

Will Dispersed Housing Programmes Reduce Social Problems in the US?

GEORGE GALSTER & ANNE ZOBEL

Wayne State University, College of Urban, Labor and Metropolitan Affairs, Detroit, US

[Paper first received, October 1997; in final form February 1998]

ABSTRACT *In recent years, US policy-makers have given increasing emphasis to geographically dispersing recipients of housing subsidies, based on the assumption that residence in concentrated poverty neighbourhoods abets socially dysfunctional behaviours. The paper assesses this assumption, both theoretically and through a meta-analysis of extant empirical studies. It demonstrates how only modest differences in the functional relationship between spatially concentrated poverty and resultant socially problematic behaviours will radically affect conclusions about the desirability of housing dispersal programmes. Dispersal will only lead to a net reduction in problem behaviours in society as a whole if the relationship between neighbourhood poverty rate and individual propensity to engage in problem behaviours is characterised by a positive threshold or by an increasing marginal impact. Three types of empirical studies are reviewed in an attempt to ascertain the state of knowledge regarding the nature of this functional relationship: (1) case studies of participants in dispersed housing programmes; (2) statistical studies of property value impacts of dispersed housing programmes; and (3) statistical studies of the neighbourhood correlates of the behaviour of individuals. Meta-analysis concludes that the evidence is thin and contradictory. Thus, the US now faces the unenviable situation of having adopted a major housing strategy with only a shred of evidence to suggest what effect it might have on aggregate social problems.*

Introduction

In recent years, US policy-makers have given increasing attention to geographically dispersing recipients of housing subsidies. Some of this attention has resulted from court-ordered mandates settling housing segregation suits filed against local housing authorities, and some from an affirmative commitment from the Clinton administration. The purposes of these housing dispersal programmes have been to: (1) spatially deconcentrate inner-city, assisted housing tenants; (2) integrate socially (and, perhaps, racially) those tenants into suburban, middle-class communities; and (3) enhance opportunity and choice for assisted housing residents. A housing dispersal programme in this context is one that moves a low-income household from an inner-city area characterised by inadequate housing and public services, high crime, and minority racial concentration, to an area characterised by middle-class residents, diversity, and supe-

rior resources and opportunities. A clear presumption of dispersal policy is that residence in concentrated poverty neighbourhoods has a debilitating effect on residents and imposes disproportionate social costs (US Department of Housing and Urban Development, 1996).

Two policy mechanisms at the forefront of the US dispersal effort are the Section 8 housing assistance programme and scattered site housing (Burchell *et al.*, 1994; Goering *et al.*, 1995; Hogan, 1996). Section 8 is a rent subsidy programme administered by the Department of Housing and Urban Development (HUD) that assists low-income households acquire safe and decent, middle-quality, privately owned housing. The programme involves means-tested, tenant-based housing allowances used at the recipient's discretion for renting existing private housing, toward which the tenant contributes 30 per cent of income. Section 8 is widely used nationwide as an alternative to public housing, and provides enhanced choice of living environment because it is portable across local housing authority jurisdictions. Currently there are more households using Section 8 rental allowances than there are residents in public housing (De Parle, 1996). Recently, HUD instituted the Regional Opportunity Counseling initiative designed to provide Section 8 participants with more assistance in dispersing widely across the 16 metropolitan areas where it is operating (Turner & Williams, 1998).

The largest and most publicised example of a Section 8 dispersal programme is the Gautreaux assisted housing programme in Chicago, devised in 1976 to settle a public housing segregation suit (Peterson & Williams, 1995). Since its inception, it has granted Section 8 certificates to over 6500 former public housing residents and assisted them in finding living quarters in predominantly white, low-poverty neighbourhoods in both the city and suburbs of Chicago. Most other cities with court-mandated Section 8 dispersal programmes have modelled their programmes after Gautreaux, including Boston, Cincinnati, Dallas and Hartford (Rosenbaum, 1995). These programmes have generally been successful at deconcentrating recipients from the archetypal public housing ghettos, and relocating them into stable, middle-class communities. The success of the Gautreaux programme inspired Congress in 1992 to enact an experimental Section 8 mobility programme in five major cities: the Moving To Opportunity (MTO) demonstration programme. This programme provides Section 8 certificates and vouchers for households to move away from concentrated poverty, to census tracts with 10 per cent or less poverty. It includes tenant and landlord counselling. Applicants are randomly assigned to one of three experimental groups, so that researchers can investigate the consequences of different mobility inducements and recipient neighbourhood impact. The five demonstration sites are: Baltimore, Boston, Chicago, Los Angeles and New York City (US Department of Housing and Urban Development, 1996).

Scattered-site housing in the US refers to unit- or project-based subsidy programmes which allow assisted housing tenants to reside in neighbourhoods beyond those where most conventional public housing and privately owned, assisted developments have traditionally been located. Scattered-Site Public Housing (SSPH) is the most common form. In SSPH programmes, a local housing authority uses federal funds to acquire or build small-scale rental developments in various parts of the city. Scattered-site housing can also be privately owned, as in the case of the (now discontinued) Section 235 and Section 8 New Construction programmes, which subsidised mixed-income

apartment construction with set-asides for low and moderate income households (Hogan & Lengyel, 1985).

Scattered-site developments can range from single family, detached homes to mid-sized complexes. Compared to traditional public housing developments, tenants of scattered-site units tend to more racially diverse and economically independent nationwide (Hogan & Lengyel, 1985). Scattered-site programmes have generally involved fewer tenants than the tenant-based programmes like Section 8, and are considered the more appropriate form of dispersal in weak housing markets where land and housing costs are lower. Cities with large, voluntary SSPH programmes include Omaha, San Antonio, Denver, Portland, and Seattle. The most (in)famous example of a court-ordered, scattered-site programme is Yonkers, a inner-ring suburb of New York City. Amid much controversy during the last decade, black and hispanic residents of the city's public housing developments were dispersed into middle-class neighbourhoods in newly constructed complexes ranging from 14 to 48 units each. Other cities that have large, court-ordered SSPH programmes include Chicago, Cleveland and Cincinnati (Peterson & Williams, 1995).

