# CHAPTER 8. THE ECONOMICS OF GOVERNMENT HOUSING ASSISTANCE FOR THE POOR

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Since the 1930s, the federal government has undertaken several major efforts to provide housing assistance to low-income individuals. The government attempts to help low-income individuals reduce housing costs or improve the quality of housing consumed through a variety of programs, most of them administered through the U.S. Department of Housing and Urban Development (HUD). In the past, the majority of federal housing assistance occurred through the construction of public housing while today most federal housing aid occurs through rental assistance programs (U.S. House of Representatives 2004). In constructing publicly owned and managed housing, government attempts to increase the quality of the housing stock available to low-income individuals. Rental assistance programs, on the other hand, try to increase the quality of low-income housing either through building or rehabilitation programs geared toward low-income households or through direct subsidies that allow low-income households to rent better private units than they otherwise would rent. These two types of housing assistance come under a variety of different programs and in various forms, but at the core they comprise two somewhat distinct approaches to providing housing assistance to the poor.

In real terms, total outlays for all housing programs administered by HUD have grown over the past quarter century (Table 1). From 1977 to 2002, total spending by HUD on all of its housing programs grew from $7.2 billion to $31.8 billion even after

correcting for inflation. While HUD administers many different housing programs, according to the House Ways and Means Committee the majority of the increase in outlays is attributable to increased spending on rental assistance and other forms of direct housing assistance for low-income households (U.S. House of Representatives 2004). This increase in assistance occurred primarily for two reasons. First, more individuals began receiving rental assistance through the Housing Choice Voucher Program (colloquially known as 'Section 8') and other rental assistance programs during this period as funds were appropriated for around 2.7 million net new commitments (U.S. House of Representatives 2004). Second, the size of the average subsidy per commitment increased over this period. The result of these two factors was that that spending on direct rental and housing increased fifteen fold over the period.

Table 1: Total HUD Outlays for All Housing Programs Administered by HUD, 1977-2002 (2002 dollars)

| Fiscal Year | Total outlays (in millions) | Fiscal Year | Total outlays (in millions) |
|---|---|---|---|
| 1977 | $7,209 | 1990 | $20,668 |
| 1978 | 8,392 | 1991 | 21,303 |
| 1979 | 9,030 | 1992 | 22,245 |
| 1980 | 10,614 | 1993 | 24,699 |
| 1981 | 12,147 | 1994 | 26,827 |
| 1982 | 13,228 | 1995 | 28,900 |
| 1983 | 15,216 | 1996 | 29,976 |
| 1984 | 17,132 | 1997 | 29,258 |
| 1985 | 37,764 | 1998 | 29,188 |
| 1986 | 18,141 | 1999 | 28,952 |
| 1987 | 18,168 | 2000 | 28,878 |
| 1988 | 19,287 | 2001 | 29,369 |
| 1989 | 19,789 | 2002 | 31,866 |

Source: U.S. House of Representatives, *Green Book* (2004), Table 15-3.

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A breakdown of HUD outlays by broad program categories is presented in Table 2. Spending on Section 8 and other direct forms of rental and housing assistance for the poor (with the exception of public housing) has grown from around $1.3 billion in nominal terms in 1977 to over $20 billion dollars in 2002. The data presented in Table 2 show the recent transformation of federal housing policy towards the poor from constructing public housing to providing rental assistance. In 1977, 54 percent of HUD's outlays went towards government programs that directly provided housing for the poor such as Public Housing Capital, Public Housing Operating Subsidies, and Revitalization of Severely Distressed Public Housing. In 1987, the percentage of HUD outlays going towards public housing dipped below 30 percent for the first time and in 2002 only 28 percent of direct federal housing assistance for low-income individuals goes towards public housing. This trend should only continue in the future as the production-oriented approach to providing low-income housing assistance has fallen out of favor in the face of evidence that rental assistance is more cost-effective (Olsen 2000). As a result, most current federal spending on public housing is for maintenance and rehabilitation of current structures.

Table 2. Direct Housing Assistance Administred by HUD, 1977-2002 ( in millions of current dollars)

| Fiscal Year | Section 8 and Other Assisted Housing | Public Housing | Other Outlays | Total Outlays |
|---|---|---|---|---|
| 1977 | $1,331 | $1,564 | $0 | $2,895 |
| 1978 | 1,824 | 1779 | 0 | 3603 |
| 1979 | 2,374 | 1815 | 0 | 4189 |
| 1980 | 3,146 | 2218 | 0 | 5364 |
| 1981 | 4,254 | 2478 | 0 | 6732 |
| 1982 | 5,293 | 2553 | 0 | 7846 |
| 1983 | 6,102 | 3318 | 0 | 9420 |
| 1984 | 7,068 | 3932 | 0 | 11000 |
| 1985 | 7,771 | 17261 | 15 | 25047 |
| 1986 | 8,320 | 3859 | 142 | 12321 |
| 1987 | 8,993 | 3517 | 167 | 12677 |
| 1988 | 9,985 | 3699 | 217 | 13901 |
| 1989 | 10,689 | 3774 | 338 | 14801 |
| 1990 | 11,357 | 4331 | 361 | 16049 |
| 1991 | 12,107 | 4786 | 293 | 17186 |
| 1992 | 13,052 | 5182 | 185 | 18419 |
| 1993 | 14,032 | 6447 | 456 | 20935 |
| 1994 | 15,289 | 6857 | 1087 | 23233 |
| 1995 | 16,448 | 7505 | 1618 | 25571 |
| 1996 | 17496 | 7668 | 1889 | 27053 |
| 1997 | 17131 | 7809 | 1981 | 26921 |
| 1998 | 16975 | 8028 | 2232 | 27235 |
| 1999 | 17171 | 7805 | 2399 | 27375 |
| 2000 | 17359 | 7860 | 2610 | 27829 |
| 2001 | 18153 | 8188 | 2656 | 28997 |
| 2002 | 20037 | 8926 | 2903 | 31866 |

Source: U.S. House of Representatives, *Green Book* (2004), Table 15-3.

In light of several decades of the U.S. government provision of housing assistance for low-income Americans and billions of taxpayer dollars expended, it is only appropriate to scrutinize these efforts from an economic perspective. The purpose of this chapter is not only to take a fresh look at the impact of federal intervention into the housing sector on behalf of low-income individuals, but also to critically evaluate the economic arguments put forth for housing assistance for the poor. The federal

government provides both direct and indirect assistance to low-income individuals through a variety of programs administered through HUD and other federal agencies. Given the large number of federal agencies and programs involved in directly and indirectly providing housing assistance to the poor, we are not attempting to provide a comprehensive study of all government housing programs. In this essay we limit our analysis to: 1) the economic justifications for government intervention on behalf of low-income households and 2) the economics of public housing. We limit ourselves in this manner because the economic justifications generally apply to all government housing programs for the poor. Public housing is one of the largest federal housing programs for the poor and many of the insights we discover here apply to other forms of housing assistance such as rental vouchers.

