



California Center for Population Research
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Research Designs for the Study of Mixed-Income Housing

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RESEARCH DESIGNS FOR THE STUDY OF MIXED-INCOME HOUSING

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by

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INTRODUCTION

The Mixed-Income Research Design Group (MIRDG) was established in August 2007 with the coordination of the Social Science Research Council and funding from the John D. and Catherine T. MacArthur Foundation. The charge to the group was to identify research needs and potential research strategies on the effects of mixed-income housing. The MIRDG was asked to think about research on the costs and benefits of building mixed-income housing developments in American cities, the major thrust of housing policy in the United States since the mid-1990s. Although the committee was encouraged to inform itself and think hard about mixed-income developments such as those that have been built in Chicago as part of the HOPE VI project during the recent past, it was also encouraged to think broadly about the concept of income mixing, including both intentional and “naturally” occurring mixed-income housing in various times and places.

The MIRDG comprises a diverse group of accomplished scholars from multiple disciplines, including sociology, economics, political science, and demography. Even within these traditional disciplines, the group members vary in their orientations between quantitative and qualitative approaches; between an emphasis on quasi-experimental testing of marginal treatment effects versus describing social phenomena at the micro-interactional, population, and comparative case study levels; and between an emphasis on inductive discovery versus deductive models and explanations. Some members of the group have years of experience doing research on housing generally and mixed-income housing issues in particular; others are less experienced and were selected for the “fresh look” that they might provide.

Given the diverse makeup and interest of MIRDG members, it was neither feasible nor desirable to develop a single research design. Rather, we propose a set of distinct yet connected

lines of investigation. In practice, overlapping subgroups of the MIRDG developed these separate lines of work. Each subproject has benefited from disciplinary and methodological pluralism.

In developing research designs for the study of mixed-income housing, the MIRDG proposes a group of study areas and study approaches for future research. Rather than developing full-blown research proposals, we develop desiderata that developers of actual proposals should take into account. These desiderata include understandings of what subject matter is of greatest importance and what logical and technical factors must be included in an adequate research design. To illustrate these principles our report includes a number of concrete illustrations of our research approaches. Proposers of actual research projects should be encouraged to consider topics and methods that are in the spirit of what we suggest here rather than necessarily the specific examples that we have used. At the same time, we think the specific suggestions advanced in this report are worthwhile, and the active housing researchers among us remain invested in these ideas and may themselves develop them into fuller proposals at a later date.

During the last twelve months, the MIRDG met three times, including an introductory meeting in New York with SSRC and MacArthur staff and two meetings in Chicago. The first Chicago meeting included site visits, arranged by MacArthur staff, to mixed-income housing developments and their surrounding neighborhoods on the south and near west sides of the city. These visits included meetings with developers, community activists, and representatives of tenant organizations. The second Chicago meeting included only MIRDG members and focused on the development of this report. Group members also worked alone and in subgroups that took responsibility for sections of the report.

In our general discussions, we wrestled with a number of conceptual, strategic, and methodological issues. These issues are, for the most part, inherently open-ended, and thus remain tensions that appear throughout the report. At the same time, future research on mixed-income housing must reckon with each of them. These include:

1. *“Mixed income” is an imprecise concept.* Mixed-income housing ranges from planned housing developments where households from diverse income strata live side by side within individual buildings and developments (as in housing created by HOPE VI developments) that follow a variety of formulas (for example, one-third low income, one-third mixed, one-third market rate), to neighborhoods where the introduction of tenants holding Section 8 vouchers or the implementation of inclusionary zoning programs have diversified the income mix, to “naturally” occurring mixed-income multifamily housing developments or neighborhoods. In other words, income mixing occurs at a variety of levels – within buildings, within multi-building developments, and within neighborhoods – as a result of a variety of development initiatives. Each type of mixed-income housing raises unique research questions and design problems. The MIRDG takes seriously the central policy and research issues raised by HOPE VI developments and these have been our main emphasis; but we also see mixed-income housing as both a planned and unplanned part of the urban landscape. Thus we seek to understand the similarities and differences across different types of mixed-income housing in the ways that individuals and families come to live in mixed-income housing and the consequences for their lives.
2. *Mixed-income housing may have effects at a variety of levels.* A key charge to the MIRDG is to help design studies that evaluate the impact of living in mixed-income housing developments on the welfare of individuals and families. Yet mixed-income

housing may have short- and longer-term effects at other levels as well, including neighborhoods and whole communities. We also recognize that effects on neighborhoods may be subtle and complex. For example, a successful effort to reduce crime in a mixed-income neighborhood may result in increases in crime elsewhere, rather than a net benefit to a community as a whole. We attempt to propose research designs that take these spillover effects into account.

3. *It is important to explore the effects of mixed-income housing in the context of counterfactuals.* An effort to assess the effects of mixed-income housing must specify the types of comparisons that define these effects. For example, an assessment of the benefits to a family from living in a mixed-income housing development should be based on a hypothetical comparison to outcomes if that same family were to live elsewhere in the same community or to outcomes for the same family if mixed-income housing development had not taken place in their community. But given these two options, it is also necessary to specify whether the family in question is living in a community where mixed-income housing is plentiful and participation in developments is a common experience or, alternatively, whether mixed-income housing developments are few in number and only a small population experiences its benefits. In short, mixed-income housing is an extremely complex “treatment,” and any conclusion about its effects must be carefully qualified by the larger circumstances under which they may occur. Furthermore, given the policy priority placed on poverty deconcentration in many U.S. cities and the specific alternative options to mixed-income housing for residents of public housing – namely a housing choice voucher in the private market, remaining in a 100 percent public housing development, or exiting subsidized housing altogether, a fruitful

comparative design is to examine outcomes for comparable households in these specific alternative housing options.

4. *A mixed-income housing “treatment” may or may not be a permanent housing “outcome.”* Our principal task has been to design research for the study of the effects of mixed-income housing programs on individuals, families, and communities. In the long run, however, any benefits from mixed-income housing may depend on the degree to which it is a stable feature of urban communities. Naturally occurring mixed-income neighborhoods are subject to residential mobility patterns, which may undermine as well as sustain residential integration along income lines. If economic or demographic pressures also put intentional mixed-income housing developments at risk, continued interventions may be required to sustain them.
5. *Mixed-income housing research should be done in diverse settings.* Although we have been heavily influenced by the scale of mixed-income housing development in Chicago, we recognize Chicago’s unique history and context, the valuable insights that can be derived from comparing communities, and the vast variation in types of communities in the United States where mixed-income housing programs have been implemented. It is likely that conclusions drawn from any assessment of the effects of mixed-income housing depend on the sites chosen for study; their unique economic, political, demographic, and geographic characteristics and history; and whether the focus of study is the immediate and short-term effects of a mixed-income housing program, the span of time it takes for a mixed-income development program to mature, or a period spanning one or more generations of residents.

These considerations have led us to propose five types of studies.

1. Family impact studies that combine quasi-experimental approaches with an ethnographically informed understanding of the experience of living in mixed-income housing;
2. Studies of governance and community building in mixed-income housing developments;
3. Studies of the citywide consequences of mixed-income housing developments;
4. Studies of individual and household housing choices, housing search, and residential history;
5. Studies of the demography of mixed-income housing and neighborhoods that link individual residential decisions and opportunities to the aggregate patterns of income segregation and integration.

These studies are intended to deepen our knowledge about outcomes for residents of mixed-income housing and other socioeconomically diverse neighborhoods. They also move the study of mixed-income housing beyond an exclusive assessment of individual outcomes and experiences to a focus on the key dynamics within mixed-income neighborhoods and their metropolitan contexts. Our first studies attempt to isolate the effects of mixed-income environments on their residents. We propose a mixture of quantitative and qualitative methods, thereby combining the rigor of quasi-experimental designs with the richness of ethnographic observation. We seek more certainty about the effects of mixed-income policies and more detail about how and why these effects come about. Our second set of studies explores collective decision making and building “community” within the new mixed-income environments. Efforts to create mixed-income sectors of metropolitan areas may not be sustainable in their intended forms without effective efforts to manage decision-making processes and build “community.”

The remaining studies place these mixed-environments in their larger demographic and socioeconomic context. One set of studies asks about the intended and unintended effects of mixed-income developments on the rest of the city: possibly revitalization in some areas, yet increased social and economic challenges in others. Another set of studies investigates the housing search and decision process, focusing on how households decide on whether, when, and where to move, looking at their available information about their options and what factors shape their decisions. The final set of studies seek to understand the broader patterns of mobility and resulting trends in socioeconomic segregation and integration of metropolitan areas. To what extent is the distribution and mixing of types of households changing? What are the demographic forces that maintain or destabilize mixed-income neighborhoods?

A Conceptual Framework for the Study of Mixed-Income Housing

Figure 1 illustrates how our studies fit together conceptually. We envision mixed-income housing as comprising not only mixed-income housing developments, but also mixed-income neighborhoods created by the availability of housing vouchers that allow poor families to move to nonpoor neighborhoods and “naturally” occurring income integration that may result from ongoing patterns of residential mobility. Mixed-income housing potentially affects individuals and households, the governance and social integration of housing developments and neighborhoods, and the broader metropolitan area in which income-mixing takes place. Our first three research designs focus on outcomes at these three levels. These three kinds of potential effects of mixed-income housing are, of course, mutually interdependent. The effectiveness of mixed-income housing on the lives of families, for example, may depend on characteristics of the metropolitan area (for example, availability of jobs and public transportation). In turn, the

broader metropolitan area may be changed by the effectiveness of mixed-income housing developments in improving outcomes for families and by the degree to which those developments become true communities. We have developed research designs with these interdependencies in mind, although we do not explicitly propose to study them in their full detail.

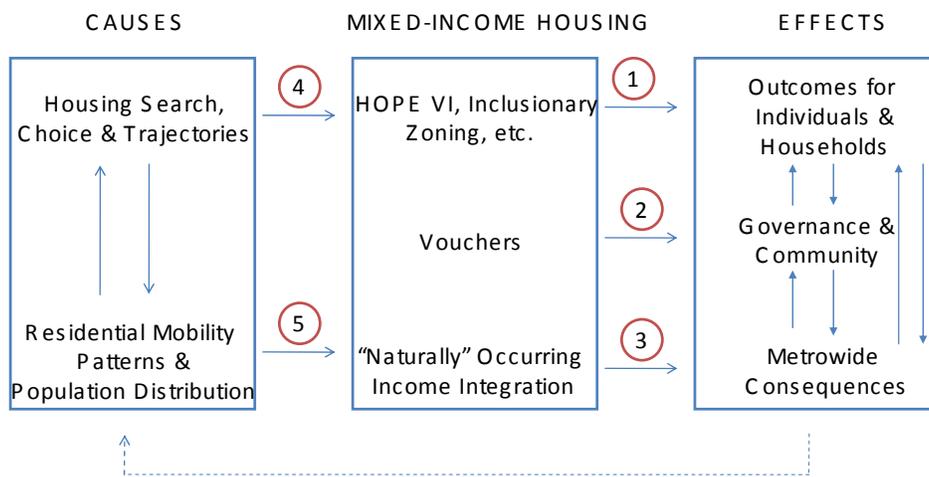


Figure 1. Conceptual Framework for the Study of Mixed-Income Housing

Only in hypothetical environments is it possible to think about the effects of mixed-income housing independently of the processes through which individuals and families come to live in mixed-income communities. In an actual urban environment, the success of mixed-income housing – both in its outcomes and in the very possibility of establishing and maintaining economically integrated neighborhoods – depends on the social, economic, political, cultural, and demographic milieu in which income mixing occurs. Whether and how individuals and families live in mixed-income developments and neighborhoods (vs. living in economically segregated areas) is the result of their complex motivations, experiences, and opportunities. At

the aggregate level, patterns of residential mobility in a metropolitan area affect the stability of mixed-income developments and neighborhoods; as Figure 1 illustrates, our fourth and fifth designs focus on these processes.

