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Abstract. Studies of context effects – for example, effects of neighborhoods, schools, kinship units, or all of these – on human behavior and well-being now span the social sciences and pose some of the most daunting analytic problems faced by social researchers. Understanding such effects is particularly important as metropolitan areas in the U.S. face continued economic restructuring and large-scale demographic change from migration, aging, and other forces – and as policymakers and researchers seek to understand and respond to increased economic inequality and its consequences. To date, however, almost all relevant research has *either* studied processes of neighborhood change (hinting at possible effects on individuals and families) *or* of human development (including possible effects of neighborhood characteristics). This theoretical essay argues strongly for integrating these largely separate enterprises and outlines basic frameworks for doing so. I discuss three dynamic functions – neighborhood change, individual exposure to risks and resources, and life course transitions – that contribute to neighborhood effects and use simple Markovian risk models to illustrate the importance of housing choices and outcomes over time. Neighborhoods may be thought of as *traps, stepping stones, or springboards* for families navigating the life course, not just stable, upgrading, or declining (in traditional terms). As such, efforts to leverage neighborhood context to improve child and family well-being must consider how housing mobility relates to other family strategies for getting by, getting ahead, and propelling the next generation.

Keywords: neighborhood effects, contextual models, risk analysis, housing mobility, human development, poverty, segregation.

Introduction

Context matters, or so conventional wisdom and empirical research have long asserted. Studies of context effects – for example, effects of neighborhoods, schools, kinship units, or all of these – on human behavior and well-being now span the social sciences and pose some of the most daunting analytic problems faced by social researchers. Analysis of the effects of neighborhoods on human development, well-being, and attainment has expanded particularly rapidly in the past decade, thanks in part to the seminal contributions of sociologist William Julius Wilson (1987) on poverty concentration and social isolation in inner-city neighborhoods, of psychologist Urie Bronfenbrenner (1979) on ecological influences on human development, and of the late

John Kain on the economics of segregation and minority employment (1968; and see reviews in Leventhal and Brooks-Gunn 2000; Sampson, Morenoff & Gannon-Rowley 2002; Ellen and Turner 2003).¹ But broad social changes and public debates have stoked these fires as well. Understanding the effects of neighborhoods and related contexts is crucial as metropolitan areas in the U.S. face continued economic restructuring and large-scale demographic change from migration, aging, and other forces – and as policymakers and researchers alike seek to understand and address increased economic inequality and its consequences. Potentially, a wide array of policy domains, including education, health, human services, housing and community development, public safety, and environmental sustainability, are at issue. Each can benefit from a better understanding of how any given context affects human well-being and how effects of multiple contexts – schools and workplaces as mitigating or reinforcing negative effects of neighborhoods, for example – interact for better or worse (see, e.g., Mateu-Gelabert and Lune 2003).

To date, however, almost all relevant research has *either* studied dynamic processes of neighborhood change that emphasize large-scale forces of economic and demographic shifts (but posit important effects of neighborhood change on individuals and families) *or* comparatively small-scale but equally dynamic processes of human development (including possible effects of neighborhood characteristics). This theoretical essay argues strongly for integrating these largely separate research enterprises and outlines basic frameworks for doing so, not merely as an additive step (“extra attention”) but through a shift in research focus.

Drawing on prior research and new studies now in the field, I discuss the interactions among three dynamic functions – neighborhood change, individual exposure to risks and resources, and life course transitions – that contribute to producing, but also to limiting, neighborhood effects on child and family well-being and economic success. The first two functions are highly subject to intervention, but the complexity of causal relationships and the strains on families – the poor or otherwise vulnerable, most of all – make it tricky to design or evaluate interventions well. For its part, exposure is one of the least understood functions, as it comes with maturation and lagged effects (i.e., of exposure at time 1 on outcomes at time 2), questions about level and duration of exposure, and what epidemiologists term *background hazard* (risk of suffering a bad outcome when one is *not* exposed to a known risk factor).

As one ambitious recent study emphasizes, “[We] need a more temporal life course approach to the specification of social context effects in general, focusing on the history of social contexts that individuals live in and move through” (Wheaton and Clarke 2003, p.680). For reasons that are now well documented, most studies to date have been observational and offer little data on the longitudinal nature of exposure or

¹ Sampson et al. (2002:444) report, “After spurts in the 1960s and 1970s followed by a decline, the mid-1990s to the year 2000 saw more than a doubling of neighborhood studies to the level of about 100 papers [published] per year.”

on other causal pathways, but ongoing experimental and quasi-experimental studies offer considerable opportunities (Leventhal and Brooks-Gunn 2000; Ellen and Turner 2003; Orr et al. 2003), particularly where quantitative and qualitative methods can be carefully integrated. This paper is part of on such effort to better model and investigate effects of neighborhood context, and thus of various forms of metropolitan segregation, on social outcomes.²

The argument in brief. Toward a framework for improving both research and policy, I propose that neighborhoods be thought of as high-risk, low-resource *traps* (that tend to isolate families, meet few needs, and make it harder for families to move to better environments), moderate-risk and moderate-resource *stepping stones* (that offer important resources along with some risks), or low-risk and high-resource *springboards* (that meet a range of important family needs most of the time). This three-way characterization differs from the traditional investment and population-focused approach to distinguishing neighborhoods by trend types, i.e. as stable, declining, upgrading, or transitional (Taub, Taylor and Dunham 1984; Temkin and Rohe 1996). These distinctions are very likely relevant to a wide range of family types but are especially important for low-income families, who face the most constrained housing and neighborhood choices and are the most likely to make “forced” moves due to excessive housing costs or similar crises. I use a simple probabilistic model that is rarely applied in research on how neighborhoods affect families – Markov chains that model transitions among risk states – to underscore how much variation is potentially associated with the housing mobility dynamics at work. I note the important limits of these Markovian simulations as well, outlining several testable hypotheses for future empirical work.

In the final part of this essay, I outline why more attention should be given to how residential mobility relates to other family strategies for getting by and getting ahead, such as strategies for tapping kin networks for social support, creating new “bridging” networks for social leverage, buffering young people from crime and other proximate threats, and linking children to enrichment programs and other resource-providing institutions that may lie outside the immediate neighborhood of residence. I conclude with a discussion of key implications for policy and program design, including the importance of: (a) expanded housing choice, considering residential mobility for the most vulnerable families in traps *alongside* other family strategies, not separate and apart, with moving as a cure-all for problems associated with “ghetto poverty”; (b) finding better means to help families manage their exposure to risks and resources no matter where they reside; and (c) turning more traps into stepping stones.

Complementing recent research on life-course transitions and human development, statistical models for isolating neighborhood effects, and the effects of

² This paper is part of the multi-year, mixed-method Three-City Study of Moving to Opportunity (MTO), a collaborative effort of researchers at CUNY, Harvard, and the Urban Institute (where the project is based). For background on MTO, see www.mtoresearch.org and Orr et al. (2003).

ambitious social experiments on children and families, the contribution of this paper is three-fold. First, it highlights how sensitive studies of neighborhood effects are likely to be to neighborhood change, the mobility of families across different types of neighborhoods, and the assumptions we make about how exposure effects work in neighborhoods and vary across families and individuals. In plain terms, the paper offers a much more dynamic view of neighborhood effects and how they may register. Second, the paper deepens discussions of risks and resources in neighborhood contexts through attention to exposure dynamics, over which parents and other household-level actors have some control. Third, unlike much research that emphasizes *either* family-level or neighborhood-level interventions, the paper provides a more integrated roadmap to policy and program interventions, highlighting the importance of helping families to make the best-possible housing and neighborhood choices but also to cope, buffer, recover, and strive wherever they live.

