal of Housing Economics* 11(3): 214–43.
- Devine, Deborah J., Robert W. Gray, Lester Rubin, and Lydia B. Taghavi. 2003. *Housing Choice Voucher Location Patterns*. Washington, DC: U.S. Department of Housing and Urban Development.
- Haurin, Donald R., and Stuart S. Rosenthal. 2004. *The Sustainability of Homeownership: Factors Affecting the Duration of Homeownership and Rental Spells*. Report prepared for the U.S. Department of Housing and Urban Development. Bethesda, MD: Abt Associates.
- Katagiri, Iao, and G. Thomas Kingsley, eds. 1980. *The Housing Allowance Office Handbook*. N-1491-HUD. Santa Monica, CA: Rand Corporation.
- Ling, David C., and Gary A. McGill. 1992. "Measuring the Size and Distributional Effects of Homeowner Tax Preferences." *Journal of Housing Research* 3(2): 273–303.
- Locke, Gretchen, Michelle Abbenante, Hong Ly, Naomi Michlin, Winnie Tsen, and Jennifer Turnham. 2006. *Voucher Homeownership Study: Volume 1—Cross-Site Analysis*. Report prepared for the U.S. Department of Housing and Urban Development. Bethesda, MD: Abt Associates.
- Lowry, Ira S., ed. 1980. *The Design of the Housing Assistance Supply Experiment*. R-2630-HUD. Santa Monica, CA: Rand Corporation.
- , ed. 1983. *Experimenting with Housing Allowances: The Final Report of the Housing Assistance Supply Experiment*. Cambridge, MA: Oelgeschlager, Gunn & Hain.
- Mayo, Stephen K., Shirley Mansfield, David Warner, and Richard Zwetchkenbaum. 1980. *Housing Allowances and Other Rental Assistance Programs: A Comparison Based on the Housing Allowance Demand Experiment, Part 2—Costs and Efficiency*. Cambridge, MA: Abt Associates.
- McClure, Kirk. 1992. "Capitalization of the Benefits of Mortgage Revenue Bond Financing: Lessons from Empirical Research." In *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*, edited by Danny W. Durning (chapter 10). Boston: Kluwer Academic Publishers.
- Mikesell, James J., Linda M. Ghelfi, Priscilla Salant, George Wallace, and Leslie A. Whitener. 1999. *Meeting the Housing Needs of Rural Residents: Results of the 1998 Survey of USDA's Single Family Direct Loan Program*. Research Report 91. Washington, DC: U.S. Department of Agriculture, Economic Research Service, Rural Development.
- Millennial Housing Commission. 2002. *Meeting Our Nation's Housing Challenges*. Washington, DC: U.S. Government Printing Office.
- National Council of State Housing Agencies. 2005. *State FHA Factbook: 2004 NCSHA Annual Survey Results*. Washington, DC: National Council of State Housing Agencies.
- Newman, Sandra J., and Ann B. Schnare. 1997. "' . . . And a Suitable Living Environment': The Failure of Housing

- Programs to Deliver on Neighborhood Quality." *Housing Policy Debate* 8(4): 703–41.
- Olsen, Edgar O. 2000. "The Cost-Effectiveness of Alternative Methods of Delivering Housing Subsidies." Working Paper 351. Charlottesville: Thomas Jefferson Center for Political Economy, University of Virginia. <http://www.virginia.edu/economics/downablepapers.htm#olsen>. (Accessed July 9, 2007.)
- . 2003. "Housing Programs for Low-Income Households." In *Means-Tested Transfer Programs in the United States*, edited by Robert Moffitt (365–442). Chicago: University of Chicago Press.
- . 2004. "Fundamental Housing Policy Reform." Unpublished manuscript, March. <http://www.virginia.edu/economics/downablepapers.htm#olsen>. (Accessed July 9, 2007.)
- Olsen, Edgar O., and David M. Barton. 1983. "The Benefits and Costs of Public Housing in New York City." *Journal of Public Economics* 20(3): 299–332.
- Olsen, Edgar O., and William J. Reeder. 1983. "Misdirected Rental Subsidies." *Journal of Policy Analysis and Management* 2(4): 614–20.
- Olsen, Edgar O., Scott E. Davis, and Paul E. Carrillo. 2005. "Explaining Attrition in the Housing Voucher Program." *Cityscape* 8(2): 95–113.
- Rand Corporation. 1978. *Fourth Annual Report of the Housing Assistance Supply Experiment*. R-2302-HUD. Santa Monica, CA: Rand Corporation.
- Rizor, W. Eugene. 1982. *Eligibility Certification in a Housing Allowance Program*. R-1740-HUD. Santa Monica, CA: Rand Corporation.
- Rosen, Harvey S. 1979. "Housing Decisions and the U.S. Income Tax: An Econometric Analysis." *Journal of Public Economics* 11(1): 1–23.
- Sa-Aadu, J., John D. Benjamin, and C. F. Sirmans. 1992. "Capitalization and Mortgage Revenue Bonds: Methodology, Empirical Evidence, and Policy Implications." In *Mortgage Revenue Bonds: Housing Markets, Home Buyers and Public Policy*, edited by Danny W. Durning (chapter 8). Boston: Kluwer Academic Publishers.
- Turnham, Jennifer, Christopher Herbert, Sandra Nolden, Judith Feins, and Jessica Bonjorni. 2003. *Study of Home-buyer Activity through the HOME Investment Partnership Program*. Abt Associates Report. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research.
- U.S. Bureau of the Census. 2006. *American Housing Survey of the United States*. Current Housing Reports Series H150-05. Washington, DC: U.S. Government Printing Office.
- U.S. Commission on Civil Rights. 1971. *Homeownership for Lower Income Families: A Report on the Racial and Ethnic Impact of the Section 235 Program*. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Housing and Urban Development. 1974. *Housing in the Seventies*. Washington, DC: U.S. Government Printing Office.
- U.S. General Accounting Office. 1988. *Homeownership: Mortgage Bonds Are Costly and Provide Little Assistance to Those in Need*. GAO/RCED-88-111. Washington, DC: U.S. General Accounting Office.
- . 2001. *Federal Housing Programs: What They Cost and What They Provide*. GAO-01-901R. Washington, DC: U.S. General Accounting Office.
- . 2002. *Federal Housing Assistance: Comparing the Characteristics and Costs of Housing Programs*. GAO-02-76. Washington, DC: U.S. General Accounting Office.
- Wallace, James E., Susan Philipson, William L. Holshouser, Shirley Mansfield, and Daniel H. Weinberg. 1981. *Participation and Benefits in the Urban Section 8 Program: New Construction and Existing Housing*, vols. 1 and 2. Cambridge, MA: Abt Associates.



THE URBAN INSTITUTE

2100 M Street N.W. Washington, D.C. 20037
Tel: (202) 261-5687 • Fax: (202) 467-5775 • www.urban.org