Despite their pre-eminence in the US federal courts' and the Clinton administration's policy pantheon, housing mobility programmes have not proceeded consensually. The main source of opposition has come from middle-class communities who fear an upsurge of social problems and erosion of overall quality of life as the result of relocating poor families into their midst. For example, opposition to SSPH in Denver in 1989 led to major limitations being imposed on the programme regarding the maximum number of scattered-site units that could be located in any neighbourhood. Vociferous politicking surrounding the MTO programme in Baltimore County, Maryland, in 1994 led to a Congressional retreat from funding further cohorts of MTO demonstration assisted households (Ludwig & Stolzberg, 1995). Thus it is clear that, in the view of many, dispersing low-income tenants merely 'moves social problems into different neighbourhoods', yielding no net reduction in social problems overall and destroying erstwhile 'decent' neighbourhoods.

The purpose of this paper is to assess the degree to which the current American emphasis on housing dispersal programmes can be justified on the grounds of reducing socially problematic behaviours. It presents a conceptual model that demonstrates how only modest differences in the functional relationship between spatially concentrated poverty and resultant social cost (dysfunctional behaviours, low educational achievement, etc.) will radically affect conclusions about the desirability of housing dispersal programmes. This will be followed by three sections comprising a meta-analysis of extant evidence about this relationship. The first assesses evidence regarding experiences by poor, assisted housing tenants who have been dispersed into low-poverty areas in US metropolitan areas. The next section reviews indirect evidence regarding social externalities of poor neighbours, as measured by changes in the property values of the communities receiving dispersed housing participants. The third examines cross-sectional statistical studies investigating potential non-linearities of neighbourhood impacts on a variety of individual behaviours. The paper concludes that there is precious little evidence to justify housing dispersal programmes in the US on grounds of social efficiency. Until further studies are conducted, they must be based on other rationale.

A Model for Evaluating the Net Social Benefits of Dispersed Housing Programmes

The likelihood of a causal relationship between aggregate poverty rates in a neighbourhood and the incidence of individuals engaging in socially problematic behaviours has been widely acknowledged in the social science literature (for example: Brooks-Gunn *et al.*, 1997; Coulton & Pandey, 1992; Coulton *et al.*, 1995, 1996; Crane, 1991; Elliott *et al.*, 1996; Fick & Thomas, 1995; Franklin *et al.*, 1995; Hill *et al.*, 1996; Hill & O'Neil, 1993; Jencks & Mayer, 1990; Kupersmidt *et al.*, 1995; Massey *et al.*, 1991; Stern & Smith, 1995; Wilson, 1987). For more on the theoretical underpinnings of the processes involved, see Jencks & Mayer (1990) and Crane (1991). Most empirical studies give some support for the notion that neighbourhood matters for individuals' decision-making, although very little consensus emerges as to why and how it matters, and which social outcomes are the result of which neighbourhood factors (Briggs, 1997b; Brooks-Gunn *et al.*, 1997; Turner & Ellen, 1997). In particular, there is debate about the theoretical underpinnings of the relationship and the degree to which conditions associated with the neighbourhood's aggregate poverty rate affect individuals' behaviours, independent of their own socio-economic status. The lack of any consensual causal explanations, along with inconsistent and sometimes contradictory evidence regarding neighbourhood effects, indicates the need to analyse theoretically a variety of plausible alternatives.

Essentially, the core of our argument is as follows. First, only particular relationships between an individual's propensity to engage in socially problematic behaviours (like committing a crime) and the concentration of poverty in their neighbourhood, will be associated with a corresponding relationship between the overall incidence of the given behaviour in a neighbourhood and its poverty rate. For example, as will be explained below, if individuals are not influenced by the poverty of their neighbours, the aggregate-level relationship between neighbourhood poverty rates and social problems should be linear and relatively flat. If neighbourhood poverty affects individual behaviours at an increasing marginal rate, the aggregate relationship will look more exponential in form. And so forth. Second, the aggregate relationship between neighbourhood incidence of social problems and poverty rates will affect the social efficiency of housing dispersal policies. For instance, as explained below, a linear aggregate relationship suggests that any spatial distribution of the poor will yield the same overall incidence of social problems. On the other hand, an exponential relationship implies potentially large reductions in social problems from a dispersal strategy. Consider some key possibilities in greater detail. For simplicity in what follows, we will assume that neighbourhood poverty rate is the key independent variable of interest. As noted by Turner & Ellen (1997), however, there is no consensus about whether it is neighbourhood poverty rate *per se* or some of its correlates that influence behaviour.

Figure 1 portrays different possible relationships between the concentration of poverty and social problems in a hypothetical set of neighbourhoods comprising a metropolitan area. The concentration of poverty is measured by the percentage of poor households in a neighbourhood, for simplicity. The degree of social problems may be considered an index of neighbourhood conditions that reflects the aggregate levels of crime, non-participation in the labour force, substance abuse, school dropouts, delinquency, and social isolation or alienation. Five

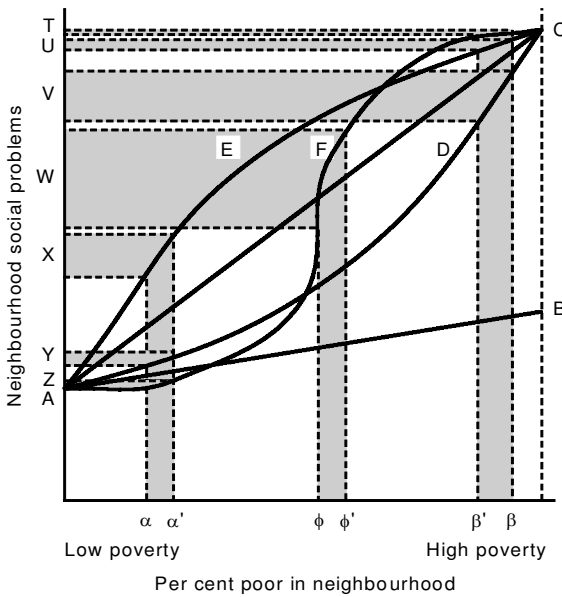


Figure 1. Possible relationships between poverty rates and aggregate incidence of social problems in a neighbourhood.

distinct situations are shown. Each one represents a different possible effect of shifting low-income populations from a high-poverty area to a lower-poverty area.

Line AB assumes that a person's likelihood of undertaking socially problematic behaviours is directly related in a linear fashion to their personal degree of poverty. There is however, no independent effect of the aggregate poverty rate of neighbours. Therefore, social problems are observed to be more common in poor neighbourhoods, but only tautologically because more poor people live there. In this case, there would be no justification for a housing dispersal policy, because the reduction in the incidence of social problems in the origin neighbourhood of the dispersed poor would be precisely offset by the increase in social problems in the receiving neighbourhood of the dispersed poor. Graphically, moving out some poor households from concentrated poverty neighbourhood β so that it becomes β' requires that some destination neighbourhood like α become α' . Because AB is linear, the reduction in social problems experienced by β is offset by the corresponding upsurge in α , and there is no net change in social problems overall.