An economic analysis of government intervention into the housing market on behalf of low-income individuals' yields important insights as to the efficacy and effectiveness of government attempts to improve housing for the poor. In addition, our analysis generates some insights into the secondary effects that housing assistance has on other individuals in society. The remainder of the chapter proceeds as follows. In Section 2, we present a brief history of the federal government's attempts to provide housing assistance for poor Americans. Section 3 discusses the economic arguments for government intervention into housing markets on behalf of low-income individuals. Section 4 looks at the economics of public housing in order to see the effect that government construction and operation of housing for low-income households has had on those households and society as a whole. Section 5 concludes with a summary of the findings.

*1. A Brief History of Housing Subsidies to Low-Income Families*

The first major federal policy regarding housing for the poor occurred during the Great Depression. Low-quality housing areas eroded into slums, providing a visible reminder of the suffering of the American public. The National Industrial Recovery Act of 1933 authorized the President Roosevelt to establish the Federal Emergency Administration of Public Works (FEAPW), a temporary government organization that was to organize projects for the "general welfare" of the American public for two years after the passage of the Act. Secretary of the Interior Harold L. Ickes, the administrator appointed by the President Roosevelt to run FEAPW, was charged with preparing a comprehensive program of public works, including the construction or rehabilitation of low-income housing. During its first four years of existence FEAPW built only 25,000 units and soon saw its role in providing low-income public housing eliminated with the passage of the U.S. Housing Act of 1937.

The U.S. Housing Act of 1937 was enacted partly in response to constitutional restrictions on the federal government's ability to condemn private property in order to build new public housing units (Glasheen and McGovern 2001). The act switched the federal government's role from being directly involved in the rehabilitation and construction of public housing to providing financial support for state and local governments. Under the Act, state legislatures were to provide for the establishment of local public housing authorities (PHAs) that would determine the location for all public housing developments. While the federal government would be responsible for the up-front capital costs—namely, the cost of building the physical structure—PHAs would

own and operate the public housing development. (PHAs were also responsible for securing the land needed.) The first PHAs developed almost immediately; the first public housing development built under the U.S. Housing Act of 1937, Santa Rita Courts, opened in Austin, Texas in 1938. Led by the concerns of private developers over the increased supply of housing and its downward pressure on local rents, the construction of public housing was set to match the clearance of substandard units at the local level.

The subsequent decades saw public housing-related legislation as nearly an annual occurrence. Hardly a year passed without an additional housing program or an amendment to an existing Act. Nonetheless, the main objective of the federal government in providing housing assistance was through building large public housing projects in which low-income families could reside. This attitude slowly began to change with the passage of the Housing Act of 1965. The 1965 Housing Act created the Section 23 Leased Housing Program, which gave PHAs the option of leasing existing housing units from private landlords and subleasing them to program participants. Section 23 housing was an important first step that severed the tie between subsidized renter and the physical, government-produced public housing unit (Orlebeke 2000).

The movement away from public construction and operation of housing projects that began with the Section 23 Leased Housing Program accelerated with the passage of the Housing and Community Development Act of 1974. This legislation established the Leased Housing Assistance Payment Program, otherwise known as the Section 8 Housing Program. In the Section 23 Leased Housing Program, the PHA acted as an intermediary between the private housing owners and the tenants subsidized by the government. The Section 8 Housing Program eliminated the middleman by giving eligible families a rental

certificate at a subsidized price. The rental certificate was valued at the fair market rent for moderate-quality housing as determined by the government. Section 8 tenants generally contribute 30 percent of their income towards rent with the government covering the remaining difference up to the pre-determined fair market value for moderate-quality housing. Beginning in 1984, Congress began to experiment with a rental voucher program. The rental voucher program increased the flexibility of families in choosing their living quarters because rental vouchers did not have the fair market rent (FMR) stipulation that rental certificates had and allowed for situations where families could pay less than 30 percent of their income towards their subsidized rent. HUD, the Cabinet-level agency under which public housing programs reside, began the process of combining the rental certificate and rental voucher programs in 1994. The Quality Housing and Work Responsibility Act of 1998 finalized the merger of the two programs and created the Housing Choice Voucher Program. The vouchers administered through the program continue to be colloquially refereed to as "Section 8" vouchers after the section of the U.S. Housing Act that initially created rental certificates. In 2003, the Center on Budget and Policy Priorities reported that a network of over 2,600 PHAs distributed 2.1 million housing vouchers.

*2. Rationales for Government Intervention*

In general, markets operate efficiently, bringing self-interested individuals together in a manner that results in gains from exchange and drives economic progress. There are times, however, when markets do not allocate resources efficiently. In the presences of market failures, the private outcome can deviate from the socially efficient

outcome and in such cases, government intervention might be able to increase efficiency. This section considers the economic arguments for government intervention into the low-income housing market.

An important thing to note before proceeding is that individuals will always prefer cash to any form of housing subsidy. Individuals prefer cash to any form of direct or indirect subsidy because a cash transfer not tied to housing consumption would allow an individual to be at least as well off and likely much better off than any type of housing subsidy. To see why, consider the actions of the typical low-income individual who is receiving the equivalent of a $400 monthly housing subsidy. Were that housing subsidy changed to a pure cash transfer, it is unlikely that the individual would continue to spend the entire $400 on housing and instead would purchase a bundle of other goods that they would prefer more. This implies that individuals would get higher utility from a direct cash transfer than from a housing subsidy. Thus, arguments for housing subsides cannot be based solely on the low-incomes of recipients, because the solution to individuals having low-incomes need not involve housing-related subsidies. Instead, economic justifications for housing assistance for low-income individuals must involve the existence of benefits flowing from increased consumption of housing by low-income households.

A frequent argument for housing subsidies is that the underconsumption of housing by the poor is a public health threat because consumption of low-quality housing can increase the spread of communicable disease. The public health argument for low-income housing subsidies goes back at least to the nineteenth century when public health advocates argued that slums were breeding grounds for communicable diseases and other

social problems that imposed costs on the rest of society (Grigbsby and Bourassa 2003). The argument is that housing subsidies increase the health of low-income individuals by enticing them to move out of low-quality housing, thereby reducing the prevalence of communicable diseases. Because communicable diseases spread directly from person to person, all citizens have an incentive to help limit the spread of communicable diseases, because the proliferation of illness among low-income housing consumers has the potential to impose a significant cost on the rest of society.