Shaping Each Other: People and Place

Studying people and places together is a bit like studying salmon and streams. The life-cycle or life-course metaphor, in which, more specifically, salmon are *swimming upstream* – i.e., working to get somewhere – has its limits, of course. But this familiar image captures a number of the dilemmas facing human beings, neighborhoods and other contexts, and researchers trying to understand both. For example:

- People, like salmon, tend to think of themselves and to operate as though headed somewhere – in terms of life outcomes, that is – and attaining those outcomes depends on traits of the individual, traits of the contexts (environments and institutions) that exert effects along the life course, and the quality of people’s strategies for navigating those contexts.
- The waystation “ponds” and throughway “streams” that stud the life course can change in important ways over time, making it easier or harder to attain the desired outcomes. In the case of human beings, of course, decisions by people, most importantly to opt out or opt in, are an important source of change in neighborhoods, schools, workplaces, and other contexts – even if most of us do not single-handedly exert a large influence on contexts larger than the family.
- Different human beings, based on life stage or social identity or other factors, can experience the *same* context in profoundly different ways, generating considerable variation in the advantages and disadvantages of being in a particular setting at a particular point in one’s life. Having different outcome priorities – great wealth, close and constant involvement in the lives of one’s family, improving the world for others, and so on – adds further variation to this picture, namely by shifting the appropriate success indicators.

- Both people and places can be “enriched,” like salmon and streams, to promote particular outcomes. But people, propelled by more varied motivations than their aquatic counterparts, are tricky to target and often respond to assistance in ways that policymakers and researchers do not expect. Likewise, places, while not strategic actors themselves, are subject to so many different influences that interventions can quite easily produce unintended effects—neighborhood “revitalization” may displace low-income residents through higher land prices, for example.

To date, most research on how contexts change and how they affect human well-being has followed separate tracks, resulting in a rich but confusing set of implications for how we think, conduct research, and offer insights to policymakers, program managers, and the public at large. This divergence is particularly true of research on neighborhoods. The oldest tradition, born in sociology, modeled ecological change—who lives where and with what possible effects—as a highly deterministic process resembling competition in the world of plant biology (Park 1916; Berry and Kasarda 1977; Temkin and Rohe 1996). While much less deterministic, most contemporary studies of neighborhood dynamics, for example on patterns of in and out-migration by households’ race and class status (Ellen 2000; Quillian 1999), structural variation in neighborhood change across metro areas (Galster et al. 2003), or threshold (“tipping”) phenomena in neighborhood transitions (Galster, Quercia and Cortes 2000), focus by design on what *drives* change in particular neighborhood traits rather than how those traits *affect* people who enter, leave, or stay put. Researchers of neighborhood change rely on a largely distinct literature that offers more and more compelling evidence that differences among neighborhoods do matter for the people who live in them, a literature that now emphasizes differences in institutional resources, patterns of social organization, and rates of crime and other risk factors (Briggs 2003; Ellen and Turner 2003; Leventhal and Brooks-Gunn 2000; Sampson et al. 2002). A related literature in economics and sociology finds powerful evidence that patterns of segregation by race are a cause, not just a consequence, of economic inequality (Cutler and Glaeser 1997; Galster and Santiago 1995).

The first literature (neighborhood change) relies on very broad, and often highly qualified, generalizations generated by the second (neighborhood effects)—qualified because data are limited, because the field has relied very heavily on statistical studies to impute social processes not directly observed, and because, in general, it is extraordinarily difficult to attribute causal effects to features of context, whether the effects are thought to be net of other factors (e.g. family traits), mediated by them, proxies for them, or interactive with them. Conversely, with few exceptions, neighborhood effects researchers either treat contexts as relatively static in their properties and effects, assume effects of neighborhoods in snapshot cross-sectional views to be cumulative over time, or rely on generalizations in the neighborhood change literature to account for change in very limited ways (Sampson et al. 2002;

Wheaton and Clarke 2003). I turn now briefly to each of these partial views: how neighborhood change and neighborhood effects studies treat each other's findings.

Neighborhood Effects

For reasons suggested by the salmon-and-streams metaphor, simple assumptions about how broad processes of neighborhood change affect individuals and families are risky. As a host of recent reviews of research cited above emphasize, one consistent problem owes to the *selection* of particular individuals and families into particular contexts, confounding the effort to distinguish effects of individual traits from effects of context. Randomized experiments, while costly and rare, address this problem to some degree, as do statistical techniques for constructing counter-factual groups in observational data (Harding 2003; Winship and Mare 1992; Winship and Morgan 1999) or related techniques for simulating random assignment by recruiting matched populations (Briggs 1998).³ But even where selection bias is somehow handled, the enormous problem of specifying causal mechanisms remains. That is, if one wants to know *how* contexts exert their effects, not just *whether* they do, a thorny set of challenges obtains, and most current research has few answers for the causal puzzles outlined in an earlier methodological literature on contextual analysis (e.g., Blalock 1984; Blau 1980; Boyd and Iverson 1979; Davis 1966).

These puzzles, in turn, are of two kinds. One set relates to *exposure*: how to demonstrate exposure to whatever features of the context are thought to be influential; how to handle uneven exposure (different levels for different individuals or family units in a given context) or interrupted exposure (episodic or otherwise variable over time); how to treat lagged effects that may not show up for years or even decades (e.g., from exposure to toxins or physical violence); how to distinguish among *physical* exposure (e.g. to victimization), *social* exposure (e.g., to useful networks and role modeling), and *observational* exposure (e.g., to potentially influential signals in one's environment); and how to relate exposure in multiple contexts – neighborhoods, schools, kinship networks – to one another.

A second, much more widely debated set of puzzles might, in plain terms, be defined as *whatever flows from exposure* – i.e., specifying and testing the causal pathways that link exposure to particular neighborhood features to social outcomes of interest. One example would be linking influential peer groups or parental networks in a neighborhood to patterns of delinquency and crime, school success and failure, and job getting by youth. Another important example is linking crime and other stressors in the

³ Harding (2003), for example, employs propensity score matching to construct a counter-factual group in observational data, as well as sensitivity analysis to assess potential effects of unobserved factors. Armed with a knowledge of what predicts living in a higher poverty neighborhood, he thus simulates the effect of living in higher and lower poverty areas on demographically matched sets of families. Briggs (1998) analyzes data from a housing quasi-experiment in which the counter-factual was constructed via snowball sampling and demographic screening by the researchers.

immediate environment to adult mental health, parenting efficacy, and child development (Leventhal and Brooks-Gunn 2000).

For these reasons and more, attributing effects of neighborhoods, let alone of changes in same over time, is tricky enough to make only the most general observations warranted. For example, a significant jump in neighborhood crime will surely be detrimental to many residents of the neighborhood, and visible deterioration in housing stock or public facilities may likewise impose some costs, but how much, to whom, and with what longer-run effects are difficult to say. A significant increase in neighborhood poverty may likewise be bad for many who live in the neighborhood but why and with what effects we are not sure. And is a recent decrease in a given neighborhood's poverty rate as valuable to a resident family as entering a neighborhood that has *long* had low poverty rates? Does the answer depend on what poverty rates proxy for in the way of social organization, institutional resources, or other factors?

If most of this discussion underscores how limited and tentative assertions by neighborhood change researchers about the *consequences* of change must be, the last question also signals in reverse: neighborhood effects research (research focused on consequences) needs much stronger conceptual and methodological tools for handling neighborhood change (shifts in neighborhood factors that are plausibly consequential) and families' moves across various types of neighborhoods. As Sampson et al. (2002:472) observe about studies of neighborhood effects, "We have scant information on how neighborhood processes evolve over time or how they interact with alleged outcomes" (and see Cook et al. 1997). As noted earlier, most neighborhood effects research treats neighborhoods as relatively static environments – in simple terms, good or bad places that stay good or bad. Yet the most promising studies in this domain are longitudinal and will thus capture neighborhood change, as well as family moves across neighborhoods, over time.

