

The Impacts of Neighborhood Poverty Deconcentration Efforts on Low-Income Children's and Adolescents' Well-Being^{1, 2}

Rebecca C. Fauth

*National Center for Children and Families
Teachers College, Columbia University*

Citation: Fauth, Rebecca C. "The Impacts of Neighborhood Poverty Deconcentration Efforts on Low-Income Children's and Adolescents' Well-Being." *Children, Youth and Environments* 14(1), 2004: 1-55.

Comment on This Article

Abstract

Large numbers of poor, primarily minority, children reside in poverty-concentrated neighborhoods (i.e., neighborhoods where at least 20 percent of residents are poor). Emerging evidence documents the deleterious impact of neighborhood poverty on children's and adolescents' well-being. This paper summarizes research on trends in neighborhood poverty, extant policies to remedy concentrated poverty, and results from experimental programs that have implemented such policies on low-income, minority families. As a supplement to the limited experimental work on neighborhood poverty deconcentration efforts, this paper reviews research examining school desegregation and residential mobility on children's well-being—two parallel shifts in children's lives. Potential mechanisms or pathways of neighborhood deconcentration efforts on children's and adolescents' outcomes including housing quality, neighborhood characteristics (e.g., resources, violence and disorder), family factors, and social networks and ties are also reviewed. The paper concludes with a synthesis and policy recommendations.

Keywords: poverty, neighborhood, children, youth, policy

Article Contents

Introduction	3
The Concentration of Poverty and Race in the U.S.	4
Strategies for Deconcentrating Poverty	5
Challenges of Deconcentrating Poverty.....	6
Residential Mobility Programs—Three Key Studies	6
The Gautreaux Program in Chicago	7
The Yonkers Project	11
The Moving to Opportunity for Fair Housing Demonstration.....	12
Summary of Findings	14
Review of the Impacts of School Desegregation on Children’s and Adolescents’ Well-Being	15
Timing of Implementation	15
Timing of Effects.....	16
The Impact of Residential Mobility on Children’s and Adolescents’ Well-Being.....	17
School Readiness and Achievement	18
Behavior and Emotional Problems	19
Summary	21
Pathways of Neighborhood Poverty Deconcentration Programs on Children’s and Adolescents’ Well-Being	21
Housing Quality	22
Neighborhood Characteristics	23
Family Economic Resources and Dynamics	25
Social Ties and Networks	26
Summary	28
Synthesis.....	30
Policy Recommendations	32
Additional Assistance by Local Housing Authorities.....	32
Homeownership.....	33
Supplemental Tax Policies.....	33
Conclusion	33
Endnotes	34
References.....	35
Appendix	52
Gautreaux Program: Study Designs and Samples	52
The Yonkers (NY) Project: Study Design and Sample	53
MTO Demonstration: Study Designs and Samples.....	54

Introduction

Poverty rates in the United States have surged above those of other industrialized countries, especially for minority children. In 2001, 16 percent of children in the U.S. were poor, and this figure was nearly double for Black and Hispanic children (Proctor and Dalaker 2003). Although other industrialized countries also face high child poverty rates (e.g., United Kingdom), the U.S. tends to stand out in light of the contrast between the tremendous wealth in the country and the high percentage of poverty (Rainwater and Smeeding 2004).

Research has documented the detrimental impacts of poverty on various domains of child health and well-being, including school readiness and achievement, behavior problems, and mental health (for a review see Brooks-Gunn and Duncan 1997; Duncan and Brooks-Gunn 1997).

Because inadequate economic resources constrain the housing choices of poor families, low-income families in the U.S. are more likely than non-poor families to grow up in areas of concentrated poverty characterized by crime, unemployment, and lack of resources. In fact, in the late 1980s, more than 50 percent of poor children lived in neighborhoods where at least 20 percent of the residents were poor, and 17 percent resided in neighborhoods with poverty rates exceeding 40 percent (Jargowsky 1997; U.S. Department of Health and Human Services 1999). While this trend showed signs of slowing down in the U.S. during the 1990s, the weakened economy since the beginning of the twenty-first century may lead to exacerbated poverty concentration not only in metropolitan areas, but also in the areas immediately outside of major cities (Jargowsky 2003).

Demographers have posited that the increase in the number of children reared in poor neighborhoods since the 1970s was due to a confluence of changes, including the mass construction of government-funded public housing in the 1950s; the out-migration of large numbers of non-poor families from urban areas to the suburbs in the 1970s and 1980s; and changes in the structure of the labor market, wherein jobs followed the affluent into the suburbs, creating a spatial mismatch between the locales of low-wage employers and employees (Massey 1990; Massey 1996; Massey and Denton 1993; Massey and Kanaiaupuni 1993; Wilson 1987; Wilson 1996).

Coinciding with these demographic changes was increased academic interest in potential neighborhood effects on children and the mechanisms by which these effects occur. First, sociologists revisited social disorganization theory (Shaw and McKay 1942) to explain the phenomenon of crime and disorder in poor urban neighborhoods. High rates of neighborhood poverty, residential instability, and ethnic heterogeneity were hypothesized to disrupt neighborhood organizational processes and, in turn, public order (Bursik 1988; Kornhauser 1978; Sampson 1992; Sampson and Groves 1989; Sampson and Morenoff 1997). Second, following the lead of Bronfenbrenner (1979; 1989), psychologists began to move beyond familial influences on child development to consider more distal inputs including neighborhoods. In the 1990s, an influx of non-experimental work examined associations between neighborhood structural variables (derived from the census or

a similar administrative data source) such as neighborhood income or socioeconomic status (SES; e.g., percent poor, percent on public assistance, percent unemployed, percent professionals, percent college-educated, percent female-headed households) racial/ethnic heterogeneity (e.g., percent Black, percent Latino, percent foreign-born), and children's and adolescents' outcomes (see e.g., Brooks-Gunn, Duncan and Aber 1997; Brooks-Gunn et al. 1993; Chase-Lansdale et al. 1997; Crane 1991; Halpern-Felsher et al. 1997; Jencks and Mayer 1990; Klebanov, Brooks-Gunn and Duncan 1994; Leventhal and Brooks-Gunn 2000). In general, residence in an affluent or middle-class neighborhood was positively associated with children's school readiness and achievement outcomes, while children's and adolescents' behavior and emotional problems were exacerbated in low-SES neighborhoods.

In light of these developments, the present paper has many goals. The first segment considers trends in poverty and racial/ethnic minority concentration as well as various strategies for deconcentrating or dispersing neighborhood poverty in the U.S. The second part reviews three key experimental studies that have longitudinally followed families that were randomly selected to move out of public housing in economically and ethnically segregated areas. Following this discussion, the paper presents the school desegregation literature as a body of work which parallels the limited research on neighborhood deconcentration and/or desegregation techniques, and thus may help to inform researchers examining their effects on children's well-being. In light of the fact that most deconcentration and/or desegregation techniques require participating families to move, the empirical work on the effects of residential mobility (independent of neighborhood poverty) on children's outcomes is discussed as a way of understanding how moving may be viewed as a stressor in children's lives. Potential mechanisms or pathways of neighborhood deconcentration program influences on children's and adolescents' outcomes, including housing quality, neighborhood processes (e.g., resources, violence and disorder), family economic resources and dynamics, and social networks and ties, are reviewed in the final section. In short, the present review attempts to bring together the extant research on the concentration of poverty and race in the U.S., techniques to assuage this trend, and how and why policies geared towards alleviating poverty at the neighborhood level affect low-income children and adolescents.

The Concentration of Poverty and Race in the U.S.

There have been a number of recent policy responses aimed at deconcentrating poverty within high-poverty urban communities, particularly those containing large housing projects. Poverty concentration is linked with high rates of minority-White segregation in many metropolitan areas (Massey 1996; Massey and Eggers 1990; Massey and Kanaiaupuni 1993). In fact, race may be a more important determinant of the type of neighborhood in which residents reside than SES (South and Crowder 1998b). This explains, in part, why many of the court and government interventions since the 1990s have been desegregation efforts, with the primary goal of increasing racial/ethnic integration and the subsidiary goal of reducing isolated pockets of poverty. For the purposes of this paper, neighborhood deconcentration and desegregation techniques are considered jointly.

Based on national data, researchers have documented various trends in residential mobility for low-income, minority families. For example, when low-income families residing in poor neighborhoods moved, the moves were frequently lateral, not upward, especially for Blacks; marriage, educational attainment, and economic resources increased the odds of "moving up" (South and Crowder 1997; South and Crowder 1998a; South, Crowder and Trent 1988). Studies have also found that expectations of moving translate into actual moves less frequently for Blacks than for Whites and that Blacks are more likely to move unexpectedly for reasons such as eviction than Whites (Crowder 2001; South and Deane 1993). Black assimilation into affluent neighborhoods may only occur for the highest-SES families (i.e., the most highly educated and highest earners). However, high-status Blacks are more likely than high-status Whites to co-reside with poor families (Massey, Condran and Denton 1987).³

Strategies for Deconcentrating Poverty

The limited mobility options of low-income, particularly minority, families has necessitated deconcentration and/or desegregation techniques, which typically provide poor families with low-cost housing in low-poverty, low-minority communities (Briggs 2003; Goetz 2003; Hughes 1995; Popkin et al. 2003). The so-called "dispersal programs" have generally taken one of two forms: (1) project-based assistance or (2) tenant-based assistance.⁴

Project-based assistance. Project- or unit-based assistance, a supply-oriented strategy, entails purchasing land and constructing low-rent, government subsidized housing in a variety of neighborhoods. There are three main types of project-based assistance, namely, mixed-income housing, scattered-site public housing, and fair-share housing (Goetz 2003; Popkin et al. 2003). The first type, mixed-income developments, attempt to induce higher-income families to relocate to previously disadvantaged areas through the use of housing incentives. The second project-based approach, scattered-site programs, are commonly run by a single housing authority responsible for contracting construction companies to build single-family dwellings, duplexes, or small apartment complexes dispersed throughout a single jurisdiction. Finally, fair-share housing programs are similar to scattered-site programs but generally operate more regionally and require cooperation among multiple agencies beyond the housing authority. Inclusionary zoning programs are one example of fair-share housing, in which a certain percentage of units in newly constructed developments must be reserved for low-income families. Fair-share programs have been the least successful of the three project-based approaches to move families out of central cities, as equal numbers of families move from the city to the suburbs as they do from the suburbs back into the central cities (Goetz 2003).