The public health argument for low-income housing subsidies depends on the existence of negative external costs imposed on others in society. The effect of housing underconsumption on the health of the poor is not a public health issue unless it is shown to impose costs on others in society through the spread of communicable disease. Edgar Olsen (1982) summarized the available evidence in 1982 and states that negative externalities may exit but their magnitude seems to be small. Based on his reading of the literature, he concludes (1982, 214) that "[i]f the goal of housing subsidies is to make both recipients and taxpayers better off, it is doubtful that substantial expenditures can be justified on the basis of these externalities alone." In the 1970s HUD commissioned a review of the literature between poor-quality housing and mental and physical health. After reviewing over 175 studies on the topic, the author of the study concluded that the theorized link between housing quality and physical and mental well-being was not supported by the empirical evidence (Kasl 1976). More recently, Whitehead (2003, 139) suggests that the "majority of direct externalities related to health in that poor housing can encourage the spread of disease, although generally only at standards well below those prevalent in advanced economies."

While it is possible and perhaps likely that poor-quality housing may worsen the health of low-income individuals, it does not appear that it generates a public health issue that requires government intervention into housing markets. To the extent that the substandard housing generates external costs, those costs appear to be inframarginal in that there may be some spillovers from the consumption of low-quality housing but there are no marginal costs to society at large given the current state of the housing stock.

In addition, Fertig and Reingold (2006) suggest there are three reasons why government interventions such as public housing might make low-income individuals less healthy. First, subsidized housing might be more environmentally contaminated than housing available on the private market. Second, the lumping together of individuals into large public housing developments often isolates them from access to cheap and accessible grocery stores that stock fresh fruits and vegetables necessary for good nutrition. Third, they argue that the close association between public housing and youth gangs and their concomitant violence might lead individuals to isolate themselves into their apartments, leading to a more sedentary lifestyle and possibly mental health difficulties. We raise these points not to debate their individual validity, but rather to point out that there is no theoretical reason why the health outcomes from a completely private low-income housing market might be worse than those resulting from government intervention.

Before proceeding further, it is worth noting that this is usually true of all arguments for government intervention in the marketplace. It is not sufficient to show that market production could be better in some respects to provide economic justification for intervention. It must also be shown that the government solution will be an

improvement. The status quo must be compared not the ideal planned solution, but rather the solution that actually arises out of the political process. For example, one of the goals of the federal housing program was to improve the health of low-income individuals. Recent research on public housing residents relocated from public housing projects to subsidized private-market outcomes, however, finds that moving out of public housing is *beneficial* – not harmful - to their health (Acevedo-Garcia et al. 2004). Thus, the correct standard to apply from an economic perspective is market failure versus government failure.

In addition, it is important to take into account the market as a dynamic process. In some cases it may be that while the market failure might be slightly larger than the government failure in the short-run, government intervention might make things worse in the long run. For example, many housing advocates argue that markets neglect the poor in that few developers construct housing for the poor. While it is true that private developers generally do not produce housing for the poor (Baer 1986), this perspective neglects how housing markets evolve over time. Much of today's housing occupied by the poor was occupied by the wealthy in some earlier time period (Rosenthal 2006). The natural evolution of neighborhoods is to decline in economic status. Rosenthal (2006) finds that over two-thirds of neighborhoods were of "quite different" economic status in 2000 than they were in 1950, and that the average neighborhood's economic status declines at around 13 percent per decade as new neighborhoods come into existence.

One example of this filtering is in the area of Cleveland formerly known as "Millionaire's Row" because it was the home to many wealthy millionaires such as John D. Rockefeller. This area is now almost exclusively low-income housing. While some of

the original homes of the wealthy families have been demolished, many of the large homes still exist and are either occupied by a large single family or have been subdivided into multi-family apartments. This same pattern can be observed in many other older inner-ring Cleveland neighborhoods as rising incomes lead families to purchase larger and newer homes in outer suburbs. Thus, the older homes filtered down to low-income residents who benefited in two ways: 1) the homes of the formerly wealthy were superior in size and quality to their previous residences, and 2) the increased housing supply created by the filtering process depressed rents for low-income individuals, making housing more affordable.

This neighborhood evolution occurs primarily because housing is a normal good; that is, as individuals' incomes rise over time, so too does their housing consumption. According to the Census Bureau, the average new home is 46.6 percent larger than the average new home in 1973 (Christie 2006). Thus, even though today's houses for the wealthy will have deteriorated somewhat when they eventually filter down to low-income households, they will be of considerably higher quality than the houses consumed by the poor today. Once the housing market for the poor is viewed as a dynamic rather than a static process, it becomes apparent that the market does provide housing for the poor. Disrupting this process through limitations on new home construction may do more to harm the poor in the long-run than all direct governmental attempts to help the poor through direct subsidies.

Another often-mentioned argument for market failure involves interdependent utility functions. Also known as "paternalistic altruism," Olsen (1982, 2003) calls it the major rationale for housing subsidies. The general idea is that one individual's utility is

dependent upon the actions of another individual and if that other individual undervalues housing, then that imposes a cost on others who care about her housing consumption. If individual A cares about the well-being of individual B and the poor quality of individual B's housing (as perceived by individual A) lowers individual A's utility, then individual A's utility will be lower as a result of individual B's consumption of low-quality housing. If the world consisted of only individual A and B it is likely that A would privately subsidize B's housing consumption. If many people care about B's housing consumption, however, many of those individuals might choose *not* to transfer resources to A because, if they don't, someone else will likely take care of the problem—a situation in which the benefit is enjoyed without having to incur the cost. Economists call this problem *free-riding*, and it may result in fewer charitable transfers than may be efficient given the interdependent nature of individuals' utility functions. This is a variation of the argument put forth by Hochman and Rodgers (1969) who argue that the existence of interdependent utility functions between rich and poor people requires government intervention as a corrective in order to overcome free-riding in the market for charity.

Olsen (1982) argues that this argument does not justify universal housing subsidies. Instead, it may justify select subsidies to certain low-income families. His reasoning is that many low-income families consume housing of higher quality than available through many housing programs. Olsen presents evidence from the Experimental Housing Allowance Program (an eleven-year study of housing subsidies conducted by HUD) showing that between one-quarter and one-half of eligible families occupied housing meeting model housing codes. From this he concludes (1982, 216):

> First, almost all low-income families are able to occupy housing meeting the standards embodied in model housing codes. Some choose not to do

> so. Second, low-income families are not as poorly housed as is widely believed. If these conclusions are accepted, it seems reasonable to believe that many taxpayers who favor housing subsidies have a distorted perception of the housing conditions of low-income households and of the reasons that families are poorly housed. Therefore, a reconsideration of the desirability of housing subsidies versus unconditional cash grants seems to be in order.