A full understanding of mixed-income housing requires that we move beyond a simple progression from causes to effects. Inevitably, the effects of mixed-income housing on individuals, neighborhoods, and metropolitan areas feed back to the decisions by individuals about where to live and aggregate flows of individuals and households among neighborhoods that are economically mixed or homogeneous. To be sure, no single study can fully investigate all of these relationships. As we focus on specific aspects of the effects of mixed-income housing, it is nonetheless important to keep this broader picture in mind.

Definition of Terms and Scope

We use the term “mixed-income housing” more broadly than have housing policy experts for the past decade. In most of our discussion we mean all intentional efforts to generate socio-economic diversity in a targeted geographic area – whether a housing development, neighborhood, or municipality – by integrating a range of subsidized and market-rate for sale and rental housing in the area. This includes housing mixes produced by redeveloping public housing (for example, HOPE VI), inclusionary zoning, the development or preservation of affordable rental housing (under a variety of financing programs) in high-cost neighborhoods, the promotion of market-rate development in poor neighborhoods, and the settlement of substantial numbers of housing voucher holders in low-poverty areas (perhaps the rarest case). Many mixed-income housing developments and some mixed-income neighborhoods include units set aside for very low-income families. For the most part we do not include the larger

universe of economically diverse neighborhoods that lack subsidized units. (An exception to this is our fifth research design, which examines demographic and socioeconomic forces that facilitate or impede income integration more generally in metropolitan areas.) We also avoid the a priori use of the term “community,” because we want to know whether it arises, under what conditions, and what it means to residents. This is especially the concern of our second set of proposed studies.

This scope encompasses a variety of neighborhood trajectories, from residential areas that are increasingly expensive, for example because public policy has fostered market-rate housing near concentrations of subsidized housing, to areas with declining housing prices, because of market vulnerability and policies that have produced a shift, real or perceived, in the composition of residents.

I. THE EFFECTS OF MIXED-INCOME HOUSING ON INDIVIDUALS AND HOUSEHOLDS

This section outlines some possible strategies for assessing the effects of mixed-income housing on individuals and households. These strategies feature: (1) carefully drawn comparisons of individuals living in mixed-income settings with otherwise-comparable individuals not living in those settings; (2) a combination of qualitative and quantitative observations data in order to provide an “on the ground” understanding of how residents and their neighborhoods are affected by mixed-income housing strategies; and (3) careful thought about the array of individual, family, and community outcomes that might be changed by a mixed-income housing strategy.

The Rationale for Mixed-Income Housing

The impetus toward mixed-income housing arises out of concerns with the negative consequences of concentrated poverty in traditional low-income public housing developments and other high-poverty settings (Joseph, Chaskin, and Webber 2007; Kleit 2001; Rosenbaum, Stroh, and Flynn 1998; Wilson 1987). Public housing projects have been associated with some of the most extreme concentrations of poverty in the United States: Census tracts with projects are on average significantly poorer than the average environment experienced by a family with below-poverty threshold income (Newman and Schnare 1997). Correspondingly, the move toward mixed-income housing is intended to reap the benefits of reducing poverty concentration while redeveloping dilapidated housing projects and revitalizing inner-city neighborhoods.

Studies of the U.S. Department of Housing and Urban Development’s experimental Moving to Opportunity (MTO) program found several benefits when poor families moved into less poor neighborhood environments: reduced rates of criminal victimization, improved mental

health, and improvement in school performance for girls (Kling, Liebman, and Katz 2007). It seems reasonable that moving individuals from traditional large public housing developments to mixed-income housing developments should produce some of the same benefits. Yet there are several respects in which mixed-income housing development differs from individual household mobility programs, including the kinds of neighborhoods that these programs create, the types of individuals and families whose lives are disrupted by these programmatic efforts, and the degree to which government agencies and developers attempt to create new communities. The effects of mixed-income housing, therefore, may be different in many respects from the effects of mobility programs. The destination Census tracts of the MTO program have lower poverty rates than most mixed-income housing developments, but are often internally segregated, with poor and middle-class families living in separate buildings in the same neighborhood. In contrast, in many mixed-income housing developments, poor and middle-class households often reside in the same building, which may facilitate more frequent interaction among families with different income levels. In some developments, renters even share the same buildings with condominium owners, creating a greater level of economic diversity within a shared social space.

Furthermore, an MTO-type approach to poverty deconcentration has a dispersal effect more like scattered-site public housing programs, which increase the proportion of poor families in particular blocks and communities where it had previously been relatively low. In contrast, mixed-income housing developments reserve a significant proportion – often 20 to 40 percent of the units – for families relocating from public housing. This suggests that whereas families relocated through MTO may have to contend with feelings of isolation from other families with similar socioeconomic backgrounds, poor families in mixed-income housing can be assured of living in an area with others like them. Since a priority goal of both types of deconcentration is

to reduce the overall proportion of families living in poverty, the higher proportions of poor families in mixed-income housing may have both positive and negative effects on both poor families and their nonpoor neighbors.

Mobility programs like MTO attempt to take poor families out of the central city neighborhoods to which they are accustomed and move them to low-poverty neighborhoods elsewhere in the city or even suburbs. An additional benefit of mixed-income housing programs is that they enable families to move into reduced poverty environments, while remaining in familiar neighborhoods where they have long-time kin and friendship ties as well as access to public transportation.

Finally, because mixed-income housing developments are often based on a development partnership responsible for design, construction, sales and lease up, and management, a single entity has responsibility for operations, standards, and the quality of life in the developments. This entity usually brings a degree of intentionality to the objective of creating a stable, high quality community that is home to residents of very diverse backgrounds. The developer team and its local partners often take numerous steps in terms of design and operation of the development to minimize tensions and promote good neighboring among residents. There is often a management team and governance structure (a tenant or owner board) that affects how the development is run and has considerable duties and powers over common areas and collective rules. The developments are also more likely than MTO destination neighborhoods to provide on-site access to social services or referrals. Furthermore, the presence of middle-class residents, particularly homeowners, who are often more likely to be engaged on behalf of their local community, may, in comparison to low-income housing developments or nonpoor residents in unorganized MTO destination neighborhoods, facilitate better management or may be better

able to make demands on local governments. The result may be greater community-wide benefits through mechanisms that Joseph, Chaskin, and Webber (2007) call the “political economy of place.”

Although mixed-income housing may be a means of improving the quality of life and perhaps even social mobility of poor families, the mixed-income housing environment may nonetheless have negative effects on families as well. Poor families may encounter such challenges as increased stigma and both formal and informal monitoring, a sense of relative deprivation, and a loss of local power and influence (Briggs 1997; Pattillo 2007). The quantitative and qualitative research proposed here may identify both the benefits and costs of mixed-income housing for poor families.

Two Quasi-Experimental Designs

The gold standard in program evaluation is the hypothetical contrast of outcomes for families participating in or otherwise affected by a mixed-income housing program with outcomes of *those same families* had they not participated. The best approximation to this hypothetical contrast is a comparison of participating families with families with similar demographic characteristics, motivations, and expectations. Ideally, this involves randomly assigning similar families to treatment and control groups.

The contrast between those persons who participate in mixed-income housing programs with those who do not identifies the effect of the mixed-income housing *program* on families. The total effect of the program bundles together everything the program does, including both the experience of living in a mixed-income setting and also a given quality of housing, system of governance, and degree of disruption in family life. For example, most mixed-income

redevelopment under HOPE VI starts with newly constructed buildings and often has relatively attentive building management. These factors are included in estimates of a mixed-income housing program effect based on contrasts between participant families and similar non-participant families that continue to reside in older low-income housing developments. (Further design of the research proposed here should determine if additional counterfactual comparisons are warranted besides mixed-income housing movers and non-movers who remain in 100 percent public housing developments. For example, other “non-mixed-income housing movers” include residents who relocate into the private market using housing vouchers, residents who move into scattered-site public housing developments, and residents who move out of federally subsidized housing altogether and seek to live independently in the private market.)

A different mixed-income effect of interest is the influence of income mixing alone, without the other potential confounding factors associated with new development (such as new buildings or better maintenance or management, as have been observed in the first stage of the Henry Horner development in Chicago or similar projects in Milwaukee). The gold standard counterfactual for the pure mixed-income effect is the hypothetical contrast of outcomes between families participating in a mixed-income housing program and the same families living in identical circumstances except for the income mix of residents in their development. In practice, this usually involves additional challenges in study design to control for these potential confounding influences. Initially we discuss two designs to identify the influence of mixed-income housing programs. The target contrast is between program participant families and similar families that do not participate. We then discuss how this contrast may be modified to assess the pure mixed-income effect.

Housing Lotteries

In 1997, Chicago's housing voucher program was handed over to CHAC, Inc., a private local firm, which then opened the city's housing voucher waiting list for the first time in a dozen years. Although CHAC had only a few thousand vouchers to give out, a total of 82,607 eligible families applied for them. In the interests of fairness, CHAC used a lottery to choose which applicants were given vouchers and which were kept on the waiting list. Since assignment to a voucher was random, the characteristics of families who were assigned vouchers were, on average, virtually identical to those of families on the waiting list. Thus, lotteries based on waiting lists produce a nearly ideal experimental contrast between families selected for a program and similar families not selected for it, provided that outcomes are measured for both groups.

A lottery-assignment evaluation of mixed-income housing is possible if mixed-income housing programs have used lotteries in the past or if those in charge of new programs can be persuaded to use a lottery to select people for the program. Our initial discussions with some developers across the country lead us to believe that at least some are willing to randomly assign people on their lists.

Unfortunately, although lotteries have been used in Chicago – the country's largest mixed-income transformation effort – quasi-experimental designs remain highly challenging in the policy context of assigning priority to all families interested in retaining the right to return to the new mixed-income developments. In Chicago, ten new developments are concurrently selecting residents from the overall population of former public housing residents. The priority order designated by the lottery is used in conjunction with priorities designated through the negotiations of the residents' relocation rights contract, which governs the relocation and return

process. The contract designates over a dozen levels of priority for residents moving into any one development, including, for example, that residents who originally lived in that development have priority over those from other developments, even if their lottery number is lower. Stringent screening according to “site-specific criteria” such as lease compliance, credit history, employment status, and criminal background, supersedes the lottery order and disqualifies some residents from being able to return, assigns some to a “working to meet the criteria” category with lower priority, and prioritizes those who are determined to “meet the criteria.” Finally, residents are given three opportunities to reject an offer of a new unit and thus individual preferences, which tend to be related to their backgrounds and circumstances in nonrandom ways, affect who moves into the new developments and in what sequence. Despite these complexities, given the scale of the Plan for Transformation in Chicago and the possibilities for comparisons across ten new developments, each with differing development partnerships, it is important to explore ways to take advantage of the incorporation of an initial randomization in the creation of the resident housing lists when other cities are studied.

