SHOULD POLICYMAKERS STRIVE FOR NEIGHBORHOOD SOCIAL MIX?
AN ANALYSIS OF THE WESTERN EUROPEAN EVIDENCE BASE

George Galster
Clarence Hilberry Professor of Urban Affairs
Wayne State University
Department of Geography & Urban Planning
Room 3198 Faculty/Administration Building
Detroit, MI 48202 USA

Published in Housing Studies no. 4, 2007, pp. 523-546

Acknowledgements

In preparing this paper I have benefited greatly from the suggestions provided by Roger Andersson, Alex Marsh, Sako Musterd, Wim Ostendorf, and three anonymous reviewers. I also express gratitude for the excellent clerical support provided by Richard Ban, Noelia Caraballo and Phyllis Seals. The opinions (and potential errors) contained in this document are my own.
The paper presents an analytical framework for elucidating the equity and social efficiency criteria that might be used to justify a housing policy aiming for a substantial mix of neighborhood residents by income, ethnicity, and/or immigrant status. This framework permits the classification of multivariate statistical studies comprising the Western European evidence base and shows the importance of distinguishing intra- and extra-neighborhood processes when evaluating evidence related to the efficiency criterion. Evaluation of the evidence base in light of this framework reveals that it sufficiently supports a mixing policy aimed at avoiding concentrations of disadvantaged individuals if and only if policymakers emphasize equity grounds (i.e., improving the well-being of the disadvantaged absolutely). The evidence base does not support a mixing policy on efficiency grounds, regardless of whether intra-neighborhood social interactions or extra-neighborhood stigmatization/resource restrictions are presumed to be the primary causal mechanism for neighborhood effects.
SHOULD POLICYMAKERS STRIVE FOR NEIGHBORHOOD SOCIAL MIX?
AN ANALYSIS OF THE WESTERN EUROPEAN EVIDENCE BASE

The prevailing thrust of housing and urban planning policy in several Western European countries, notably France, the Netherlands, Sweden, and the United Kingdom, aims to create more socio-economically mixed residential environments for disadvantaged groups (Andersen, 2002, 2003, 2006; Musterd, 2003; Musterd, Ostendorf and de Vos, 2003; Kleinhans, 2004; Andersson & Musterd, 2005; Berube, 2005; Meen et al. 2005, Pennix, 2006; Tunstall and Fenton, 2006). This thrust has taken several programmatic forms (Murie and Musterd, 2004). For example, there have been widespread, large-scale investments in many Western European countries aimed at restructuring large, homogeneous, post-war neighborhoods and housing estates (through selective demolition, infill construction, and sale of social housing) so that they contain a greater diversity of housing types by price range and tenure. In some countries it is required that newly constructed, larger-scale residential developments set aside a minimum share of the dwelling units for social housing. In others there is a sensitivity that regeneration of disadvantaged areas not lead to the wholesale displacement of the poorer households currently residing there.

This policy thrust has not been without its skeptics; see Atkinson and Kintrea (2000, 2001), Ostendorf, Musterd and de Vos (2001), Friedrichs (2002), Kearns (2002), Musterd (2002, 2003), Musterd, Ostendorf and de Vos (2003), Meen et al. (2005), Delorenzi (2006), and the set of responses to McCulloch (2001) in the same issue of Environment and Planning A., pp. 1335-1369. Of course, controversies over the desirability of neighborhood social mixing are not new in the field of planning or social policy in general (Sarkissian, 1976; Atkinson and Kintrea, 2000; Cole and Goodchild, 2001; Joseph, 2006; Joseph, Chaskin, and Webber, 2006). Nevertheless, the
conventional policy wisdom on this point is currently so dominant across Western Europe that a new conceptual viewpoint and further empirical critique is appropriate.

The purpose of this paper is to contribute a critical perspective on this vital, policy-relevant issue of neighborhood social mix by applying an original analytical framework that structures a review and interpretation of the quantitative literature. The central research question I investigate is: *Does the extant evidence base provided by Western European statistical studies provide justification for the widespread adoption of policies to increase neighborhood social mix and, if so, on what grounds?* Previous reviews of the Western European “neighborhood effects” literature have focused on ascertaining whether there are sizable, independent effects of neighborhood social context on any individuals’ behaviors or outcomes (e.g., van Kempen, 1997; Friedrichs, 1998; Friedrichs, Galster and Musterd, 2003; Berube, 2005). Although this certainly is a necessary condition for justifying a neighborhood mix policy, I will demonstrate in this paper that this condition is far from sufficient. Indeed, I will show that there are several additional necessary conditions that must be met, depending on the normative basis for the neighborhood social mixing policy (equity or efficiency grounds) and the presumed mechanism of neighborhood effect (intra-neighborhood social processes or extra-neighborhood stigmatization/resource restrictions).

The paper proceeds as follows. I first develop a simple but powerful and general framework for demonstrating theoretically how neighborhood mix may be related to the well-being of both disadvantaged and advantaged household groups in a society. Based on this analytical framework, I posit necessary conditions for a policy of neighborhood economic mix to be justified on either equity (i.e., improving the absolute well-being of the disadvantaged) or efficiency (i.e., improving the sum of both groups’ well-being, regardless of how the disadvantaged fare absolutely) grounds. I then draw inferences from these necessary conditions about what sorts of empirical evidence would be
sufficient to meet the conditions required. The key result is that different sorts of evidence are relevant if equity grounds or if efficiency grounds are viewed as paramount by policymakers and, in the latter case, on the type of neighborhood effect mechanism (internal or external) presumed to be operative. Next, I review comprehensively the relevant multivariate statistical literature emanating from Western Europe to ascertain the degree to which they are sufficient to this purpose, as has been suggested by Tunstall and Fenton (2006). I conclude by examining implications of the analysis for Western European housing and planning policymakers.

Some Introductory Comments about Perspective

At the outset let me clarify and justify several fundamental points related to my perspective in this paper. First, I intentionally do not operationalize the terms “social mix” or “disadvantaged” in the theoretical framework below because I seek to keep the discussion generic, thereby permitting inclusion of a variety of potential measures of mix and a review of a wider range of literature. Thus, depending on a particular national policy context, social mix or disadvantage might most appropriately be considered in terms of income, tenure, ethnicity, or national-origin groups.

Second, I concentrate here only on a Western European evidence base. It is certainly the case that the scholarly investigations of neighborhood effects in the U.S. have dramatically expanded in number and scope over the last decade (Sampson, Morenoff and Gannon-Rowley, 2002). Nevertheless, the degree to which evidence based on an American context is applicable to Western European contexts is, arguably, quite circumscribed (Friedrichs, 2002; Kearns, 2002; Musterd, 2002). All Western European nations have, to varying degrees, a more comprehensive social welfare
“safety net” and a wider variety of substantial national programs for reducing inter-neighborhood variances on many indicators compared to the U.S.