Tenant-based assistance. The second group of housing strategies geared towards deconcentrating poverty includes tenant-based approaches provided through the federally-funded Housing Choice Voucher Program (HCVP; previously the Section 8 program) in which low-income families are provided vouchers to be applied toward the payment of rent in private housing. Families receiving housing

vouchers are generally required to contribute 30 percent of their income for rent and utilities; the voucher then covers the remaining costs, up to a limit (called a "payment standard") set by the housing agency. Some mobility programs offer families special assistance or counseling to help them find housing in low-poverty and/or low-minority neighborhoods and/or to work with landlords unfamiliar with housing vouchers. Tenant-based assistance (relative to unit-based assistance) has generally been favored in recent years due to its lower cost, the fact that participating families are allowed greater autonomy in their search for housing, its effectiveness at dispersing families across neighborhoods, and its low visibility within receiving neighborhoods (Goetz 2003). Problems with the tenant-based approach include the lack of control over the availability of units priced at the fair market rent, the size of the units, and discriminating landlords.

Challenges of Deconcentrating Poverty

Researchers examining the relative benefits of dispersion programs have noted several potential problems. First, such programs are efficacious for society as a whole only if the benefits to the high-poverty origin neighborhoods outweigh any adverse impacts on the lower-poverty "receiving" neighborhoods (Galster 2002). A second concern is so-called "White flight," wherein non-minority families leave the receiving neighborhoods, subsequently leading to plummeting property values (Crowder 2000; Frey 1994; Krysan 2002). However, a number of studies have found this to be exaggerated. In tenant-based approaches, vouchers enable families to be dispersed among many different neighborhoods, and the public housing developed for project-based approaches is often built in neighborhoods which are already declining (Briggs, Darden and Aidala 1999; Galster, Tatian and Pettit in press; Goetz 2003). Further, low-income families may not find middle-income neighborhoods enticing places to move to, as necessary amenities such as access to social services, transportation, and health clinics are frequently clustered in low-income neighborhoods (Goetz 2003; Turner, Popkin and Cunningham 2000). Spatial proximity to service providers is directly linked with receipt of social services (Allard, Tolman and Rosen 2003). Finally, low-income minority families may be resistant to moving into middle-income White areas due to potential discrimination as well as disruption of existing social networks (Popkin et al. 2003). Moreover, receiving communities may be resistant to large numbers of low-income in-movers (Goering et al. 1999, September).

These issues set the stage for the following section which details three key studies that have examined the efficacy of residential mobility as a way of deconcentrating poverty and potentially facilitating the well-being of low-income, primarily minority, children and families.

Residential Mobility Programs—Three Key Studies

For the most part, the housing initiatives outlined in the previous section required poor, minority families to relocate from high-poverty neighborhoods to less-poor neighborhoods. Nationally, there have been a number of housing decrees in the last two decades requiring the deconcentration and/or desegregation of public housing (see Goetz 2003 for a review). In a few cases, the programs were implemented in the context of a quasi-experimental design, in which interested families were

randomly awarded the chance to move through a lottery and survey questionnaires were administered to families and children post-move to obtain information on a variety of relevant outcomes including neighborhood disorder and exposure to violence, family economic factors, children's achievement and mental health, and relationships. A demographically-similar comparison group, composed of families who were not selected to relocate out of the high-poverty origin neighborhoods, also responded to the surveys. Since random assignment of families to neighborhood type (i.e., poor or less poor) is utilized, these key studies of residential mobility provide empirical evidence of deconcentration and/or desegregation efforts, specifically, and neighborhood effects, in general, on children.

In the present paper, three residential mobility programs are highlighted: (1) the Gautreaux Program in Chicago; (2) the Yonkers (NY) Project; and (3) the quasi-experimental Moving to Opportunity (MTO) for Fair Housing Demonstration in five U.S. cities. Although similar in scope, each of the three residential mobility programs have differences ranging from the implementation of the mobility reform (i.e., unit-based versus tenant-based) to the types of receiving neighborhoods (e.g., suburban versus urban, racially heterogeneous versus homogeneous). Both Gautreaux and Yonkers stemmed from court-ordered desegregation mandates, whereas MTO was sponsored by the government as a demonstration program. As a result, families in the experimental group in MTO did not necessarily move to primarily White neighborhoods. For each of the key studies, a brief description of the study context is provided, followed by a summary of the main findings on families' and children's outcomes. More detailed information on the specific study designs and samples for the three studies are found in the **Appendix**. See **Table 1** for a summary of findings to date.

The Gautreaux Program in Chicago

Context

The Gautreaux Program in Chicago stemmed from a 1976 court order to desegregate Chicago's public housing projects, located primarily in the city's Black South Side. The court order decreed that 7100 Section 8 vouchers, applicable towards private rental housing within the entire Chicago metropolitan area, were to be provisioned to low-income Black families living in and on the waiting list for public housing. At the outset, it was authorized that 75 percent of the families must relocate out of the city limits to the suburbs; by 1991, all families were required to move to the suburbs. Additionally, 75 percent of families could not relocate to communities where 30 percent or more of the residents were Black. The U.S. Department of Housing and Urban Development (HUD) began relocating families in 1981 and reached its goal of relocating over 7,000 families by 1998. Selected families were screened for eligibility based on standard criteria which included household size, rent-paying history, and housekeeping. Families were assigned to

Table 1. Summary of Implementation and Design and Program Impacts for Three Key Residential Mobility Studies

Mobility program	Implementation and design	Program impacts for families that moved to low-poverty neighborhoods (relative to families that remained in high-poverty neighborhoods)				
		Safety/Exposure to Violence	Economic	Achievement	Health/Mental Health	Social networks
Gautreaux Program	<ul style="list-style-type: none"> • Court-ordered desegregation mandate in Chicago, IL • Tenant-based assistance • 7,100 families randomly assigned to remain in Chicago or relocate to suburbs • Two quasi-experimental studies comparing urban vs. suburban movers 3, 6, 10 years following relocation 	+	+	+ long-term	N/A	- short-term + long-term
Yonkers Project	<ul style="list-style-type: none"> • Court-ordered desegregation mandate in Yonkers, NY • Project-based assistance • 200 families randomly assigned to move to new public housing in low-poverty neighborhoods • In-place control 	+	+	N/A	+ adults short-term - children short-term	- short-term

<p>Moving to Opportunity Demonstration</p>	<p>group composed families that remained in high-poverty neighborhoods</p> <ul style="list-style-type: none"> • Quasi-experimental study comparing movers and stayers 2, 7 years following relocation • Government sponsored demonstration in five U.S. cities • Tenant-based assistance • 1,820 families randomly assigned to relocate to low-poverty neighborhoods • In-place control group composed of families that remained in high-poverty neighborhoods • Experimental study comparing experimental and in-place control group prior to relocation and 2, 6 years following relocation 	<p style="text-align: center;">+</p>	<p style="text-align: center;">none</p>	<p style="text-align: center;">+/- short-term (depending on site) none long-term</p>	<p style="text-align: center;">+ adults short-& long-term + children short-term + girls long-term - boys long-term</p>	<p style="text-align: center;">- short-term</p>
--	---	--------------------------------------	---	--	--	---

housing on a first-come, first-served basis within Chicago or one of its suburbs in a random fashion, as units became available. On average, one-fifth of eligible, enrolled families actually moved. Reasons given for the low take-up rate include families' unwillingness to move out of their familiar communities as well as residents' inability to find housing in the allotted time (Rubinowitz and Rosenbaum 2000).

In order to assess the impacts of this historic program on residents' neighborhood safety, families' economic circumstances, children's school experiences and achievement, and families' access to social ties, two quasi-experimental studies were carried out, in which families who relocated to suburban, primarily White, middle-class areas ("suburban movers") were compared with similar families who moved within the city ("city movers") and essentially remained in poor neighborhoods (Rosenbaum 1995; Rubinowitz and Rosenbaum 2000). The following section briefly summarizes key findings.

Findings

In terms of neighborhood safety, fewer suburban than city residents experienced violence including robberies, rape, assaults, and gang violence. Analyses also revealed that significantly fewer suburban movers believed that their new neighborhoods were dangerous compared with city movers (Rubinowitz and Rosenbaum 2000). Administrative data using 1980 and 1990 census data corroborated this finding as both violent and property crime rates were lower in suburban versus city neighborhoods (Keels et al. 2003).

Adults who moved to the suburbs as part of the Gautreaux Program obtained employment at higher rates than adults who remained in the city; moving to the suburbs, however, was not significantly associated with improvement in adults' hourly wages (Rosenbaum and Popkin 1991).