Neighborhood Change

Using "neighborhood" and "environment" interchangeably, much research also tends to confound different meanings of neighborhood – on one hand, it is an *ecology* (defined by what is *in* the neighborhood that matters for human life, including proximate social influences) and, on the other, a *location* (defined by what one can access *from* the neighborhood, such as good jobs or schools).⁴ Yet these dimensions can

⁴ Note that this particular distinction, while useful for studies of neighborhood effects *on* people, is inappropriate in urban economics, which defines "neighborhoods" in large part according to how people value them. Access features are part of the "complex commodity" or multi-dimensional bundle that represents a neighborhood's value as a consumption good (Galster 2003). But so are social features of place that make it attractive or unattractive. Both help define the *locational* value. If assessing the influence of a neighborhood on family success, though, one would want to distinguish effects of having a support network and church *in* the neighborhood from effects of being able to get to distant jobs *from* the neighborhood (thanks to well-located transit stops, for example). Sampson and Morenoff (1999) indicate that child well-being may be affected not only by crime in the neighborhood but crime in adjacent areas of the city or metro area, underscoring the importance of attention to both internal and access-from (or

shift independent of one another, for example if a neighborhood retains gang activity and associated high crime rates but gains spatial access to jobs through public and private investment nearby (a new highway or transit stop, a shopping center or waterfront complex) or conversely, a breakdown in parents' collective efficacy at monitoring neighborhood youth (Sampson et al. 1997) owing to significant turnover in resident population *without* major shifts in the access features of the neighborhood as a location.

There are several exceptions to the general rules about divided research literatures. Beginning with theoretical innovations, a recent economics literature considers the role of context and social interdependencies on individual choice (Brock and Durlauf 2001; Durlauf 2001). In a more empirical direction, Galster (2003) outlines a simultaneous equation model to explain household choice of neighborhood *and* choices affecting child development and family economic success. While he does not directly allow for neighborhood change or repeat moves by families, his model begins to break down the walls between neighborhoods understood as dynamic units on one hand and families, on the other, whose lives are also quite fluid and dynamic. In a second recent study, this one fully empirical, Leventhal and Brooks-Gunn (2001) offer exploratory analyses of survey data on families, neighborhood change, and child well-being. Using a longitudinal data set to pick up changes in family status over an eight-year period, the researchers offer suggestive evidence of (a) positive *lagged* effects of low-poverty neighborhoods on children who used to live in them (but now live elsewhere) and (b) *cumulative* benefits of living longer periods in low-poverty areas. Unfortunately, their data make it difficult to distinguish effects of shifts in neighborhood status that owe to *moving* versus those that owe to staying in place while neighborhoods change "around" the family, as Quillian (1999) puts it.⁵

The latter distinction is important, since quite different forces and family motivations may be at work in the two scenarios and since, as the researchers note in a review of prior studies, moving itself can be very disruptive in the lives of young people. As Fischer (2003, p.178) notes about unstable households, "The best conclusion is that frequent moves are more often a *sign* of problems than a *cause* of one but also that moving is a moderate risk factor for children, especially for otherwise vulnerable children." Finally, Wheaton and Clarke (2003) use a hierarchical panel model to test for lagged effects of neighborhood disadvantage during childhood and adolescence on mental health in early adulthood. Controlling for initial mental health, family traits, and other factors, the researchers find substantial evidence that early exposure to disadvantaged neighborhoods exerts negative effects on mental health in the early adult years – more so, in fact, than current neighborhood context. These important analytic advances are in their infancy.

locational) features of neighborhoods, however these happen to be labeled. The distinctions are useful for understanding contemporary European research on neighborhoods and their effects as well (Briggs 2003).
⁵ In effect, Leventhal and Brooks-Gunn analyze neighborhood circumstances for movers at two points in time (eight years apart).

In sum, students of neighborhood change and neighborhood effects pursue largely separate agendas yet share a core concern for human well-being. Indeed, without this concern, the study of changes in neighborhoods, cities, metro areas, or other spatial units becomes a narrow and mechanical tracking of physical conditions and economic values. But the reverse is also true: large-scale patterns of change affecting spatial areas, as well as families' own residential moves among different types of neighborhoods, make static treatments of neighborhood inadequate in studies of context effects on individuals and families. When researchers in each track make inferences across the gap that divides them, misleading assumptions, or generalizations so broad and qualified as to give one pause, may result. Imputed effects of neighborhoods on those who live in them might be biased upward or downward, depending on the outcome of interest and the population under study, and effects might owe to lagged effects of prior neighborhood contexts on current outcomes, cumulative effects of multiple contexts on outcomes, or other causal patterns. These distinct inferences obviously hold important implications for policy and practice.

What we need is a framework for relating the dynamics of neighborhoods to the dynamics of families' lives – in which decisions about housing and neighborhood are embedded in a host of considerations about other contexts as well: Can I pull my son out of this peer group if we move across town? Which school is best, given transportation, how the teachers treated us on recent visits to schools, and other factors? How much should we be involved in our relatives' lives? Can I get to the community college from here without two bus transfers? Before I turn to integrative concepts, a clearer sense of moving across neighborhoods is in order. I look next at the who, why, how much, and where of housing mobility in America.

Entries and Exits: Understanding the Housing Mobility of Families

Americans are famously mobile. Every five years, roughly half the country (47%) has moved, a figure unchanged over the last four decennial censuses (Census Bureau 2003). Each year, about one in seven households changes residence, though the rate for renters (32%) is about four times that for homeowners (8%). Popular opinion has long assumed that rates of mobility are on the rise, along with associated social pathologies such as alienation and the "rootless" character of life in modern societies. But mobility has in fact declined significantly in America over the past century and a half. Moreover, for the fifty-year post-war period, Fischer (2002) finds that a sharp decline in *local* moves (which disproportionately reflect changes in household status or life emergencies) has been partially offset by somewhat more stable rates of *non-local* moves (which tend to reflect pursuit of major job opportunities).⁶

⁶ Fischer highlights a number of plausible explanations for the long-run overall decline in residential mobility, including better transportation (reducing the need for local moves) and the end of massive structural migrations across regions of the country (e.g., migrating toward the Western frontier in the 19th century and, in the 20th, the "Great Migration" by blacks from the South to industrial cities in the Northeast, Midwest, and other regions).

While Americans across lines of race, gender, and class are now more, not less, rooted than households of 50 or 100 years ago, particular types of households – service workers, the less educated, and the economically marginal – have seen *increases* in mobility in recent decades. Using census data on why people move, Fischer notes that economically marginal households are more likely than other households to move under circumstances of little or no choice, in particular because of excessive housing costs, death in the family, divorce, or other dramatic shifts in household status. Coulton (2001) found the same in a study that addressed welfare recipients' housing patterns, and using nationally representative panel data on families, South and Crowder (1997) confirm that human capital and life cycle factors help predict how often families will move and where, while residential segregation and housing supply also help determine where (and see Dieleman, Clark and Deurloo 2000).