Line AC portrays the situation where individual behaviour is linearly associated with both their own poverty status and with the aggregate poverty rate of neighbours. In other words, every poor person has a constant social problem propensity that they carry with them (so long as they remain poor), and externally impose as well on their neighbours' decision calculus, regardless of the poor individual's residential environment. Once again, this case would provide no justification for dispersal housing policies. Removing poor house-

holds from β (creating thereby β') would reduce the incidence of social problems there to a larger extent compared to AB because not only would there be fewer poor households there but their absence also would make the remaining households less likely to engage in problematic behaviours. Because AC is linear, however, the increase in social problems in the receiving neighbourhood α (creating α' thereby) would be greater than in the case of AB, and would exactly offset the reductions in β .

Curve AEC assumes that the probability of undertaking problem behaviours is a function of one's own poverty status and that of one's neighbours, but that the marginal impact of the latter factor is non-linearly decreasing. In other words, AEC portrays a situation wherein the first poor entrants into an otherwise-non-poor neighbourhood so greatly disrupts the social fabric that many non-poor households begin to engage in socially problematic behaviours. By the time the neighbourhood becomes solidly poor, however, there is but a modest impact of an additional poor entrant on the propensity of any resident to engage in such behaviours. Under such circumstances it would be unwise to begin a housing dispersal programme, inasmuch as there would be only trivial reductions in social problems associated with converting β to β' (the width of the thin, grey band U at the top of Figure 1), but large increases in such associated with converting α to α' (the width of band X).

Curve ADC also assumes that the probability of undertaking problem behaviours is a function of one's own poverty status and that of one's neighbours, but that the marginal impact of the latter factor is non-linearly increasing. That is, ADC assumes that the behavioural consequence of one more poor neighbour is trivial when the overall poverty rate in the neighbourhood remains low (perhaps because the dominant neighbourhood social milieu persists as 'middle class'), but rises progressively as the poverty rate in the area rises. Here housing dispersal would be recommended because net social problems would decrease by the difference between gray bands V-Y in Figure 1.

Curve AFC assumes a case involving an amalgam of the foregoing two cases and the addition of a threshold. AFC suggests that areas with a very high or a very low concentration of poverty are similar in one way: shuffling a handful of poor households into or out of these areas will have little or no impact on the overall social costs in that neighbourhood. Under this possibility, areas of very high poverty will not experience any significant benefits from losing a few low-income, assisted housing tenants inasmuch as the tenor of the milieu will not be altered (band T is small in Figure 1). For analogous reasons, the addition of a few poor households in an otherwise-middle class area will have little tendency to spur the problem behaviours of middle-class residents there (band Z is small). But between these two relatively stable social environments exist neighbourhoods (like ϕ in figure 1) with a 'threshold poverty rate'. Here, removing a few of the poor households could have significant positive results for the entire neighbourhood, whereas adding a few more poor households would tip the milieu toward drastically greater social problems. This alternative AFC stresses the importance of the destination conditions where assisted housing tenants might be dispersed. Relocating tenants into these threshold communities that have only marginally lower poverty rates than their previous neighbourhood may place much higher social costs on the recipient neighbourhood (such as band W due to changing ϕ to ϕ' in Figure 1) than would be removed from the origin neighbourhood (band T). On

the other hand, relocating low-income tenants out of either high-poverty or threshold neighbourhoods and into low-poverty areas should benefit the origin neighbourhood, without noticeably affecting the receiving community.

In summary, our straightforward graphical exercise has demonstrated that it is not sufficient justification for housing dispersal strategies to argue that neighbourhood poverty rates positively affect an individual's propensity to engage in socially problematic behaviours. On the contrary, the precise mathematical way in which this neighbourhood effect is manifested will determine whether social problems evinced by the community at large will decline, remain constant, or even rise on net with the enactment of a particular sort of dispersal policy.

But what does received evidence tell us about the nature of this mathematical relationship? As introduction, we stress that much of the existing social scientific evidence is only of tangential relevance to answering this question. In particular, the first two strands of literature reviewed below, case studies of poor who have dispersed and property value impacts in their destination neighbourhoods, have conventionally been viewed as central justifications of dispersed housing policies in the US. To preview the results, dispersal advocates can fairly claim, 'Dispersal benefits those who have participated and does not hurt property values in the destination neighborhoods'. Yet, as we shall explain below, neither fact is sufficient to justify the programme on the grounds of net reductions in social problems.

We further note as preface to our review that one appropriate test has never been conducted, to our knowledge. This would involve regressing the aggregate incidence of various social problems across a sample of neighbourhoods on these neighbourhoods' poverty rates, controlling for other appropriate variables. Goodness-of-fit tests could be conducted to ascertain which version of Figure 1 was best supported by the data. (We thank an anonymous referee for this suggestion.)

Evidence from Case Studies of Poor Who have Dispersed to Low-poverty Neighbourhoods

The following section assesses evidence of tenant impacts of dispersed living that has been accumulated through six case studies of either Section 8 mobility or scattered-site public housing programmes in a variety of mid-sized and large cities throughout the US. These studies have compared participants' (referred to as 'movers' hereafter) new residential environments to their previous ones and movers' subjective and objective reactions to these changes. We organise the evidence here through the use of a conventional model of environmentally induced behavioural change (Fishbein & Ajzen, 1975). Figure 2 portrays the elements and presumed causal paths in this model. Residential environment refers to a collection of structural, sociological, public service, locational, and environmental characteristics that describe one's living environment. Changes in these characteristics are seen as potentially influencing behaviour both directly and indirectly through their impact on resident attitudes. Thus, we will review evidence on objective and subjective changes in environment, changes in attitudes and, ultimately, changes in behaviour for movers.

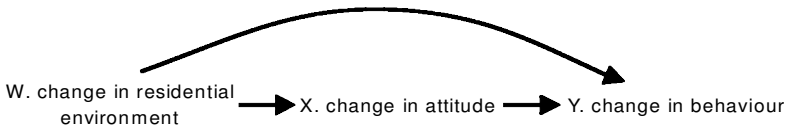


Figure 2. Tenant impact structural model.