Third, I review primarily multivariate statistical studies of neighborhood effects using Western European data in this paper, not studies based on qualitative or case-study evidence. This focus should not be interpreted as an implicit denigration of these latter forms of investigation. Rather, I adopt this statistical focus because for applying the framework introduced here I am interested in uncovering whether there are sizable externalities associated with neighborhood social mix that plausibly are independent of unmeasured characteristics of individuals. I am not seeking to unpack the details of how intra-neighborhood processes may be producing these statistical associations, as interesting and important as these details are, as revealed by qualitative methods.

Fourth, all multivariate statistical studies are not created equal for the task at hand. It is beyond the scope of this paper to review in detail the many methodological challenges raised by quantifying the independent effect of neighborhood social mix (for more, see: Duncan, Connell, and Klebanov, 1997; Duncan and Raudenbush, 1999; Galster, 2003; Lupton, 2003; Mansky, 1995, 2000). Suffice it to note here the central problem: variables measuring individual characteristics that affect measured outcomes (and are correlated with neighborhood conditions) may be left uncontrolled (often because they are unmeasured) in the estimation process, thereby biasing the apparent association between neighborhood conditions and outcomes. Thus far only a handful of Western European studies have plausibly avoided this problem; these will be highlighted and their findings more heavily weighted in forming conclusions.
Neighborhood Social Mix and the Well-Being of Disadvantaged and Advantaged Groups in Society: An Analytical Framework

The Framework

In order to probe the rationale for a neighborhood mix policy, it is vital that we explicitly unpack assumptions about how the well-being of various groups in society are affected by propinquity with others, and how these various well-being values are aggregated by policymakers into some overall evaluation of how “well-off” society is. This section provides a simplified mechanism for accomplishing this task. Throughout I provide parallel modes of explication--one symbolic and mathematical, the other discursive--in order to make the framework accessible to a variety of readers.

For simplicity assume that society can be exhaustively divided into two mutually exclusive groups: those who are “disadvantaged” (D) and those who are “advantaged” (A). Also assume that all individuals within a group are identical; make no distinctions by age or gender. Let there be J total members of group D and K total members of group A. We need not make any assumptions about the relative sizes of these two groups or about their long-term permanence or immutability, only that for the period of analysis their sizes remain constant.

What affects the well-being of an individual in a given group during the period in question (what economists call “utility,” U) has long been studied, of course (e.g., Marshall, 1961; Galbraith, 1962). Here we can summarize this tradition by specifying that utility will depend on a variety of commonsensical tangible and intangible things associated with this individual; call this set \[Z\]. Conventional components of \[Z\] include the individual’s consumption of private and public goods and services (determined by whether they are a member of group A or D), interpersonal relationships, and sense of self-efficacy and esteem, among many others. A less conventional but plausible
component is that one group’s utility may not be solely determined by what they consume absolutely but in part relative to what another group consumes. But of utmost importance for the current discussion is the possibility that individuals’ well-being may also depend on the social mix of the neighborhood in which they reside (%D and %A).

To keep the framework as general as possible at this point, I simply posit that the influence of neighbors may vary depending on whether these neighbors are disadvantaged or advantaged and whether the individual in question comes from the disadvantaged or advantaged group. Thus, this framework makes no presumptions about whether neighborhood effects are deterministic or part of a more fluid “socio-spatial dialectic” (Andersson, 2004).

At this point, however, we need to be concerned with how and why such neighborhood effects may transpire. Specifically, we must distinguish between neighborhood effects that occur because of social interactions within the neighborhood and those that occur because of the perceptions and actions of those outside of the neighborhood. As I shall demonstrate below, within-neighborhood processes offer the real possibility of negative and positive social externalities emanating from both groups that have offsetting impacts for society as social mix is varied. By contrast, certain extra-neighborhood mechanisms hold the promise of both groups gaining from a change in social mix. The intra-neighborhood mechanisms that could produce neighborhood effects are well-known, and include socialization, peer effects, role models, competition, and relative deprivation (Jencks and Mayer, 1990; Duncan et al., 1997; Gephart, 1997; Friedrichs, 1998; Atkinson et al., 2001; Haurin, Dietz and Weinberg, 2002; Sampson, Morenoff, and Gannon-Rowley, 2002). The extra-neighborhood mechanism of relevance here is stigmatization/resource restriction: when important institutional, governmental or market actors negatively stereotype all residents of a neighborhood and/or reduce the flows of resources flowing into it because of its population
composition. This extra-neighborhood mechanism might become operational as the percentage of the disadvantaged group in the neighborhood exceeds the threshold of where they are perceived by these external actors as “dominant.” In this fashion the %D may (though the impact on externals’ perceptions) indirectly influence not only the well-being of other D but also other A in the stigmatized neighborhood. There are other extra-neighborhood effects possible, such as residence-job spatial mismatch, but they are not considered here because they do not involve causal variations according to social mix of the neighborhood. I also recognize that intra-neighborhood social processes are vitally contextualized by the local institutional infrastructure available, but variations in this dimension are overlooked here for simplicity.

What we have noted thus far that the determinants of well-being of the jth and kth individuals in the D and A groups, respectively, can be expressed symbolically as:

\[
(1) \quad U_{Dj} = f([Z_j], %D_j, %A_j)
\]

\[
(2) \quad U_{Ak} = f([Z_k], %D_k, %A_k)
\]

Next, assume that society (or the current political administration in power or a key policymaker) has some formula \( f \) that values the well-being of various individual members of society, thereby allowing the determination of the state of social well-being through an aggregation of all individuals’ well-being (appropriately weighted). Economists refer to this notion as a “social welfare function” (SW). Here we make only the most minimal and standard assumption about its character: it registers greater social welfare when the well-being of an individual in either group is increased, all else equal. Symbolically:

---

1 With only two groups \( %D = 1-%A \), but it is important nonetheless to keep these two terms separate because the source of the social externality may only be one group or the other.
\[ (3) \quad SW = f \left( \sum_{j=1}^{J} U_{Dj} + \sum_{k=1}^{K} U_{Ak} \right) \quad \text{where} \quad \frac{\partial SW}{\partial U_{Dj}} > 0, \quad \frac{\partial SW}{\partial U_{Ak}} > 0 \]

Those trained in economics will recognize that this formulation is fraught with severe operational challenges. Two key ones are the development of a cardinal measure of utility that is comparable across individuals and a mechanism for democratically arriving at a social welfare function (Bronfenbrenner, 1971; Atkinson, 1975). Nevertheless, I do not need to make them operational here. Rather, they are useful as heuristic constructs that help sharpen the analysis and put the central issues into stark relief. Put differently, even though it is unlikely that key housing and urban planners have an explicit, mathematical formula for SW that they apply when assessing alternative policy proposals, it is likely that they employ some implicit, imprecise “rule of thumb” in this exercise. I will show that different rules of thumb are associated with different evidentiary requirements and conversely, that extant evidence only supports policy decisions favoring neighborhood social mix if the rules of thumb being employed (although implicitly) are of a certain nature. Hopefully, this exercise will result in more attempts to make explicit what is implicit, and debate its reasonableness and fairness.