It could be argued that conditions have changed since the Experimental Housing Allowance Program was conducted and that many families cannot afford housing meeting model housing codes. Given that the housing stock tends to filter down over time, with the houses of the middle class thirty years ago now being occupied by the poor, this is unlikely to be the case however.

Olsen (2003) points out that many paternalistic altruists do not actually believe that families undervalue housing. He points out that many housing advocates suggest that spending too much of a household's income on rent (i.e., high rent-to-income ratio) is a rationale for housing subsidies because it implies that too little is being spent on other goods. This means that the paternalistic altruist is arguing that many individuals undervalue other goods in the households consumption bundle. Therefore, in order to attain an efficient allocation of resources, the paternalistic altruist should argue for subsidization of non-housing consumption for the poor such as food stamps and Medicaid, not housing subsidies. Thus interdependent utility functions do not seem to provide an accurate economic rationale for housing subsidies for the poor.

However, there is a larger problem with the argument about interdependent utility functions. Interdependent utility functions generate externalities that, while creating welfare losses on third parties, do not necessitate a public policy corrective because no resources are being allocated external to the market (Holcombe and Sobel 2000). The

reason why externalities generated by independent utility functions do not create inefficiency is because the externalities are pecuniary and thus do not affect household production. Only technological externalities that directly affect household production are relevant for public policy. The consumption of low-quality housing by poor individuals may lower the utility of higher-income individuals but that lower utility does not affect their household production as they can produce the same outputs with the same inputs. The decline in utility a high-income person may get from knowing poor individuals have to consume housing the high-income person would feel is inferior is analogous to the wealth losses a hardware store owner may suffer from a chain-retailer such as Lowe's or Home Depot opening next door. The welfare losses are real but are not relevant for public policy because no inefficiency is created.

Along these same lines, Ho (1988) suggests that a negative production externality may exist to the extent that substandard housing pushes low-income individuals, particularly children, out into the street where the probability of fighting and other forms of juvenile delinquency are increased. He admits, however, that the evidence does not seem to be in favor of there being any widespread benefits from better housing. While some studies have found that better housing reduces "deviant behavior" (Burns and Grebler 1977), little empirical attention has been paid to the extent that these reductions in negative behaviors are socially beneficial. Many negative behaviors are largely internalized to the extent that the costs of the negative activity are borne by the individual engaging in the behavior and thus, while these activities are bad for them, they do not transmit any negative third-party effects requiring government intervention.

Even if such activities impose costs on third parties, recall that the key comparison is between the market failure and the outcome after government intervention. Looking at the history of public housing, it is clear that government intervention can lead to increased social costs as well. Consider the case of large public housing projects such as the Robert Wagner Homes in East Harlem. Husock (2003) argues that public housing creates social problems because it concentrates individuals prone to criminal activity into one central place, exacerbating social ills. Using data on youths in Boston neighborhoods, Case and Katz (1991) find that even after controlling for family and personal characteristics, living in a neighborhood where a lot of other teens engage in drug usage and crime (in their data set these neighborhoods tended to contain public housing projects) significantly increases the probability that a given youth will engage in these behaviors. They argue that "contagion" models, where having one's peers engage in an activity increases the likelihood of an individual engaging in the activity, provides a possible theoretical basis for how neighborhood effects can play a role in juvenile delinquency. On the other hand, basic economic theory would suggest that individuals move into public housing because they are better off in total then they were in the private marketplace. Thus, even if juvenile delinquency increases as a result, perhaps parents value benefits in the public housing bundle enough to offset the negative effects on the probability their kids engage in crime.

In sum, there are many theoretical arguments for why markets may fail. What is lacking is research measuring the extent of market failure. There are many articles showing how the outcomes of private markets might be "bad" – defined as an outcome that the author would find substandard - yet few empirical articles attempt to measure the

external spillovers associated with the level of housing consumed by the poor in a free market. The strongest theoretical argument and the one most empirically tested is the public health argument. Given the empirical evidence and the current state of the U.S. housing stock, the existence of inframarginal positive externalities from replacing low-quality housing stock occupied by the poor seems to be in doubt. Once the issue of government failure is broached, the case against government intervention becomes even greater as it essentially raises the burden of proof for those wishing to intervene on behalf of low-income individuals. The remainder of this paper discusses in detail the economics of public housing and housing vouchers and the accumulated empirical evidence on the effects of these interventions into the housing markets for low-income individuals.

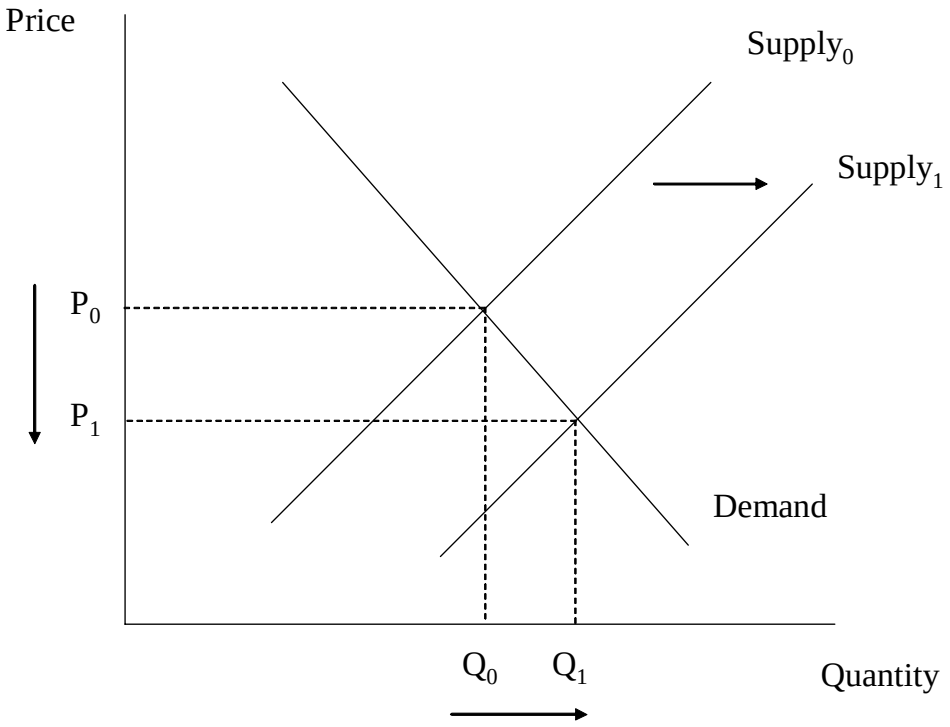
*3. The Economics of Public Housing*

Historically, public housing has been the primary method for providing housing assistance to the poor in the United States. Based on the mistaken observation that unfettered markets did not provide adequate housing for the poor, federal involvement in the construction and operation of housing for low-income individuals began during the Great Depression (Olsen 1983). The goal was to pick up where the market appeared to fail – providing safe and healthy housing for low-income families (Kraft and Kraft 1979). This was done through federal construction of new housing units, some small apartment buildings and some high-rise tenements colloquially referred to as “projects”. Once construction was completed, the public housing sites were turned over to local housing authorities who managed the sites and were responsible for maintenance and upkeep of the units out of rent paid by tenants and possibly local tax or state tax dollars. As of 2002,

there were over 13,000 public housing developments managed by around 3,000 local public housing authorities (Stegman 2002).