Characteristics of the residential environment most often investigated in dispersed housing studies have been:

- *Physical characteristics:* aesthetic qualities such as landscaping and upkeep, dwelling unit and parcel quality, consumer resources such as retail and other services, and support services such as social services, church, and places to socialise.
- *Social characteristics:* socio-economic status, crime, and social interaction or isolation.
- *Municipal public services:* school system, recreation facilities and programmes such as parks and organised sports, and other city services including public safety.
- *Spatial context:* location of area relative to jobs and other amenities, and accessibility to transportation systems (most importantly, public transit).

Physical Characteristics

Movers in dispersal programmes generally have experienced substantial changes between their old and new residential environments. Neighbourhood benefits mentioned the most by suburban Chicago movers related to low density, peacefulness, safety, cleanliness, and open space. (Peroff *et al.*, 1979). Cleanliness of the area also produced satisfaction for movers in Charlotte (Lord & Rent, 1987). Satisfaction with living environment is a large area of study in housing dispersal programmes. It is a direct link between residential environment and subjective perception, or line WX. Where it is difficult to measure actual change in residential environment, satisfaction levels with that environment are easier to collect. Even though Lord & Rent did not specifically ask the movers to compare their new residence to their previous one when examining satisfaction levels to the various characteristics, in this case, the comparative reference point is their previous public housing residence. The relationship between landscape attributes and its affect on human feelings and actions have been widely tested. Studies have shown that exposure to trees and vegetation has a positive influence on an individual's health and psychological well-being (Ulrich, 1990; 1986) and people recover from stressful situations faster when exposed to a natural setting rather than an urban environment (Ulrich *et al.*, 1991).

Because of the poor condition of inner-city public housing developments, most of which were built before 1960, a move to an outer, middle-class area is likely to result in an improvement in housing quality. Few studies have given much attention to objectively measuring housing quality for movers, although the movers in Charlotte were highly satisfied with the quality of their apartments and felt that they were an improvement over their previous public housing units

(Lord & Rent, 1987). A majority of Cincinnati movers believed that their new apartment was 'much better' than their previous one (Fischer, 1991). Consumer and support services were generally rated higher in the post-move communities as well. Movers in Charlotte were overwhelmingly satisfied with the location of shopping, churches and medical services in their new neighbourhoods (Lord & Rent, 1987), and shopping quality and availability also were better than in the previous neighbourhood for movers in Cleveland (Chandler, 1990). The exceptions were that distance from church generated significant dissatisfaction from the interviewed movers in Dallas and Cleveland (Stacey *et al.*, 1988; Chandler, 1990).

Social Characteristics

Chicago movers experienced the greatest statistical change in social characteristics from origin to destination census tract. The movers' new tracts had 30 percentage points lower poverty rates (37 vs. 7 per cent), 67 percentage points fewer black residents (76 vs. 9 per cent), and 12 percentage points more college graduates (11 vs. 23 per cent) than their origin tracts.

The most prominent social change in the new environment observed in virtually all case studies, however, was the reduction of crime. Indeed, reductions in crime and fear of crime in their new neighbourhood was cited as the primary benefit to residents in dispersal programmes in Cleveland, Yonkers, Cincinnati and Durham (Briggs, 1997a; Burby & Rohe, 1989; Chandler, 1990; Fischer, 1991).

A major social concern of dispersal programmes has been that low-income (especially black) movers might suffer from social isolation, and thus may not assimilate into their new environment, due to social and cultural differences, as well as potential racial discrimination. The evidence on this is not particularly strong, mainly because of the difficulty measuring assimilation, but there are a few studies that suggest this concern is exaggerated. Hogan & Lengyel's (1985) study found that 82 per cent of the scattered site movers in Seattle felt at home in their new neighbourhood, although only half of Seattle's dispersed population is black, with a large mix of whites and Mexican-Americans also represented. Fischer's (1991) study also found that a majority of the Cincinnati movers felt like they were a part of their new community. Ninety-four per cent of the scattered-site movers in Charlotte were satisfied or very satisfied with the existence of 'good people' in their new neighbourhood (Lord & Rent, 1987). In addition to not experiencing social isolation, Charlotte movers and their children seemed to make new and more diverse friends without major problems. Adolescent Chicago suburban movers had more friends overall, and significantly more white friends, than the Chicago city movers (Rosenbaum, 1995).

Public Services

In general, movers expressed that the public services in their new neighbourhoods (such as schools, police and fire protection, parks and recreation, refuse and waste removal) were better than in their previous neighbourhood, with the changes being more significant for the movers who were able to cross municipal political boundaries. For example, movers in Charlotte were overwhelmingly satisfied with the existence of street lights, pavements, police protection, and child recreation in their new neighbourhoods (Lord & Rent, 1987). Even though

these movers did not cross any city boundaries, it is likely that these public services varied in quality between the inner-city and middle-class city neighbourhoods. Compared to their previous neighbourhoods, Cleveland's movers said that recreational quality and police responsiveness were better (Chandler, 1990).

Education, however, typically is considered a key public service benefit to dispersal programmes. According to parent respondents, movers in Chicago and Cincinnati had higher quality schools accessible to their children (Fischer, 1991; Rosenbaum *et al.*, 1988). If the hypothesis is correct that the quality of education influences academic achievement, mover children should perform better in suburban schools. The contrary hypothesis suggests, however, that due to the stiffer standards and racial discrimination in suburban schools, the moving youth should not perform as well in the suburbs as in other city neighbourhoods. Kaufman & Rosenbaum (1992) tested these hypotheses by comparing the academic achievement of black suburban movers and city movers and found quite the contrary. In every measured category (high school dropout rates, grades, college preparatory curricular, and college attendance); the suburban mover youth achieved higher than city mover youth. Other studies have also noted improved school performance for children of dispersed housing in Portland and Cleveland (Chandler, 1990; Kollie, 1984).

Spatial Context

The suburbanisation of low-skilled jobs in American metropolitan areas has resulted in the phenomena of spatial mismatch. Originally hypothesised by Kain (1968), and further developed by Kasarda (1989), Kain (1992), Holzer (1991), and Ihlanfeldt and Sjoquist (1989), mismatch theory suggests that the inner-city poor are isolated from expanding employment opportunities because they are unable to follow jobs into the suburbs due to lack of affordable housing there. This theory has provided an oft-cited justification for dispersed housing programmes.