**Necessary Conditions on the Basis of Equity**

Equity can be defined in many different and legitimate ways. For the purposes of this paper, I specify that equity is improved if any policy results in an absolute increase in the utility of the disadvantaged group in society (\( \sum U_D \)). Given the above framework, if society wished to pursue a policy of mixing advantaged with disadvantaged individuals *in*
order to benefit the latter group, either of two necessary conditions would appertain.²

Disadvantaged individuals must either: (1) lose well-being by residing with other members of their group (at least past some point of concentration) and/or (2) gain well-being by residing with members of the advantaged group (at least past some point of concentration). It does not matter here whether these relationships transpire through intra-neighborhood socialization or extra-neighborhood stigmatization/resource restriction mechanisms. Put differently, neighborhood mix policy can be justified on equity grounds favoring the disadvantaged if and only if the disadvantaged are subjected to either: (1) negative social externalities from disadvantaged neighbors; (2) positive social externalities from advantaged neighbors; and/or (3) stigmatization/resource restrictions because their percentage is past a threshold. Thus, the well-being of the targeted disadvantaged group can only be improved through mix policy by reducing the percentage of their own group in the neighborhood and increasing the percentage of the advantaged group (at least up to a point, perhaps).

Symbolically, this necessary condition for an equity justification for social mixing can be expressed:

\[
(4) \frac{\partial U_D}{\partial D} < 0 \quad \text{(for } D > \text{ threshold } D_{\text{T}})\quad \text{and/or}
\]

\[
(5) \frac{\partial U_D}{\partial A} > 0 \quad \text{(for } A > \text{ threshold } A_{\text{T}})\]

Note from (4) that the intra- and extra-neighborhood processes become indistinguishable because in either the negative externality transpires directly or indirectly from D neighbors over a threshold proportion.

² Unusually explicit articulations of such a position can be found in Andersson (2004) and Delorenzi (2006). .
**Necessary Conditions on the Basis of Efficiency**

Social efficiency is improved when the social welfare function registers a higher value (Bronfenbrenner, 1971; Atkinson, 1975). That is, if a policy alters (positively or negatively) the well-being of various individuals in either or both groups it can be justified on efficiency grounds if in the end it registers a higher level of social well-being when the individual changes are appropriately weighted and aggregated. This does not necessarily require Pareto-improvements (wherein some individuals gain and none suffer a loss of well-being), though such would be sufficient. Indeed, social efficiency can improve if well-being is transferred from those who are lightly-weighted by the operative social welfare function to those who are more heavily weighted.

Symbolically, what is required for improving social efficiency is that:

\[
\sum_{j=1}^{J} \frac{\partial SW_j}{\partial U_{Dj}} + \sum_{k=1}^{K} \frac{\partial SW_k}{\partial U_{Ak}} > 0
\]

Note that social welfare can improve if the second term takes on a larger positive value than the smaller, negative value of the first term. Thus, a policy that increases the utility of A and decreases the utility of D can potentially be efficient even though it is not equitable within our framework.

The efficiency-based policy justification requires two more subtle but crucial considerations not relevant in the equity-based justification. First, because efficiency requires us to consider the well-being of both disadvantaged and advantaged individuals, a more comprehensive analysis of potential intra-neighborhood social externalities is required. This raises to relevance the possibility that negative social
externalities imposed by disadvantaged individuals on their advantaged neighbors outweigh the positive social externalities that may flow in the opposite direction. If such were the case, it is easy to imagine a social welfare function weighting scheme that would register the highest values when the two groups were completely segregated residentially. For example, if a utilitarian society weighted the utility of all individuals equally, regardless of their group, and the negative externalities emanating from D suffered by A always far outweighed the positive externalities flowing in the opposite direction, social efficiency would be reduced by social mixing. Symbolically:

$$\left| \sum_{j=1}^{J} \frac{\partial SW_j}{\partial U_{Dj}} > 0 \right| < \left| \sum_{k=1}^{K} \frac{\partial SW_k}{\partial U_{Ak}} < 0 \right|$$

Second, the mechanism through which the putative neighborhood effects transpire is of critical importance here. If only the extra-neighborhood process of stigmatization/resource restriction were operative, we would not need to concern ourselves with the potential zero-sum or negative-sum aspects associated with intra-neighborhood social interactions between disadvantaged and advantaged groups, as described in the first point above and summarized in (7). On the contrary, changing the social mix (reducing the share of D) so that the stigma/restriction is removed would provide a net gain for the well-being of both types of individuals in the formerly stigmatized neighborhood.
Implications for Standards of Empirical Evidence

What does the previous analytical framework suggest about what sort of empirical evidence would provide sufficient proof of the foregoing necessary conditions? In the case of the *equity-based conditions*, the evidence must show that outcomes associated with greater well-being now or in the future (e.g., income, labor force participation, educational attainments) for disadvantaged individuals are either: (1) positively correlated with a higher percentage of advantaged neighbors and/or (2) negatively correlated with a higher percentage of disadvantaged neighbors, all else equal. This implies evidence derived from a study design that allows the researcher to examine outcomes for disadvantaged individuals in a variety of neighborhood mix settings, such has been done in the U.S. in the Gautreaux public housing desegregation program or the Moving To Opportunity demonstration program.

In the case of *efficiency-based conditions*, the sufficient evidentiary base must be considerably more comprehensive and nuanced, with attention paid to the presumed underlying mechanism of neighborhood effect. First consider if intra-neighborhood social interactions were the presumed mechanism. In this case, not only does the former equity-based criterion continue to apply for disadvantaged individuals, but the converse must also apply for advantaged individuals. That is, studies must be based on observations of the advantage individuals in different neighborhood contexts and find that they are neither: (1) significantly harmed by the negative social externalities generated by disadvantaged neighbors nor (2) significantly benefited by the positive social externalities generated by advantaged neighbors. Only if such evidence is gained about how both advantaged and disadvantaged individuals are affected by social interactions associated with neighborhood mix can we be confident that a wide range of social welfare functions would yield neighborhood mixing as the most efficient outcome.
As before, this implies studies that employ stratified analyses that focus separately on
the two groups and the neighborhood social externalities they both emanate and
receive.

Second consider if extra-neighborhood stigmatization were the presumed
mechanism. In this case the statistical evidence would not need to be stratified by group
insofar as both advantaged and disadvantaged individuals were harmed by the
stigmatization associated with higher percentages of disadvantaged in the
neighborhood. Here the evidence must show that outcomes associated with greater
well-being now or in the future for a combined sample of both groups are negatively
correlated with percentages of disadvantaged in the neighborhood.