Short-term school-related outcomes were examined for children as young as six years of age. According to parents, moving to the suburbs was positively associated with children's placement in special education classrooms during the first years of program participation (Rosenbaum, Kulieke and Rubinowitz 1988). Parents who moved to the suburbs also reported that the schools in their catchment area had higher standards compared with their children's old schools, which may explain the higher rates of special education placements (Rosenbaum, Kulieke and Rubinowitz 1988). In spite of these differences, suburban movers' school performance matched that of the city movers in the short-term. Over time, however, suburban movers were less likely to drop out of high school and were more likely to enroll in college preparatory classes and attend college than city movers (Kaufman and Rosenbaum 1992; Rosenbaum 1995).

As detailed in Rosenbaum et al. (1991) and Rubinowitz and Rosenbaum (2000), while suburban movers had more informal contact (e.g., talking on the phone, babysitting, eating) with neighbors than city movers at the outset, moving to the suburbs was also positively associated with the number of times residents were treated badly by neighbors in the first year after moving; this effect attenuated

over time (i.e., within approximately six years following moves). Furthermore, data from the same study revealed that the groups did not differ in the number of neighborhood friends they possessed, but suburban movers had significantly more White friends and significantly fewer Black friends than city movers (Rosenbaum 1995; Rosenbaum et al. 1991). Similarly, in terms of children's social interactions, the size of children's social circles did not differ by neighborhood environment and, approximately ten years following moves, city and suburban children felt equally socially integrated in their environments (Rosenbaum 1995).

Based on the results from the two studies examining subsamples of the more than 7,000 low-income Chicago families who relocated as part of the court ordered Gautreaux Program, suburban movers clearly benefited from the economically and racially integrated settings their moves afforded, especially in the long term. While suburban residents faced some racial harassment at the outset and children were more likely to be separated out of mainstream classrooms in the early 1980s, approximately ten years following relocation, these effects were attenuated. Findings based on the two demographically similar groups of movers indicate that relocating to more advantaged neighborhoods in the Chicago metropolitan area boded well for children's long-term success.

The Yonkers Project

Context

The City of Yonkers, New York, just north of New York City in Westchester County has been the host of a rather large social experiment for the last two decades due to long-standing segregation. By the mid-1980s, 50 percent of the residents residing in neighborhoods in the Southwest section of the city were poor and more than 60 percent were minority, living in dilapidated public housing projects or low-rent apartments (Briggs 1997; Briggs, Darden, and Aidala 1999). In response to the economic and racial segregation, a 1985 federal court ruling mandated desegregation of public housing by providing new housing opportunities to low-income residents (*United States v. City of Yonkers* 1985). Beginning in 1990, 200 two-story scattered-site publicly funded townhouses (14 to 48 units per site with separate entryways and backyards) were constructed in six primarily White, middle-income areas of the city. Families currently living in southwest Yonkers in public housing (50 percent) and on the waiting list for public housing (50 percent) who met the standards set forth by the Housing Authority were selected via lottery to move into the new public housing units between 1990 and 1993 ("movers"). An in-place control group of demographically similar residents who remained in southwest Yonkers ("stayers") was also recruited. All families were interviewed in their home approximately two and seven years following relocation; details on the study design and sample are provided in the Appendix. Currently, short-term findings based on the two-year interviews are available. Recent papers by Fauth, Leventhal, and Brooks-Gunn (2004; in press) examined the differences between families that moved from high- to low-poverty neighborhoods and families that remained in the original high-poverty neighborhoods on a number of relevant outcomes including neighborhood disorder and violence, families' economic

resources, parents' mental health, children's behavior problems and delinquency, and the neighborhood social climate.

Findings

In terms of neighborhood characteristics, both adults and children who moved to low-poverty neighborhoods reported less of neighborhood disorder (e.g., presence of gangs in neighborhood) and violence than their demographically similar counterparts who remained in high-poverty neighborhoods. Youth who moved reported less access to illegal substances in their neighborhoods than youth who remained in high-poverty neighborhoods.

Moving to a low-poverty neighborhood appeared to benefit families economically. Compared to stayers, mover adults were more likely to be employed and less likely to receive welfare.

In terms of adults' health findings in the short-term, mover adults reported fewer physical health and alcohol abuse symptoms compared with adults who remained in high-poverty neighborhoods. In the short-term, however, moving did not lead to differences in adults' depression or anxiety.

Youth who moved from high- to low-poverty neighborhoods reported more behavior problems, delinquency, and family relationship problems than their peers who remained in the original, high-poverty neighborhoods. These impacts were strongest for older youth (e.g., 16- to 18-year olds).

Short-term impacts on participants' social outcomes revealed that adults who moved reportedly engaged in less informal socializing with their neighbors than stayer adults.

In conclusion, the short-term results garnered from the Yonkers Project are mixed. Overall, adults in the sample responded well to moves as evidenced by their improved economic and health-related outcomes. Youth, however, reported more behavior problems following moves compared with their peers who did not relocate. Data from the seven year follow-up, recently conducted, will provide much needed information on the well-being of these families in terms of whether the advantaged neighborhood conditions experienced by the movers led to subsequent improvements in their well-being.

The Moving to Opportunity for Fair Housing Demonstration

Context

With the findings from the Gautreaux Program as the impetus, the Moving to Opportunity (MTO) program, a housing relocation program sponsored by HUD, commenced in the early 1990s (Goering 2003; Goering and Feins 2003). Families in five large U.S. cities including Baltimore, Boston, Chicago, Los Angeles, and New York City residing in public housing or receiving housing assistance under the Section 8 program and who had at least one child under 18 years of age were

eligible to participate; participants were primarily Black and Latino. Housing projects from which participants were recruited were located in census tracts with poverty rates in excess of 40 percent, as measured by the 1990 U.S. census. A randomized controlled design was used such that families who volunteered for the program were assigned to one of three conditions: (1) the experimental group who received Section 8 housing vouchers and special assistance to move only to low-poverty neighborhoods (less than 10 percent poor according to 1990 U.S. Census); (2) the Section 8 group who received housing vouchers under the regular, geographically unrestricted program and no special assistance; or (3) the in-place control group who did not receive vouchers or special assistance but continued to receive project-based support.⁵ For the purposes of this paper, differences between experimental and in-place control families are highlighted. Baseline interviews were conducted from 1994 to 1999, prior to random assignment and relocation of movers, with follow-up studies conducted approximately three and six years later (for the three-year evaluation, site-specific studies were conducted by different teams of researchers contracted by HUD). The present review focuses primarily on findings from the Baltimore, Boston, and New York City three-year evaluations as these studies focused on adult and child outcomes. Preliminary findings from the six-year interim evaluation are also summarized; details about the evaluation studies are found in the **Appendix**.

Findings

In terms of neighborhood characteristics, analyses revealed that experimental neighborhoods were significantly safer (Boston) and less crime-ridden (Boston) and disordered (New York City) than control neighborhoods (Katz, Kling and Liebman 2001; Leventhal and Brooks-Gunn 2003). These neighborhood improvements for experimental families were sustained over time (Orr et al. 2003).

Across MTO sites, minimal economic benefits were conferred on adults who moved from high- to low-poverty neighborhoods.

In the short term, experimental adults were less likely to report experiencing distress symptoms and depressive problems than in-place controls (Leventhal and Brooks-Gunn 2003). These effects were sustained over time across all sites in the six year interim evaluation (Orr et al. 2003).

Neighborhood effects on children's achievement were the focus of two short-term MTO studies in Baltimore and New York City. The two studies revealed somewhat conflicted findings. Evidence from the Baltimore evaluation revealed improvements in five- to 12-year old experimental children's achievement (relative to in-place control children) approximately three years following moves. For 13- to 18-year old experimental youth in the same study, however, increases in grade repetition and school discipline were revealed (Ludwig, Ladd and Duncan 2001). Evidence from the New York City MTO found increased achievement test scores and time spent on homework among 11- to 18-year old experimental male youth, but increases in grade repetition among six- to ten-year old experimental boys (Leventhal and Brooks-Gunn in press). Minimal educational impacts were found across all sites in the six-year interim evaluation (Orr et al. 2003).

In terms of children's behavior problems and/or delinquency in the short term, children in the experimental groups in Boston and New York City exhibited fewer behavior problems (e.g., behavior at home and at school, cruelty to others, and feeling unhappy, sad, or depressed) than in-place controls (Katz, Kling and Liebman 2001; Leventhal and Brooks-Gunn in press). The Baltimore evaluation more closely examined male delinquency via data from the Department of Juvenile Justice and found that for one to one-and-a-half years following randomization, experimental male adolescents were less likely to be arrested for violent crimes, especially robbery, relative to in-place controls (Ludwig, Duncan and Hirschfield 2001). There is evidence that experimental males demonstrated higher rates of property crime arrests compared with controls, possibly due to more stringent policing in low-poverty neighborhoods. At the time of the interim evaluation approximately six years following relocation, decreases in behavior problems and delinquency were seen only for experimental girls (relative to controls), with some indication that experimental boys were reporting more behavior problems and property crimes relative to control boys (Orr et al. 2003).

Only the MTO-Boston site evaluation examined early program impacts on residents' social relationships and found some evidence that experimental female children were more socially isolated than in-place controls (Katz, Kling and Liebman 2001).

In general, it is difficult to synthesize the available evidence from the MTO Demonstration as the earlier research focused on site-specific evaluations, while the six-year evaluation aggregated findings across all five sites. Over time, few educational program effects were found, possibly due to the fact that most experimental children (approximately 75 percent) remained in the same school district following moves (Orr et al. 2003). Approximately six years following moves, experimental girls appeared to benefit from moves in terms of their improved mental health relative to in-place control girls. Experimental boys, however, did not experience the same benefits. Findings from the final evaluation slated ten years after families' relocation will complement the long-term Gautreaux findings.