For participants in the Cleveland and Chicago dispersed housing programmes, perceived proximity to employment opportunities was boosted due to their new locations (Chandler, 1991; Rosenbaum, 1995). In Charlotte and Durham, however, movers proved to be further distanced from employment opportunities, since most low-skill jobs were still located in the inner city (Burby & Rohe, 1989; Lord & Rent, 1987).

Access to suburban jobs may not be improved merely by propinquity, however, if transportation proves inadequate. In most American metropolitan areas, public transportation is generally less convenient in the lower-density, auto-dependent suburbs. Some worry, therefore, that placing assisted housing tenants who own no autos into this environment could potentially isolate them even more from employment and other opportunities. Indeed, transportation quality was the only service that did not improve significantly in the ratings by Cleveland movers (Chandler, 1990) and a majority of the movers in Charlotte were dissatisfied with the accessibility of public transportation and expressed "some dissatisfaction to the locational accessibility of jobs" (Lord & Rent, 1987).

Nevertheless, the evidence indicates that movers participating in dispersed housing programmes have had their labour market opportunities enhanced, although the evidence is mixed whether moving to low-poverty neighbourhoods in the city or the suburbs is superior. Movers in middle-class Yonkers neigh-

bourhoods were more likely to be working and report higher incomes (\$2200 higher per year, on average) than comparable households who stayed in public housing in poor Yonkers neighbourhoods (Briggs, 1997a). Similarly in Cincinnati, 57 per cent of the movers were employed compared to 24 per cent of those still in public housing, and the former group earned 20 per cent higher income than in their pre-move positions. They also had better earnings, fringe benefit packages, and job prestige compared both to pre-move situations and public housing residents. Interestingly, there were no significant differences in job-related indicators between Cincinnati urban and suburban movers, and the minor differences that did exist favoured city movers in terms of fringe benefits received and average pay rate (Fischer, 1991). By contrast, Chicago movers were 25 per cent more likely to hold a job if they moved to the suburbs instead of elsewhere in the central city, although city and suburban movers did not differ in hourly wages or number of hours worked per week. Among those who had a job both before and after moving, city and suburban movers both reported gains in hourly wages and no change in hours worked (Rosenbaum, 1995). However, adolescent suburban movers in the Chicago programme had higher employment rates, wages, and job prestige, and received better fringe benefits than city movers (Kaufman & Rosenbaum, 1992).

Summary of Evidence from the Studies of Movers in Housing Dispersal Programmes

These findings suggest that movers generally have been content with their new living environment and perceived it is an improvement over their previous one. The strongest findings have concerned the reduction of crime and perceptions of crime in the new environment. Significant adjustment problems to the new community have not been documented, although attrition levels arguably have been high in some cities. The biggest drawback reported by most movers has been the lack of sufficient and convenient public transportation in the outlying areas. Not surprisingly given the above, neighbourhood satisfaction has been found uniformly to increase significantly for movers (Briggs, 1997a; Chandler, 1990; Lord & Rent, 1987).

Behavioural changes have been apparent. Children's school performances have been positive, and employment opportunities for teens and adults have been generally improved.

Although it is clear that participating tenants benefit from these dispersed moves, any explanation typically is absent from the studies. Based on extant evidence, it would be difficult to attribute these benefits primarily to the lower concentration of poverty in the receiving areas. Rather, it seems that the improvements are more the result of other structural advantages of the suburban areas, such as schools, public services, and job accessibility. The one exception is Rosenbaum's studies of the Gautreaux programme in Chicago, which offer some explanation for which dimensions of the neighbourhood environment may affect the employment behaviour of poor in-movers. He found that, for participants who had never held jobs pre-move, 46 per cent of the suburban movers and 30 per cent of the city movers acquired jobs. Suburban movers noted the greater number of jobs in the suburbs as the number one reason why they were able to start working after the move. The second most-mentioned reason was less fear of crime in the suburbs. Adults would often choose not to work in the city because they feared being attacked during their work commute or they did not

want to leave their children at home without supervision, for fear of their safety. Many mothers also attributed their choice to work in the suburbs to positive role models and social norms.

These findings suggest that the second and third most frequently cited reasons for increased employment may be strongly related to the socio-economic status of one's neighbours. Thus, based on this evidence we can reject the option represented by line AB in Figure 1. However, they have never investigated impacts on neighbours of the movers in either origin or destination neighbourhoods. Unfortunately, none of the dispersed mover studies have tested for any non-linearities in this relationship. Therefore, they provide no justification for dispersal policies on the grounds of aggregate reductions in social costs.

Evidence from Property Value Studies

There is a strand of indirect statistical evidence that is of some relevance here. It assesses the degree to which poor neighbours living in subsidised housing affect the value of proximate residential properties. Insofar as the neighbourhood poverty rate represents a disamenity for current and prospective residents and purchasers (i.e. an increased likelihood of problem behaviours by both poor and their non-poor neighbours), such should be capitalised into housing prices. Thus, neighbourhood price effects allow one to test the degree to which poor households impose behavioural externalities on their neighbours. Unfortunately, there may well be other sorts of externalities associated with poor neighbours (like lower prestige or status, housing maintenance levels) that have nothing to do with inducements to engage in socially problematic behaviours. Thus, the test can only be conclusive if it were to find no effects of poor neighbours on housing prices. In principle, such effects can be identified through 'hedonic index' models that regress home sales prices (or apartment rents) on neighbourhood poverty rates, plus a series of variables that control for the myriad characteristics of the structure, parcel, and surrounding environs.

However, only certain sorts of hedonic index studies are of use here. Cross-sectional studies that find a negative correlation between individual house prices and the percentage of poor in the census tract, for example, are inappropriate here because they muddle causation. That is, macro-structural weaknesses of the neighbourhood unrelated to its current poverty rate may reduce its property values, thus permitting more poor households to move into the area. What is appropriate are studies that assess the impacts of dispersed housing programmes in non-poverty areas that are not declining.

Reviews of such impact studies of both privately and publicly owned scattered-site apartments typically have concluded that they have had no statistically significant impacts (Hogan, 1996; Martinez, 1988; Matulef, 1988; Puryear, 1989). No studies have been conducted about the neighbourhood impacts from the in-migration of Section 8 tenant-based subsidy recipients. Two recent studies have found, however, that particular sorts of subsidised buildings in particular sorts of neighbourhoods can produce large and statistically significant reductions in values, at least in the short run (Briggs & Darden, 1996; Galster & Williams, 1994). The fact that negative effects appear only idiosyncratically suggests, nevertheless, that impacts are not systematically related to a modestly higher percentage of poor in the neighbourhood as a byproduct of the subsidised dwellings. Thus, the evidence supports extreme curvature for ADC (such

as an exponential) or perhaps a threshold effect as embodied in AFC in Figure 1.