A highly promising research site is New York City’s new mixed-income developments, where the creation of below-market-rate rental units has been made a condition for the approval of the construction of market-rate rental units (or condominiums). These developments are based on inclusionary zoning rules rather than on the HOPE VI program and have a population that is less poor and more racially diverse than the public housing population. In these cases, a community organization is typically charged with developing a list of individuals who are interested in renting the below-market-rate units. If, as is usually the case, the number of applicants exceeds the number of available units, selection from these applicant lists should, in theory, be determined by chance or lottery. If the organizations responsible for tenant selection

agree to formalize random selection, then such cases allow one to track a variety of types of tenants (selected and not selected) in a variety of more or less mixed-income settings.

Regression Discontinuity Design

An alternative evaluation approach is possible when eligibility for mixed-income housing is determined by a scoring system in which families above a threshold score are eligible and those below are ineligible. In this case, the key evaluation contrast is between housing applicants just above and just below the developer's or housing authority's eligibility threshold. Regression discontinuity-based evaluations require that admission practices evaluate all applications, generate a fairly continuous score for entry, and then adhere to it rigidly. As with lotteries, it is vital that outcomes be assessed for both groups.

As with lotteries, a regression discontinuity design might be applied to settings in which the replacement of a public housing project with a new mixed-income project (as in Chicago) or the building of a new mixed-income housing setting (such as developer commitments to build below-market-rental housing in or near market rate developments in New York City) generates a list of eligible applicants. If some kind of scoring system is used in the selection process, then it might be possible to persuade developers to follow the necessary steps for a regression discontinuity-based evaluation. Although we know of no current examples of scoring-based selection of families into mixed-income housing, scoring systems have been used to assign developers to receive housing tax credits. Since these developers have experience with scoring systems, a regression discontinuity design might be feasible in these settings.

It is important to note a key limitation of these two types of designs: neither includes potentially eligible families that fail to sign up for a chance to get into mixed-income housing,

some of whom might have benefited substantially from it. In the language of evaluation, lotteries and score-based cutoffs provide estimates of “local” treatment effects, in the sense that they apply to a self-selected set of potentially eligible families who sign up for the program. Mixed-income housing effects *within* this group are well estimated by these designs. Generalizing to a larger set of low-income families is impossible without explicit efforts to recruit them into the assignment pools.

Estimating “Pure” Mixed-Income Effects

The aforementioned designs do not allow one to distinguish the effects of the mixed-income aspect of mixed-income housing from other changes in residential environments that accompany the program. In Chicago, for instance, mixed-income housing involved newly constructed developments and generally a more attentive set of management practices than held in most traditional Chicago Housing Authority projects. To address the usefulness of the income-mixing aspect of these programs, we need designs that account for these confounding influences.

To isolate the effect of income mixing per se, the major design modification is to use a contrast group that is in a setting with features similar to the mixed-income housing group except that it lacks income mixing. Some of the most important features to match are the “site-specific criteria” that are typically used to select applicants to mixed-income housing developments. A rigorous assessment of the impact of mixed-income housing requires a comparison to a population that meets the same stringent selection criteria that are used for mixed-income housing residents. This may be possible in situations where a housing authority develops both mixed-income housing and new low-income housing. A randomized lottery that assigns some families to mixed-income housing and others to refurbished public housing with characteristics

otherwise similar to the mixed-income housing provides an ideal contrast for estimating a pure mixed-income housing effect.

A less rigorous design for estimating the pure mixed-income housing effect is to use estimates of program effects on outcomes for individuals, families, or households for several sites, possibly based on lottery or regression discontinuity designs. A second-stage analysis might then consider how measured characteristics of the different projects are related to the mixed-income housing effect estimated for each project separately, providing control for these measured characteristics. This approach runs into the typical difficulty with non-experimental designs – we cannot resolve the potential problems of misspecification due to failure to control for some important aspects of the residential environment – but nevertheless provides one way to gain some insights into the effect of mixed-income housing controlling for other project characteristics.

Mixing Methods

Despite their potential for generalizing empirical results to the larger population of mixed-income housing families and ruling out competing hypotheses, evaluations based exclusively on surveys and administrative data typically fail to provide enough data to understand how mixed-income housing affects processes and outcomes of interest. There are just so many ways that a limited number of variables can be analyzed, even when the analyst has large samples or multiple datasets.

With more extensive measurement of key constructs of interest and relational structure, qualitative data provide an opportunity to understand more completely the “black box” relationships between assignment to mixed-income housing and outcomes estimated in the

quantitative data. Thus, we advocate a research design that combines quantitative and qualitative data collection. Two examples of the utility of mixed methods come from the New Hope project, an antipoverty demonstration program run in Milwaukee in the mid-1990s. New Hope offered participants who worked thirty or more hours per week a roughly \$3,300 per year package of benefits consisting of a wage supplement, a child-care subsidy for any child under age thirteen, subsidized health insurance, and, if needed, access to a community service job (Bos et al. 1999).

To evaluate New Hope's effects on families and children, families were randomly assigned to be eligible for New Hope benefit or to a control group. Survey and administrative data were gathered from both groups. Ethnographic data were gathered from monthly visits to a stratified random sample of forty-four families, half from the New Hope treatment group and half from the control group. The qualitative data proved invaluable for understanding key aspects of New Hope's impacts.

One of the most important – and initially puzzling – effects of the New Hope experiment was on teacher-reported achievement and behavior of preadolescent children. Boys but not girls in the experimental group were much better behaved and higher achieving than their control-group counterparts. Extensive analysis of survey data failed to provide clues regarding the gender difference. A systematic analysis of the qualitative data, focused on instances in which parents made specific references to the gender of their children, suggested that mothers believed that gangs and other neighborhood pressures were much more threatening to their boys than girls, and that mothers in the experimental group channeled more of the program's resources (for example, child care subsidies for extended-day programs) to their boys. For example, a 35-year-old African American mother of four was quoted in the field notes as saying:

Not all places have gangs, but [my neighborhood] is infested with gangs and drugs and violence. My son, I worry about him. He may be veering in the wrong direction...it's different for girls. For boys, it's dangerous. [Gangs are] full of older men who want these young ones to do their dirty work. And they'll buy them things and give them money.

These kinds of sentiments appeared systematically in the qualitative data. Further quantitative analyses of both New Hope and national-sample survey data support the interpretation that parents living in bad neighborhoods do indeed devote differential time and other resources to their boys and girls.

Qualitative interviews in New Hope also suggested important heterogeneity among the experimental families. Approximately one-fifth appeared to have so many problems (for example, drug dependence, children with severe behavior problems, abusive relationships) that New Hope's package of economic benefits was unlikely to make much of a difference. A second group of families had no such apparent problems and was able to sustain employment on their own. In this case, families in this control group might do so well in Milwaukee's job-rich environment that comparably unconstrained experimental families could do no better.

A third group, however, with only one of the problems of the sort that New Hope might be able to address (for example, difficulties in arranging for child care or a minor criminal record that experience in a community-service job could overcome), appeared poised to profit from the New Hope package of benefits. Extensive quantitative work on subgroups, defined according to the number of potential employment-related problems that they faced at the beginning of the program, confirmed the wisdom of these qualitatively derived insights. New Hope families that had either no barriers or multiple barriers did not earn significantly more than their control

counterparts. Program impacts on the earnings of families with only one barrier, which made up nearly half of all families, were large and statistically significant.

When using qualitative methods for program evaluation, it is best to collect, code, and analyze data in a structured and systematic way. This “grounded theory” approach (Strauss and Corbin 1990) emphasizes building hypotheses inductively from the data. To evoke more of the raw data potentially relevant to a change, interviewers can be trained to ask respondents “how” something occurred, and to encourage detailed narratives with questions like “Tell me the story about that,” “What happened then,” “How did you feel about that,” and so forth. They ask about events but also are attuned to respondents’ reports of the motivations that led them to do what they did. These narrative accounts can then be used to describe the common sequences surrounding individuals’ decisions about where to live and the costs and benefits they experience of living in mixed-income settings.

Which Processes and Outcomes to Track?

It is important to spell out a process model of how assignment to mixed-income housing may change the lives of the people involved and the neighborhoods in which mixed-income housing projects are embedded. Qualitative interviews are also invaluable for this purpose, because they can provide many unexpected narratives involving reasons for participating in programs and the outcomes that matter most to participants (Kling, Liebman, and Katz 2007). Following evaluations of the Gautreaux Assisted Housing Program, a court-ordered desegregation program in Chicago, and Moving to Opportunity residential mobility programs, it might be expected that mixed-income housing may improve similar family outcomes, such as housing and neighborhood conditions, family income, and poverty. Outcomes for adults include schooling,

employment, welfare receipt, criminal behavior, criminal victimization, and physical and mental health. For children, the outcome list includes school achievement and behavior, crime and other risky behaviors such as early sex and pregnancy. Surveys of MTO participants show that decisions to participate were overwhelmingly driven by concerns about criminal victimization; victimization rates declined sharply for the experimental group, suggesting that criminal victimization and behavior may be outcomes that deserve particular attention in evaluations of mixed-income housing (Orr et al. 2003).

It is also important to assess the costs of mixed-income housing relative to the benefits. Per unit of subsidized housing provided, mixed-income housing is typically substantially more expensive to develop than low-income assisted housing. In evaluating mixed-income housing as policy, the potential benefits to participants should be balanced against the loss of subsidized units that often accompanies mixed-income housing redevelopment.

As the Gautreaux and Moving to Opportunity programs evaluations have both shown, administrative data sources can supply valuable information on many of these outcomes. All states gather quarterly information from employer payrolls on the earnings of all workers in the Social Security system and most make these data available to researchers who obtain signed consent from the workers themselves. Given signed consent forms, some states provide researchers with information on monthly payments of food stamp, Temporary Assistance to Needy Family, and Supplemental Security Income benefits. Other states allow researchers who have signed confidentiality agreements to have access to these data. Chicago and some other large cities provide school-record information on all children in their public school systems.

Because a mixed-income housing development may affect the larger neighborhood, it is also important to monitor changes in neighborhood conditions, including the demographic

characteristics and collective efficacy of residents, business activity, and crime. It is, however, difficult to assess these effects in a rigorous way. Neither randomized designs nor precise matching of “treatment” and “control” neighborhoods is feasible. The process by which applicants are assigned the chance of living in mixed-income housing (which, one hopes, is through a lottery or a systematic scoring system) is different from the processes by which mixed-income housing developments are sited, which are typically political decisions. Thus before/after comparisons of neighborhood conditions provide weaker evidence for mixed-income housing program effects than a lottery provides for mixed-income housing program effects on families and individuals.

II. GOVERNANCE AND COMMUNITY IN MIXED-INCOME HOUSING

Discussions about effective policy and practice to promote and sustain mixed-income housing are usually dominated by questions of (1) economic feasibility (Is there sufficient demand for market-rate units? What degree of income/tenure mix puts the project at financial risk?); (2) administrative effectiveness (What screening criteria and post-occupancy rules need to be in place? What is the appropriate role of property management?); (3) physical design (To what extent should different units for various tenures and income levels be physically integrated? What common areas, public spaces, or facilities best help bring about positive social interaction among residents?); (4) and support infrastructure (What services and other supports should be in place to serve residents, especially lower-income ones?). These discussions often overlook questions of governance: How are decisions made about the mixed-income housing development over time? What mechanisms engage residents and other stakeholders in determining the rules and strategies that shape their local environment? At what levels are these decisions made – within buildings, within developments, within neighborhoods – and by whom? Also, under what conditions and in what specific ways do mixed-income housing developments or neighborhoods in fact function as “communities”?