Summary of Findings

Based on findings from the three key residential mobility studies, it appears that neighborhood deconcentration and/or desegregation efforts that attempt to relocate disadvantaged minority families living in impoverished neighborhoods to relatively middle-class, White neighborhoods may actually be detrimental to children at the outset. In particular, findings from the Gautreaux Program and the Yonkers Project revealed some initially negative impacts on children who moved. In Gautreaux, however, children who moved to the suburbs in the study had better educational and employment outcomes, relative to city dwellers, in the long term. Long-term evidence from the Yonkers Project is not yet available. In the short term, children who were assigned to move to low-poverty neighborhoods as part of the MTO Demonstration exhibited fewer behavior problems than children who did not move. It is possible that these moves were easier to adjust to (relative to children in Gautreaux and Yonkers) because the experimental families in MTO relocated to

ethnically diverse (approximately one-third White) rather than primarily White neighborhoods. Thus, the period of adjustment for families that move as a result of neighborhood poverty deconcentration initiatives may be related to the demographic make-up of the neighborhood, and favorable outcomes may not be found in the years immediately following such moves.

Another factor with the potential to impact neighborhood deconcentration and/or desegregation programs' effects on outcomes is families' subsequent mobility. That is, the potential benefits of an upward move may be thwarted if families who relocated to low-poverty neighborhoods later move back to high-poverty, minority neighborhoods. This did not appear to occur with Gautreaux families, as a recent article reported that the SES and racial/ethnic composition of the initial placement was similar to that of subsequent neighborhoods (DeLuca and Rosenbaum 2003). In MTO, follow-up analyses examining experimental families' neighborhoods in 2001 revealed that of the families that actually used their housing vouchers to move to low-poverty neighborhoods, nearly 67 percent of them remained in neighborhoods with poverty rates less than 10 percent (Feins 2003). However, among all families assigned to the experimental group regardless of whether they moved, only 32 percent of these families lived in low-poverty neighborhoods. Thus, approximately six years following the implementation of MTO, a number of families assigned to the experimental group resided in higher-poverty neighborhoods. Clearly, this subsequent relocation could minimize potential program benefits on participating families.

Review of the Impacts of School Desegregation on Children's and Adolescents' Well-Being

Due to the limited experimental and quasi-experimental research examining neighborhood deconcentration and/or desegregation techniques on children's outcomes, a brief review of the school desegregation literature is presented. Like neighborhood deconcentration efforts, school desegregation initiatives necessitate changes in children's daily environments. Two trends of these school-based reforms that may inform neighborhood-based efforts are highlighted, namely, the timing of implementation and the timing of effects (i.e., short- versus long-term).

Timing of Implementation

Impacts of school desegregation on participants' outcomes may vary according to the timing of implementation and/or the number of years children spend in an integrated versus a segregated school. Early implementation and more years in an integrated setting lead to larger and more positive linkages with outcomes. Two ambitious meta-analyses compiling research on desegregation found larger positive effects on academic achievement for children who experienced desegregation during elementary school versus high school (Crain and Mahard 1983). Furthermore, one extensive study of a desegregation effort in St. Louis, Missouri revealed that among a sample of Black high school students attending White schools for the first time, the minority students were overrepresented in the lowest academic tracks (Wells and Crain 1997). The impacts of early desegregation may be due to a smaller academic gap between the minority and majority children in

younger years, as well as less fear or prejudice of minority children by Whites in elementary school relative to high school children (Scott and McPartland 1982; St. John 1975).

Timing of Effects

Many experts on school desegregation urge that efficacy should be measured by long-term effects (Jencks and Mayer 1990; St. John 1975; Wells and Crain 1997). Studies have found that effects on children's achievement assessed less than one year following implementation of school desegregation are smaller than the effects found when outcomes are assessed at least one year following implementation (Crain and Mahard 1983). School desegregation has in fact been most consistently associated with longer-term outcomes including the findings that children who attend desegregated schools tend to attend predominately White colleges, to form integrated social and professional networks, and to have white collar or professional jobs (Braddock 1980; Dawkins 1994; Wells and Crain 1994). One study found that the percentage of White students in mothers' high schools was associated with nearly a two-point increase in their elementary school aged children's vocabulary scores above and beyond the impacts of maternal IQ and past achievement (Phillips et al. 1998). Research has also shown that Blacks who attend desegregated elementary and secondary schools are more likely to have higher and more realistic educational aspirations than segregated Black students (Jencks and Mayer 1990; Wells 1995).

It must be noted, however, that studies using more sophisticated analytic techniques including statistical controls for individual and background demographic characteristics have found weak associations between school desegregation, youths' achievement test scores and school attainment, and adults' earnings, especially in comparison with the impacts of school quality on such outcomes (Rivkin 2000; Whitfield and Wiggins 2003). This may be due to the fact that the proportion of White pupils in U.S. public schools has declined dramatically since 1990s, leading to an increase in "majority minority" schools (Logan 2004). The fact that school quality may supercede the direct impacts of desegregation efforts on children's outcomes highlights the importance of providing high-quality services to low-income and minority families. Research on housing quality, which is most relevant for neighborhood deconcentration and/or desegregation efforts, is discussed in a later section.

In general, school desegregation produces positive adult outcomes when programs are implemented when children are young (i.e., during elementary school) (see **Table 2** for a summary of impacts). It follows that implementing neighborhood deconcentration and/or desegregation initiatives early in children's lives may be most advantageous; this would compliment the non-experimental evidence documenting positive associations between neighborhood SES and children's outcomes as young as three years of age. Although school desegregation does not impact children until they are at least five years of age, neighborhood policies can play an earlier role. Furthermore, the fact that favorable long-term effects have

been found in the school desegregation literature matches the long-term findings from the Gautreaux Program (Kaufman and Rosenbaum 1992; Rubinowitz and Rosenbaum 2000).

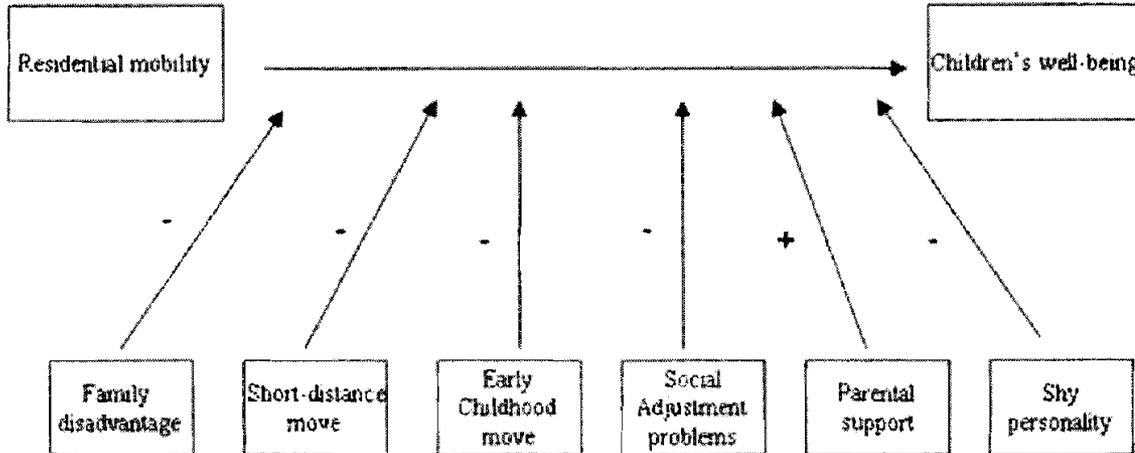
Table 2. Summary of Impacts of School Desegregation on Children’s Well-Being

	<i>Timing of implementation</i>	
Timing of effects	Early (elementary school)	Late (high school)
Short-term	+ small effect sizes	-/negligible
Long-term	+ largest effect sizes	+ small effect sizes

The Impact of Residential Mobility on Children’s and Adolescents’ Well-Being

Moving is a key piece of mobility programs; independent of other factors, it may be disruptive to children and youth and thus negatively impact their outcomes. There exists an extensive body of research which examined the effects of residential mobility on children’s achievement, mental health, and social outcomes, although many of these studies are descriptive in nature and do not statistically control for potentially confounding variables (e.g., race/ethnicity, family SES, etc.). A review of the findings, however limited, follows including a summary of research that has examined the different types of moves (e.g., long versus short distance, opportunity versus necessity moves, etc.) children experience and how these variables may moderate (or mediate) associations between moving and their well-being. **Figure 1** highlights potential moderators of residential mobility on children’s outcomes. This section presents findings on school readiness and achievement first, followed by impacts on behavior and emotional problems.

Figure 1. Summary of Potential Moderators of Residential Mobility on Children's and Adolescents' Well-Being



School Readiness and Achievement

A number of studies documented negative associations between the number of moves experienced by children since kindergarten and their achievement, measured as early as first or second grade. A few studies have also found negative mobility effects on other school-related outcomes including school behavior problems and attendance, but findings in this domain are less consistent than those for achievement. This section reviews the extant literature in more detail.

One Denver area study found that children in the most unstable mobility groups (e.g., those that transferred more than two times in one year) were experiencing the lowest achievement test scores compared with more stable children, and this effect was strongest in the lower grades (Ingersoll, Scamman and Eckerling 1989). These negative impacts may not dissolve over time, as studies have documented that early moves (e.g., during elementary school) were negatively associated with children's future school performance as late as middle school or even high school (Pribesh and Downey 1999; Temple and Reynolds 1999). Studies have also demonstrated that mobility-achievement associations are influenced by children's social adjustment following moves (Pribesh and Downey 1999; Swanson and Schneider 1999).