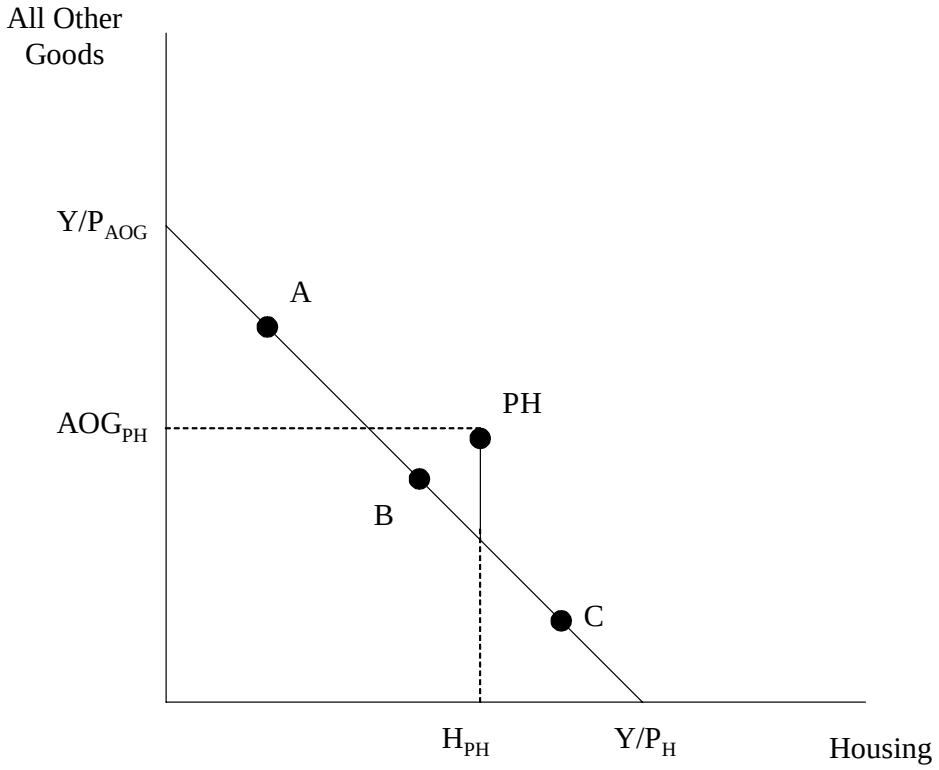
According to Olsen (1983), the federal government initially became involved in the construction of public housing in an attempt to stimulate employment during the Great Depression. While the ineffectiveness of housing programs with regard to employment stimulus became apparent, the argument that insufficient supply existed in the current market for low-income housing quickly took its place as the *raison d'âtre* of public housing. The basic economics of supply-side attempts to improve the level of housing consumed by low-income households can be seen in Figure 1. While this example is simplistic in that it ignores many of the secondary effects of public housing construction, it serves to illustrate the basic idea economics behind public housing. Figure 1 depicts the market for low-income housing units. In equilibrium, market prices (rents) per unit will be $P_0$ and there will be $Q_0$ units of housing. After the introduction of a federal public housing program in an area, the supply of housing shifts outward from $Supply_0$ to $Supply_1$. The increase in the supply of housing in the market causes housing prices (rents) to fall from $P_0$ to $P_1$. The current quality of housing can be purchased for lower rent, or alternatively, better housing can be purchased for the same level of housing expenditure. Thus, increasing the supply of housing would seem, in theory (if housing is a normal good), to increase housing consumption for all low-income households, regardless of whether they ended up in public housing. This is not the case, however, for two reasons which we will discuss.

**Figure 1. An Increase in Housing Supply Due to Construction of Public Housing**




The first reason why we cannot be sure that public housing makes low-income individuals consume better housing is that public housing could induce families to consume lower-quality housing. While families may be better off in terms of utility given the choice of public housing (based on their actions), recall that the justification for government intervention into housing markets is to increase the level of housing consumed by the poor because that is what generates the externality, not their lower utility. Consider Figure 2 drawn from Olsen (2003), which shows a possible budget space for a low-income individual under public housing as it has historically operated in the United States.

**Figure 2. Possible Budget Space under Public Housing**




Here housing is measured on the x-axis and all other goods on the y-axis. For any level of income, points on the budget line represent the maximum combination of housing and other goods that the individual could afford. Absent the public housing program, the low-income individual could afford points A, B, or C and would choose the allocation that maximized their utility given the individuals preferences. So point C represents a low-income individual that prefers to spend a lot of money on housing and not a lot on other goods while point A represents an individual that highly values all other goods but not housing.

Now let us consider the offer presented to this individual when offered an apartment through a public housing program, represented by point PH. In the United States, public housing is not available to all that qualify. Instead, individuals have to get on a waiting list and get offered an appropriate apartment for their household size once

one becomes available. Individuals can take or leave the apartment they are offered. If they reject it, sometimes they are given alternative choices, but if no suitable choices are presented, they are removed from the public housing list. Let us assume that an individual's utility is such that if offered PH, the individual will take it. If the individual was previously at point A, the public housing program definitely increased the household's consumption of housing. But for the individual at point C, the offer of public housing may increase her utility, but lower housing consumption. Given that the rationale for housing subsidies generally involves increasing housing consumption, this result is perverse. Depending on the low-income individuals preferences, a public housing program such as the one presented here can change an individual's consumption bundle in every possible way, with the exception of reducing the individuals' consumption of both goods (Olsen 2003).

Because it is theoretically ambiguous what effect public housing will have on individuals' housing consumption, we must rely on empirical estimates to see whether or not public housing increases the housing consumption of low-income households. Olsen (2003) summarizes the results of nine different studies on the effect of public housing. He concludes that the empirical evidence clearly shows that public housing increases the quality of housing consumed by low-income individuals. Hammond (1987), for example, finds that public housing increases housing consumption among participants by 41 percent. The estimates across studies range from 22 to 82 percent. A caveat to these estimates is that the extent to which they increase housing consumption is dependent upon the age of the housing units. New construction typically gives the highest increase in consumption because the quality of the units generally declines over time as the

buildings depreciate relative to market housing. No new public housing projects have been started since the Carter administration (Green and Malpezzi 2003). While the federal government has spent considerable dollars rehabilitating current units, the extent to which public housing improves housing consumption is likely to be towards the lower end of that range. Estimates of non-housing consumption find that public housing residents generally increase their non-housing consumption by up to 20 percent as the lower rent on public housing frees up income to be spent on other goods (Olsen 2003).