There is one additional type of study that can be used to draw social efficiency
implications from neighborhood mixing regardless of the underlying neighborhood
mechanism presumed. This type investigates whether, for an analysis sample involving
an aggregation of both advantaged and disadvantaged individuals, the individual’s
relationship between a well-being enhancing outcome and either the percentage of
disadvantaged and/or advantaged residents of the neighborhood is strongly non-linear.
For example, if the marginal negative social externality associated with an additional
disadvantaged neighbor rises it provides an efficiency-based justification for limiting
concentrations of the disadvantaged. As one disadvantaged individual is relocated from
a highly disadvantaged to a highly advantaged neighborhood the marginal reduction in
negative social externalities or stigmatization in the origin neighborhood will outweigh the
marginal increase in such in the destination neighborhood, thereby creating a net social
welfare gain under a wide range of SW weighting schemes. Of course, any non-linearity
does not imply the efficacy of neighborhood mixing; on the contrary the opposite
situation as that previously would argue for strict segregation of the disadvantaged. For
a more complete and rigorous demonstration of these arguments, see Galster and Zobel (1998) and Galster (2002).

The sufficient condition for an observed non-linear outcome-neighborhood mix relationship to justify a neighborhood mix policy on social efficiency grounds may be expressed more formally as:

\[
(7) \frac{\partial U_{D \text{ and } A}}{\partial \%D} < 0 \quad \text{(for } \%D > \text{ threshold } \%D_T) \quad \frac{\partial^2 U_{D \text{ and } A}}{\partial \%D^2} < 0 \quad \text{and/or}
\]

\[
(8) \frac{\partial U_{D \text{ and } A}}{\partial \%A} > 0 \quad \text{(for } \%A > \text{ threshold } \%A_T) \quad \frac{\partial^2 U_{D \text{ and } A}}{\partial \%A^2} > 0
\]

The foregoing discussion can be summarized in Table 1, which shows the standard of evidence that is relevant for establishing the case for a mixed neighborhood policy, depending on the equity or efficiency grounds chosen and, in the latter case, on the presumed neighborhood effect mechanism.

The summary in Table 1 establishes a four-part organizational structure for reviewing the Western European literature on neighborhood effects. I first examine below the evidence that looks specifically at “disadvantaged” (defined in several ways) individuals and how neighborhood mix (operationalized in various ways) affects their outcomes. This evidence potentially establishes the necessary equity-based conditions for a neighborhood mix policy. Second, I examine evidence that looks specifically at “advantaged” (defined in several ways) individuals and how neighborhood mix (operationalized in various ways) affects their outcomes. Third, I examine the linear outcome-neighborhood mix relationships estimated by multivariate analyses of aggregated samples of advantaged and disadvantaged individuals. Finally, I examine the evidence on non-linear outcome-neighborhood mix relationships. In concert, evidence from all four sections is relevant for potentially establishing the necessary efficiency-based conditions for a neighborhood mix policy. In all sections I will focus on
work that involves multivariate statistical techniques, as such provides the most plausible

evidence regarding potential causal relationships.³

**The Western European Evidence on Neighborhood Impacts on**

**Disadvantaged Individuals**

*Disadvantage Defined by Low Economic / Labor Market Standing*

Only a few European studies have examined how outcomes for economically
marginalized individuals related to their neighborhood context, and most have analyzed
Swedish data. Musterd and Andersson (2005) analyze a longitudinal database
comprised of all working age adults age 16-65 residing in Sweden 1991-1999 to
employment outcomes for the period, stratified by educational group. They find for those
with the least education that residence in homogeneous, low-income neighborhoods in
1995 is a powerful correlate of diminished future employment prospects, much more so
than neighborhood dimensions related to higher-income, nationality, or refugee groups,
though the most powerful negative effect seemed to occur in neighborhoods
characterized both by low income and high proportions of refugees. In a companion
study focusing on three Swedish metropolitan areas, Musterd and Andersson
(forthcoming) observe that those with less than 10 years of education who were
unemployed in 1991 would be more likely to remain so in 1995 and 1999 if they resided

---
³ The statistical studies of neighborhood effects in Europe have employed a variety of datasets:
British Household Panel Survey (McCulloch, 2001; Buck, 2001; Propper et al. 2004; Bolster et al.
2004; Gordon and Monastiriotis, 2006), Dutch income tax statistics (Musterd, Ostendorf and de
Vos, 2003), German Socio-economic Panel (Drever, 2004), Swedish national register
(Branstrom, 2004; Andersson, 2004; Musterd et al., 2007; Andersson et al., forthcoming;
Galster, Andersson et al. forthcoming), Finnish national register (Kauppinen, 2004), and tailored
resident surveys or administrative databases in particular cities (Friedrichs and Blasius, 2003; van
der Klaauw and van Ours, 2003; Oberwittler, 2004; Farwick, 2004).
in neighborhoods with higher percentages of unemployed neighbors in 1991. Galster, Andersson et al. (forthcoming) use the same data to estimate a model of labour market earnings for 1996-1999, stratified by gender and labour force activity. In a unique specification that convincingly controls for household selection (both by use of a difference specification and a focus on those who did not move during the period) as well as a host of other individual and metropolitan-level characteristics, they find that an increase in the percentage of lower-income male neighbors\(^4\) (compared to middle-income males, holding constant the percentage of high-income males) from 1991-1995 was not strongly associated with the change in mean annual earnings 1996-1999 of either men or women who were not employed full-time during 1995. By contrast, the change in the percentage of higher-income male neighbors (compared to middle-income males, holding constant the percentage of low-income males) in their neighborhood from 1991-1995 was *negatively* associated with the mean annual earnings 1996-1999 that men and women not fully employed in 1995 earned. Van der Klaauw and van Ours (2003) analyze Rotterdam administrative data and find a strong inverse relationship between the transition rate from welfare to work for young Dutch welfare recipients and their neighborhood unemployment rate. However, other disadvantaged groups--older Dutch and non-Dutch welfare recipients--did not evince this relationship.

Holistically, these results hint that middle-income male neighbors may generate the best labor market outcomes for those who are more marginally attached to the work force or have lower education. This suggests that the positive social externalities for the disadvantaged associated with interaction (perhaps enhanced job information networks or role modeling provided by better-off neighbors) is only influential if the intra-neighborhood class divide is not too extreme.

\(^4\) The three income groups of male neighbors were defined by the 30\(^{th}\) and 70\(^{th}\) percentiles.
These results also are consistent with the hypothesis that some relative deprivation or competition mechanism may be at work for these lower-income individuals when they reside with much higher-income neighbors. This hypothesis is further supported by several European statistical studies. McCulloch’s (2001) analysis of British panel study data finds that disadvantaged women are more likely to experience a variety of negative outcomes if they live in affluent areas. Duncan and Jones (1995) and Shouls et al. (1996) find that health issues for poor individuals in Britain are more problematic when they live in more affluent areas. Finally, Oberwittler (forthcoming) observes that German adolescents living in households receiving welfare recipients score substantially higher on an index of relative deprivation when they reside in neighborhoods with the lowest overall welfare receipt rates. Relative deprivation is important not only as an indicator of psychological well-being of the disadvantaged group, but as a predictor of potential criminal behavior (Kawachi, Kennedy and Wilkinson, 1999).