In terms of alternate school-related outcomes, a number of studies using the National Health Interview Survey of Child Health data, which surveyed children from all age groups, found that the odds of exhibiting academic-behavioral problems including grade repetition, disobedience in school, and suspensions/expulsions were higher for children who moved even one time during their childhood compared with children who did not move at all, especially for

children from single-parent families (Simpson and Fowler 1994; Tucker, Marx and Long 1998). Among young school age children in another study, moving more than two times between the beginning of kindergarten and the end of first grade was positively related with children's absenteeism and their school adjustment problems (Nelson, Simoni and Adelman 1996).

Residential mobility may also be associated with children's educational attainment, which has long-term implications for children's future career opportunities. According to a number of studies, the odds of high school dropout were increased for children who have experienced family moves (Coleman 1988; Rumberger and Larson 1998; Swanson and Schneider 1999), especially when the moves occur during early childhood (Haveman, Wolfe and Spaulding 1991) and for children residing in single-parent and stepfamilies versus two-parent, intact families (Astone and McLanahan 1994). On the other hand, a Toronto-based study reported that moving had a significant, positive association with college completion and education attainment, especially for youth with supportive mothers and participating fathers (Hagan, MacMillan and Wheaton 1996).

Finally, studies have examined variables occurring concomitantly with moving including the geographical distance of the move and existing risk factors. A number of studies found that shorter-distance, intracity moves were associated with less favorable outcomes compared with longer distance, extracity moves (Alexander, Entwisle and Dauber 1996; Johnson and Linblad 1991; Tucker, Marx and Long 1998). Along the same lines, an older study of primarily minority youth from across the country found that local moves (i.e., intrastate or intraregion) were negatively associated with school progress when household head educational attainment was low; longer distance moves yielded no associations with school progress, regardless of background characteristics (Straits 1987). When it occurs concurrently with other risks and/or transitions including school change, puberty, and family disruption, moving may be viewed as an additional risk factor associated with unfavorable outcomes (Felner, Primavera and Cauce 1981; Scanlon and Devine 2001; Simmons et al. 1987). Finally, research has found that mobility may exacerbate poor academic outcomes for psychiatric inpatient or maltreated children (Eckenrode et al. 1995; Mundy et al. 1989).

Behavior and Emotional Problems

Residential mobility is also associated with children's behavior and emotional problems. Similar to the findings assessing achievement outcomes, moving, even at a young age, is negatively associated with favorable behavioral and mental health outcomes, especially for highly mobile children. More prevalent for outcomes in this domain than for achievement, children's individual personality traits as well as their support networks may moderate (or mediate) the impacts of residential mobility on children's behavior and emotional problems.

Studies have found that mobility occurring early in children's school careers was associated with increased parent- and teacher-reported behavior problems measured when children were in first grade, especially for children who moved

more than one time between preschool and first grade (Ackerman et al. 1999b; Nelson, Simoni and Adelman 1996). Among older children, two studies have found positive associations between residential moves and adolescent girls' depression (Brown and Orthner 1990) and adjustment problems (Adam and Chase-Lansdale 2002).

In terms of more severe outcomes, two studies using data from approximately 10,000 six- to 17-year old children who participated in the National Health Interview Survey of Child Health reported that children who moved six or more times were 77 percent times more likely to have experienced four or more behavior problems than their peers who did not move at all or moved infrequently; similar, yet attenuated, effects were found for children who moved one to three times versus nonmovers (Simpson and Fowler 1994; Wood et al. 1993). A study of 250 12- to 18-year old psychiatric inpatients revealed that youth in the moderate-mobility (two to four moves to or from psychiatric care) and high-mobility (five to 20 moves) groups were more likely than their low-mobility counterparts to be diagnosed with conduct disorder (Mundy et al. 1989). Among older female youth, moving was positively associated with the odds of having intercourse even after controlling for a number of relevant variables including rural/urban geography, religiosity, father's educational attainment, number of sexually active girlfriends, and race (Stack 1994).

Children's individual personality characteristics may moderate associations between moving and their emotional and behavioral outcomes, indicating that residential moves may be particularly hard for certain types of children. One small study of children enrolled in Head Start and their mothers revealed that children's emotional intensity, which is similar to temperament, moderated the associations between residential instability and maternal reports of children's behavior problems, depression, and social isolation. Results revealed that children low on emotional intensity had more problems and that highly emotionally intense preschoolers had fewer problems (Stoneman et al. 1999). Similarly, a study of high school children found that the positive impact of frequent mobility on youths' depression scores held only for shy students (Norford and Medway 2002). According to these studies, less emotionally reactive children and shy children experienced the most difficulty adjusting to residential moves.

Aside from individual characteristics, parental and peer social support may attenuate negative associations between moving and adolescents' behavior or emotional outcomes (Hendershott 1989; Sampson and Laub 1994). A Canadian study of 10- to 11-year olds found that the positive association between frequent relocation and problem behavior (e.g., aggression, alcohol use, delinquency) was diminished among children who exhibited high family and school attachment, and was exacerbated for children with parents who displayed inconsistent or harsh caregiving practices (DeWit, Offord and Braun 1998). One study reported null associations between objective aspects of moving (e.g., months since last move, location of move) and youths' adjustment, yet their difficulty making new friends following residential moves was associated with less favorable outcomes (Pittman and Bowen 1994). Similarly, a study of higher-SES adolescents revealed that

mobile boys had less contact with friends and experienced more rejection than non-mobile boys. Furthermore, mobile boys and girls scored lower on assessments of friendship qualities including sharing and intimate self-disclosure than non-mobile teenagers (Vernberg 1990). Finally, children's self-concept scores declined linearly with the distance moved for a group of middle-class high school children (Kroger 1980).

Summary

Research has indicated that children with above average mobility histories are more likely to reside in single-parent families, to be poor and receive public assistance, and reside in households where the head has less than a high school education (Benson et al. 1979; Eckenrode et al. 1995; Long 1992; Rumberger and Larson 1998). Furthermore, there is some indication that children from high-SES families were more likely to make longer-distance moves than low-SES children, perhaps indicating that the more affluent families were moving in response to better opportunities (Alexander, Entwisle and Dauber 1996; Family Housing Fund 2001; Goebel 1981; Lacey and Blane 1979; Nelson, Simoni and Adelman 1996). Frequent residential mobility may not be in and of itself associated with deleterious outcomes for children, especially if the move is opportunity-oriented. It is a bit difficult to discern the implications of this literature on the low-income, minority families participating in residential mobility programs. On the one hand, the families, by nature of the program, moved to less poor or even middle-class neighborhoods, which should facilitate children's well-being. Yet, the relocation could be construed as another risk factor in addition to poverty, ethnic minority status, residence in female-headed households, and low maternal education in these children's lives. Furthermore, at the outset, these moves may have been difficult for targeted families as they were required to move to low-poverty and, in some cases, primarily White neighborhoods where they were obviously the minority. Clearly, children's perceptions of the move, relationships with family and friends, and experiences following moves affect their adjustment to this change.

Pathways of Neighborhood Poverty Deconcentration Programs on Children's and Adolescents' Well-Being

The research presented in the previous section highlights research on the impacts of poverty deconcentration and/or residential desegregation, school desegregation, and residential mobility on children's and youths' outcomes. While informative, this research review did not describe the potential mechanisms through which the impacts of neighborhood deconcentration and/or desegregation strategies may be transmitted to children. The following section reviews a number of these pathways.

There are four primary paths through which neighborhood deconcentration and/or desegregation initiatives may affect children and youth. These include improvements in housing quality, changes in neighborhood characteristics, impacts on family economic resources and dynamics, and adjustments in social climate including social networks and ties.

Housing Quality

Housing conditions and quality- including safety, cleanliness, space allocation (e.g., crowding), lighting, and décor- may impact low-income families' outcomes (Bradley 1995; Caldwell and Bradley 1984). Moreover, these factors may be responsible, in part, for the neighborhood effects on children generated by housing deconcentration and/or desegregation programs.

In general, residence in a neighborhood with a high proportion of poor residents is negatively associated with the physical quality of home environments (Evans and Kantrowitz 2002; Klebanov, Brooks-Gunn and Duncan 1994). Experimental and non-experimental studies have documented associations between neighborhood SES and children's health outcomes (e.g., injuries, asthma), which may be due, in part, to the physical quality of homes and the immediate environs (Carr, Zeitel and Weiss 1992; Durkin et al. 1994; Northridge et al. 1999; Spengler et al. 2002). Residential crowding and noise are aspects of housing quality that have been unfavorably associated with children's development including their motor skills (see Evans 2001 for a review), their persistence on tasks and ability to concentrate (Evans 2001; Evans, Saltzman and Cooperman 2001), as well as their reading ability (Evans and Kantrowitz 2002). Moreover, housing characteristics may have long-term impacts on children's outcomes; a two-generation study using data from the Panel Study of Income Dynamics (PSID) revealed that living in a clean house was positively associated with respondents' future educational attainment and earnings (Dunifon, Duncan and Brooks-Gunn 2001).

There is mixed evidence regarding the associations between mental health outcomes and physically inadequate housing (Dunn 2002), although there is some indication that inadequate housing exacerbates psychological distress and other maladaptive behaviors such as behavior problems (see Evans 2001; Evans, Saltzman and Cooperman 2001; Evans, Wells and Moch in press; Newman 2001, for reviews) and psychological distress (Evans 2003). Children from poor families are more likely than children from middle-income families to experience multiple physical stressors including crowding, noise, and poor housing quality, and these stressors may mediate links between family poverty and children's socioemotional development (Evans and English 2002). Boys may be more susceptible to the effects of low-quality housing than girls, and adolescents may be more affected than younger children (Evans, Wells and Moch in press).