Among the factors that compel and structure moving, limited housing choice is the most determined by socio-economic status and perhaps the most amenable to intervention. In her best-selling *Nickel and Dimed* (2001), journalist Barbara Ehrenreich vividly captures the near-impossibility of juggling dead-end jobs and high-cost, often poorly located housing. According to the census, some 28 million low and moderate income American families pay exorbitant costs for housing (based on federal standards of affordability), and this cost gap widened sharply during the 1990s, as housing markets tightened in many cities and the stock of affordable housing continued a long-run disappearing act (Joint Center for Housing Studies 2003; Millennial Housing Commission 2002; Quigley and Raphael 2003). Federal subsidies for low and moderate income families fell so sharply and abruptly that in 1996, journalist Jason DeParle, writing in *The New York Times*, labeled Congress' latest session "the year that housing died." Only about one in four eligible families now receives such subsidies (Bratt 2002), and the limited supply of low-cost housing in America is concentrated in particular neighborhoods and municipalities, usually older central cities and suburbs (MHC 2002). Racial discrimination in housing (Turner et al. 2002; Yinger 1995) and differences in neighborhood preferences by race (Ellen 2000; Charles 2001) also contribute to channel particular families to particular neighborhoods and, as we will see, disproportionately direct minority families to poor neighborhoods.

To date, though, researchers have paid limited attention to so-called forced moves or long-run patterns of mobility by low-income families, i.e., to the traits of multiple neighborhoods that these families live in over time *given* that they are among the most mobile subgroups in America in residential terms. If moving (anywhere) generally involves trade-offs, how often do poor families trade off the neighborhoods that appear, by poverty rate and other indicators, to be "better"? How many moves are moves *up*, at least in terms of the socio-economic status of neighbors, versus *among* poor neighborhoods or *down* from nonpoor to poor areas? And how do the neighborhoods that low-income families enter fare over time?

Illustrating the importance of analyzing such dynamics, Quillian (1999) shows that white, nonpoor neighborhoods that black families entered in the 1970s and 80s lost

significant white population over the period. As blacks moved in, continued neighborhood change replaced white households with black ones, re-segregating these areas in ways that undermined the “black pioneer” families’ goals. Quillian also finds that moves by nonpoor households out of moderately poor neighborhoods contributed significantly to poverty concentration in the 1970s and 80s. So the housing and neighborhood choices of the poor are twice limited – first by limited buying power over a limited geography of affordable housing and second by the tendency of households with better housing choices to use them (to exit poorer places), further concentrating disadvantage geographically.

Modeling Entries and Exits with Markov Chains

One useful way to capture the implications of multiple moves by families over time – e.g., by marginal families *and* their current or potential neighbors – is to model households’ neighborhood status in terms of risk states and transition probabilities. Markov chains, for example, allow analysts to model transitions among discrete states via specified entry and exit probabilities. This approach has considerable utility for both research and policy purposes (Stokey and Zeckhauser 1978). In the study of neighborhood dynamics, the Markovian approach differs from the computer simulation modeling of neighborhood outcomes pioneered by economist Thomas Schelling (1971) in that we need not assume, using Markov, a fixed number of neighborhoods or fixed population of movers across them. There is, as we will see, an adding-up constraint whereby large changes in transition probabilities could actually shift the supply of poor or nonpoor neighborhoods available in the marketplace, but in general, neither population or supply of neighborhoods are fixed. In addition, the probabilities used below are derived from actual shifts of residence and economic status by U.S. families over time, not purely hypothetical outcomes. Schelling’s approach, which focused on dynamics of racial segregation, allowed for a direct assessment of the effect of group residential preferences and available neighborhood options on neighborhood composition.⁷ That is, Schelling directly modeled neighborhood change (the focus of his simulation) as a function of such preferences. My Markov models treat preferences only indirectly, and neighborhood change is one of several concerns. Finally in this tally of advantages and disadvantages to Markov, these models assume that the past does not matter. That is, all of the information about one’s neighborhood state in the next time period is contained in the state one is in now. If we believe one’s neighborhood history matters, the limits of these simulations are clear. On the other hand, they help us capture the dynamics that constitute anyone’s residential history.

We know that family’s economic fortunes and locational outcomes are linked, in one direction because ability to pay affects housing choices and in the other direction

⁷ Schelling’s seminal work showed how even small differences between blacks and whites in terms of preferred neighborhood racial composition could, in the context of a finite number of neighborhoods to choose from, lead to persistently high rates of residential segregation by race. See discussion and extensions in Ellen (2000).

because of neighborhood effects. A brief example will illustrate the utility of the Markovian approach and also highlight important evidence on how dynamic economic status itself is, distinct from the dynamics of poor people's neighborhood status. In a classic and widely cited application of Markov modeling, Bane and Ellwood (1986, 1994) ask the question: How is that most people on welfare (public assistance) *at any given time* are long-term recipients while most people who are *ever* on welfare are short-term recipients? The answer is that most who are ever on welfare "cycle through" quickly (experience a short spell), while most people on welfare at any given moment (observed in cross-section) are somewhere in a long spell of welfare receipt. Generated from longitudinal data on families in the Panel Study of Income Dynamics (PSID), Bane and Ellwood's simple Markovian risk model show the long-termers to have both higher entry and lower exit probabilities (on/off welfare) than the short-term group – a finding with powerful implications for social policies that aim to reduce welfare dependency and make low-income parents more self-sufficient.⁸ Cross-national analyses of poverty dynamics in OECD countries shows similar patterns in Canada and Western Europe: most poverty spells are brief, a small portion of the population experiences long spells and falls repeatedly back into poverty, previous spells of poverty are good predictors of subsequent poverty, and, as Burkhauser (2001, p.758) puts it, "poverty touches many more people over their life course than is apparent from a one-year snapshot" (and see Burgess and Proper 2002; Oxley et al. 2000).

Closer to my focus on neighborhood dynamics and the locational fortunes of economically vulnerable families, Massey et al. (1994) analyze patterns of mobility out of poor neighborhoods by poor and nonpoor blacks, and in the study cited above, South and Crowder (1997), using the PSID, find that while black and white families are about equally likely to move out of poor neighborhoods (census tracts) each year (20.5%), blacks are much more likely than whites to move to another poor neighborhood (13.6% versus 5.2% for whites) rather than a nonpoor one (6.7% versus 16.7% for whites). So blacks and whites move equally often, but whites more often move "up" if neighborhood poverty is indeed a proxy for quality. In both of these important studies, however, transition probabilities are used descriptively, not to model long-run effects of mobility patterns on the kinds of neighborhoods that particular households are likely to experience over time.

In the only known study to have done such modeling, Gramlich, Laren and Sealand (1992), also using the PSID, analyze the long-run implications of differential entry and exit rates for blacks and whites at various income levels in the 70s and 80s. The good news, say the researchers, was in high exit rates from poor neighborhoods for all groups, but

⁸ Using the Panel Study of Income Dynamics (begun in 1968), Bane and Ellwood further show the long-termers to include a distinct subgroup of people ("cyclers") who move on and off welfare over long periods of time. Such typing has many potential applications to the phenomena of economic and locational fortunes co-varying over time. Bane and Ellwood also analyze patterns of receipt (entry, exit, spells) by age, race, marital status, education, and other traits.

The bad news comes when one works out the full long run implications of all exit and entry probabilities for all groups. Then poor urban areas are seen to be getting poorer and blacker – home to an ever larger share of the persistently poor, home to an ever larger share of black adults with children (p.254).

Because their study models transitions among neighborhoods of various statuses, Gramlich et al. (1992) do not analyze movement among poor neighborhoods, in effect treating these as “stayed in a poor neighborhood.” But we now know, using South and Crowder, that such moves *over* – rather than “up” or “down” – are an important category of move for some types of families.

Markov models that can project such detailed churning patterns over time, and also distinguish types of movers (here meaning those who transition across states) according to their long-run trajectories, are particularly useful where: discrete *states* (e.g., being on welfare, residing in a poor neighborhood) can be specified; the populations served by social programs are *heterogeneous* on some critical dimension (spells of welfare receipt, realistic housing choice, tendency to reside in poor neighborhoods, etc.); and one can usefully distinguish among several different *kinds of risk* – for example, of entering a state, suffering a dire consequence while in that state, exiting the state, falling back in, etc. (Hills 2002). These features hint at the opportunity to link mobility patterns and the larger processes of neighborhood change (to which mobility contributes) to family efforts to manage risk, whether “in place” or by moving.