Another reason why we cannot be sure that public housing makes people better off is because of crowding out of other low-income housing. The simple analysis presented above assumes that there is no demand change in response to the changes brought forth by the construction of public housing. If, however, we assume that at least some households entering into public housing previously were sharing housing with family members, then the introduction of new subsidized public housing will lead to an increase in demand, as extended families living under a single roof can now afford to set out on their own. In the extreme, if every household in public housing previously was living with a family member rent free, then there will be zero crowding out and the result will be as depicted in Figure 1. The increase in supply will lead to an increase in the housing stock. If, on the other hand, all new public housing residents previously rented unsubsidized units then crowding out will be 100 percent and demand will fall to exactly offset the increase in supply. The result will be a transfer of privately operated low-income housing to public housing, but no net increase in the housing stock. Thus, the questions of crowding out is really an empirical one because it depends on how many public housing recipients are coming from shared living arrangements.

Murray (1983) conducted the first study on crowding out and finds evidence of crowding out. He estimated that in the long run 85 percent of the effect of new public housing was offset by a decline in unsubsidized housing starts. In an update to his 1983 study, Murray (1999) comes to a different conclusion. He finds that subsidies for low-income public housing do not crowd out unsubsidized units, but that subsidization of housing for moderate income individuals does crowd out private housing. Murray argues that the reason for the difference is that very few moderate-income families are becoming independent households for the first time upon receiving the subsidy, so subsidized housing for moderate income families displaces unsubsidized housing. Conversely, many low-income public housing tenants previously lived with family or friends and thus the introduction of public housing does little to change the market demand for unsubsidized housing. The most recent study on crowding out by Sinai and Waldfogel (2005) finds that while subsidized housing does increase the total amount of housing in a city: for every three subsidized units constructed two unsubsidized units are crowded out. They conclude that this is a positive effect of low-income housing subsidies, because the subsidies did increase the housing stock somewhat as many subsidized residents would not have occupied unsubsidized units absent the program.

Husock (1997b) states that 48 percent of public housing recipients entered public housing to live independently from family and friends, not to escape dangerous or debilitated housing. He suggests that this is actually a failure of public housing, implying that public housing is not correcting an externality but subsidizing a lifestyle choice. Perhaps more important, Husock argues that this choice that is negative for the recipients in the long-run because it builds a dependency on government and reduces incentive to

engage in activities that will improve their lives in the long run. He argues that public housing disrupts the housing ladder, where low-income individuals live with family or in substandard conditions for a time before they can work and save enough to move to better housing. Public housing disrupts this process for many households because subsidized housing frees up income to be spent on other consumer goods and the gap between consumption bundles in public housing and in unsubsidized housing is so great it reduces incentive work to reach the next rung on the housing ladder. According to Husock (1997b), more that 25 percent of public housing recipients have been in public housing for more than a decade.

One reason why public housing might foster a dependence on government assistance is that it reduces incentives to work and earn income. Public housing is means-tested to the extent that the subsidy received by a low-income individual receiving public housing depends on its earned income (Olsen 2003). Empirical estimates find what economic theory suggests – that public housing induces individuals to work less. Murray (1980) finds that public housing causes recipients to reduce labor earnings by around 4 percent. Painter (2001) estimates that the opportunity to live in subsidized housing raises the disincentives to work by 21 percent. Yelowitz (2001) looks at female-headed households and finds that a one-percent increase in the amount of subsidy conferred by housing programs reduces female labor force participation by around 4 percent. Thus, housing subsidies appear to reduce the incentive to work, preventing households from earning income and accumulating savings that would enable them to move out of public housing.

We have spent considerable time discussing the impact of public housing and housing subsidies on the participants to the programs. This is understandable because people generally want to make sure that government programs do what they are intended to do. While we think the evidence is clear that, on net, public housing recipients are better off having received the subsidy, it does not mean that public housing is efficient or desirable. After all, there is another side to the ledger in that taxpayers and other citizens in society are impacted by public housing either because they pay for it through taxes and/or because public housing indirectly impacts their life through changes in the housing market.

Unfortunately, almost no studies look at the impact of public housing on others in society, so it is difficult to estimate the full costs of public housing. In terms of taxpayer outlays, we have the direct costs of (the federal component) of public housing as laid out in Table 1. While not insignificant, it is important to remember that direct outlays do not represent the economic cost of a government program. There is also the deadweight loss of taxation occurring due to reduced exchange as a result of the taxes levied to fund the program in question. While estimates of the deadweight loss arising from taxation are quite varied, it is safe to say that they are in the range of 10 to 50 percent of every dollar raised (Vedder and Gallaway 1999). Regardless of whether the high or the low end of that range is used, taking into account the deadweight loss of taxation for housing subsidies places a substantial additional burden on the operation of public housing when it is not clear that it is correcting any externality and instead merely represents a transfer of resources.

Some of the other indirect ways that public housing affects other members of society is through changes in the housing market. Public housing projects disrupt the regular rise and fall of neighborhoods that occurs as the housing stock gets older and gets sold to lower-income households, and then eventually gets demolished or rehabilitated as the neighborhood turns around again. Public housing designates certain neighborhoods where the projects are located as low-income, thereby disrupting the process of decline and redevelopment for neighborhoods where housing projects are located. In addition, proximity to public housing could affect other individuals through its effect on property values. Early studies on this issue such as Nourse (1963) generally found that public housing had zero effect on nearby housing values. More recent studies (Goetz, Lam, and Heitlinger 1996; Lyons and Loverage 1993; Santiago, Galster and Tatian 2001) find that in certain circumstances subsidized housing can reduce nearby property values as homeowners do not like the location of public housing near their residences.

Finally, public housing is a failure because it is an inefficient way to provide housing assistance to the poor compared to alternative forms of housing assistance such as rental vouchers. Public housing exhibits numerous problems that exist because of the absence of private ownership. Consider the incentives faced by a low-quality apartment complex owner and a PHA operating a public project. Apartment owners are engaged in a voluntary agreement with their tenants; if owners do not provide a rental unit (and any accompanying services) that the tenant feels is satisfactory considering the rent paid, the tenant can terminate the agreement and seek housing elsewhere. Without tenants, apartment owners earn no income, and thus no profit, from their apartment complexes. Apartment owners have the incentive to make sure that their tenants—their customers—

are satisfied with their living situations. If maintenance is not performed in a manner deemed timely by the tenant, tenants can pursue other housing options. In fact, much of the maintenance performed on low-quality housing is done by informal tradesmen connected, either socially or by living arrangement, to the apartment complex owners in an effort to keep rents low (Husock 1997a).