In conclusion, there is emerging evidence that residence in low-quality homes has detrimental impacts on children's well-being. Housing quality improvement should be a priority of neighborhood deconcentration and/or desegregation programs, especially since residents may be less likely to make frequent moves if they reside in high-quality homes. Although it is probably easiest to control housing quality with a project-based approach, the downside is that public housing, regardless of quality, has the potential to "reconcentrate" poor families.

Neighborhood Characteristics

Neighborhood characteristics- in particular neighborhood resources and organizational processes, disorder, and violence- are likely to change following relocation from high- to low-poverty neighborhoods. It is these changes which may in turn cause neighborhood deconcentration and/or desegregation efforts to impact children's and adolescents' outcomes.

Neighborhood resources encompass the availability, accessibility, and quality of community schools, libraries, recreation centers, and other resources. Surprisingly, little research has explored variation in community resources by neighborhood SES and the subsequent impacts of these differences on children's outcomes. Community child care and schools are important resources that may change following residential moves and may subsequently impact children's and youths' outcomes, especially school readiness and achievement. One study found that the quantity and quality of child care in poor neighborhoods was low, which implies that access to child care may be a benefit of moving out of high-poverty neighborhoods (Fuller et al. 1997). The social and economic make-up of a particular neighborhood is likely intertwined with local schools' characteristics including quality, climate, and demographics, which has been shown to influence children's outcomes (see Jencks and Mayer 1990).

The learning activities and centers available within a community (e.g., libraries, literacy programs, family resource centers, museums) are also likely to change following neighborhood deconcentration and/or desegregation initiatives, as neighborhood disadvantage may be negatively associated with such resources (Catsambis and Beveridge 2001). When present, organized social and recreational activities including sports programs, art and theater programs, and community centers may foster children's well-being. In one study of third graders from middle- and working-class neighborhoods in California, the presence of neighborhood social resources (e.g., Boy/Girl Scouts, YMCA, etc.) was negatively associated with children's loneliness (O'Neil, Parke and McDowell 2001). Thus, these types of resources may assuage children's social transitions into new neighborhoods. A study of high schoolers found that their self-reported counts of neighborhood resources including community centers, parks and playgrounds, transportation, job opportunities, health clinics, and counseling/social services were positively associated with the youths' intention to complete high school (Williams et al. 2002). Contrary to expectations, one study found that family participation in recreation or sports programs was lowest for residents in moderately poor neighborhoods and highest for families residing in high-poverty neighborhoods (Rankin and Quane 2000), which has implications for the economic make-up of neighborhoods targeted by deconcentration and/or desegregation programs.

The quantity of health-related services in a community is generally excluded from studies of child health, although evidence exists that access to certain types of medical facilities (e.g., emergency care versus primary care) may vary depending upon neighborhood SES (Brooks-Gunn et al. 1998). A recent study found that access to mental health services was actually higher in urban than suburban areas

(Allard, Tolman and Rosen 2003). Families' access to health clinics has clear links to their subsequent health outcomes and may be altered following neighborhood deconcentration and/or desegregation efforts.

The following part of this section reviews research on neighborhood organization including collective efficacy or informal social control (e.g., mutual trust and willingness to intervene for the common good) on children's outcomes, notably, behavior problems and delinquency. The presence or absence of neighborhood organization, disorder, and violence is indicative of a neighborhood's ethos; i.e., the shared values and trust among neighborhood residents (Sampson, Morenoff and Earls 1999; Sampson, Raudenbush and Earls 1997). Data from the Project on Human Development in Chicago Neighborhoods (PHDCN), a neighborhood-based study of 80 Chicago neighborhoods, found that neighborhood disadvantage, residential instability, immigrant concentration, observed neighborhood disorder, and crime and victimization were negatively associated with neighborhood collective efficacy and social control (Sampson 1997; Sampson, Morenoff and Earls 1999; Sampson, Raudenbush and Earls 1997). Other studies have found that the presence of collective efficacy and social control in neighborhoods were positively associated with youths' achievement (Ainsworth 2002), and negatively associated with children's problematic behaviors (Elliott et al. 1996; Gorman-Smith, Tolan and Henry 2000; Kowaleski-Jones 2000; O'Neil, Parke and McDowell 2001), indicating the importance of these neighborhood mechanisms for children's well-being.

The absence of community formal and informal institutions to regulate residents' behavior is thought to be associated with pervasiveness of risk to residents (e.g., danger, violence, crime, and access to illegal or harmful substances), which impedes children's well-being and development. In fact, a Canadian study found strong negative associations between neighborhood disorder (e.g., persons arguing, shouting, or fighting in a hostile or threatening manner, as observed by interviewers) and preschool aged children's verbal ability after controlling for family and neighborhood SES as well as maternal mental health (Kohen et al. 2002). Moreover, low-income children growing up in poor neighborhoods are exposed to high levels of violence within their communities and homes beginning in their early years (Buka et al. 2001; Martinez and Richters 1993; Richters and Martinez 1993), which is subsequently linked to adverse mental health outcomes with potentially long-term effects such as behavior problems, depression, anxiety, oppositional and conduct disorders, alcohol use, and school-related problems (Aneshensel and Sucoff 1996; Buka et al. 2001; Fitzpatrick 1993; Gorman-Smith and Tolan 1998; Margolin and Gordis 2000; Osofsky 1999; Schwab-Stone et al. 1995; Schwab-Stone et al. 1999).

In conclusion, this section highlighted potential neighborhood-based characteristics that impact children's and youths' outcomes. Neighborhood resources including child care and schools, learning and recreational centers, and activities may vary according to neighborhood SES and thus, children's access to them may be altered through neighborhood deconcentration and/or desegregation initiatives. Furthermore, neighborhoods create and sustain their own set of organizational norms, rules, and regulations that are enforced both formally and informally. Past

research has shown that impoverished neighborhoods have fewer of these characteristics in place, resulting in higher incidences of disorder, delinquency, and violence compared with more affluent neighborhoods. In terms of direct linkages between neighborhood and housing policies and children's well-being, it appears that placing children in more affluent neighborhood environments should facilitate their school readiness skills and lead to more favorable achievement outcomes most likely due to improved school quality, better resources, and greater achievement orientation in affluent neighborhoods. At the same time, removing children from disadvantaged neighborhoods is likely to lessen children's behavior and emotional problems due to lower access to delinquent peers and communal acceptance of such behavior. For the hypothetical impacts of neighborhood resources to occur, it is necessary for children attending low-quality schools to begin attending higher-quality schools and for children with deviant peers to begin associating with non-deviant peers following residential moves. The distance families move as well as the school assignment policy certainly impact the degree of neighborhood change children and youth experience.

Family Economic Resources and Dynamics

Parental economic resources, well-being, and relationships with their children are a central conduit between neighborhood effects and children's and adolescents' outcomes. Neighborhood SES and residential segregation are thought to influence a variety of parental characteristics such as their economic resources and access to employment, mental and physical health, and parents' behavior.

Aside from the experimental evidence discussed in a previous section, there is little research documenting neighborhood effects on adults' economic well-being. Two studies have documented positive associations between neighborhood poverty concentration and unemployment and welfare dependence (Devine et al. 2002; Reingold, Van Ryzin and Ronda 2001). Furthermore, another study found that the neighborhood unemployment rate and percentage of families receiving welfare was negatively associated with adults' self-efficacy scores (Boardman and Robert 2000), thus indicating the potential benefits of improved economic circumstances on adults' well-being.

The association between neighborhood structural conditions, notably SES and percentage minority, and adults' physical and mental health has been replicated within a number of studies (e.g., Acevedo-Garcia et al. 2003; Boardman et al. 2001; Cubbin, LeClere and Smith 2000; Diez Roux et al. 2001; Ellen, Mijanovich and Dillman 2001; Goldsmith, Holzer and Manderscheid 1998; Kahlmeier et al. 2001; Malmstrom, Johansson and Sundquist 2001; Ross 2000; Ross and Mirowsky 2001; Williams and Collins 2001). Mentally and physically healthy parents (relative to unhealthy parents) are better able to interact with their children and act in a supportive manner, which facilitates children's positive development (Jackson et al. 2000; Lovejoy et al. 2000; Zaslow and Eldred 1998). One study of first grade children and their parents found that the positive association between neighborhood risk and children's externalizing problems was partially mediated by maternal depression (Greenberg et al. 1999). A study by Elder and colleagues (1995) found

that among Black families, the link between neighborhood disadvantage and family monitoring and supervision was mediated by levels of parental self-efficacy. Finally, maternal well-being moderated the positive association between neighborhood drop-out rate and youths' risk-taking behaviors such that the association was strongest among youth whose mothers exhibited low self-esteem scores (Kowaleski-Jones 2000).

Neighborhood conditions, notably poverty and danger, may affect specific parental behaviors including warmth, harshness, and supervision. Studies have found that residence in poor, dangerous neighborhoods was associated with lower maternal warmth (Klebanov, Brooks-Gunn and Duncan 1994; Pinderhughes et al. 2001) and higher rates of harsh control, verbal aggression, and inconsistent discipline from mothers (Earls, McGuire and Shay 1994; Hill and Herman-Stahl 2002; Molnar et al. 2003). In terms of linkages with children's and adolescents' outcomes, Simons and his colleagues (1996) found that the effect of community disadvantage on adolescent boys' externalizing and internalizing behavior problems was mediated by quality of parenting (i.e., warmth, harshness, hostility, and communication). Additionally, nurturing, supportive parenting may help to buffer children from some of the negative consequences of growing up in a disadvantaged neighborhood including associations with deviant peers (Brody et al. 2001; Duncan et al. 2002) and exposure to violence (O'Donnell, Schwab-Stone and Mueeed 2002).