Disadvantage Defined by Ethnic Minority / Immigrant Status

There have been several European multivariate statistical studies that relate economic prospects of ethnic minorities and/or immigrants to the degree to which they live among members of their own or other immigrant groups. Edin, Fredricksson, and Aslund (2003) observe for a sample of immigrants who were dispersed across Swedish municipalities as part of a resettlement program that living in municipalities with more members of the same ethnic group provide a substantial earnings gain to low-skill immigrants, but only if the surrounding ethnic group in question have high incomes. However, in further analysis of these data, Aslund and Fredricksson (2005) find that

\[5\] I also note the Atkinson and Kintrea (2004) qualitative study of key informant opinions in Glasgow, which found that some espoused the relative deprivation consequence of extreme social mixing within neighborhoods.
welfare use among immigrants seems to spillover into increased welfare use by other immigrants of the same ethnicity living in the same municipality. Clark and Drinkwater (2002) analyze individual 1993-1994 survey data for ethnic minorities from England and Wales to see if four alternative labor market states—paid employment, self-employment, unemployment, inactivity—are associated with own-ethnic characteristics of their residential ward in 1991, controlling for personal characteristics in a multinomial logit model. They find that the percentage of neighbors that are members of the minority individual’s same ethnic group in 1991 significantly raises their risk of being unemployed in 1993-94, and reduces their chances of being self-employed.

A potential resolution of these apparently contradictory findings was produced by Musterd et al. (2007), who examines how the duration of percentages and densities of own-group and other immigrants in the neighborhood affect individual Swedish immigrants’ future earnings during 1999-2001, controlling for a wide range of personal characteristics. They find that the impact of immigrant neighbors (both own- and other-group) depends on the duration of residence and economic context of the neighborhood. Co-ethnic clustering provides only a net positive effect if one stays in an own-group-dominant neighborhood for a few years; thereafter the effect becomes strongly negative. Residence among other immigrants provides further detriments to earnings unless residents of the area had very low unemployment rates, whereupon their impact appears to be positive.

Oberwittler (forthcoming) analyzes a sample of adolescent children of immigrant parents living in a variety of neighborhoods in Cologne and Freiburg, Germany. He considers a variety of outcomes related to delinquent attitudes and behaviors, including feelings of relative deprivation, external locus of control, memberships in gangs, and participation in violent activities. Multi-level analyses does not reveal any statistically
significant variation in these outcomes for ethnic minority boys or girls by percentage of neighbors who received welfare payments.

In sum, the evidence here is reasonably consistent about whether intra-neighborhood immigrant contact provides net (or long-term) positive externalities for ethnic minorities or immigrants. In most cases, prolonged residential contact with other, typically disadvantaged immigrants (whether own- or other-group) is associated with negative outcomes. However, a neighborhood with exceptionally highly skilled and employed immigrants can provide positive externalities to other resident immigrants that have clear economic payoffs. In the case of German immigrant adolescents’ exposure to neighborhood welfare usage, the one extant study finds no neighborhood effect.

**The Western European Evidence on Neighborhood Impacts on Advantaged Individuals**

Only five European studies to my knowledge have examined neighborhood effects on advantaged individuals; four are based on Swedish national register data. The aforementioned Musterd and Andersson (2005) analysis finds for both those with moderate or high levels of education that residence in homogeneous, low-income neighborhoods in 1995 was associated with diminished future employment prospects; just the opposite association appertained for residence in high-income neighborhoods. The aforementioned Musterd and Andersson (forthcoming) work observes that those with 15 or more years of education who were unemployed are more likely to remain so if they reside in neighborhoods with higher percentages of unemployed neighbors, at least up to a point. The aforementioned Galster, Andersson et al. (forthcoming) study of metropolitan Swedish individuals’ earnings also reports results for those working full-time. They find for this advantaged group that the change in percentage of lower-
income male neighbors in their neighborhood from 1991-1995 is negatively associated with the change in mean annual earnings 1996-1999 of women employed full-time in 1995. Surprisingly, this analogous correlation for fully-employed males was weakly positive, a result the authors attribute to compensatory employment services the Swedish government provides in lower-income neighborhoods. The change in percentage of higher-income male neighbors from 1991-1995 is, however, positively associated with the mean annual earnings gains of men and women in this advantaged group. The magnitudes of these relationships observed by Galster, Andersson et al. (forthcoming) are not very large, however. The aforementioned Edin, Fredricksson, and Aslund (2003) study provides an indication of whether Swedish immigrant clustering affects better-off immigrants. They find that living in municipalities with more members of the same ethnic group provides no impact on earnings of high-skill immigrants, regardless of the surrounding ethnic group’s income level. Finally, the Oberwittler (forthcoming) study above also analyzes a sample of adolescent children who were advantaged by their German-citizenship. Multi-level analyses reveals that the rate of self-reported delinquency and gang membership for German girls (but not boys) is positively related to the percentage of neighbors who received welfare payments in the neighborhood. Self-reported rates of serious property offenses, however, are positively related to neighborhood welfare receipt rates for both genders.

Thus, though the evidence is sparse, it consistently suggests that the earnings of more advantaged individuals (defined either by employment or immigrant status) may be reduced (but only a little) by the presence of disadvantaged neighbors; advantaged neighbors apparently have a small, but opposite, impact. On the other hand, economically disadvantaged neighbors may have a more pronounced negative effect on the employment prospects of even better-educated adults and the delinquent behaviors
of advantaged adolescents, though these conclusions must be treated cautiously since they were not based on models with controls for selection.

The Western European Evidence on Linear Neighborhood Impacts on Both Advantaged and Disadvantaged Individuals Combined

The Western European multivariate statistical studies that observe (linear) relationships between alternative measures of the socioeconomic profile of neighborhoods and labor market outcomes for an undifferentiated group of adult residents include those by McCulloch (2001), Buck (2001), Bolster et al. (2004), Andersson (2004), and Andersson et al. (forthcoming). McCulloch (2001) relates information for individuals’ subjective financial situation, poverty, employment, and social support status gleaned from the 1991-1998 British Household Panel Survey to an index of neighborhood deprivation⁶ measured at the electoral ward level. Though McCulloch does not find any robust relationships when all individual controls are entered, he does discover that for both men and women residence in social housing environments raises the overall chances of several bad outcomes; moreover, for men in social housing the relationship between ward-level deprivation and both employment status and perceived financial situation outcomes is stronger the greater the area disadvantage. Buck (2001) analyzes similar data but employs a wider range of neighborhood context indicators. He finds that the ward’s unemployment rate is a more statistically significant predictor of having no employed friends, not starting work, and not leaving poverty than the broader index of deprivation. Bolster et al. (2004) also use the British Household Panel Survey to investigate the determinants of income change over time, but use GIS to construct a

---

⁶ This “Townsend index” consists of a weighted average of tenure, density, unemployment and auto ownership characteristics of the neighborhood.
variety of spatial scales of neighborhood around sampled individuals. They identify statistically significant (though substantively small) relationships between degree of neighborhood disadvantage at several spatial scales and subsequent income growth of individual residents. Andersson (2004) and Andersson et al. (forthcoming) analyze Swedish register data and focus upon employment and average annual labor income as the outcomes of interest. Andersson’s (2004) multi-level analysis finds that neighborhood context during adolescence, measured either by clusters based on indices of either socio-demographic or housing stock characteristics, strongly relates to employment status (but not income) in the expected fashion at age 25. Andersson et al. (forthcoming) find that both the current neighborhood shares of the adult population in the lowest 30th percentile of income (and, to a lesser degree, in the highest 30th percentile of income) are negatively and positively, respectively, related to individual adult income changes over a subsequent five-year period. Moreover, these relationships are stronger than a variety of other measures related to neighborhood education, immigrant status, social benefit receipt, or housing type, and these neighborhood income variables’ coefficients are virtually identical in absolute value for both men and women in the metropolitan and non-metropolitan samples.