Yet the early experience in mixed-income housing across the country strongly suggests that developing effective strategies for governance, including collective decision making and the shaping of norms as well as formal rules, may be critical to their success (Chaskin and Joseph 2008; Graves 2008; Joseph 2008; Joseph forthcoming; Tach 2007; Varady et al. 2005). The presence or absence of meaningful forms of community remains a central concern to many residents and observers, particularly in light of the nation’s increased level of economic inequality and segregation in recent decades.

Unlike the broader universe of economically diverse neighborhoods, mixed-income housing settings reflect the intentional efforts of policymakers, public agencies, and private developers to create a relatively dense residential environment with diversity in class, race, and other social characteristics. These varied constituencies often have different levels of interest, capacity, comfort, and styles of civic engagement, yet somehow they must negotiate and enforce the rules of the game for a housing “community.”

New mixed-income housing developments often create building- or neighborhood-level income mixing without a clear sense of how authority is to be organized within them, although they are surrounded by formal and informal jurisdictions – legislative districts, police districts, community development corporation target areas, and sometimes block clubs and neighborhood associations – that may have clearly defined authority and decision-making structures. In cases where an entire area has been redeveloped, the private developer maintains some responsibility for governance. But even in those cases, the developer ultimately transfers legal rights and responsibility for decision making to condominium and homeowner associations in the units designated for sale. And, in neighborhoods with new market-rate units, residents, neighborhood groups, local politicians, city agencies, and private developers may have discussed and contested for decades the path of local development.

The mix of owners and renters in a neighborhood creates a dilemma for the governance of many mixed-income housing areas. We have few clear models for collective decision making among subsidized renters and condominium owners, particularly when they co-reside in a single housing complex. The structures for decision making among owners in a multifamily development are often legally explicit in development documents. Moreover, outside the walls of the development, homeowners typically are more active in and have more influence over

institutions of neighborhood governance, such as community boards, neighborhood advisory councils, or community councils. However, far less clear are the means through which renters have voice or authority in new developments or in neighborhood governance institutions.

Legally, the owner of the rental units, often a private developer of the mixed-income housing, retains the participation rights (in the owners association) of any rental units. The developer holds these seats in order to maintain a degree of control and influence over the development.

Tenants may be accorded no official say at all.

Governance and Building “Community” in Mixed-Income Housing and Neighborhoods

Absent supportive institutional structures, mixed-income housing environments may produce relatively little “community,” especially if there is considerable social distance among residents and/or substantial residential turnover. Given a broad social mix, co-location alone does not a community make, even under conditions of fairly high residential stability (Blokland 2003; Briggs 1997). Exceptions, which show some neighboring but few social relationships, appear to occur when socioeconomic diversity in a development is limited (Kleit 2005; Rosenbaum, Stroh, and Flynn 1998).

Weak or exclusive associational life is one important reason for low levels of community engagement by the residents of mixed-income housing developments. For example, tenant associations or mixed-tenure associations may emerge in some mixed-income housing developments or neighborhoods and they sometimes “bridge” distinct social groups. But many developments do not spawn successful associations, or such associations wax and wane if only a few activists take charge and their neighbors are engaged only in times of crisis or conflict.

These patterns may affect individuals' reports of their sense of community, familiarity, acquaintanceship, and collective efficacy.

Developers and housing authorities shape these associational outcomes, directly through resident screening and rules about forming associations and indirectly by shaping residential turnover, tenant-management relations, and relations with individual owner-occupants and the owners' association. Furthermore, developer interviews and on-site observations suggest that some property management companies actively encourage "community building" in mixed-income housing developments,¹ for example by investing in recreational facilities and social activities. In other cases, however, social interaction is limited through such means as rules against "loitering" and children's play, especially within common areas of the development (Graves 2008; Joseph 2008). Some property managers may encourage community by creating rules and incentives intended to inspire friendliness and mutual respect, while their efforts to minimize nuisances and perceived safety risks may discourage that. These multiple objectives are inevitable, and there is much to learn about how the various actors can accomplish them within the context of social mixing.

Once we move outside a mixed-income development to a deliberately mixed neighborhood, the issue of how to analyze governance becomes fuzzier. Most cities lack formal mechanisms for even limited neighborhood self-governance, though some, such as Minneapolis, have experimented with allowing neighborhoods to allocate some funds for favored projects. However, most cities have developed mechanisms through which neighborhood residents can relay their opinions to decision makers, such as those in the local political system.

Research on governance in and around mixed-income housing should not be limited to microlevel inquiry. As we discuss in Sections III and V, it is important to consider community-

¹ This observation is based on in-depth interviews conducted by Laura Tach of the MIRDG.

wide as well as individual, household, and neighborhood consequences of mixed-income housing development programs. Future research should examine the broader systems of governance in which mixed-income housing settings are nested. Mechanisms of representation, deliberation, negotiation, and more should be examined. We need to understand the extent to which those mechanisms foster collective action and enable lower- and middle-income residents, developers, public agencies, and other actors to express and resolve their differences.

Many of the neighborhoods where mixed-income housing has emerged have a history of conflict over the mix of housing. Mollenkopf (1983) studied the Western Addition neighborhood of San Francisco and the South End of Boston, concluding that community activism for developing below-market-rate housing in these gentrifying areas created “islands of continuity in a sea of change.” This activism generated the predisposition among various levels of elected officials and public agencies that policy should allow at least some lower-income residents to remain in these areas. Small (2004) examined one of the low-income housing developments in the South End discussed by Mollenkopf and found that it did not bridge the difference between mostly low-income Puerto Rican tenants and middle-income white professionals in the surrounding neighborhoods. Goetz and Sidney (1994) discuss the “revenge of the property owners,” wherein tenure, class, and lifestyle differences make life harder and a neighborhood less livable and supportive for the poor. Because heterogeneous neighborhoods have less collective efficacy, organizing efforts appear to contend with structural barriers (Sampson, Raudenbush, and Earls 1997).

More recent studies also stress conflict, governance, and individuals’ access to outside resources. For example, Marwell (2007) analyzes the Williamsburg and Bushwick neighborhoods, centering on neighborhood-based development organizations and their ties to

outside authorities, as instances of “bargaining for Brooklyn.” Pattillo (2007) examines the “heated battles” among activist black homeowners, poorer tenants, and others in a revitalizing Chicago neighborhood. And Hyra (2008) compares gentrifying historically black neighborhoods in Chicago and New York City to link national housing policy and local politics to wider cultural trends and the dynamics of the global economy. Freeman (2006) highlights contestation in his study of long-time residents of historically black neighborhoods in Harlem and Brooklyn. These studies emphasize the difficulty of significant interaction, let alone shared institution building across race and class boundaries.

Nonetheless, some micro-level political research suggests that socially heterogeneous neighborhoods can organize collective capacity for action, as long as the organizing institutions maintain a wide base of support, resolve inevitable disputes, and try to create broad benefits (Crenson 1983; Husock 2001). This concern motivates the current wave of “deliberative democrats” interested in participatory governance innovations, as distinct from the earlier social movement-oriented scholars. One promising new approach involves the formally constituted resident councils that meet with police or school administrators in Chicago (Fung 2004).

Yet as Joseph et al. (2007) emphasize, there is little empirical evidence that mixed-income housing developments have had a transformative effect on “the political economy of place.” Middle-income professionals demand more and also may be more likely to organize politically and to be more effective when they do so than the poor. But most of the commentaries on mixed-income housing (HOPE VI redevelopment cases in particular) are speculative or anecdotal in this regard.

Future analyses should help us understand how the histories of neighborhood debates and conflicts over land use and resident mix affect current understandings, expectations, policy, and

practice that shape outcomes. They should also examine hopes for transforming the political economy of place. They should employ comparative methods to larger samples of places. The field remains dominated by in-depth community studies of one or two neighborhoods. It is time to inform future policy and practice with more robust inferences about cause and effect, and this depends on larger, comparative studies, as we outline below.

Governance and Individual Outcomes

Much of the policy rationale for mixed-income housing, especially where it replaces “distressed” public housing, hinges on the assumption that a broader social mix improves the lives of individuals and families by helping them, for example, to escape poverty, improve their health, or obtain more and better education. Yet mixing per se, especially in redeveloped public housing, has not shown such effects (Joseph 2006).

If governance has a strong mediating effect on the degree to which mixed-income housing developments foster a sense of community, it probably has only a modest and indirect effect on the social and economic wellbeing of disadvantaged residents. That is, compared to income transfers, targeted job supports, skill building, and job matching, “community” in mixed-income developments is a weak force for promoting such outcomes as employment, skill development, or higher earnings and assets among low-skill adults and youth who reside in mixed-income housing. For this reason, some mixed-income housing developers are supporting new intensive service programs to promote earnings and employment among their most disadvantaged resident clients.

Success in mixed-income housing developments and neighborhoods thus has multiple dimensions. Different stakeholders in a given mixed-income housing effort often have different

expectations for its impact (see Figure 2). Effective governance is essential to some dimensions of success, whereas various forms of community are desirable if not essential. Research efforts based on this set of issues should define a basic level of success as strong demand for for-sale units, high occupancy rates in rental units, functional design and effective maintenance, relatively high residential stability, and “good neighboring” among residents, both within housing developments and between their residents and the surrounding area. “Good neighboring” entails mutually respectful, comfortable coexistence among residents but not necessarily a significant degree of social cohesion or collective action. From early experience in mixed-income housing developments, it appears that establishing effective decision-making mechanisms that help residents to negotiate the difficult questions of rights, expectations, and consequences are critical even for this basic level of success.

Potential Contribution to the Field

Despite the importance of governance issues, little systematic investigation has been made into the various approaches to governance in mixed-income housing or how these approaches are related to the emergence of “community” among residents or to the overall success of the housing development. There is, however, a large body of prior research on neighborhood politics and social relations and on the micropolitics of housing developments, covering a range of income levels, tenure types, and neighborhood and regional contexts.

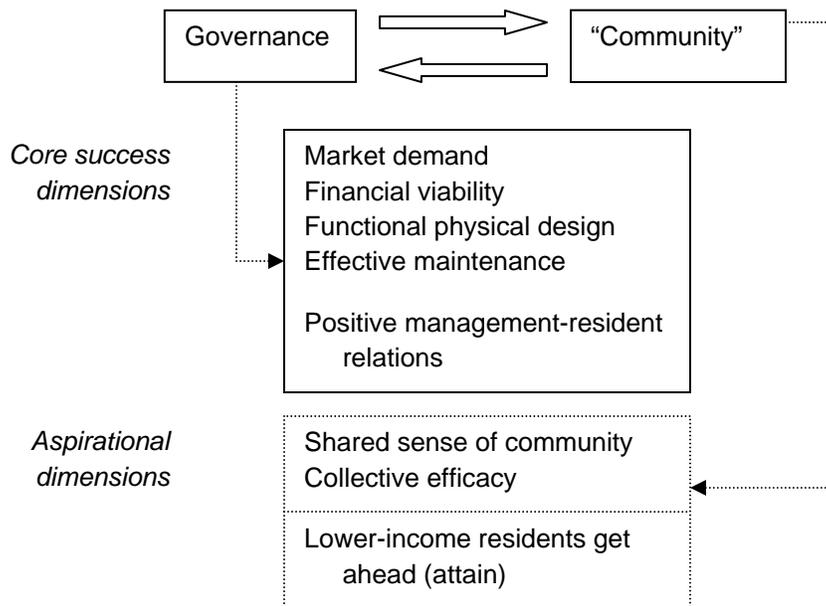


Figure 2. Governance, Community, and Success in Mixed-Income Housing

In-depth investigations of social processes using small samples have laid important foundations but are a limited basis for causal inferences about which factors matter most in designing and managing mixed-income housing developments. Research efforts in this domain should encompass a range of contextual and compositional traits of developments and neighborhoods across a larger number of observations. This will make it possible to better understand the impact of key factors – some more and some less subject to control by planners, residents, and other actors – on outcomes we care about.