Yet, these interpretations must be made with caution because none of the studies have involved large-scale dispersal programmes that have altered the percentage of poor living in a neighbourhood to a large degree. Put differently, the range of variation in destination neighbourhood poverty rate pre- and post-policy was so small that conclusions about the overall format of the aggregate relationship in Figure 1 are tenuous at best.

Evidence from Cross-sectional Statistical Studies of Neighbourhood Impacts on Individual Behaviours

There is a growing multivariate statistical literature on measuring the impacts of various neighbourhood social conditions on outcomes for samples of individual youth and young adults (for reviews, see Briggs, 1997b; Galster & Killen, 1995; Haveman & Wolfe, 1994; Jencks & Mayer, 1990; Mayer & Jencks, 1989; Turner & Ellen, 1997). Many of these studies identify strong positive correlations between various measures of neighbourhood socio-economic status and particular sorts of individual dysfunctional behaviours (primarily for youth), controlling for family background characteristics. The effects of neighbourhood poverty rates, however, may not be consistent across population subgroups. For instance, Duncan (1994) analyses National Longitudinal Study of Youth data to ascertain the degree to which educational attainment of black and white, male and female youths were related to census tract percentages of: (1) those earning less than \$10 000; (2) those earning more than \$30 000; (3) individuals who were black; (4) families with children headed by women; and (5) adult women working at least 26 weeks. He found evidence that affluent neighbours conferred substantial school attainment benefits on all groups except for black males; affluent neighbours only appeared to benefit black males if those affluent neighbours were themselves black. However, few have tested for non-linear relationships, and those which have done so come to different conclusions. Only these will be reviewed briefly below.

The two sophisticated multivariate studies of secondary school dropout rates that have been conducted come to conflicting conclusions about whether the relationship is more like ADC, AEC, or AFC in Figure 1. Crane (1991) analysed data from the 1970 census-based file of sampled individuals across the metropolitan US that was then linked to neighbourhood indicators. In census-defined block groups he found that rates of dropping out of school were substantially higher if the percentage of workers holding professional or managerial jobs was less than approximately 3.5 per cent, suggesting a clear threshold like AFC or a highly convex ADC. Although neighbourhood poverty rate was not the independent variable employed, we infer that neighbourhood professional/managerial percentages are negatively correlated with it. Note however, that it is conceivable that Crane's threshold might occur when moving from middle class to professional neighbourhoods, with poverty rates holding constant. This result held for both genders and for blacks and whites, although not hispanics. A similar threshold pattern was revealed for white and black women's probability of teen childbearing.

Clark (1992), on the other hand, failed to replicate the non-linear Crane relationship for dropouts using 1980 data and a somewhat richer model (but

limited only to males and where neighbourhood was defined for a larger area, census tracts, instead of census block groups). Clark found that only when the neighbourhood share in managerial occupations exceeded 50 per cent did males' dropout rates begin to fall noticeably. Moreover, she found that only when a neighbourhood's poverty rate dropped from 5 to 0 per cent did males' dropout rates decline significantly. These results proved robust across race and ethnic groups, though black males appeared to benefit less from living in non-poverty areas than others. The implication here is a relationship like AEC in Figure 1.

O'Regan & Quigley (1995) have provided the only rigorous test of non-linearities in the relationship between neighbourhood poverty rates and employment probabilities of youth. They use 1990 census samples for youth living in the four largest metropolitan areas of New Jersey, linked to census tract and a rich array of transportation and job location data from the Census Transportation Planning Package. They found that the percentage of employed adults and non-poor individuals in the tract provided significant additional explanatory power on the probability of youths aged 16–18 being employed, controlling for family and job accessibility characteristics. Such proved true for white, black, and Hispanic youth, although they were unable to distinguish whether it was job information, role models, or peer influences that may have been operative. Perhaps of most relevance here, however, is the fact that the authors found that there were some significant non-linearities in impacts of neighbourhood poverty rates that were indicative of function ADC in Figure 1 (O'Regan & Quigley, 1995, unpublished appendices).

Duncan *et al.* (1997) employed the Panel Study of Income Dynamics to probe statistically the relationship between years of school completed by young adults and the percentage of 'high socio-economic status neighbours' in neighbourhoods both below- and above-average in status. This was a factor-analysed index, based heavily on having 13 or more years of school, \$30 000 or more income, and professional/managerial occupation. They found for white women a positive relationship that was invariant between both types of neighbourhoods. For white men and black men and women, however, the marginal benefit from additional high status neighbours was only significantly positive in neighbourhoods that were above-average in status. If the results are converted to refer to 'low educational attainment', they suggest that white women evince a linear relationship like AC in Figure 1, and all other groups studied evinced a strongly concave relationship like AEC. The authors stressed, however, that they were unable to find any relationship between individual behaviours and the poverty rate of one's neighbours. Thus, implications about Figure 1 can only be inferred by assuming that at the extremely high and low poverty rates shown the corresponding percentages of 'high status' residents are low and high, respectively.

In summary, cross-sectional statistical evidence leaves little doubt that there is a positive correlation between the poverty rate in a neighbourhood and the incidence of various sorts of dysfunctional behaviours there, and that at least part of this relationship is due to external effects of poverty beyond those who directly suffer from it. The precise mathematical nature of this relationship, however, has not yet been definitively identified. Indeed, the three studies of educational attainment hold remarkably dissimilar implications about the shape of the aggregated social problem—neighbourhood poverty rate relationship in Figure 1.

Conclusion

Despite the fact that dispersed housing programmes have become a dominant policy thrust for delivering rental subsidies to low-income tenants in the US, its rationale rests upon a slim reed of empirical evidence. Ludwig & Stolzberg (1995) come to a similar conclusion, albeit through different logic. We have shown theoretically that it is insufficient to justify the social efficiency of a dispersal strategy by arguing that the socio-economic status of one's neighbours is inversely related to the probability that an individual will engage in socially problematic behaviours. Rather, dispersal will only lead to a societal net reduction in problem behaviours if the relationship between neighbourhood poverty rate and individual propensity to engage in problem behaviours is concave upward and/or characterised by a positive threshold. Given this requirement, little extant empirical work is directly relevant.