It must be noted, however, that the European evidence is not unanimous about the existence of a statistically and substantively significant relationship between measures of neighborhood context and labor market consequences for adult residents. Indeed, findings of statistically insignificant relationships have been produced by multivariate analyses of data sources from several countries, including Dutch income tax statistics (Musterd, Ostendorf and de Vos, 2003), German Socio-economic Panel (Drever, 2004), and Swedish national register (Brannstrom, 2004). Moreover, the aforementioned studies by McCulloch (2001) and Bolster et al. (2004), though identifying statistically significant relationships between individual outcomes and neighborhood
contexts, concluded that these were either not robust to alternative statistical specifications and/or substantively small in magnitude.

A few studies have investigated neighborhood effects in the area of educational attainment. Kauppinen (2004) examines the educational attainments of Helsinki teens as they relate to indices of neighborhood disadvantage, advantage, and instability. He finds both the first two factors to be predictive of type of post-secondary education chosen, with neighborhood advantage having a somewhat stronger positive effect. Bramley and Karley (2004) analyze data from English schools and find that poverty rates at both the electoral ward and smaller spatial levels are inversely correlated with primary level educational attainments and test scores, though parental and child characteristics could not be completely controlled. They further examine another database for Scotland schools and, after controlling for individual and school characteristics, observe a positive relationship between neighborhood homeownership rates and several measures of academic performance.

A series of European-based studies has probed the extent to which the socioeconomic mix of the neighborhood contributes to a variety of intra-neighborhood social processes that, in turn, mediate a variety of outcomes related to crime and delinquency. Sampson and Groves, (1989) relate three neighborhood factors (“concentrated disadvantage,” “immigrant concentration”, and “residential stability”) to different aspects of social organization within the neighborhood, using a sample of 238 British communities. They find that neighborhood socioeconomic status is inversely related to unsupervised peer groups and directly related to organizational participation, and that neighborhood ethnic heterogeneity is directly related to unsupervised peer groups. In turn, organizational participation and social control have been associated with higher rates of burglary and victimization in Britain (Hirshfield and Bowers, 1997; Veysey and Messner, 1999). But it remains uncertain whether neighborhood social mix
is important once mediating factors have been taken into account. Steptoe and Feldman (2001) survey London adults and find that the effect of neighborhood socio-economic status on individual psychological distress is fully mediated by social cohesion, informal control, and perceived neighborhood problems. Similarly, Propper et al.'s (2004) analysis of British Household Panel Survey data reveals no relationship between individual mental health measures on the General Health Questionnaire and neighborhood deprivation level. Markowitz et al.'s (2001) analysis of British Crime Survey data shows, on the other hand, that neighborhood cohesion mediates some, though not all, of the neighborhood socio-economic status effects on burglary. Blasius and Friedrichs’ (2004) analysis of Cologne survey data also finds that neighborhood disadvantage is associated with less social control and, hence, greater perceptions of disorder and deviance. Thus, it appears that various measures of the social composition of neighborhoods, such as concentrations of disadvantaged households, are strongly predictive of a variety of intra-neighborhood social processes that, in turn, predict a variety of crime and delinquency outcomes.

To summarize, the European studies that investigate whether there is a linear relationship between outcomes for residents in general and a variety of neighborhood context measures are somewhat inconsistent in identifying a significant inverse relationship between opportunity-enhancing outcomes and neighborhood deprivation. The evidence is more consistent as it relates to various educational, psychological, and criminological outcomes; less so when adult labor market outcomes are involved. Moreover, studies of adult labor market outcomes that do find neighborhood effects differ in which aspect of the neighborhood is more predictive.
The Western European Evidence on Non-Linear Neighborhood Impacts

Several European studies have employed statistical procedures when investigating the relationship between the neighborhood indicator and individual outcome that would permit the identification of non-linear relationships. Most relevant evidence focuses on labor market outcomes as they relate to percentages of disadvantaged neighbors. Here the findings are inconsistent in the extreme.

Two Dutch studies do not observe any strong non-linear relationships, though their methods permitted such to emerge. Ostendorf, Musterd, and de Vos (2001) compare “income-mixed” neighborhoods in Amsterdam with “homogeneous” ones, to ascertain whether this aspect of neighborhood is related to an individual’s chances of living in poverty. Musterd, Ostendorf and de Vos (2003) relate the proportion of neighboring households on social benefits to the chances of Dutch individuals being employed consistently or not during the 1990s. Two other European studies detect non-linear relationships suggesting disproportionately worse outcomes from highly disadvantaged contexts. Buck’s (2001) analysis of British Household Panel Study data identifies substantial non-linearities between unemployment rate in the neighborhood and the probability of not starting work and the probability of not escaping from poverty, which suggest that the worst results for individuals occur when the share of neighborhood residents unemployed exceeds 23-24 percent (i.e., the highest five percent of all wards). Van der Klaauw and van Ours (2003) find using data in Rotterdam administrative records that the neighborhood unemployment rate has no statistically significant negative impact on the probability of exiting from welfare into work for Dutch

---

7 For a review and application of these statistical procedures, See Galster, Quercia and Cortes, (2000).
8 Though arguably some non-linearities were evinced at the extreme values of neighborhood conditions, they involved so few neighborhoods that results may not have been robust.
job losers or school leavers until it surpasses 11 percent, though there are no neighborhood effects for non-Dutch job losers. Diametrically opposed results are generated by two other studies. Musterd and Andersson (forthcoming) analyze the national register database for the three largest metropolitan areas in Sweden to ascertain the relationship between the odds that an individual remains unemployed in both 1995 and 1999 and the percentage of unemployed residents in their neighborhood in 1995. They (like Buck) find a strong positive relationship until the neighborhood percentage unemployed exceeded 16%; thereafter there appears to be no further marginal impact (instead of increasing marginal impact, as per Buck). Galster, Andersson et al. (forthcoming) analyze the same database using a first-difference specification and stratification of neighborhoods by economic mix in 1991. They find that changes in the percentage of low-income neighbors do not have a statistically significant effect on subsequent earnings growth of women and men who are not fully employed, regardless of the neighborhood’s starting percentage of low-income neighbors. For those employed full-time however, the results are different. For women, changes in the percentage of low-income neighbors have a diminishing marginal negative effect on subsequent earnings growth. For men, changes in the percentage of low-income neighbors only manifest a positive relationship with earnings in neighborhoods with above-median percentages of low-income residents, a finding the authors attribute to compensatory, area-based Swedish policies.