High levels of parental supervision and monitoring may be related to neighborhood poverty and danger and could serve to insulate children from harmful community influences, which may then promote children's and adolescents' well-being. In one study, maternal involvement served as a protective factor against association with delinquent peers among 10- to 12-year old children residing in disadvantaged neighborhoods (Brody et al. 2001). A Seattle area study of young adolescents found that maternal control buffered the negative association between neighborhood risk and youths' grade point average (Gonzales et al. 1996). Similarly, two studies of Black families residing in Chicago reported positive impacts of parental monitoring on 11- to 16-year old teens' social skills, behavior, and grades, especially in neighborhoods rated high on assessments of social cohesion and social control (Quane and Rankin 1998; Rankin and Quane 2002).

Moving impacts the entire family. Parents' economic resources, mental health, and subsequent parenting skills directly affect their children and these behaviors may depend on the type of neighborhoods families reside in. Thus, children are likely to be indirectly affected by neighborhood deconcentration and/or desegregation programs through impacts on their parents. Safe communities where children can play outside free of harm are likely to foster different parenting techniques than dangerous communities where children may be most safe at home.

Social Ties and Networks

Moving, following the implementation of neighborhood deconcentration and/or desegregation initiatives, likely alters families' social climates, as preexisting social ties may be disrupted or broken and discrimination may be present in receiving

communities. More affluent neighborhoods, however, may offer ready access to informal social networks that serve as sources of information and opportunity for residents. Thus, the presence or absence of social networks and ties may mediate the efficacy of neighborhood deconcentration and/or desegregation initiatives on children's outcomes.

Granovetter (1973) notes the importance of so-called "weak ties," acquaintance-like relationships that serve as portals of information, opportunity, and resources (see also Briggs 1998; Wellman and Wortley 1990). Neighborhood deconcentration and/or desegregation efforts where families move to more affluent neighborhoods are a mechanism for making such socially distant ties accessible for low-income children and adults. A review of the role of weak ties for Black children attending integrated schools, which is a corollary to neighborhood integration efforts, noted that, in general, desegregated Black students formulated higher *and* more realistic future aspirations than their segregated counterparts (Wells and Crain 1994). Furthermore, another study found a positive association between white collar neighbors and the likelihood of adolescents' high school graduation (Crane 1991).

Thus, if social supports including weak ties are important to parents and children alike and are more readily available in middle-income or affluent neighborhoods, it is important to consider how such networks are built when low-income, minority residents relocate. Contact theory (Allport 1954; Pettigrew 1998), popularized in the middle of the last century as a way of facilitating better race relations in the U.S., postulated that simple contact between members of different cultural or ethnic groups may facilitate positive intergroup attitude changes and interaction patterns. More specifically, the original theory suggested that intergroup cooperation could result if contact is frequent, systematic, and made in an amicable environment in pursuit of a common goal. A number of studies focusing on both adults and children have explored aspects of contact theory.

Among adults, an older study found that White women's previous interracial contact and current interracial neighbor contact were associated with lower levels of prejudice (Ford 1973). Interethnic contact may mediate the association between parental opposition to integration and children's changes in racial attitudes, highlighting the importance of contact between groups for effective change (Miller 1990).

White children may be less accommodating than their Black peers when a person of a different race lives in their neighborhood. One study found that this was especially true with adolescents (versus children) and that early school desegregation efforts assuaged White children's negative racial attitudes (Scott and McPartland 1982). Studies using elementary school-aged children (Stephan and Rosenfield, 1978), high schoolers (Moody 2001), and college students (Duncan et al. 2003) reported positive associations between interethnic social contact (e.g., play dates, extracurricular activities) and parents' and children's attitudes regarding integration and affirmative action as well as the diversity of their social groups. However, there needs to be a balance between racial/ethnic groups for this to occur. One study revealed that minority students attending a primarily White

school (e.g., less than 10 percent minority) were more likely to associate with own-race peers than minority children attending a school with 30 percent or more minority children (Quillian and Campbell 2003). Another study reported that attending an integrated school and/or living in a diverse neighborhood as a child was associated with the ethnic make-up of adult social ties including friendships, spouses, and church congregations; these findings were robust regardless of the respondents' race/ethnicity (Emerson, Kimbro and Yancey 2002).

In conclusion, social ties and networks are an important resource for low-income families residing in both poor and middle-income neighborhoods. While relocation due to neighborhood deconcentration and/or desegregation initiatives likely disrupts families' social systems, the presence of more advantaged neighbors in the new communities may benefit incoming families. For effective relationships to develop between current and new residents, contact needs to occur, and research has shown that contact occurring within a supportive environment does indeed facilitate more positive relations between different groups. The problems that remains, then, is that there may be little opportunity for new, low-income residents to engage in positive encounters with current residents. More work is needed that examines programs and initiatives that foster positive relationships among economically and ethnically diverse residents.

Summary

The large body of work on cumulative contextual risk including family poverty, residential moves, household head marital status, parental mental health, and child maltreatment, among other factors, revealed that the amalgam of risk factors is often more harmful than the impacts of each independently (Ackerman et al. 1999a; Atzaba-Poria, Pike and Deater-Deckard 2004; Brooks-Gunn et al. 1995; Evans 2003; Prelow and Loukas 2003). Paralleling this work, when children relocate out of impoverished neighborhoods to low-poverty neighborhoods, it is necessary to examine all of the corresponding factors that concurrently change. Consideration of variation within and between pathways helps to make sense of how neighborhood deconcentration and/or desegregation efforts may differentially affect children and youth. For example, while we might suspect that living in high-quality housing is favorably associated with children's outcomes (particularly cognitive outcomes), potential benefits may be attenuated if the construction of new low-cost housing keeps poor families concentrated, albeit in higher quality housing. Or, if a family relocates to high-quality housing, but the children do not change schools as a result of the move and remain in low-quality schools, the potential positive impact of improved housing quality may be suppressed. (See **Table 3** for a summary of the pathways.) Similarly, the potential discrimination that low-income, minority families may face in their new neighborhoods could override any other potential benefits in the way of improved housing quality, neighborhood characteristics, and family dynamics. Moreover, the impacts of the pathways may vary depending on the attributes of the child (e.g., age, sex) or the outcome variable being assessed. For example, we might expect parental attributes to impact younger children more than

Table 3. Summary of Pathways of Neighborhood Poverty Deconcentration Programs on Children’s and Adolescents’ Well-Being

Pathway	Components	Process
Housing quality	<ul style="list-style-type: none"> • Safety • Cleanliness • Space allocation 	<ul style="list-style-type: none"> • Moves to low-poverty neighborhoods→better quality housing→children’s well-being <p>BUT</p> <ul style="list-style-type: none"> • If public housing built in low-poverty neighborhoods→“re-concentration” of families in new public housing and quality may not improve
Neighborhood characteristics	<ul style="list-style-type: none"> • Resources <ul style="list-style-type: none"> • child care, schools, libraries, health centers, employment • Organization <ul style="list-style-type: none"> • formal, informal institutions to regulate behavior 	<ul style="list-style-type: none"> • Moves to low-poverty neighborhoods→better resources & organization→children’s well-being <p>BUT</p> <ul style="list-style-type: none"> • Children may not change schools following moves • Resources may be concentrated in high-poverty neighborhoods
Family economic resources and dynamics	<ul style="list-style-type: none"> • Economic resources • Parent mental health • Parenting 	<ul style="list-style-type: none"> • Moves to low-poverty neighborhoods→more employment opportunities, improved parental mental health, less harsh parenting→children’s well-being <p>BUT</p> <ul style="list-style-type: none"> • Parental employment may be difficult for children (especially adolescents)
Social ties and networks	<ul style="list-style-type: none"> • Weak ties 	<ul style="list-style-type: none"> • Moves to low-poverty neighborhoods→more access to affluent neighbors→children’s well-being <p>BUT</p> <ul style="list-style-type: none"> • Discrimination may thwart access to affluent neighbors • Relative disadvantage→unfavorable impacts on children

their adolescent siblings, as the family environment is likely to be more salient for younger than older children, due to the limited independence of the former. Neighborhood organization is likely to primarily affect adolescent boys' behavior problems and delinquency because of the strong association between neighborhood disorder and delinquency among this group. Housing quality and neighborhood resources probably influence children's cognitive and achievement outcomes more so than their behavior and emotional outcomes. In sum, there are many factors that come into play and affect children's adjustment to neighborhood poverty deconcentration programs.

Each of the four potential pathways highlights ways in which moving from an impoverished neighborhood to a low-poverty or middle-class neighborhood may benefit children and their families. Research has shown connections between poor housing quality and children's health and behavior. Thus, if policies are created to assist low-income families with their housing needs, restrictions against movement into low-quality housing should be implemented. Community resources including schools, recreational facilities, and access to employment as well as neighborhood organization, disorder, and violence can certainly serve to either protect or inhibit children's development. For example, moving to neighborhoods where violence and drug use is sanctioned may lead to declines in adolescents' engagement in similar activities. Neighborhood environments impact the entire family, not just children. Thus, it is important to examine the ways in which primary caregivers' physical and mental health as well as their parenting is influenced by different environments as a way of better understanding how children and youth may be indirectly affected by their neighborhoods and changes in these environments. Finally, neighborhood social climate, including access to social supports and ties, has a potential influence on children and their parents and thus such networks should be facilitated following neighborhood deconcentration and/or desegregation initiatives.