Methodology: Research Designs, Sequencing, and Data Types

It is difficult to operationalize such concepts such as “governance,” “participation,” “resident organization,” “community,” and “success.” Yet prior research provides compelling reasons to do so. In this domain, we suggest that research should proceed in two distinct phases:

1. An initial set of relatively small sample, longitudinal comparative case studies, or even case studies of individual areas with clusters of mixed-income housing that allow researchers to compare developments and refine measures and expected relationships. The findings from these studies enable a more informed definition of the universe of mixed-income housing-type efforts based on a more detailed understanding of their similarities and differences.
2. A set of larger sample, primarily quantitative studies that employ these measures across a broader range of settings, ideally at multiple points in time, and test models of causal relationships.

We envision both qualitative comparative case analyses that look at similar *developments* (such as units developed in response to inclusionary zoning or through HOPE VI) in a variety of neighborhood contexts and urban political environments and different kinds of developments in similar *contexts*. In the latter category, in contexts where a variety of mixed-income housing developments have been created, the dynamics and outcomes of these developments can be compared, “controlling” for local context. Conversely, the former category highlights studies that control for type of development. Local context can be defined in terms of the demographic make-up of the neighborhood surrounding the development, past local practices with respect to tenant organization (whether local agencies require or encourage it or discourage it, the political

relationships of local developers and sponsors), trends in the local housing market, and other key characteristics.

To prepare for comparative case analyses and larger sample statistical analysis, the next stage of research is to establish the universe of mixed-income housing developments and the neighborhood demographic and political contexts in which they operate. Care should be taken in inventorying mixed-income housing developments and residential areas from various data sources (such as HUD, the existing literature on inclusionary zoning, and so on), determining the location and surrounding context of these areas, and the demographic context (using the 2000 Census and more recent American Community Survey data for areas of 20,000 or more). No systematic data exist for measuring or classifying neighborhood political dynamics, but some data exist for describing local political systems in terms of their partisanship, form of political representation, government organization, and so on.

From this universe, a range of representative case studies can then be explored in small and large sample studies that relate the variation of the independent factors of interest both to the degree and form of active governance within the developments and to the ways in which those forms of governance might foster or dampen a sense of community and collective efficacy and, in turn, affect the overall success of the mixed-income housing effort. Qualitative analysis should be guided by the following questions:

1. What institutional structures are in place to govern mixed-income housing developments?
How effective are they? How do development-level structures relate to structures at the neighborhood or higher levels?
2. What actors, including developers, different kinds of tenants, homeowner associations, social service agencies, or parties such as local legislators, who may have had a role in

developing the mixed-income housing, influence the resident organization of the development?

3. How do residents participate in governance? How do their forms of participation evolve? Who participates, in which ways, and why? (For example, do public housing tenants participate along with market-rate tenants or owners?) How do management structures or rules shape the forms and rates of participation? What roles and powers do developers or other nonresidents retain or cede over time?
4. What issues are important to residents, external authorities, or others? Which issues get on the agenda and which do not? Whose key concerns get addressed and how?
5. How do governance structures create legitimacy, representation, and accountability? What other kinds of governance outcomes matter and how should they be measured? What are the outcomes in distinct settings? What factors shape outcomes over time? How are governance problems spotted and addressed?

Larger sample quantitative studies should be guided by these questions:

1. What indicators of mixed-income housing success covary across many developments? What contextual, compositional, or other factors affect these relationships?
2. What indicators of “community” in mixed-income housing covary across many developments? What contextual, compositional, or other factors affect these relationships?
3. Controlling for contextual factors and mixed-income housing forms and characteristics, what is the relationship between forms and effectiveness of governance, emergence of

“community” among residents, and indicators of the success of the mixed-income housing development?

Broadly, these two types of studies can give us a better understanding of how the sociodemographic makeup of a development or residential area, resident turnover, and other factors relate to forms of governance and “community.” We are interested in successful governance both as an outcome and as a mediating influence on how other contextual factors shape the success of the mixed-income development.

III. THE CITYWIDE STRUCTURE AND CONSEQUENCES OF MIXED-INCOME REDEVELOPMENT

In the past fifteen years, the federal HOPE VI program has invested over \$6 billion in many of the country's most economically distressed urban neighborhoods. Policymakers view HOPE VI as a way of improving housing quality, deconcentrating poverty, reducing crime, and spurring private investment in areas that have been neglected for decades. Researchers who study these newly redeveloped neighborhoods find that HOPE VI has influenced their social, economic, and demographic structures in many ways.

At the same time, this emerging body of research has largely overlooked the effects of mixed-income redevelopment that reach *beyond* the neighborhoods specifically targeted for revitalization – for example, neighborhoods surrounding redevelopment sites, neighborhoods that receive residents displaced by redevelopment, or neighborhoods that were passed over by redevelopment opportunities. Research designs that focus only on neighborhoods targeted for redevelopment may overlook the wider impacts of mixed-income redevelopment and draw inaccurate conclusions about the overall positive and negative impacts of the intervention.

The studies proposed in this section are focused on the broader social structure and (sometimes unintended) consequences of mixed-income redevelopment policies, which is one component of a broader research agenda on mixed-income housing. The goal is to examine the intended and unintended consequences that unfold in the political, social, economic, and demographic systems of cities when they implement policies to revitalize high poverty neighborhoods and construct mixed-income developments in their place.

Crime provides one illustration of the utility of this particular approach to studying mixed-income redevelopment. Many evaluations find that violent and property crime rates fall

substantially following mixed-income redevelopment. Yet focusing only on the sites where mixed-income redevelopment takes place provides an incomplete view of the consequences of mixed-income redevelopment for crime. Rosin's recent *Atlantic Monthly* article (2008) claims that crime rates rose in formerly low-crime neighborhoods on the outskirts of Memphis as former public housing residents were relocated there following the demolition of public housing as part of a mixed-income redevelopment plan. Similar arguments have emerged that demolition and redevelopment of high poverty neighborhoods in other cities has "shifted" locations of criminal activity (Halasz 2008). This suggests that mixed-income housing developments may have unanticipated and negative consequences. Indeed, if mixed-income redevelopment lowers crime in one area by shifting it to another area, either through the movement of people or the movement of drug- or gang-related activity, the overall welfare gains are lower than predicted by only examining the revitalized neighborhood(s).

A second example is provided by Sampson's (2008) recent analyses of the experience of public housing residents in the Moving to Opportunity (MTO) housing experiment. Typical analyses of MTO focus on individual-level outcomes in the experiment. By contrast, Figure 3 shows the spatial network of connections created by movers from the MTO origin neighborhoods in 1995 to destinations seven years later in the Chicago MTO site, by concentrated disadvantage (split into low, medium, and high). It suggests a striking social

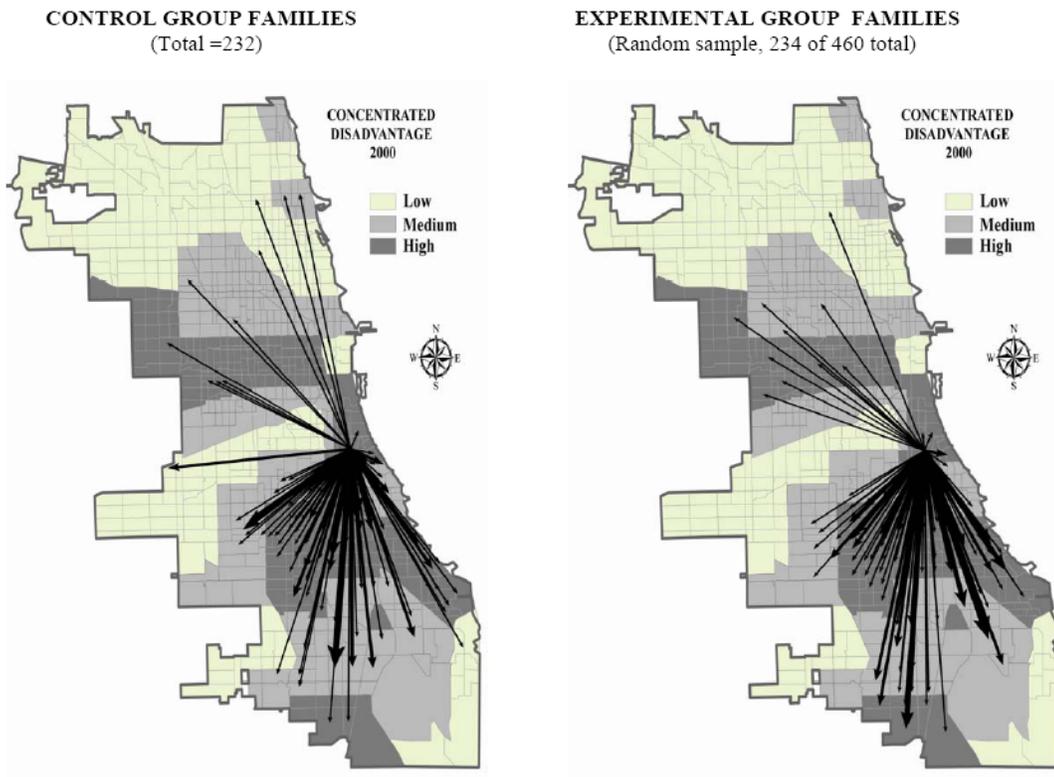


Figure 3. Trajectory Flows from Baseline High-Poverty Neighborhoods by Concentrated Disadvantage in 2000. Calculated from origin-to-destination tracts circa 1995-2002 by control group and random sample of experimentals. Concentrated Disadvantage is trichotomized into equal thirds. Origin or baseline neighborhoods are collapsed into one “dot.” The size of arrows reflecting ties between tracts is proportional to volume of movement. Within-neighborhood circulation flows and movers between origin neighborhoods are not shown. Source: Sampson 2008, Figure 5, p. 212.

reproduction of disadvantage among MTO movers, *experimental and control members alike*.

Because the patterns of neighborhood attainment for experimental and control cases seem indistinguishable, a profound structural constraint may hinder the reduction of socioeconomic inequality. As with Rosin’s argument, Sampson’s work underscores the importance of taking a comprehensive view of the residential system, especially destination areas and their characteristics. Over half of both the experimental and control cases in the MTO experiment

ended up in a very small percent of all possible tracts in the Chicago metropolitan area (4% and 3% respectively). Focusing only on the effects among the treatment group ignores the larger effects of the sorting of MTO participants on the larger residential ecology (Sampson 2008: 223-28). Poor people moved in ways that reproduced inequality, reflecting a rigid and likely reinforcing dynamic of metropolitan social structure.

New empirical studies should systematically test the broader impact of these and other sorting patterns associated with mixed-income housing policy. These studies might investigate a variety of situations:

1. Mixed-income redevelopment projects that target some middle-to-high poverty areas, but not others. Does this create “new disadvantaged” neighborhoods in other urban and suburban neighborhoods that have not received redevelopment funding?
2. Mixed-income redevelopment that creates residential flows out of some high poverty neighborhoods, as old housing is demolished and rebuilt, but permits only a fraction of former residents to move back in. Does this affect the concentration of poverty and other outcomes in *receiving* neighborhoods?
3. More generally, what individual-level characteristics predict mobility between neighborhoods and how do they interact with neighborhood characteristics to shape metropolitan change dynamics? What role does mixed-income housing play in determining neighborhood stability or change? Are there “tipping points” of change and why?
4. Some mixed-income housing developments provide a bundle of social services and leverage additional public and private investment in neighborhoods intended to spur wider neighborhood revitalization. How does this change the overall distribution of

public, philanthropic, and private funds for neighborhood revitalization? Does it disadvantage neighborhoods not targeted? Do funders “pile on” to potentially successful neighborhoods, or do they avoid places that other funders are already investing in?