Although studies of participants in the dispersed programmes generally have concluded that the movers have benefited, only one study provides the suggestion that this may directly be due to the socio-economic status of the neighbourhood. Moreover, no tests of the functional form of this relationship were conducted nor were impacts on neighbours in origin or destination neighbourhoods investigated. Indirect housing price evidence of negative behavioural externalities that the poor may impose on their new, non-poor neighbours generally indicates that such an effect is minimal, although two studies show that the opposite has occurred in a few isolated cases. Multivariate statistical analyses of the cross-sectional relationship between neighbourhood poverty rates and an individual's socially problematic behaviours have been many, but only a handful have attempted to measure potential non-linearities. Although two reports find evidence consistent with the concavity requirement, two credible studies find convexity.

Thus, the US now faces the unenviable situation of having adopted a major housing strategy with only a shred of evidence to suggest what effect it might have on social problems like violence and crime, non-participation in the labour market, and dropping out of secondary school. Indeed, whether the policy will, on net, make these problems better instead of worse for society as a whole rests more on faith than on any available evidence. Certainly, dispersal policy appears to benefit participating tenants and their children, and thus might be justified purely on redistributive equity grounds. Yet, if ever there were a crucial policy situation crying out for additional research, surely this is one.

Acknowledgements

The authors wish to thank three anonymous reviewers for their helpful suggestions.

Correspondence

George Galster, Clarence Hilberry Professor of Urban Studies, Wayne State University, College of Urban, Labor and Metropolitan Affairs, 3198 Faculty and Administration Building, 656 W. Kirby, Detroit, MI 48202 USA. Fax: (313) 577-8800. Email: George_Galster@Wayne.edu

References

- Briggs, X.B. (1997a) *Yonkers Revisited: The Early Impacts of Scattered-Site Public Housing on Families and Neighborhoods* (A report to the Ford Foundation, July).
- Briggs, X.B. (1997b) Moving up versus moving out: neighborhood effects in housing mobility programs, *Housing Policy Debate*, 8(1), pp. 195–234.
- Briggs, X.B. & Darden, J. (1996) *Effects of scattered-site public housing on neighboring property values in Yonkers, New York*. Working paper, (Taubman Center for State and Local Government, John F. Kennedy School of Government, Harvard University).
- Brooks-Gunn, J., Duncan, G. & Aber, J.L. (Eds) (1997). *Neighborhood Poverty, Volume 1: Context and Consequences for Children* (New York, Russell Sage Foundation).
- Burby, R. & Rohe, W. (1989) Deconcentration of public housing: effects of residents' satisfaction with their living environments and their fear of crime, *Urban Affairs Quarterly*, 25(1), pp. 117–141.
- Burchell, R.W., Listokin, D. & Pashman, A. (1994) *Regional Opportunities for Low Income Households—a Resource Guide to Affordable Housing and Regional Strategies* (US Department of Housing and Urban Development, Office of Policy Development and Research, Washington DC, Government Printing Office).
- Chandler, M.O. (1990) Dispersed public housing: does it benefit the residents? Unpublished paper (Cleveland State University).
- Chandler, M.O. (1991) The effects of public housing efforts: the Cuyahoga metropolitan housing authority acquisition housing program (Maxine Goodman Levin College of Urban Affairs, Cleveland State University).
- Clark, R. (1992) Neighborhood effects on dropping out of school among teenage boys. Urban Institute, Discussion Paper PSC-DSC-UI-13 (Washington, DC).
- Coulton, C.J. & Pandey, S. (1992) Geographic concentration of poverty and the risk to children in urban neighborhoods, *American Behavioral Scientist*, 35(3), pp. 238–257.
- Coulton, C.J., Korbin, J.E. & Su, M. (1995) Community level factors and child maltreatment rates, *Child Development*, 66, pp. 1262–1276.
- Coulton, C.J., Korbin, J.E. & Su, M. (1996) Measuring neighborhood context for young children in an urban area, *American Journal of Community Psychology*, 24, pp. 5–32.
- Crane, J. (1991) The epidemic theory of ghettos and neighborhood effects on dropping out and teenage childbearing, *American Journal of Sociology*, 96, pp. 1226–1259.
- De Parle, J. (1996) 'Slamming the Door', *New York Times Magazine* 20 October, pp. 52–56.
- Duncan, G. (1994) Families and neighbors as sources of disadvantage in the schooling decisions of white and black adolescents. *American Journal of Sociology*, 103, pp. 20–53.
- Duncan, G., Connell, J. & Klebanov, P. (1997) Conceptual and methodological issues in estimating causal effects of neighborhood and family conditions on individual development, in: J. Brooks-Gunn, G. Duncan, & J.L. Aber (Eds.) *Neighborhood Poverty, Volume 1: Context and Consequences for Children* (New York, Russell Sage Foundation).
- Elliott, D.S., Wilson, W.J. & Huizinga, D. (1996) The effects of neighborhood disadvantage on adolescent development, *Journal of Research in Crime and Delinquency*, 33, pp. 389–426.
- Fick, A.C. & Thomas, S.M. (1995). Growing up in a violent environment: relationship to health-related beliefs and behaviors, *Youth & Society*, 27, pp. 136–147.
- Fischer, P.B. (1991) *Is Housing Mobility an Effective Anti-Poverty Strategy? An Examination of the Cincinnati Experience* (Report to The Stephen H. Wilder Foundation, Cincinnati, OH).
- Fishbein, M & Ajzen, I. (1975) *Belief, Attitude, Intention, and Behavior* (Reading, MA, Addison-Wesley).
- Franklin, D.L., Smith, S.E. & McMiller, W.E.P. (1995) Correlates of marital status among African American mothers in Chicago neighborhoods of concentrated poverty, *Journal of Marriage and the Family*, 57, pp. 141–152.
- Galster, G. & Williams, Y. (1994) Dwellings for the severely mentally disabled and neighborhood property values, *Land Economics*, 70, pp. 466–477.
- Galster, G. & Killen, S. (1995) The geography of metropolitan opportunity: a reconnaissance and conceptual framework, *Housing Policy Debate*, 6(1), pp. 7–44.
- Goering, J., Haghighi, A. & Stebbins, H. & Sewart, M. (1995) *Promoting Housing Choice in HUD's Rental Assistance Programs* (Report to Congress, Washington DC: US Department of Housing and Urban Development, Office of Policy Development and Research).
- Haveman, R. & Wolfe, B. (1994) *Succeeding Generations: On the Effects of Investments in Children* (New York, Russell Sage Foundation).
- Hill, M.A. & O'Neill, J. (1993) *Underclass Behaviors in the United States: Measurement and Analysis of*