To illustrate this, consider Table 1 below, which describes annual transition probabilities for poor and nonpoor families (regardless of race) to poor and nonpoor neighborhoods between years t and $t+1$. For the purpose of straightforward interpretation as I introduce these probabilistic models, assume that “transition” in neighborhood status simply means “moved” to a neighborhood that is simply either poor (at or above 20% census tract poverty) or not (see Jargowsky 1997, 2003 on these conventions); below, we will modify this key assumption. Further assume that the poverty status of families and neighborhoods does not change in any single year. The probabilities in Table 1 are derived from Gramlich et al (1992), South and Crowder (1997), and Fischer (2002).⁹ The first two analyzed patterns for the 1970s and 1980s for the nationally representative PSID families (thus emphasizing economic and demographic change for those decades), while the third includes all families in the census through the year 2000. The lack of specific yearly transition rates for these subgroups in earlier research make Table 1 a heuristic, “as if” model grounded in empirical studies of panel data. The model offers very realistic orders of magnitude for the entry and exit rates, but these figures should *not* be treated as empirically valid for specific periods of time or groups. The rates do reflect the individual and structural factors that have shaped residential patterns in the U.S. over the past several decades.

⁹ South and Crowder, for example, provide binary and multivariate logistic regression coefficients by income level, race, and other household attributes.

TABLE 1. HEURISTIC MODEL OF RESIDENTIAL TRANSITION FOR POOR AND NONPOOR FAMILIES
(Hazard Rates for One-Year Period)

Poor Households			
<i>Neighborhood status in year t+1</i>			
	Stay in place	Move to a poor neighborhood	Move to a nonpoor neighborhood
<i>Neighborhood status in year t</i>			
Poor	.75	.15	.10
Nonpoor	.80	.12	.08

Nonpoor Households			
<i>Neighborhood status in year t+1</i>			
	Stay in place	Move to a poor neighborhood	Move to a nonpoor neighborhood
<i>Neighborhood status in year t</i>			
Poor	.82	.02	.16
Nonpoor	.85	.01	.14

This model (Table 1) is defined by several very real differentials: poor households are somewhat more likely than nonpoor ones to move each year; when they do move, nonpoor households in poor neighborhoods are much more likely to move up than over; and poor households in poor neighborhoods, when they move, are more likely to move over than up. Furthermore, a nontrivial share of poor households that have attained nonpoor neighborhoods, when they move, move down (12%). This is analogous to the risk of “falling back” into welfare (though in this one-year transition matrix we do not have the history to show that a move down is actually “back” down). Depending on a family’s prior residential history, fallback is a counter-intuitive, but potentially significant pattern if the associated risk (hazard) rate is high enough.

Model 1 does not account for differences in tenure (renting/owning) or allowed for shifts in poverty status along with those of neighborhood status. So far then, we have a single-period Markov chain, illustrating why poor households will experience more churning as a group (they move more often), while nonpoor ones will enjoy more stability *and* more upward mobility, on average, through their moves. But we cannot yet show how much particular types of households – the most mobile and disadvantaged lower-income renters, in particular – will *experience* low or higher poverty

neighborhoods over the long run or how sensitive these results would be to changes in the entry and exit rates of poor or nonpoor families or changes in their income gains and losses – through policy intervention, for example.

TABLE 2. HEURISTIC MODEL OF RESIDENTIAL TRANSITION FOR POOR RENTER FAMILIES
(Baseline and Intervention Models, Hazard Rates for One-year Period)

Model A: Baseline (Unadjusted)		
<i>Neighborhood status in year t+1</i>		
	Poor	Nonpoor
<i>Neighborhood status in year t</i>		
Poor	.95	.05
Nonpoor	.20	.80
Model B: Intervention (Adjusted)		
<i>Neighborhood status in year t+1</i>		
	Poor	Nonpoor
<i>Neighborhood status in year t</i>		
Poor	.90	.10
Nonpoor	.08	.92

To model this, we must combine some categories (stay in higher poverty tract and move from one such tract to another), as Gramlich et al. (1992) do, and at the same time consider extensions to their model that account for housing tenure. On the first score, we shift the focus from moves per se to change or stability in neighborhood status. One can stay in a neighborhood that shifts its poverty status, and one can move to a neighborhood that does or does not match the poverty status of one’s prior neighborhood. While less straightforward than treating shifts of status as owing only to moves, this approach simultaneously captures moves by families with particular traits, moves by other types of families, and shifts in the economic fortunes of other families over time.¹⁰ On the second score (accounting for subgroup traits), I use South and Crowder’s (1997) most conservative estimates of the effects of renting on mobility patterns – i.e., net of income, education, marital status, and other traits that correlate with tenure, renters are twice as likely as owners to move out of poor tracts (using their

¹⁰ To further illustrate this, one’s neighborhood of residence can be poor (in any given period) for three reasons: one entered a poor neighborhood from a poor or nonpoor one; one stayed in a neighborhood that was poor and remained so; or one stayed in a neighborhood that became poor.

logistic coefficient .716, $e^{.716} = 2.04$), more than twice as likely to move out of nonpoor tracts ($e^{.877} = 2.40$), more than twice as likely to move over (from poor tract to poor tract, $e^{.837} = 2.30$), and almost three times as likely as owners to “fall backward” – move from a nonpoor to a poor tract ($e^{1.046} = 2.85$).

Table 2 presents two models, a *baseline* (unadjusted) model that derives hazard rates from the top of Table 1 above, adjusting for tenure (renters only), and an *intervention* model that adjusts exit and entry rates in the baseline. In plain terms, Model A reflects a world in which most poor renters either move over or down (but a small share move up), while Model B cuts the hazard rate of *entry* into higher poverty areas from low poverty ones roughly in half and doubles the rate of *exit* from higher to low poverty areas. For now, as before, poor households do not become nonpoor or vice-versa. That is, families can change their neighborhood status but not their economic status from period to period (on which more below).

There are many bases for setting the adjustment rates in Model B and thus of performing sensitivity analyses for this simulation. For purposes of exposition, these adjustments – halving unfavorable entry, doubling favorable exit – would likely reflect *significant* changes of several kinds: (a) choice provided, greater preferences for nonpoor neighborhoods by poor families; (b) more frequent decisions by nonpoor families to stay in socio-economically diverse (mixed-income) neighborhoods; and (c) enhanced economic stability for marginal families so that they less often become poorer while staying in place. How much the adjusted hazard rates in Model B depend on changes in each of those is beyond these models, and indeed is a matter for policy debate and not just empirical research, but the models do allow us to explore how valuable significant changes in residential transitions might be in terms of long-run outcomes.