5. The growing political and economic desirability of the mixed-income housing model may generate new political opportunities in metropolitan politics. How has the rise of this approach shifted political and economic power in cities?

Research Sites – Neighborhoods

There are several key features of this research design that distinguish it from other approaches. First, it takes a macro-level view of mixed-income redevelopment by looking at what happens not only in neighborhoods that are redeveloped, but also in neighborhoods surrounding redevelopment sites, neighborhoods that receive residents displaced by redevelopment, and neighborhoods that receive no redevelopment funding. Neighborhoods can be selected for study in several ways. One option is to include all neighborhoods in a metropolitan area. A second option is to focus on neighborhoods that were similar in observed characteristics prior to redevelopment, but were not redeveloped. Finally, a third approach is to include neighborhoods selected for theoretical purposes, such as neighborhoods known to be destinations for residents dispersed from redevelopment sites or those that have received the fewest dollars in public and private investment.

Research Sites – Cities and Metro Areas

Ideally this research design also includes multiple metropolitan areas that vary on key characteristics and that can exploit existing data sources. Metro areas vary a great deal in the extent of mixed-income redevelopment, the history and geography of neighborhood poverty, the strength of the housing market, and the availability of affordable housing. These features create different contexts in which redevelopment occurs, and are likely to generate different outcomes as well. Studies should also be sensitive to variation in metropolitan area size and region.

Data

The types of data that are needed are contingent upon the particular outcomes researchers plan to examine. The following are examples of data that could be collected:

1. Administrative data
 - a. Demographic data and address records of residents who lived in public or Section 8 housing;
 - b. Detailed data on crime and locations of criminal activity;
 - c. Data on public, philanthropic, and private investments in neighborhoods;
 - d. Locations of social services and other organizations;
 - e. City planning data on the location of commercial and residential development;
 - f. Real estate data on home and mortgage values.
2. Archival data
 - a. Historical and Census data ;
 - b. Newspapers ;
 - c. Meeting minutes from private and public agencies.

3. Qualitative data
 - a. Interviews with key informants in particular neighborhoods, organizations, or government organizations;
 - b. In-depth interviews with residents about how their neighborhoods have changed, about their residential mobility experiences, or their use of neighborhood space.
4. Survey data
 - a. Census data on neighborhood characteristics;
 - b. Neighborhood surveys to establish the social and cultural dynamics in neighborhoods.

In some cities, original data collection can be combined with preexisting data sources, such as the Chicago Housing Authority Tracking Study, Chapin Hall administrative data, or the Project on Human Development in Chicago Neighborhoods and the Los Angeles Family and Neighborhood Survey.

Methodology

These research questions are most effectively answered with multiple methods and data sources that combine data on the stocks and flows of people and dollars with a comprehensive and historically situated understanding of each particular case. Several examples illustrate the value of a multi-method approach.

1. Recent research uses administrative data to determine whether HOPE VI redevelopment lowered crime rates in targeted neighborhoods (Zielenbach 2003; Voith and Zielenbach 2008). Using pre-redevelopment trends to predict what would have happened in the targeted neighborhoods in the absence of redevelopment, the authors find strong positive impacts of the program in reducing crime. Using only administrative data to answer this

question is problematic for several reasons. First, for at least one of the sites the authors examined, interview data from key informants and archival data on policing in the 1990s reveal that the local police department made a radical shift toward community policing and direct intervention with gangs during the same period that redevelopment took place. Some of the worst crime and gang activity was in a site selected for HOPE VI redevelopment, and this site was specifically targeted for intervention by police and given extra resources. Using administrative data and quantitative models, the authors attribute the decline in crime to the HOPE VI intervention, but in-depth knowledge of the case based on interviews and archival research reveals the actual strategies employed by police in the neighborhood during that period. Thus, in-depth knowledge of particular cases, which can be collected from interviews and archival research, are an important complement to quantitative analyses of neighborhood change.

2. A second example showcases the value of combining Census and administrative data with survey data from the Project on Human Development in Chicago Neighborhoods, an intensive study of Chicago's neighborhoods focusing on the social, economic, organizational, political, and cultural structures and their changes. These data have been linked to police incident data files, public health and other official records, and Census data that contain information on such factors as neighborhood racial and ethnic composition, residential mobility, and economic disadvantage. Studies emerging from this project have shown how the social organization of neighborhoods – such as neighborhood social control, social cohesion, and reciprocal exchange – mediate the effects of neighborhood disadvantage on crime rates and public disorder. Similar relationships might be found in neighborhoods undergoing mixed-income redevelopment.

3. A final example of the value of a mixed-method approach to studying neighborhood contexts comes from the Gautreaux program. With a quasi-experimental research design, researchers used administrative data on the poor minority families who moved to predominantly white, non-poor communities to determine their wages, public assistance receipt, and educational attainment (Pashup et al. 2005). The researchers also used in-depth qualitative interviews with movers to uncover reasons why they experienced such positive impacts on employment and educational attainment. The combination of administrative data and in-depth interviews with respondents allowed researchers to provide a more complete description and explanation of the consequences of moving from high- to low-poverty neighborhoods than they could have learned from any single source.

In sum, a research design that examines the broader consequences of mixed-income redevelopment is an important component of any research agenda on the causes and effects of mixed-income housing. Although the particular outcomes, data sources, and methodologies vary, the ideal research design should include multiple metropolitan contexts, neighborhoods other than those targeted for redevelopment, and a mixed-method approach that sheds light on both the quantitative impact of the intervention and the processes leading to those outcomes.

IV. HOUSING CHOICES, SEARCHES, AND TRAJECTORIES

Mixed-income settings are formed through the residential decisions of economically diverse households, including whether to move in, to remain, or to move away. Another part of our research agenda, therefore, is to investigate the attitudes, individual and family characteristics, and behaviors of decision makers as they maneuver a housing market that constrains their options. This research focuses on why, how, and where people move and on their housing “trajectories” or “careers.” Particular emphasis is placed on the mobility of low-income households, although we recognize that the decisions of higher-income households affect the makeup of mixed-income neighborhoods as well. “Mobility,” in our usage, may be involuntary or voluntary and refers to generic “moves,” rather than to any moves that specifically correspond with neighborhood socioeconomic upgrading or downgrading. Because many current policies target low-income households that are likely to benefit most from mixed-income communities, this research is relevant for understanding the salience, attractiveness, attainability, and suitability of such communities from the perspective of low-income households.² Understanding how and why they choose, avoid, ignore, are steered to, are discouraged from, or are unaware of such neighborhoods is critical for addressing such vexing issues as selection effects, low take-up rates, and movements back to high-poverty areas.

Research on the decisions of households about living in mixed-income settings presents several challenges. There is no clear definition of destination neighborhoods as “mixed-income.” As noted above, mixed-income communities may be planned – such as HOPE VI

² Although the discussion in this section focuses on the residential decisions of the poor, we envision extending this design to the non-poor as well. Non-poor research subjects can be identified through visits to the sales trailers of mixed-income developments and followed through their housing search, including their reactions to the mixed-income site where they were identified. This design enables one to investigate individuals’ avoidance of or preferences for mixed-income housing sites, as well as their response to marketing efforts that are targeted toward them.

developments or projects subject to inclusionary zoning requirements – or they may exist “naturally” through a mix of housing stocks and tenures. Further, the mix of incomes required to constitute a mixed-income community is not a settled issue. Recent papers offer typologies of neighborhood income diversity (Booza, Galster, and Cutsinger 2007; Ionnides 2004). Turner and Fenderson (2006) find that neighborhoods where 10 to 20 percent of households earn less than \$20,000 are the most likely to be income diverse, but they also offer a more elaborate eight-category typology of income mixing. Researchers need to make clear their criteria for designating whether a household has moved into a mixed-income community. Additionally, in any given low-income study population, many low-income households do *not* move into mixed-income communities, no matter how they are defined. This makes it difficult to identify those households of greatest interest to the study.

Low-income persons, especially among African Americans, are highly likely to live in poor neighborhoods and to remain there for long periods of time. Analyses of longitudinal data, such as the Panel Study of Income Dynamics, show that blacks and whites are equally likely to exit poor neighborhoods, but blacks are more likely to move to other poor neighborhoods when they exit (Briggs and Keys 2008; Quillian 1999; South and Crowder 1997; Timberlake 2007). The housing trajectories of Latinos fall somewhere between those of whites and blacks (South, Crowder, and Chavez 2005). Moreover, when blacks do leave poor neighborhoods for nonpoor ones, they are more likely than whites to move back eventually. Quillian (2003) reports, for example, that 43 percent of blacks who leave a poor neighborhood (>20 percent poverty rate) return to one within five years, compared to 28 percent of whites. We seek to understand the preferences and housing market conditions that underlie these findings.

Sampson and Sharkey (2008) illustrate the relevance of individual moves for larger patterns of urban inequality by race and income in Chicago. Initial racial inequalities in neighborhood income are reproduced through moves by whites, blacks, and Latinos, even among households with similar income, education, immigrant status, and homeownership status. Whites and Latinos are likely to move when the neighborhood percent black increases, whereas neighborhood racial composition minimally affects the housing decisions of blacks. The stigma of black neighbors (and black neighborhoods) is further illustrated by their isolation. Rates of movement between predominantly black neighborhoods (whether poor or nonpoor) and mixed, Latino, or white neighborhoods are typically low. In contrast, there is robust movement between mixed and Latino poor and nonpoor neighborhoods, including into nonpoor white neighborhoods. Race-ethnic groups, therefore, vary in their motivations and housing opportunities. This underscores the importance of a comparative racial framework.

It is difficult to improve the neighborhood circumstances of low-income households that receive subsidies or participate in demonstration projects. Family public housing is often concentrated in very disadvantaged neighborhoods and, as a result, is being demolished and redeveloped. Yet such hard units may offer housing stability for poor families who are otherwise highly mobile (and often insecure) in the private market. Research on the housing choices of the poor, therefore, should address the trade-offs of stability and mobility for low-income households. This may be possible through studies of project-based Section 8 vouchers, low-income housing tax credit units, HOPE VI projects, and inclusionary zoning programs, all of which may offer hard units with the prospect of residential stability in mixed-income settings.

Studies find less-than-hoped-for improvements in neighborhood quality among Section 8/Housing Choice Voucher movers (Devine et al. 2003, US Department of Housing and Urban

Development 2000) and among HOPE VI relocatees (Kingsley, Johnson, and Pettit 2003; Popkin and Cunningham 2000). Take-up of vouchers that require households to move to variously defined “opportunity areas” – which can be considered types of mixed-income communities – is no higher than 50 percent in demonstrations such as Gautreaux Two and Moving to Opportunity (Pashup et al. 2005). Families who do lease-up in nonpoor neighborhoods in MTO disproportionately relocate to fragile middle-income black communities and experience a small reduction in neighborhood poverty (Clampet-Lundquist and Massey 2008; Sampson 2008). Many MTO families who leave disadvantaged neighborhoods ultimately return to similar places. Briggs et al. (2007) examine MTO participants and find the following mobility patterns:

1. 26 percent of the experimental group stayed in low-poverty neighborhoods the entire observation period;
2. 14 percent moved to areas with poverty rates from 10 to 20 percent;
3. 4 percent first moved to a high-poverty neighborhood and then back to a low-poverty one;
4. 56 percent moved back to high-poverty neighborhoods (> 20 percent poor).