To my knowledge, only two other European studies employ tests for non-linear effects from disadvantaged neighbors on other outcomes, and they reach opposite conclusions. Gordon and Monastiriotis (2006) examine school success rates for London secondary schools in 1999. They find that the proportion of families in the neighborhood

---

9 Low income was defined as the percentage of males in the lowest 30th percent of the labor income distribution.
with single, non-working parents evinces an diminishing marginal negative relationship with school success rate. Oberwittler’s (forthcoming) aforementioned study of German adolescent delinquency discovers that, all else equal, the percentage of the neighborhood receiving welfare has an increasing marginal impact on the self-reported rates of violence for both boys and girls and on the self-reported incidence of property offenses for girls.

Only three studies using European data have investigated the potential nonlinear effects of affluent neighbors. The two related to education produce similar results. Gordon and Monastiriotis (2006) find that a composite index of neighborhood advantage evinces an increasing marginal positive relationship with school success rates in London, but the relationship is only modestly statistically significant. Kauppinen (2004) uses categorical variables to delineate neighborhood affluence in Helsinki and discovers that only in neighborhoods with above-average educational levels does neighborhood seem to make a difference in individuals’ post-secondary level of educational attainment.

The aforementioned Galster, Andersson et al. (forthcoming) study finds two different types of nonlinear relationships between changing share of higher income neighbors and the subsequent income growth of workers. Changes in the percentage of high-income males in the neighborhood evince an increasing marginal positive impact on earnings growth for all females and for males employed full-time. This relationship is manifested as a threshold, whereby the positive relationship occurs only in neighborhoods that begin the period with above-median percentages of high-income neighbors. For males not employed full-time, the observed negative relationship evinces modestly declining marginal impact.

To conclude this section, European evidence on potential non-linear relationships between neighborhood context and a variety of outcomes defies generalization. Even when similar outcomes and contexts are analyzed, different answers often emerge; no
conclusions can be firmly drawn about the nature and existence of these no-linear relationships.

**What Does the Western European Evidence on Neighborhood Effects Imply About the Bases for a Neighborhood Mix Policy Strategy?**

When all is said and done, what does the foregoing European evidence suggest about whether a policy aimed at neighborhood mix is justified and, if so, on what grounds? Returning to the analytical frame summarized in Table 1 as foundation, my evaluation suggests the following.

**Equity Basis**

Is there convincing statistical evidence that disadvantaged individuals in Western Europe are significantly harmed by the presence of disadvantaged groups in their neighborhood? In my view, the tentative answer is “yes.” There is a consistent (though small) set of studies showing that adults with little labor market attachment and/or low incomes, whether they be ethnic minorities (immigrants) or not, have their economic prospects diminished when they remain for extended periods in neighborhoods with sizable percentages of other low-income and/or immigrant populations.

Is there convincing evidence that disadvantaged individuals in Western Europe are significantly helped by the presence of other groups in their neighborhood? The appropriate answer is: “yes, depending.” In the case of educational outcomes, it appears that highly educated neighbors provide positive social externalities, though the relationship appears to be non-linear to an unspecified degree. In the case of adult labor market outcomes, however, there is a coherent body of evidence that only those who
are not too far removed in their socioeconomic status from the disadvantaged provide any benefit. Mixing with those of much higher income appears to produce inferior outcomes for the disadvantaged relative to mixing with middle-income groups.

*In concert, the prior points indicate clearly that there is a sufficient evidentiary base to justify on equity grounds a policy that works toward avoiding high concentrations of disadvantaged (low-income and/or low-income) individuals and promoting residential diversity of groups of only modestly dissimilar socioeconomic status.*

**Efficiency Basis**

In the previous section we established part of the necessary efficiency criteria: the well-being of the disadvantaged likely can be increased by certain sorts of neighborhood mixing strategies. But here we first must ask: Is there convincing statistical evidence that advantaged individuals in Western Europe are not significantly harmed by the presence of disadvantaged groups and/or helped by the presence of advantaged groups in their neighborhood? The clear answer is: “no.” There is very little European evidence on this point, but what is present suggests modest harms to advantaged groups from disadvantaged neighbors.

So, what about the evidence on non-linear neighborhood context/outcome relationships? Is there convincing statistical evidence of increasing marginal negative consequences of disadvantaged neighbors and/or decreasing marginal positive consequences of advantaged neighbors? The clear answer again is: “no.” The evidence base is comparatively sizable, yet is inconsistent in findings in the extreme regarding non-linear effects of both advantaged and disadvantaged neighbors. The
strongest study methodologically in this realm (Galster, Andersson et al., forthcoming) comes to conclusions diametrically opposite those above.

*In concert, the prior points indicate clearly that there is not a sufficient evidentiary base to justify on efficiency grounds a policy that works toward neighborhood mix, if the presumed mechanism of effect is through intra-neighborhood social interactions among the different groups.*

This leaves the possible efficiency justification based on the extra-neighborhood effect of stigmatization/resource restrictions. Is there convincing multivariate statistical evidence of negative consequences for an undifferentiated set of residents produced when the share of disadvantaged neighbors in a place is externally viewed as “excessive?” The answer seems to be: “yes, some, but not consistently.” Most of the studies on labor market outcomes (cited above) find a negative relationship between percentage of disadvantaged population in the neighborhood and a variety of adult labor force outcomes, though there are sufficient examples of non-significant findings to treat these results with caution. Moreover, these relationships are consistent with a variety of causal processes, both intra- and extra-neighborhood, so they do not offer definitive proof of the stigmatization/resource restriction effect.

However, there is a sizable body of research that, though not statistical in nature, does provide case study evidence that place-based stigmatization is an oft-occurring process in Western Europe. The work of Wacquant (1993), Power (1997), Taylor (1998), Dean and Hastings (2000), Hastings and Dean (2003), and Hastings (2004) is

---

10 This conclusion is consistent with another body of European literature that has found that there are, indeed, minimal social interactions among advantaged and disadvantaged groups who may be sharing the same neighborhood. See especially Blokland-Potters (1998), Kleinhans (2004) and Allen et al. (2005).
noteworthy. This work gives us some confidence in positing that the aforementioned labor market results may be produced by this mechanism (at least to some nontrivial degree). It does not, of course, help us to quantify the degree to which neighborhood stigmatization diminishes the life-chances of residents or restricts the various public or private resources or institutions flowing into these areas. Thus, it does not allow us to test how important this particular neighborhood effect mechanism is compared to others. This is a crucial shortcoming because our analysis showed that only when the stigmatization/resource restriction mechanism is the dominant one is there sufficient ground for a mixing policy justified by efficiency. Moreover, neither quantitative nor qualitative work in this area provides guidance as to the threshold share of the disadvantaged where the stigmatization and resource restrictions come into play.