Now we may calculate equilibria (steady-state probabilities) that approximate the shares of poor renter families that will reside in each type of neighborhood under each scenario *over time*. This is one useful way to estimate potential exposure to whatever may be resource-rich or risky about different neighborhood contexts. Markov chains over multiple periods are calculated via matrix operations, now a straightforward process using computer spreadsheets. The steady-state equilibrium is given by

$$sP=s,$$

where s is the row vector $[p \ g]$ of long-run probabilities for a two-state Markov process, in this case neighborhood of residence is [low poverty, higher poverty], and P is the four-cell array of transition probabilities defining each model (A, B in Table 2). Not all Markov chains result in stable equilibria, but these do because they are “regular” chains, i.e. it is possible to move from any state in the chain to any other in each period (Stokey and Zeckhauser 1979:103-107).¹¹

¹¹ The classic example of an irregular chain is in the array of health states [sick, well, dead]. The state “dead” is an absorbing state in that once dead, one cannot go back to being well, nor even sick. In

Where the previous tables indicated transition rates for any one period (year), Table 3 shows residential *outcomes* over the long run, given assumptions about transitions shown in Table 2 (we thus capture moves and staying in place by poor families and the same for nonpoor ones). The results are thus analogous to studies of poverty dynamics over time that emphasize how pervasive some experience with poverty is for the U.S. population as a whole, and even how often families and individuals repeat spells of poverty, in the context of cross-sectional poverty rates that tend to portray poverty as an isolated experience for the unlucky few. The outcomes of each model below are revealing in and of themselves, and the contrast between the two models is striking. Under baseline assumptions, which largely derive from patterns observed for the 1970s and 1980s, the average poor renter family will live in low poverty neighborhoods just 20% of the time. These may be interpreted as dominant locational outcomes for the relatively small share of families that experience significant spells of poverty, not once-off spells of a year or less. Neighborhood poverty will thus be the dominant residential experience for such families. In the intervention scenario, however, poor renters would spend most of their residential lives (56%) in low poverty areas.

TABLE 3. HEURISTIC MODEL OF LONG-RUN RESIDENTIAL OUTCOMES FOR POOR RENTER FAMILIES
(Steady-state Probabilities for Markov Chains in Table 2)

<i>Model</i>	<i>Neighborhood Status</i>	
	Lower Poverty	Higher Poverty
A (Baseline)	.80	.20
B (Intervention)	.44	.56

On the other hand, as we turn next to how neighborhoods are described as places for families to manage and attain, Table 3 has a less optimistic interpretation as well. Even with very significant changes in the forces that drive residential transitions for the most mobile and economically marginal families (poor renters) – a halving of unfavorable entries and a doubling of favorable exits – such families would spend a very large share of their time (44%) in poor neighborhoods. The implication is that while favorable housing mobility and other adjustments offer some leverage on the quality of neighborhood contexts that lower income families can experience, such families will also need significant help coping with whatever short or long-run risks are

general, the larger the population, the more steady-state probabilities will approximate shares of population in each state over the long run. See Gramlich et al.'s (1992) estimation of residential equilibria by race and income level and on modeling dynamic social processes, see Huckfeldt, Kohfeld, and Likens (1982).

associated with living in lower quality neighborhoods. However exposure to specific risks and resources is modeled, moreover, the *potential* exposure to poor neighborhoods over the long haul is significant – and would remain so even if structural dynamics sorting poor people into poor places were to change fairly dramatically. Again, this simulation is limited by an adding-up constraint. As one begins to move much larger shares of poor families out of poor neighborhoods, and as one protects many from falling back into poor neighborhoods once out, the supply of nonpoor neighborhoods shifts. The intervention model, then, should be interpreted very cautiously. It is an as-if rendering of how much shifts in transition risks can affect cumulative exposure. The degree to which it distorts the most desirable cell (poor families in nonpoor neighborhoods) depends very much on the absolute size of the poverty population and the nature of the dispersal process.¹²

What if we allow economic fortunes and locational ones to co-vary? Holding family poverty status constant in Tables 2 and 3 is somewhat problematic even in the short run (because many families fall into and out of poverty each year) but much more so over the long run projected by these equilibrium models. Persistent poverty is comparatively rare in the U.S. and even more rare in other wealthy nations. While more than one-third of U.S. adults will experience at least a year in poverty between the ages of 20 and 40, only 3.7% will endure a spell of 5 years or more (Rank and Hirschl 2001).

In a more complex simulation that addresses dynamics of poverty (the poor can become nonpoor and vice-versa) as well as dynamics of neighborhood status, locational prospects are somewhat less bleak (see Tables 4 and 5). Like other types of empirical analysis, models of poverty dynamics, whether for families or neighborhoods or both, typically confront significant challenges with regard to the treatment of both categories and the boundaries that define them. Models that collapse income variation into just two categories, for example – poor and nonpoor – obscure enormous variation within those categories. Such condensing may also obscure the importance of modest mobility across boundaries, such as where a sizeable category of families “bounces” right above and below the poverty line over time, in effect spending long spells as either poor or *near* poor. Rank and Hirschl (2001) show, for example, while 35.7% of U.S. adults ages 20 to 40 experience at least one year in “poverty” as defined by the federal standard, a much larger proportion (54.2%) experience serious economic marginality as poor or near poor (where the latter is defined as below 1.5 times the poverty line). So some apparent mobility into and out of poverty status in fact reflects marginal income increases or decreases for a subgroup that remains economically vulnerable longer than it remains “officially” poor.

¹² To clarify this, one would want, in the shorthand of segregation analysis, to maximize evenness – that is, not to shift large numbers of poor families from poor neighborhoods to “almost poor” (marginal) ones but to drop poverty concentration through much wider dispersal. Unfortunately, the empirical evidence on housing choice, along with programmatic evidence from small-scale housing mobility programs, suggest that uneven dispersal is the more probable scenario.

Likewise, as in the models above, designating neighborhoods as poor and nonpoor masks significant variation within those categories, while reflecting widely employed conventions in the use of poverty levels. Acknowledging these problems, several patterns are well demonstrated empirically: *neighborhood change* reflects both selective migration patterns of families at various income levels and changes in the income of incumbent residents (Galster et al. 2003); and *changes in a (given) family's residential mobility* over time depend in part on changes in its own income level (along with human capital, life cycle factors such as marriage and divorce, and structural traits of the housing market; Gramlich et al. 1992; South and Crowder 1997).

These empirical patterns suggest that even the most basic models of residential dynamics should include changes in income level, which are routine and quite volatile in the case of families. Table 4 thus extends the long-run equilibrium modeling presented in Tables 2 and 3 above. Consistent with the earlier model, in this one-year Markov chain, all households are renters (who move much more often than owners and are more likely to be economically marginal over time), but now each household's status is defined in two dimensions: family poverty status (a dichotomous indicator of family income level); and neighborhood poverty level. Transitions of neighborhood status, as before, include moves as well as patterns of neighborhood change "around" each type of family. Transitions of family poverty status, more simply, reflect gains or loss in income by the family. But with two status dimensions and $2 \times 2 = 4$ status origins (at year t), four status outcomes are possible (at year $t+1$) from each origin. The cell probabilities (hazard rates) are all hypothetical, and as compared to the Baseline (Unadjusted) Model, the Intervention Model simulates the effects of positively adjusting entry/exit rates for both family poverty and neighborhood poverty status (e.g., via policies that expand the Earned Income Tax Credit and unemployment insurance or raise wages vs. policies that expand rental housing subsidies or disperse housing for low and moderate income families so that affordable housing options are less restricted to higher poverty neighborhoods). For now, these adjustments are arbitrary. Finally, status shifts on both dimensions are the least likely outcomes across any one-year transition. That is, all types of families shift more often across either family *or* neighborhood poverty thresholds (in a given year) than across both.

Given by $sP=s$, steady-state results (equilibria) in Table 5 below are not directly comparable to those in Table 3, since the former show shares of all renter households, not just shares of those renters who are poor. But we can calculate marginals for poor and nonpoor subgroups. Now, for example, in the Baseline Model, 69% of the residential experience of poor renters is defined by neighborhood poverty (.33/.48), compared to 80% in the Baseline Model in Table 3. Although some renter families who started the chain poor escaped poverty in this model, the reverse is also true: Some of the nonpoor fell into poverty, at least for a spell, and experienced correspondingly less favorable neighborhood transitions over time. In the Intervention Model, 58% (.19/.33) of the residential experience of poor renters is neighborhood poverty.