- Determinants* (New York: Center for the Study of Business and Government, Baruch College/CUNY).
- Hill, H.M., Levermore, M. & Twaite, J. (1996) Exposure to community violence and social support as predictors of anxiety and social and emotional behavior among African American children, *Journal of Child and Family Studies*, 5, pp. 399–414.
- Hogan, J. (1996) *Scattered-Site Housing: Characteristics and Consequences* (Washington DC: US Department of Housing and Urban Development, Office of Policy and Development Research).
- Hogan, J. & Lengyel, D. (1985) Experiences with scattered site housing, *Urban Resources*, 2, pp. 9–14.
- Holzer, H. (1991) The spatial mismatch hypothesis: what has the evidence shown? *Urban Studies*, 28(1), pp. 105–122.
- Ihlanfeldt, K.R. & Sjoquist, D.L. (1992) The impact of job decentralization on the economic welfare of central city blacks, *Journal of Urban Economics*, 26, pp. 110–130.
- Jencks, C. & Mayer, S.E. (1990) The social consequences of growing up in a poor neighborhood, in: L.E. Lynn, Jr., & M.G.H. McGeary (Eds.) *Inner-City Poverty in the United States* (Washington, DC, New York Press).
- Kain, J. (1968) Housing desegregation, negro employment, and metropolitan segregation, *Quarterly Journal of Economics*, 82, pp. 175–197.
- Kain, J. (1992) The spatial mismatch hypothesis: three decades later, *Housing Policy Debate*, 3, pp. 371–460.
- Kasarda, J. (1989) Urban industrial transition and the urban underclass, *Annals of the American Academy of Political Science*, 501, pp. 26–47.
- Kaufman, J.E. & Rosenbaum, J.E. (1992) The education and employment of low-income black youth in white suburbs, *Educational Evaluation and Policy Analysis*, 14(3), pp. 229–240.
- Kollie, J.N.J. (1984) The effects of scattered site public housing projects on school performance in a northwest urban community. Unpublished dissertation (Portland State University).
- Kupersmidt, J.B., Griesler, P.C. & DeRosier, M. (1995) Childhood aggression and peer relations in the context of family and neighborhood factors, *Child Development*, 66, pp. 360–375.
- Lord, J.D. & Rent, G.S. (1987) Residential satisfaction in scattered-site public housing projects, *The Social Science Journal*, 24(3), pp. 287–302.
- Ludwig, J. & Stolzberg, S. (1995) HUD's moving to opportunity demonstration, *The Georgetown Public Policy Review*, 1(1), pp. 25–37.
- Martinez, M. (1988) *The Effects of Subsidized and Affordable Housing on Property Values: A Survey of Research* (Report to the State of California, Department of Housing and Community Development, Sacramento, CA).
- Massey, D., Gross, A. & Edgers, M. (1991) Segregation, the concentration of poverty, and the life chances of individuals, *Social Science Research*, 20, pp. 397–420.
- Matulef, M. (1988) Community development: a national perspective, *Journal of Housing Development*, 45, pp. 239–241.
- Mayer, S.E. & Jencks, C. (1989) Growing up in poor neighborhoods: how much does it matter? *Science*, 243(17), pp. 1441–1445.
- O'Regan, K. & Quigley, J. (1995) *Spatial contributions to employment outcomes: the case of New Jersey teenagers*. Paper presented at the Symposium on Spatial and Labor Market Contributions to Earnings Inequality, Federal Reserve Bank of Boston, November.
- Peroff, K.A., Davis, C.L. & Jones, R. (1979) *Gautreaux Housing Demonstration: An Evaluation of Its Impact on Participating Households* (US Department of Housing and Urban Development, Office of Policy Development and Research, Washington, DC).
- Peterson, G.E. & Williams, K. (1995) *Housing Mobility: What Has It Accomplished and What Is Its Promise?* (The Urban Institute, Washington, DC).
- Puryear, V. (1989) The effects of scattered-site public housing on residential property values. Unpublished MA thesis (University of North Carolina at Charlotte).
- Rosenbaum, J.E. (1995) Changing the geography of opportunity by expanding residential choice: lessons from the Gautreaux program, *Housing Policy Debate*, 6(1), pp. 231–269.
- Rosenbaum, J.E., Kulieke, M.J. & Rubinowitz, L.S. (1988) White suburban schools' responses to low-income black children: sources of successes and problems, *The Urban Review*, 20(1), pp. 28–41.
- Stacey, W.A., Brown, D.W., & Coder, K. (1988) *Evaluation of the Satisfaction Level of Residents Relocated From the West Dallas Housing Project to the Private Rental Sector* (Report prepared for the Dallas Housing Authority).
- Stern, S.B. & Smith, C.A. (1995) Family processes and delinquency in an ecological context, *Social Service Review*, 69, pp. 703–731.

- Turner, M.A. & Ellen, I.G. (1997) *Location, location, location: how does neighborhood environment affect the well-being of families and children?* Working Paper (Washington, DC, The Urban Institute).
- Turner, M.A. & Williams, K. (1998) *Housing Mobility: Realizing the Promise* (Washington, DC, The Urban Institute).
- Ulrich, R.S. (1986) Human responses to vegetation and landscapes, *Landscape and Urban Planning*, 13, pp. 29-44.
- Ulrich, R.S. (1990) The role of trees in human well-being and health, in: P.D. Rodbell (Ed.) *Proceedings of the Fourth Urban Forestry Conference* (Washington, DC, American Forestry Association), pp. 25-30.
- Ulrich, R.S., Simons, R.F., Losito, B.D., Fiorito, E., Miles, M.A. & Zelson, M. (1991) Stress recovery during exposure to natural and urban environments, *Journal of Environmental Psychology*, 11, pp. 201-230.
- US Department of Housing and Urban Development (1996) *Expanding Housing Choice for HUD-Assisted Families* (First Biennial Report to Congress, US Department of Housing and Urban Development, Office of Policy Development and Research).
- Wilson, W.J. (1987) *The Truly Disadvantaged* (Chicago, University of Chicago Press).

Copyright of Housing Studies is the property of Carfax Publishing Company and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.