In concert, the prior points indicate that the evidentiary base regarding extra-neighborhood stigmatization/resource restriction processes does not provide a sufficiently compelling justification on efficiency grounds for a policy that works toward neighborhood mix.

Conclusions and Implications for Neighborhood Mix Strategies

In Western Europe

I have presented an analytical frame for elucidating the equity and efficiency criteria that might be used to justify a housing policy that aimed for a substantial mix of neighborhood residents by income, ethnicity, or immigrant status. This framework permitted the classification of multivariate statistical studies comprising the Western European evidence base and showed the importance of distinguishing intra-neighborhood social interaction processes and extra-neighborhood
stigmatization/resource restriction processes when evaluating evidence related to the efficiency criterion. Evaluation of the Western European statistical evidence base in light of this framework reveals that it sufficiently supports a mixing policy aimed at avoiding concentrations of disadvantaged individuals if and only if equity (i.e., improving the well-being of the disadvantaged absolutely) is applied as the dominant criterion for policy evaluation.11

By contrast, the evidence base does not support a mixing policy on social efficiency grounds, regardless of whether intra-neighborhood social interactions or extra-neighborhood stigmatization/resource restriction processes are presumed to be the primary causal mechanism for neighborhood effects. The evidence suggests that both positive and negative social externalities may flow between advantaged and disadvantaged neighbors, but there is little definitive to indicate that the net result for aggregate social utility will be positive if neighborhoods are more socially mixed, at least past some threshold point(s). This conclusion stands in sharp contrast to those based on an analysis of evidence from the U.S., where the equity and efficiency rationale for reducing the number of neighborhoods with over 20% poverty rates and correspondingly increasing those with less than 10% poverty prove compelling (Galster, 2002; Galster, Cutsinger and Malega, 2006).

What implications can be drawn for housing and land use planners in Western Europe? I would first suggest that it may behoove those in such positions to reflect upon the normative basis of their neighborhood mixing policies, and ask themselves the question: Is equity enough? Given the evidence base, they can be quite confident that a mix strategy will improve the well-being of the disadvantaged. But what cost may the advantaged be incurring due to this strategy, and to what extent does their well-being...

11 Starting from a different point and applying a different form of analysis, Berube (2005) reaches a similar conclusion in the British policy context.
also get weighed in the policy-making process? The second implication is that many parameters for designing neighborhood mixing programs must now be formulated without any evidentiary basis whatsoever. The most fundamental shortcoming is that policymakers have no idea what mix of advantaged neighbors provides the best environment for the disadvantaged. They are similarly uninformed about whether either positive externalities emanating from the advantaged and/or negative externalities emanating from the disadvantaged are associated with quantifiable threshold points. Without such basic information, policymakers will be forced to arbitrarily choose targets for neighborhood social mixing. I return to this need for more information below.

Hopefully, this paper’s framework and analysis of evidence stemming from it provides a constructive contribution to the ongoing scholarly and policy-maker debate across Western Europe on the justification for pursuing a neighborhood social mix strategy. The parameters of this debate have previously been articulated in Atkinson and Kintrea (2000, 2001), Ostendorf, Musterd and de Vos (2001), Friedrichs (2002), Kearns (2002), Musterd (2002, 2003), Musterd, Ostendorf and de Vos (2003), and Meen et al. (2005). Suffice it note here that, although I share these authors’ skepticism regarding the overall adequacy of the evidence, this paper helps clarify in what ways the evidence is or is not definitive or sufficient, depending on the basis of the argument made for intervention (equity or efficiency) and the nature of the neighborhood effect mechanism presumed (intra-neighborhood social processes or extra-neighborhood stigmatization/resource restriction processes). By doing so, the article also points toward where forthcoming scholarly efforts will have the most importance for informing the future policy debate on this crucial topic.

In particular, the analysis above implies that several strands of neighborhood-related quantitative research will likely prove most efficacious in applied contexts (cf. Galster, 2003). First, more efforts are required to quantify statistically when
neighborhood stigmatization sets in, what limitations in resources and opportunities it then imposes, and what sorts of social mix are required before stigmatization abates. Second, future multivariate statistical studies involving consequences of intra-neighborhood social processes should stratify samples so that different positive and negative externalities experienced by various groups of households can be readily discerned and quantified. Third, these studies should explore the sensitivity of findings to variants of how “disadvantage” is operationalized: by income, tenure, ethnicity, or national origin. Fourth, statistical studies should utilize as standard procedure any of the variety of methods available for purging estimates of omitted variables biases. Fifth, statistical studies must probe the extent to which either positive externalities emanating from the advantaged and/or negative externalities emanating from the disadvantaged are associated with quantifiable threshold points. Sixth, the degree to which inter-neighbor social externalities and extra-neighborhood stigmatization processes may be mediated by effective community institutions and compensatory allocations of public resources should be explored with both quantitative and qualitative methods. Finally, qualitative methods of various sorts should continue to probe into the intra-neighborhood social processes so that we can gain a deeper understanding of the mechanisms of effects that transpire when social groups are mixed in neighborhoods.
References


MA., Nov. 14.


on British and European policy and research. *Housing Studies* 17(1), pp. 145-
150.
Income and Physical and Social Disorder in Canada: Associations with Young
Bulletin* 126(2), pp. 309-337.
London: Centre for Analysis of Social Exclusion, London School of Economics,
CASE paper 73, Sept.
University Press.
Markowitz, F.E., Bellair, P.E., Liska, A.E., & Liu, J. (2001). Extending Social
Outcomes in the British Household Panel Survey.” *Environment and Planning A*
33, pp. 667-684.
Morenoff, J., Sampson, R. & Raudensbush, S. (2001) Neighborhood Inequality,
517-560.
Housing Studies, 17(1), pp. 139-144.


Partnerships, and the Housing Corporation.


<table>
<thead>
<tr>
<th>POLICY BASIS</th>
<th>TYPE OF STATISTICAL STUDY IMPLIED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity</strong></td>
<td>1. Linear model of outcomes as function of %D and or %A, stratified for D subsample only</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Efficiency</strong></td>
<td></td>
</tr>
<tr>
<td>If intra-neigh. process</td>
<td>2. Linear model of outcomes as function of %D and or %A, stratified for both D and A subsamples separately</td>
</tr>
<tr>
<td>If extra neigh. process</td>
<td>3. Linear model of outcomes as function of %D and or %A, aggregated for combined D and A sample</td>
</tr>
<tr>
<td>If either process</td>
<td>4. Non-linear model of outcomes as function of %D and or %A, aggregated for combined D and A sample</td>
</tr>
</tbody>
</table>