Another advantage of private ownership is that private owners have the ability and the incentive to terminate housing agreements should the tenant not be upholding his end of the agreement. The clearest case is the failure to pay rent where owners can seek to evict those tenants that do not pay according to the terms of their rental contract. In addition, private ownership is superior to public management in dealing with inter-tenant externalities related to noise usage of common areas. Private landlords have a strong incentive to mediate disputes between tenants and to evict residents should tenants be unable to abide by the terms governing common resources. The owner/tenant relationship highlights the benefits of private property and voluntary, non-coercive contracting—if either side is unsatisfied with the terms of the agreement, they are free to terminate the relationship and pursue better situations. While federal policy has evolved over time to allow the screening out or removal of difficult families, the lack of a profit motive combined with the bureaucracy associated with public management make the process far less efficient than private management.

Public housing exhibits little of the welfare-enhancing qualities outlined above. Apartment complex owners can be classified as *residual claimants*; that is, any profit derived from the efficient utilization of their assets will directly benefit the owners themselves. This is a properly aligned incentive. PHAs, however, do not face the same

incentive structure in managing public housing projects. Since PHAs do not benefit from a project's efficient operation there is little incentive to maintain the condition of public housing units and to operate the projects in an efficient manner. For example, in 1992 the Detroit Free Press reported that around one-third of Detroit's public housing units were in such a state of disrepair that they had been vacated and boarded up (Ball and McGraw October 30 1992). Around the same time, Chicago's housing authority came under fire because thousands of units were deemed unlivable (Reardon November 2 1992). In the aggregate, the condition of U.S. housing projects became so bad in the 1980s that Congress felt it necessary to establish the National Commission on Severely Distressed Housing in 1989 (Schill 1993).

While there are a examples of well-maintained and operated large-scale housing projects (see Vale 2002 for one example) and many smaller projects are not in obvious disrepair, the fact that so many projects were virtually unlivable only a couple of decades after construction is strong evidence of the bad incentives associated with public housing. The massive Pruitt-Igoe housing project in St. Louis is but one example. Pruitt-Igoe, which consisted of over 2800 apartments, was in such disrepair that it had to be demolished just *sixteen* years after opening in 1956. Despite being designed by the architect who later would go on to design the World Trade Center, the Pruitt-Igoe housing project was an abysmal failure because it was not designed with customer demands in mind. To cite but one example, the elevators in the eleven-story buildings were designed with stops only on the fourth, seventh, and tenth floors. While the goal was to get residents to meet people on other floors while they transferred from the elevator to the stairs, the result was that no one wanted to live on a floor that was not the

fourth, seventh or tenth floor. It is of little wonder why occupancy never rose above 60 percent (Newman 1996). The buildings were also designed with ample common areas in an attempt to facilitate interaction among residents. These areas quickly became vandalized and filled with garbage and human waste. According to Newman (1996) the common areas became so dangerous that mothers needed to travel in groups in order to safely shop for food or to escort their children to school.

Similar tales of neglect and disrepair can be told of housing projects in other cities, such as the Cabrini Green and Robert Taylor housing projects in Chicago or Mulford Gardens housing project in New York. Changes brought about as a result of the National Commission on Severely Distressed Housing have led to the demolition of most of these large-scale housing projects that generated the most glaring problems. It should be noted that planners have learned, to some extent, from their past failure. Common areas in new or rehabilitated projects are being minimized in order to reduce the problems that can arise from communal ownership. Recognition of the importance of architecture on the amount of maintenance and upkeep in public housing will play an important role in the future cost-effectiveness of public housing.

Despite the teardown of the most distressed public housing projects, and recognition of the importance of minimizing commonly-owned space, the fact remains that managers of small, well-designed PHAs still have poor incentives to manage projects efficiently. Why? *Because those who run the project do not benefit from increasing demand to live in the projects*. First of all, increases in demand do not result in higher rents as occurs in private markets. Second, the heavy subsidization of tenants means that demand generally outstrips supply at most public housing projects. Even if tenants

became fed up enough to "vote with their feet" and move out, another household would quickly move in and the status quo is thus likely to remain in place. As a result of these poor incentives, it is little wonder that public housing is almost always more costly than other forms of housing assistance for the poor such as rental vouchers (Olsen 2003). Thus it is easy to see why recent federal efforts to reform housing assistance for the poor have focused on housing vouchers and away from public housing.

*4. Conclusion*

Federal public housing policy has changed a lot in the past twenty-five years. According to Stegman (2002), national housing policy has improved considerably over the period as federal officials have learned from past mistakes. The shift from public housing to housing vouchers may be a clear example of government officials learning from past mistakes. Yet many housing projects continue to operate and thus it is important to examine the economics of public housing as well as the reasons for providing housing assistance to low-income individuals in the first place.

After reviewing the economic rationales for government intervention into the housing market for low-income individuals it is clear that little economic justification exists for low-income housing subsidies on the grounds of market failure. Paternalistic altruism arising from interdependent utility functions, even if they were widespread among citizens, are not Pareto-relevant because they do not produce efficiency losses. In addition, paternalistic altruism in the context of the "unaffordable housing" suggests non-housing subsidies, not housing subsidies. Finally, the public health argument for housing subsidies, to the extent it was once relevant, is no longer relevant as economic growth and the filtering down of homes in the housing market is continually leading to improved

housing conditions in the United States. Regardless, the link between housing quality and poor health is tenuous at best. Supporters of public housing need to look elsewhere besides market failure to find economic justification for housing subsidies for the poor.

Finally, a review of the economics of public construction of housing does find that federal public housing at least increases housing consumption among the poor, so it is meeting the goal of getting the poor to consume more housing. Given that are not really any Pareto-relevant externalities from their consuming less housing, however, they would probably be better off were they just given unrestricted income transfers. At the very least, housing vouchers improve upon public housing because they eliminate many of the worst problems that come with government ownership and they distort the housing market far less than public housing. While federal policy seems to be moving in the proper direction in shifting away emphasis from public housing and towards housing vouchers, our analysis suggests that little economic justification exists for any federal government intervention on behalf of low-income individuals.

*References*

Acevedo-Garcia, Dolores, et al. 2004. “Does Housing Mobility Improve Health?” *Housing Policy Debate* 15, no. 1: 49-97.

Baer, William. 1986. “The Shadow Market in Housing.” *Scientific American* 255, no. 5 (November): 29-35.