The authors emphasize the trade-offs that people make among changing personal, family, housing unit, and neighborhood circumstances. A primary feature of the research proposed in this design area is to uncover the common trade-offs experienced by families who face a housing move decision.

Venkatesh’s (2008) research is in this vein, following roughly four hundred families – leaseholders and nonleaseholders – from the Robert Taylor Homes in Chicago as their buildings were demolished. This research illustrates the value of learning about residents’ own understandings of who are their family and household members. Venkatesh distinguishes

between where people “stay” and where they “live,” which contributes to their flexible housing arrangements. These shifting family/household constellations run up against the rules of the housing authority, of Housing Choice Voucher programs, of mixed-income developers and managers, and of private landlords. This suggests that residents’ moves may be in response to landlords’/managers’ negative appraisal or disallowance of poor families’ living arrangements.

Research Goals

The goal of this research is to investigate the housing decision as experienced by low-income households. This research is mainly concerned with whether and how low-income households end up in mixed-income communities, rather than with the impacts of living in such places on individuals or families. Although the outcome of interest is the socioeconomic and racial composition of the final destination neighborhood, we emphasize the decisions leading to that destination. The goal is a rich description of how households are faced with, approach, and carry out a housing decision. We focus on residents’ stated preferences as well as their actual mobility behavior (with respect to low-poverty areas, to be near family, to be near transportation, etc); demand-side barriers (disabilities of residents, limited transportation, etc); and supply-side barriers (dearth of affordable housing across space, tight housing markets, unit quality, experiences with landlord negligence or discrimination, etc.). We propose to obtain qualitative interview data on individuals’ preferences, constraints, barriers, and resources. Analyses of these data enable the researcher to develop typologies and narratives of trade-offs. Unlike the bulk of existing research on housing trajectories, which relies on retrospective accounts of the housing search process, a main feature of our proposed studies is for researchers to participate in,

observe, and document households' ongoing searches, in addition to conducting pre- and post-in-depth interviews.

Research Questions

We seek to discover heretofore unknown social processes that govern residential mobility, rather than to prove cause and effect. The research spans the period from when households are confronted with a housing decision through the completion of a move, decision not to move, or expiration of a Housing Choice Voucher. At the early stages, research questions should address the onset of a housing decision: What situations prompt a desire or need to move? How was that information received and interpreted? Is the move voluntary or involuntary? Once a household begins the housing search process, questions should focus on knowledge, network activation, constraints, and resources. What locations/neighborhoods are possible places of residence in their mental maps? What information do they have about neighborhoods across the metro area and in other areas and where do they get such information? The formulation of these questions may be informed by the housing preference research in the Multi-City Study of Urban Inequality (MCSUI), which has been creatively expanded in Chicago and Detroit (Krysan and Bader 2007; Krysan 2008). How do residents define "quality" for a neighborhood, both in the abstract and in their rationalizations of their concrete realities? What is a "good" neighborhood? What challenges do they anticipate? Who (what kin or friends) do they have to consider, mobilize, accommodate, or upset in making their decisions?

The next set of questions concerns the behaviors of households during the search. How do families search, with whom, and where? Do they use services provided by public housing authorities, real estate professionals, the internet, or community-based organizations? Finally,

research in this area must situate the household search experience within an understanding of the local housing market. Where is affordable housing available? How are households received by landlords? What is the racial landscape? Are there local laws about discrimination against voucher holders? All of these specific questions are posed within a larger comparative racial framework, which asks: What are the similarities and differences among blacks, whites, and Latinos in housing search processes?

Any proposed research should feature a multi-city design in order to best attain race/ethnic sample diversity and include a range of housing market realities faced by households. Although whites are underrepresented among voucher holders in most metropolitan areas, the Northwest may be particularly fruitful for identifying this group; the Northeast, Southwest, and West have considerable representation of all three groups. We envision two types of studies for investigating housing decisions: (1) a comparison of housing voucher holders with residents in hard units in both poor and nonpoor communities; and (2) a study of new housing voucher holders.

Comparison of Housing Voucher Holders to Subsidized Hard-Unit Residents

The first research design focuses on the issue of stability and mobility and compares *voucher holders* in poor and nonpoor (mixed-income) communities with residents of *subsidized hard units* in the same kinds of neighborhoods. A large enough sample of households must be chosen in order to ensure an acceptable number of movers. Under this design, households are studied if they are faced with a housing choice and information is obtained about how they approach and execute that decision. Both movers and nonmovers are studied. This design allows researchers

to study the factors that instigate mobility for households with different types of subsidies and living in neighborhoods with varying income mixes.

Hard units may include any of the following types: project-based Section 8 buildings, tax-credit buildings, inclusionary zoning units, or scattered-site public housing. Most of these housing types are identifiable through easily accessed public housing subsidy databases. A comparison group of voucher holders should be identified in the same neighborhoods (poor and nonpoor), and can be contacted (albeit not without difficulty) from program administrative data.

Ethnographic “sample” comparisons can be carried out among the six groups identified in Table 1. Data collection involves a strategy similar to that used in the Three-City Welfare Study with household ethnographers assigned to families, making regular contact, and intensifying fieldwork if a move is contemplated. Ethnographers should observe and compare mobility trajectories over time. The “hard unit” group is likely to be much less mobile and thus choosing large buildings or multiple buildings may yield more movers. For the nonmovers, the ethnographic interviews might focus on the role of the housing subsidy in larger household decisions (for example, about housing additional family members), and exploring residents’ mental maps through everyday spatial routines. Attention should be paid to both the resolution of housing problems when they arise across subsidy types – do they lead to moves or other solutions – as well as to resident perceptions of and decisions about neighborhood income mix. Again, analyses of these data should be sensitive to any racial and ethnic differences in these processes.

Table 1. Hypothetical Ethnographic Samples

	“MIXED-INCOME” NEIGHBORHOOD	POVERTY NEIGHBORHOOD	MIXED-INCOME DEVELOPMENT
HARD UNIT	Residents of subsidized hard units in low- poverty neighborhoods across multiple sites	Residents of subsidized hard units in poverty neighborhoods across multiple sites	Residents of subsidized hard units in mixed- income developments
VOUCHER	HCV holders living in same low-poverty neighborhoods as buildings above	HCV holders living in same poverty neighborhoods as buildings above	HCV holders living in same mixed-income developments, or in surrounding nearby neighborhood

Study of New Housing Choice Voucher (HCV) Holders

A second type of research is based on a sample of new Housing Choice Voucher (HCV) holders. The research begins with their pending housing decision – whether to use the voucher, whether to move (or, possibly, use the voucher to pay rent on their current unit), and where to move. Ethnographers should be assigned to new HCV holders and follow them through their search process to completion (a move, expiration of the voucher, or use of the voucher in the current residence). Researchers might compare new recipients from low-poverty neighborhoods to recipients from high-poverty neighborhoods. This assumes that the former already have some level of familiarity with low-poverty neighborhoods that might improve their chances of moving (or staying) in one (Pashup et al. 2005). The study may be able to compare former public housing residents with non-public housing residents. Using origination neighborhood type as a way to sample voucher holders also reveals people’s housing “horizons” as shaped by their past experiences. Data collection should focus on the networks activated in the housing search, the resources available, the constraints experienced, and the roadblocks faced.

Types of Data

The proposed research uses longitudinal ethnographic and interview-based data and, in all likelihood, small samples of families. Studies using our second research design, for example, might include ten to twenty families of each race/ethnicity across two to four cities. Assuming the standard 180-day HCV search period and some extensions, research should be conducted over at least nine to twelve months. For our first design, comparing mobility in hard units and among voucher households, a one-year research period is a minimum to capture possible moves and a two-year period is preferable. The proposed research is labor intensive and requires teams of ethnographers doing household-based participant observation. Innovative methods for uncovering mental maps at the start of a housing search process and for documenting total units visited during the housing search process should be used. For example, respondents themselves may be trained to be “auto-ethnographers” by keeping an audio journal with hand-held digital recorders. Community-based ethnographers (for example, Venkatesh 2008) may also be trained and employed for such projects. Mapping software may be useful for garnering subjects’ spatial understanding of the city and suburbs in their metro area. GPS technology (with respondents’ permission) may be useful for tracking their search routes or even their daily routines. Following the model of the employer surveys in MCSUI, ethnographers might follow up with interviews of landlords visited by subjects to understand the supply-side of the housing search process.

Contributions to the Field

Our current approach to studying mixed-income communities, whether of the planned or “natural” type, focuses on existing mixed-income populations and neighborhoods. We query residents to give their retrospective accounts about why they chose such neighborhoods, and study their experiences and attitudes going forward. We are often particularly interested in how low-income households fare in such contexts. However, many targeted low-income households never end up in mixed-income communities. Tracking studies of black HOPE VI residents find that few displaced public housing residents actually move back to live in the mixed-income redevelopment, some because they cannot qualify but others because they have settled elsewhere, usually in a neighborhood that is less poor than their original public housing project, but by no means “mixed-income.” Some displaced residents even face homelessness. But the situation for low-income white households is much different, as they often begin or end up in nonpoor neighborhoods. We need to know what low-income households value in their housing and neighborhoods and what they face when they embark on a housing search. On what criteria are their decisions based? How do they see a city, its suburbs, and its constellation of neighborhoods? How do the actions of potential landlords, neighbors, and other persons affect where they end up? Although the starting point is not established mixed-income neighborhoods and the question is not about their impacts, the rich microlevel data yielded from this kind of research can help to shed light on many of the puzzles raised in recent housing interventions when low-income households seem not to act as policymakers intend.

V. POPULATION MOVEMENT AND THE STABILITY OF MIXED-INCOME NEIGHBORHOODS

Whereas the studies described in Section IV examine the housing preferences, opportunities, choices, and trajectories of individuals and their fellow household members, this section examines the aggregate effects of residential mobility patterns on income integration and the stability of mixed-income neighborhoods within metropolitan areas. It takes a “citywide” approach to thinking about the causes and effects of mixed-income housing and neighborhoods and related social policies. The research described in this section complements the studies described in Section IV inasmuch as the behaviors discovered through ethnographic studies of residential choice are key building blocks in developing aggregate models of population movement and distribution. It also complements the studies described in Section III inasmuch as it shares a common emphasis on the ecology of the total urban community.

Demography of Income Mixing: Unanswered Questions

A demographic perspective on mixed-income housing begins with the spatial distribution of families and households that have varying levels of income. The spatial distribution is generally far from random, yielding patterns of residential segregation by income. If income is a continuous quantity, segregation is a function of the ratio of “between neighborhood” to “within neighborhood” variation in income. If income is a discrete status (for example, poor vs. nonpoor), segregation is a function of the clustering of poor households on a grid of neighborhoods.