TABLE 4. HEURISTIC MODEL OF RESIDENTIAL TRANSITION FOR RENTER HOUSEHOLDS, BY FAMILY POVERTY STATUS (Baseline and Intervention Models, Hazard Rates for One-year Period)

Model A: Baseline (Unadjusted)				
<i>Status in year t+1</i>				
	Family poor, neighborhood poor	Family nonpoor, neighborhood poor	Family poor, neighborhood nonpoor	Family nonpoor, neighborhood nonpoor
<i>Status in year t</i>				
Family is poor, neighborhood is poor	.70	.20	.07	.03
Family is nonpoor, neighborhood is poor	.20	.30	.10	.40
Family is poor, neighborhood is nonpoor	.30	.10	.40	.20
Family is nonpoor, neighborhood is nonpoor	.05	.15	.15	.65
Model B: Intervention (Adjusted)				
<i>Status in year t+1</i>				
	Family poor, neighborhood poor	Family nonpoor, neighborhood poor	Family poor, neighborhood nonpoor	Family nonpoor, neighborhood nonpoor
<i>Status in year t</i>				
Family is poor, neighborhood is poor	.65	.25	.06	.04
Family is nonpoor, neighborhood is poor	.15	.30	.08	.47
Family is poor, neighborhood is nonpoor	.20	.10	.45	.25
Family is nonpoor, neighborhood is nonpoor	.03	.12	.10	.75

TABLE 5. HEURISTIC MODEL OF LONG-RUN STATUS OUTCOMES FOR RENTER HOUSEHOLDS
(Steady-state Probabilities for Markov Chains in Table 4)

	<i>Family and Neighborhood Poverty Status</i>			
	Family poor, neighborhood higher poverty	Family nonpoor, neighborhood higher poverty	Family poor, neighborhood low poverty	Family nonpoor, neighborhood low poverty
<i>Model</i>				
A (Baseline)	.33	.19	.15	.33
B (Intervention)	.19	.17	.14	.50

Again, these results reflect a simulation only; they are based on hypothetical hazard rates. One way to interpret Table 5 is that even where unfavorable entries and exits are adjusted downward, and favorable ones adjusted upward (Intervention Model), there is a significant, cumulative experience of family poverty (33% of the time), higher neighborhood poverty rates (36%), or both conditions (19%). This underscores the importance of a range of policy measures to encourage individual and institutional behavior that reduces the risks of families entering, staying in, and falling back into such negative states – policies that restrict affordable housing supply to central cities or to particular neighborhoods within them are prime examples, since they affect everyone’s housing choices and not just those of the poor. Policies that reduce the costs of being in such states are also important, however, since even major reductions in those risks would appear to leave a large cumulative exposure to negative states over the long run.

While both sets of equilibrium results (Tables 3 and 5) should be interpreted very cautiously, one plausible, big-picture interpretation is that while analyses of poverty dynamics (without regard to place of residence) tend to underscore the pervasiveness of *some* experience of poverty across national populations, analyses of the places in which poor people live highlight the special risks faced by those who are *persistently* poor and whose places of residence may help to keep them so. Likewise, where risk of falling into poverty (as a family) and into neighborhood poverty are both nontrivial, cumulative exposure to one or both states over the long run is significant for the population as a whole. This remains true even where favorable exit rates from family and neighborhood poverty are adjusted upward and unfavorable fallback rates from higher statuses to lower ones are adjusted downward.

Rethinking Neighborhood Types, Exposure, and Family Strategies

The previous section showed why housing mobility and dynamics of neighborhood change are potentially so significant for lower-income families: they move more often than other households and in less favorable directions (in terms of

neighborhood socio-economic make-up). Particular moves “up and out” of risky neighborhoods may be hugely beneficial, and yet falling back and moving over produce significant cumulative exposure to high-risk environments over the long haul. The scale of the outcomes are hypothetical, for these are as-if models, but empirical studies of panel data confirm that the *differentials* among hazard rates – moving up versus over, back down – are very real for economically marginal families with limited housing choices. A key question, then, is how economically marginal families manage constrained choices about housing and neighborhood *alongside* choices about the rest of their lives – schooling, work, health, valued relationships, and more.

Not surprisingly, qualitative research has provided the richest views of family strategies under serious constraint – of how poor families “manage risk and resilience” in poor and nonpoor neighborhoods, as Furstenberg (1993) puts it, and make tradeoffs among economic and other priorities (Burton and Jarrett 2002; Furstenberg et al. 1999; Jarrett 1997; Jeffers 1967; Lareau 2003; Stack 1974). This research suggests that some disadvantaged parents actively buffer their children from perceived risks in the immediate neighborhood; some parents also “bridge” further afield to connect their children to important resources, such as enrichment programs or particular cultural experiences. Other parents, in the same environments, appear to be much less resourceful. Families who move can – but may not – reconfigure their strategies to tap advantages in a new context and compensate for disadvantages, such as new risks, greater distance from social supports elsewhere, feelings of psychological discomfort resulting from outsider status, or other factors. So neighborhoods are logically mixed in their value for family management, with some places offering much higher net value than others for particular types of families (Rankin and Quane 2002).

The array of problems faced by families – most consciously by parents but often by older siblings as well – shift along the *life course*: young children and older adolescents both need monitoring and other supports, but the latter face a host of peer pressures, responsibilities, and opportunities that the former do not (Leventhal and Brooks-Gunn 2000). Conversely, younger children have fewer options for exiting the home environment if and when parenting becomes harsh and unsupportive. These life course changes imply differences in *exposure* to neighborhood risks and resources: young children may register the greatest benefits of the superior institutional resources in nonpoor neighborhoods, for example, while adolescents depend on the collective monitoring and control that promote positive development and inhibit delinquency, substance abuse, and other risky behaviors (Leventhal and Brooks-Gunn 2001; Sampson et al. 2002).

Together with the discussion of residential transitions and neighborhood change above, these considerations of family management along the life course suggest that neighborhoods might be typed according to what they contribute to family well-being and attainment – the effort to hold ground, if not “swim upstream” consistently:

- *Traps* are low-resource, high-risk neighborhoods that tend to significantly compromise family well-being and that *may* make it more difficult for families to identify and pursue alternative housing choices (to escape). In these contexts, successful parenting requires a very high degree of buffering from neighborhood risks and extreme resourcefulness in linking children or other family members to resources – many of which are concentrated elsewhere. But conversely, traps may be thought of as places that overwhelm the buffering capacity of the typical family. Provided some menu of exit options, most families who can leave will.
- *Stepping stones* are moderate-resource, moderate-risk neighborhoods that offer key resources to help families hold ground (in worst cases) and, more often, get ahead. These neighborhoods meet key family needs, though successful parenting still requires active buffering from risks and active linking to resources. Families are able to gain resilience, though many will move out if conditions do not improve.
- *Springboards* are comparatively low-risk, high-resource neighborhoods that meet a wide array of family management needs, offering the most desirable set of resources all around. Few families will choose to move out without a radical shift in household composition or economic status (e.g., divorce, loss of job, needy relative requires care).