Ball, Zachare, and Bill McGraw. October 30, 1992. “U.S. Threatens to Sue City Over Public Housing Woes.” *Detroit Free Press*.

Burns, L., and Grebler, L. 1977. *The Housing of Nations: Analysis and Policy in a Comparative Framework*. New York, NY: Wiley.

Case, Anne C., Lawrence F. Katz. 1991. “The Company You Keep: The Effects of Family and Neighborhood on Disadvantaged Youths.” NBER Working Paper No. 3075.

Center on Budget and Policy Priorities. 2003. *Introduction to the Housing Voucher Program*. Washington, DC: Center on Budget and Policy Priorities.

Christie, Les. 2006. “Honey, I Stretched the House – Again.” *CNNMoney.com*, July 25. http://money.cnn.com/2006/07/24/real_estate/home_stretching/index.htm. Accessed 23 August 2006.

Fertig, Angela, and David Reingold. 2006. “Public Housing and Health: Is There a Connection?” University of Georgia, mimeo.

Glasheen, Megan, and Julie McGovern. 2001. “Mixed-Finance Development: Privatizing Public Housing through Public/Private Development Partnerships.” In *Privatizing Governmental Functions* edited by Deborah Ballati. New York, NY: Law Journal Press.

Goetz, E., Lam, H., & Heitlinger, A. (1996). There Goes The Neighborhood? The Impact of Subsidized Multi-family Housing on Urban Neighborhoods. Minneapolis: Center for Urban and Regional Affairs.

Green, Richard K., and Stephen Malpezzi. 2003. *A Primer on U.S. Housing Markets and Housing Policy*. Washington, DC: Urban Institute Press.

Hammond, Claire H. 1987. *The Benefits of Subsidized Housing Programs: An Intertemporal Approach*. Cambridge: Cambridge University Press.

Hochman, Harold M., and James D. Rodgers. “Pareto Optimal Redistribution.” *American Economic Review* 59, no. 4 (September): 542-47.

Holcombe, Randall G., and Russell S. Sobel. 2000. “Consumption Externalities and Economic Welfare.” *Eastern Economic Journal* 26, no. 2 (Spring): 157-170.

Husock, Howard. 1997a. “We Don’t Need Subsidized Housing.” *City Journal* 7, no. 1 (Winter): 50-58.

Husock, Howard. 1997b. “Now Let’s Put Time Limits on Public Housing.” *American Enterprise* 8, no. 1 (January/February): 70-71.

Husock, Howard. 2003. “How Public Housing Harms Cities.” *City Journal* 13, no. 1 (Winter): 70-79.

Kasl, Stanislav V. 1976. “Effects of Housing on Mental and Physical Health.” In *Housing in the Seventies: Working Papers* 1. Washington, DC: Government Printing Office.

Kraft, John, and Arthur Kraft. 1979. “Benefits and Costs of Low Rent Public Housing.” *Journal of Regional Science* 19, no. 3:309-317.

Lyons, R.F., & Loveridge, S. 1993. “A Hedonic Estimation of the Effect of Federally Subsidized Housing on Nearby Residential Property Values.” Staff Paper P93-6. St. Paul, MN: Department of Agriculture and Applied Economics, University of Minnesota.

Murray, Michael P. 1980. “A Reinterpretation of the Traditional Income-Leisure Model, With Application to In-Kind Subsidy Programs.” *Journal of Public Economics* 14: 69-81.

Murray, Michael P. 1983. “Subsidized and Unsubsidized Housing Starts: 1961-1977.” *Review of Economics and Statistics* 65, no. 4 (November): 590-97.

Newman, Oscar. 1996. *Creating Defensible Space*. Washington, DC: U.S. Department of Housing and Urban Development.

Nourse, Hugh O. “The Effect of Public Housing on Property Values in St. Louis.” *Land Economics* 39, no. 4 (November): 433-441.

Olsen, Edgar O. 1971. “Subsidized Housing in a Competitive Market: Reply.” *The American Economic Review* 61, no. 1 (March): 220-224.

Olsen, Edgar O. 1983. “The Role of Government in the Housing Sector.” In *Reassessing the Role of Government in the Mixed Economy* edited by Herbert Giersch. Tubingen: Mohr.

Olsen, Edgar O. 2000. “The Cost-Effectiveness of Alternative Methods of Delivering Housing Subsidies.” University of Virginia, mimeo.

Olsen, Edgar O. 2003. “Housing Programs for Low-Income Households.” In *Means-Tested Transfer Programs in the United States* edited by Robert A. Moffitt. Chicago, IL: University of Chicago Press.

Orlebeke, Charles J. 2000. “The Evolution of Low-Income Housing Policy, 1949-1999.” *Housing Policy Debate* 11, no. 2: 489-520.

Painter, Gary. 2001. “Low-Income Housing Assistance: Its Impact on Labor Force and Housing Program Participation.” *Journal of Housing Research* 12, no. 1: 1-26.

Reardon, Patrick T. November 2, 2002. “CHA Reeling From Years of Maintenance Neglect.” *Chicago Tribune*.

Rosenthal, Stuart. 2006. “Old Homes, Externalities, and Poor Neighborhoods: A Model of Urban Decline and Renewal.” Mimeo.

Santiago, Anna M., George C. Galster, and Peter Tatian. 2001. “Assessing the Property Value Impacts of the Dispersed Housing Subsidy Program in Denver.” *Journal of Policy Analysis and Management*.20, no. 1: 65–88.

Schill, Michael H. 1993. “Distressed Public Housing: Where Do We Go From Here?” *University of Chicago Law Review* 60, no. 2: 497-554.

Sinai, Todd, and Joel Waldfogel. 2005. “Do Low-Income Housing Subsidies Increase the Occupied Housing Stock?” *Journal of Public Economics* 89, no. 11-12 (December): 2137-64.

Stegman, Michael A. 2002. “The Fall and Rise of Public Housing.” *Regulation* 25, no. 2 (Summer): 64-70.

U.S. House of Representatives, Committee on Ways and Means. 2004. *2004 Green Book*. Washington, DC: Government Printing Office.

Vedder, Richard K., and Lowell E. Gallaway. 1999. *Tax Reduction and Economic Welfare*. Washington, DC: Joint Economic Committee.

Vale, Lawrence J. 2002. *Reclaiming Public Housing: A Half Century of Struggle in Three Public Neighborhoods.* Cambridge, MA: Harvard University Press.

Whitehead, Christine M.E. 2003. “The Economics of Social Housing.” In *Housing Economics & Public Policy: Essays in Honour of Duncan Maclennan* edited by Tony O’Sullivan and Kenneth Gibb. Malden, MA: Blackwell Science.

Yelowitz, Aaron W. 2001. “Public Housing and Labor Supply.” Lexington, KY: University of Kentucky, mimeo.