Mixed-income housing policies – motivated by a belief in either the inherent value of income integration or the benefits of income mixing to individuals, families, and communities –

are efforts to alter income segregation. Yet, even absent overt income-mixing policies, income segregation is not a fixed feature of any urban landscape. Rather it varies with ever fluctuating patterns of residential and socioeconomic mobility, which are governed by demographic, economic, cultural, and political forces on individuals, neighborhoods, and communities. Efforts to understand the effects of income-mixing policies should take account of “naturally” occurring patterns and trends in income segregation. Prior to or along with asking about the costs and benefits of income-mixing policies, we also ask several more basic questions:

1. How much income segregation is there and how does it vary over time and across communities? Early work by Jargowsky (1996) and updates of this work, which document increasing income segregation in the 1970s and 1980s and some reintegration, are obviously relevant here. A more detailed description of income segregation patterns is still needed.
2. What are the forces that maintain income segregation and how do they work? The proximate forces are residential mobility, income mobility, housing construction and destruction, fertility, and mortality. What are the respective strengths of these forces? How do they combine? What are their causes?
3. How much of an impediment to income mixing are the patterns and processes identified in points #1 and #2? How much income mixing can be attained through policy efforts beyond what “naturally” occurs? Are policy efforts at income mixing doomed by demographic forces that move communities back to preexisting levels of segregation? More optimistically, when, where, and how can policy efforts to create mixed-income housing create new, lower equilibrium levels of income segregation?

Models of the Dynamics of Income Mixing

To answer these questions, we need baseline models of residential and income mobility and income segregation, appropriately tailored to the demography, geography, economy, and culture of specific cities. These models can vary in complexity and realism. Once useful models have been developed, they can be further adapted to assess the effects of efforts to reduce economic segregation through mixed-income housing. The balance of this section outlines the key ingredients of such models. We draw in part on efforts in this direction that have appeared in the literature (for example, Bruch and Mare 2006; Quillian 1999; Sampson and Sharkey 2008; Sharkey 2008), but existing models must be substantially extended to be useful for understanding economic segregation and income-mixing policies.

Simple Demographic Models vs. Behavioral Models

Simple demographic models of residential mobility assume a fixed grid of neighborhoods (defined by tracts or other real geographic units) or neighborhood types (defined by their sociodemographic characteristics such as percent poor, percent black, etc.) and fixed rates of movement. These models assume that individuals of varying types move between different neighborhoods or types of neighborhoods. Given an initial population distribution across neighborhoods (or neighborhood types) and estimated rates of geographic mobility between neighborhoods for different types of people (for example, poor/nonpoor), an implied equilibrium level of economic segregation can be derived. Although descriptively useful, these traditional demographic models do not recognize that individuals and families respond in a complex way to changes in their proximate environments and more remote potential places to live. Nor do they fully represent how individual decisions cumulate to change neighborhoods and communities.

Behavioral models of residential mobility, in contrast, represent the dynamic interdependence of individual action and neighborhood change. Individuals and families decide whether and where to move in response to the residential opportunities they face. And individual decisions about whether and where to move change the residential opportunities that other individuals and families face later on. Opportunity structures, therefore, are constantly evolving and the expected decisions of individuals change accordingly (Bruch and Mare 2006).

In residential mobility and segregation, the key behavioral relationships involve the ways that individuals and families judge neighborhoods that vary in their social and economic makeup. First, a family is constrained by what it knows about available housing opportunities and by its resources for obtaining more information. For a given level of information, a family may be attracted to a neighborhood that has a given economic or racial makeup and may elect to move there. Its decision, perhaps in concert with similar decisions by others, alters the attractiveness of that neighborhood to others. These decisions may result in decisions by persons already living in the neighborhood to “flee” to neighborhoods that look more like how theirs looked before the new neighbors moved in. These chains of interdependent decisions can affect segregation patterns in complex and surprising ways (e.g., Schelling 1971; 1978). The great virtue of these types of models for our purposes lies in their capacity to represent, for example, the response of middle-income neighbors to an influx of poor families that are supported by vouchers or the response in surrounding neighborhoods to the destruction of densely populated low-income housing projects and the building of somewhat lower density mixed-income units. These types of responses are illustrated roughly in Figure 4, in which **L** denotes low-income and **M** denotes middle-income housing and the large and small boxes denote housing developments and single-family dwellings, respectively.

Mechanics of Dynamic Models

The models have two parts: (1) a statistical model for residential choice subject to constraints; and (2) an “agent” model for generating the community-level consequences, especially for income segregation, of individual mobility decisions (for rudimentary examples of this type of model, see Mare and Bruch [2003] and Bruch and Mare [2006]).

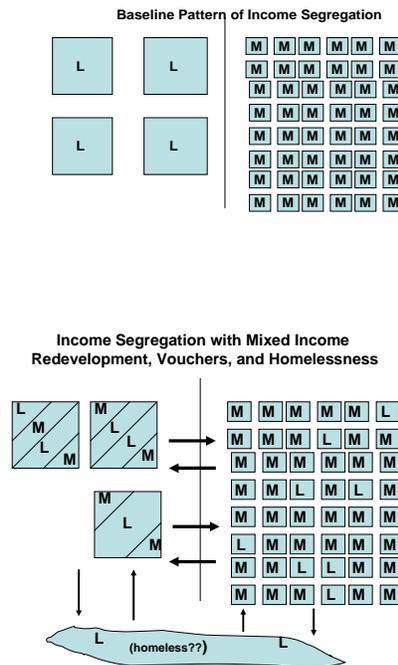


Figure 4. Hypothetical Patterns of Mobility Resulting from Changes in Housing Opportunities.

Statistical model. The statistical model is a discrete choice model (McFadden 1973) for the probability of choosing a neighborhood or a vacant dwelling unit in a neighborhood as a function of the characteristics of all neighborhoods or all vacant dwelling units in a family’s “choice set,” of the characteristics of families themselves, and the interaction between the two.

A key feature of these models, in contrast to others in widespread use, is that individual and family decisions about whether and where to move depend not only on personal characteristics and the local context of the decision maker, but also on the characteristics of all potential destinations in the urban community. In concert with the agent models, these models assume that the decisions of all persons in a community are mutually interdependent (albeit not to an identical degree).

These models can be more or less complex depending on data availability and our understanding of behavior. For example, individuals and families may have limited knowledge of available housing units in distant neighborhoods; they may respond mainly to *changes* in neighborhoods rather than to their static characteristics; and different demographic groups may have widely varying tastes, and so on. Individuals may evaluate their own current neighborhood differently from others. Individuals may respond to a complex variety of neighborhood and housing characteristics, some of which may be fixed over time (for example, proximity to a lake) and others of which depend on the residential decisions of others (for example, percent white). Individuals may face different choice sets because of variation in who is legally eligible for particular types of housing. As discussed in Section IV of this report, our knowledge of the individual motives for whether, when, and where to move remains underdeveloped. The kinds of behavioral models proposed here can be greatly improved by incorporating the insights gleaned from the ethnographic studies described in Section IV. In principle, all these and other complications can be addressed with these models. As always, however, we face trade-offs between complexity, reliability, robustness, and interpretability.

Agent model. Whereas the statistical model specifies a set of behavioral rules for residential mobility, the agent model can be used to explore the community-wide dynamic

implications of individual mobility patterns (Benenson 2004; Bruch and Mare 2006). In an agent-based model, hypothetical individuals or families are sampled from the known demographic profile of a city, and they decide whether and where to move in accordance with the probabilistic rules given by the discrete choice models. Their realized decisions incrementally change the makeup of neighborhoods and set the opportunity structure for the next family that faces a decision about whether and where to move. “Running” the model over time allows neighborhoods and the urban landscape as a whole to reflect the full dynamic implications of the residential choices observed in actual data.

Economic Mobility

As described to this point, the dynamic model retains most of the features of the classic Schelling segregation model, albeit with empirically grounded demography, geography, and decision-making rules. Processes governing income segregation, however, are more complex because families and individuals experience upward and downward economic mobility as well as geographic mobility. Indeed, one of the goals of some mixed-income developments is to facilitate upward economic mobility among the residents of subsidized units, and entry into market-rate units is often a consequence of recent upward economic mobility. Socioeconomic and geographic mobility must be considered together. How this should be done in practice depends on complex modeling decisions about whether neighborhoods affect individuals’ economic opportunities or, alternatively, individuals’ economic mobility chances are solely a function of family and life-cycle factors. The former assumption can be the basis of a fully dynamic model in which both residential and economic mobility are both causes and

consequences of neighborhood change. The latter assumption treats economic mobility as a cause but not a consequence of residential choice.

Data Needs and Sources

These models require multiple sources of data. These may include cross-section observations from the Census or the American Community Survey on the spatial distribution of income and other social characteristics for small geographic areas. They may also include longitudinal data on the residential and socioeconomic mobility of individuals and families. City-specific mobility data, such as the Project on Human Development in Chicago Neighborhoods or the Los Angeles Family and Neighborhood Survey, are greatly preferable for studies done in specific locations, although geocoded national panel data, such as the Panel Study of Income Dynamics, can be used as well. The critical features of the longitudinal data are that they have reasonably complete residential histories with information on the sequence of addresses or neighborhoods where people live; provide longitudinal information on the income, employment, and family situation of individuals; and are probability samples of well-defined populations.

Elements of a Policy Model

Generally speaking, we should consider in concert two kinds of policies: (1) voucher policies, which create opportunities for low-income families to move into higher-income neighborhoods, and (2) mixed-income development policies, which bring lower- and higher-income families together in common housing developments. In the Chicago case, mixed-income developments tend to replace exclusively low-income public housing developments. In other cases the

connection between the elimination of low-income housing units and the creation of mixed-income developments is less clear.

Given the baseline model of residential decision making and neighborhood income segregation, it is possible to simulate the potential effects of income-mixing policies on income segregation. These can be actual historical policies, in which case the model provides a sophisticated way of assessing the long-run effect of the policies on income segregation. Or, they can be hypothetical, allowing for various kinds of “what if” calculations under various assumptions.

Complications

An unrealistic simplification implicit in the approach described in this section is that it assumes a closed urban community. Yet important exogenous changes cannot be avoided. Among others, these include immigration, new construction, entry and exit of major employers, patterns of incarceration, and changes in policies other than the ones of central focus to this research.

Researchers adopting the approach suggested here need to address these complications. Even ad hoc approaches, such as exploring the implications of an assumed stream of exogenous changes, may be preferable to assuming that a city is a closed system.

CONCLUSION

We have proposed an integrated set of study designs that focus on key questions about the effects of mixed-income housing policies, yet attend to the complexities of the subject. Among these complexities are that mixed-income housing includes HOPE VI-style developments and mixed-income neighborhoods created through Section 8 vouchers and the natural course of population movement; that the effects work through individuals, households, neighborhoods, and metropolitan areas; that the persistence of mixed-income housing developments and neighborhoods depends on myriad decisions of individuals about whether, where, and when to change residences; and that the effects of mixed-income housing may vary substantially across cities that vary in size, region, economic base, race-ethnic makeup, and history of publically assisted housing programs and policies.

We recommend that future research on mixed-income housing attend to not only specific outcomes in the realms of education, health, and economic success of individuals and families, but also how living in mixed-income housing fits into the whole lifetimes of individuals, how governance and community life emerge within mixed-income developments, how metropolitan areas are affected by the presence of mixed-income housing developments, and how prevailing patterns of residential mobility affect the stability of mixed-income neighborhoods. In short, we take a broad and interactive view of the causes and consequences of mixed-income housing. Thus, we have described a group of studies that can, in principle, be carried out separately, but are best viewed as complementary. No single study of such a complex set of phenomena can provide a complete account of the effects of mixed-income housing and how it fits into the lives of individuals and the broader social fabric. But it is important for both social policy and basic understanding to keep this broader picture in mind.

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