The emerging evidence is that some families are much more vulnerable than others to these differences. But for many families, ascending this hierarchy would imply moving to more affluent neighborhoods or living where socio-economic indicators are on the upswing. The extreme example is not hypothetical but arises thanks to a court-ordered housing desegregation program operated over several decades in metropolitan Chicago. Launched in 1976, the Gautreaux program provided rental subsidies, tenant counseling, and landlord recruitment to help thousands of very poor black families, many female-headed, move from high-rise public housing projects in high poverty, high crime, mostly black neighborhoods to job-rich, low-crime, mostly white suburban areas 20-30 miles away. Not all movers stayed, but many did – and for a decade or more. Long-run comparisons of these movers with those who left the projects but stayed in the city of Chicago showed much higher rates of college going and employment for youth in the suburban mover group, as well as greater life satisfaction for adults (Rubinowitz and Rosenbaum 2000). Not all disadvantaged families would adjust well to such dramatic changes, and indeed not all Gautreaux participants did, but the program remains a unique demonstration of what large and *sustained* shifts in locational prospects can do to benefit the disadvantaged.¹³

¹³ The widely observed federal Moving to Opportunity experiment referenced above was launched in 1994 to test a Gautreaux-like intervention in a wider variety of metropolitan areas (Baltimore, Boston, Los Angeles, and New York, as well as Chicago) and to address selection bias through random assignment. The program randomly assigned a volunteer group of very low-income, mostly minority families living in public housing or other subsidized housing in poor neighborhoods to one of several treatment groups.

Other empirical studies corroborate the notion that neighborhood poverty proxies for a variety of risk and resource “quality” indicators, particularly at the far ends of the poverty rate distribution (in very low and very high poverty areas). But since the relevant calculus is whatever will most help a given family manage its risk and opportunity set – ideally including moves up and out as part of that set over time – the assumed correlation with socio-economic status is far from perfect. High-mobility immigrant enclaves are the classic example: many show high poverty rates, but rich social supports and useful leverage connections allow families to establish themselves and move out and up. What is more, enclaves may become attractive beyond the immigrant group and yield turnover that brings new resource-rich households into the neighborhood over time. Persistently poor racial ghettos, on the other hand, are the classic trap: they are stripped of fiscal, social, and other resources, they isolate many of their residents, and high risk in violence, stress, and other dimensions may actually impair residents’ capacity to leave (even where affordable alternatives exist in better neighborhoods). Again, the best evidence is that social isolation, crime, and other risk factors compound in such settings (Cutler and Glaeser 1997; Sampson, Morenoff, and Gannon-Rowley 2002).

Moving from one poor neighborhood to another could move one from a trap to a stepping stone (or vice-versa). Complicating the picture for analysts and program staff, the *same* neighborhood could be a trap for one family and a stepping stone for another – if the first is isolated but the second can access informal social supports from family or friends. And since exposure to neighborhood risks and resources can vary *within* families by age, gender, and other factors (Orr et al. 2003), typologies of this kind represent, in effect, a prediction averaged over family members. The interim results of the Moving to Opportunity experiment suggest significant and quite unexpected differences in social outcomes between girls and boys who made assisted moves from high to low poverty areas (Orr et al. 2003). If one lesson is that we ignore the extent of residential mobility far too much, another is that we have much to learn about how particular types of families and their individual members handle the benefit and burden of living in various types of neighborhoods.

Discussion

The effects of neighborhoods and other social contexts on family well-being depend on a host of dynamic functions: most importantly, one through which families sorts themselves across various types of neighborhoods, a second in which life course transitions change developmental risks and opportunities as children and adults age, and a third in which exposure (to neighborhood risks and resources) is variable and to

These groups varied in their initial locational prospects. Placement counselors encouraged the experimental group to move to neighborhoods with 1990 poverty rates below 10%, though not all families so assigned and so encouraged succeeded in leading up apartments in such neighborhoods. Also, families were allowed to move again after a year in place in low poverty areas, and about two-thirds had done so within the 4-7 year timeframe of the experiment’s interim evaluation (Orr et al. 2003).

some extent manageable. The first dynamic places low-income renters – the majority of those below the federal poverty line but also a great number of low and moderate income families above it – at particular risk, because low-income renters are more mobile than other households and tend to make the least favorable kinds of moves. As panel studies and census data indicate, economically marginal families – especially if they are renters – move often, cycle among poor neighborhoods to a significant degree, and also exit “down” or fall back (from nonpoor to poor areas) more often than other households. The limited housing choice available to these families is a top culprit, but the tendency of better-off families with wider housing choices to exercise them also contributes to a concentration of disadvantage, as Wilson (1987) suggested in his seminal analysis of the outmigration of the black middle class from inner-city neighborhoods.

But the second and third dynamics show why the *same* neighborhoods can serve different families to very different degrees and why particular poor families, even in high risk areas, can make it up and out, seemingly against the odds. Neighborhoods can act as traps, stepping stones, or springboards to families as they try to get by (or hold ground when times are roughest), get ahead, and, more ambitiously, propel the next generation toward better fortunes. Residential mobility is one dimension of family strategy, though this label should not be taken to imply that any family has good information on how to make the best and manage the worst of a given place of residence – far from it.¹⁴

For researchers, these dynamics further underscore the need for data on social processes at work, not just broad associations among structural traits of neighborhoods and indicators of well-being or attainment. But they also suggest that we need to understand much better than we do how plans for moving and for managing in place reflect the larger life plans and day-to-day tactics (practices) of families. Likewise, we know relatively little about how families link to multiple neighborhoods, for example through kin and nonkin networks or about what determines whether a neighborhood of *residence* will also be one of high social *influence* – i.e., truly an ecology of exposure, not just a location. Finally, in future research, it would be valuable to use PSID or other panel data to test several propositions:

- That otherwise similar families (for example controlling for income and education) experience a range of residential trajectories over time, with some economically marginal families more tenacious and/or more successful than others at getting out and staying out of high poverty areas. Analogous to “cyclers” on and off welfare, another group moves often and falls back often (when moving). A third group persists in poor areas, and that “stability” is a mixed blessing.

¹⁴ Galster (2003) offers a concise discussion of the host of “information failures,” in the shorthand of economics, that make neighborhoods particularly troublesome to appraise as market commodities.

- That spells of residence in disadvantaged neighborhoods, analogous to spells of poverty or welfare receipt, indeed have cumulative effects on well-being and attainment.
- That more rigorously defined exposure functions can help us distinguish more and less vulnerable families living in the *same* kinds of neighborhoods, sort out effects of time-in-place on neighborhood effects, and better understand how family-level strategies mediate exposure.

Understanding which families are at greatest risk of long spells or recurrent spells, and of the wrong kinds of exposure, could highlight better targets for research and policy. And strengthening buffering capacity – essentially, the capacity of family decision-makers to manage members’ exposure to context – is one obvious reason to orient more social policy around what families can or cannot accomplish on their own.

For policymakers, the simulation employed here suggests how powerful a shift in the neighborhood prospects of low-income families *could* be in terms of access to comparatively higher-resource, lower-risk neighborhoods over the long run. But given the constraints on these models, the results should be interpreted cautiously. Moreover, it would be particularly valuable to turn more traps into genuine stepping stones – places that not only promote stability and attainment but reduce the chances of falling backward – even if the poverty status of said neighborhoods did not change appreciably (Briggs 2003). The simple Markov models also suggest that even dramatic shifts in these locational prospects would still leave many poor families living much of their lives in poor neighborhoods under the current structure of spatial segregation and economic vulnerability. Enabling more vulnerable families to manage where they are – to buffer the bad and link to the good – will remain an essential component of any viable social policy, and so will helping people avoid two things – distinct types of *risk* and the *costs* associated with negative states or conditions.

Where risks and costs are concerned, in a recent synthesis of results on social exclusion in Europe, Hills (2002, p.231) identifies four types of policy intervention that may respond to “risks of” and “effects of”: (1) *prevention* (of entry into a negative state); (2) *promotion* (of exit or escape from a negative state); (3) *protection* (against negative effects of being in a negative state); and (4) *propulsion* (maximizing effects of escaping a negative state toward a positive one). Simply put, it’s not just the neighborhood but how you got there and what you do with it that counts. Good policy will enable more positive moves, to be sure, but it will also help families bridge, buffer, recover, and move up – in social and economic terms – no matter where they live.□

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