Synthesis

With all of the changes in federal cash assistance policy since the late 1990s (i.e., Temporary Assistance for Needy Families), other forms of government aid have become crucial in order to maintain the subsistence of low-income families. In particular, housing may cost low-income families more than half of their earned incomes, creating an unnecessary cost burden for families relying on meager salaries or welfare benefits. Consequently, without housing assistance, poor families' housing choices are likely to be constrained to the most impoverished neighborhoods where public housing and low-rent apartments are prevalent, creating pockets of concentrated poverty. The fact that minority families are more likely to be poor than Whites makes it more likely that these impoverished neighborhoods are primarily inhabited by Black and Latino families. The first section of this paper reviewed extant literature to this effect. Following that section was information on neighborhood poverty deconcentration and/or racial desegregation techniques used in recent years, focusing on new trends in project-based assistance and housing vouchers. These sections segued into a review of three prominent housing mobility programs, namely the Gautreaux Program in Chicago, the Yonkers (New York) Project, and the Moving to Opportunity for Fair Housing Demonstration in five U.S. cities. Each of the three deconcentration and/or desegregation

programs utilized moving as the instrument for mitigating neighborhood poverty. However, the programs' aims (e.g., deconcentration versus desegregation) differed as well as the ways in which mobility was brokered for families (e.g., vouchers versus public housing). Subsequent sections reviewed relevant research from two separate bodies of literature, namely school desegregation and residential mobility, in order to supplement the limited extant research examining the efficacy of neighborhood deconcentration and/or desegregation programs. Various mechanisms or pathways of influence were reviewed, namely, housing quality, community resources and characteristics, parenting and family processes, and the neighborhood social climate. These four potential pathways emphasize the intricacies of neighborhood effects on children's and adolescents' outcomes as well as the infinite considerations policymakers must contend with as they design policies that attempt to alleviate neighborhood poverty concentration.

The appropriate timing of such initiatives in the lives of children is crucial. Theoretically, we might expect the largest "neighborhood effects" during the adolescent years as these types of influences are expected to take precedence as children segue into adolescents (Aber et al. 1997; Leventhal and Brooks-Gunn 2000). However, the work on family poverty indicates that early, persistent poverty may be most deleterious for children in the short- and long-term compared with later or intermittent poverty (Duncan et al. 1998; Korenman, Miller and Sjaastad 1995; McLeod and Edwards 1995), which indicates that for neighborhood deconcentration programs to be most effective, they should occur early in children's lives. In fact, the increases in property crime among experimental MTO boys and in behavior problems and delinquency among youth in the Yonkers Project (both relative to in-place controls) were strongest for older adolescents— children that spent much of their childhood in concentrated poverty. A recent study found that associations between neighborhood poverty and young adults' behavior problems were strongest when neighborhood poverty was assessed during middle childhood compared with adolescence (Wheaton and Clarke 2003). We might suspect that the opposite would also be true— strong positive associations between early neighborhood affluence and young adults' mental health. The work on school desegregation supports this early implementation perspective as the impacts of such school initiatives were strongest among children attending desegregated elementary schools relative to desegregated high schools.

The work on residential mobility complicates the early timing hypothesis presented above as moving during the early childhood years was more deleterious for children than moving later in life. Additionally, family disadvantage accentuated unfavorable impacts of residential mobility on children. It may be that some of the early negative impacts on children who participated in the neighborhood deconcentration and/or desegregation programs summarized earlier were due to this accumulation of stressors. On the positive side, parental support, which is a potential benefit of neighborhood poverty deconcentration efforts, appeared to mitigate the negative impacts of residential mobility on children's outcomes, which may bode well for children in the long-term. Also, there is some evidence to suggest that upwardly mobile moves are generally beneficial for families, although the circumstances surrounding the moves made by families who participate in neighborhood

deconcentration and/or desegregation programs are unique compared to most “upward” moves (e.g., for a job opportunity).

Probably the most crucial consideration when determining the relative merits of neighborhood poverty deconcentration initiatives is the potential for discrimination. The deleterious impacts of discrimination may override the benefits of improved housing quality, resources, neighborhood organization, and the like. The situation in Yonkers is most revealing of this phenomenon as the 1985 court order was vociferously and adamantly contested by middle-class, White residents (Belkin 1999; Newman 1996). Relatedly, empirical studies have shown that a mismatch between family- and neighborhood-SES was unfavorably associated with outcomes for children (Gordon et al. 2003; Kupersmidt et al. 1995). Along the same lines, other work has shown that the benefits of residing in an advantaged neighborhood diminished at very high levels of neighborhood SES (Turley 2003). Thus, when creating new housing policies, the climate of the low-poverty neighborhoods needs to be considered. Encouraging low-income, minority families to relocate to low-poverty, ethnically diverse neighborhoods rather than affluent, White neighborhoods may be the best option.

It is important to return to the findings from the three key studies of residential mobility programs. Each of the studies found generally positive impacts on participating adults, and findings from the Gautreaux Program revealed that children that moved to the suburbs were more likely to later attend college and be employed compared with their peers who remained in high-poverty neighborhoods. These findings point to the importance of the long-term effects of such programs, which parallels the school desegregation literature. When assessing the efficacy of residential mobility programs, we need not be hasty and expect immediate results for children.

Policy Recommendations

Beyond understanding the range of factors that come together to affect children’s well-being in the face of neighborhood deconcentration and/or desegregation programs, policymakers must also consider the feasibility of various policy approaches.

Additional Assistance by Local Housing Authorities

Housing support for low-income families needs to be supplemented with counseling and longer-term support services. Only one in four families eligible for housing assistance receive it from the government (Center for Budget and Policy Priorities 2003). Furthermore, there have been repeated problems with the “portability” of vouchers, or the ability of families to apply their vouchers in communities different from where they were originally issued (Goetz 2003). Once families receive vouchers, they should receive immediate assistance in navigating the rental market including finding affordable, high-quality apartments with nearby access to necessary services. Housing authorities should encourage (and assist, as needed) families to relocate to economically and racially integrated neighborhoods with an appropriate balance between middle-class and poor, and White and minority

residents so positive outcomes are maximized for all groups (Galster 2002). Assistance should not cease once a family signs a lease, especially if they relocate into an economically and ethnically mixed neighborhood. In line with contact theory, community-based social groups and committees should be created to facilitate cooperation, trust, and eventually, friendships among new and old residents.

Homeownership

While many of the policies or strategies presented in this paper have been rental-based techniques, home ownership should not be overlooked, especially for lower-income families at the higher end of the income range. Home ownership is a defense against frequent residential mobility, which can be detrimental to children's well-being. Further, recent reviews indicate that homeowners tend to maintain their dwellings at a higher standard than do renters, which has implications for housing quality. Additionally, they may learn important self-sufficiency skills (e.g., learning how to perform repairs, negotiate with contractors, etc.) that may benefit children exposed to such behaviors. Home owners may be more invested in their neighborhoods and become more concerned with threats to property values such as delinquency and disorder (Galster in press; Schill and Wachter 2001). Homeownership is often a sound investment that serves to improve families' equity. Yet, many minority families may be thwarted from becoming home owners due to lack of access to available housing and financing options, higher moving costs, and racial/ethnic steering, wherein minority families are encouraged to buy in primarily Black or Hispanic areas (see Zubrinsky Charles 2003).

Supplemental Tax Policies

In light of the severe rent burden borne by lower-income families, progressive tax policies including the Earned Income Tax Credit (EITC) utilized in conjunction with housing vouchers may help to alleviate poverty in the U.S. Eligible families are more likely to receive EITC benefits than housing vouchers, indicating the EITC is a more accessible form of assistance (Stegman, Davis and Quercia 2003). At its current levels, the EITC reduces severe housing-cost burden for 15 percent of EITC-eligible families with children. Clearly, there is room for greater EITC benefits and participation among families needing increased housing assistance.

Conclusion

Housing policies are often overlooked one of the best mechanisms to lift families out of poverty, as more than 5 million Americans, with incomes up to three times the minimum wage, pay more than 50 percent of their incomes or housing (Joint Center for Housing Studies of Harvard University 2003). Concentrated poverty is harmful to children, but the solution does not necessarily lie in moving low-income families to middle-class neighborhoods without further assistance. Moreover, simply providing families with vouchers to move without overseeing their placement may lead to frequent intra-community mobility within impoverished neighborhoods. The larger goal of such policies should be to break the cycle of economic and racial inequality present in the U.S. More long-term evidence is needed to see how

families who participated in the three key residential mobility programs fare over time. This research should be supplemented with in-depth, qualitative interviews with families to better understand their specific experiences as pioneers in these low-poverty neighborhoods. The more we learn about the intricate associations between poverty and children's well-being, the better we can appropriately design and implement interventions.

Endnotes

1. This paper was the Co-winner of the First Prize in the 2003 CYE Graduate Student Paper Award for Excellence in Research competition.
2. The author would like to acknowledge the Ford Foundation, the National Science Foundation, and the Spencer Foundation for their support. Special thanks to Jeanne Brooks-Gunn and Tama Leventhal for their guidance and advisement. Thanks to Robert Crain, Angela Aidala, and Xavier de Souza Briggs for their previous work on the Yonkers Project. All correspondence regarding this paper should be addressed to the author at: National Center for Children and Families; 525 West 120th St., Box 39; New York, NY 10027; Telephone: (212) 678-3904; Fax: (212) 678-3676; and email: RCF25@columbia.edu.
3. Minority families may actually prefer racially and economically mixed neighborhoods, so called "50-50" neighborhoods, or may fear discrimination and thus turn away from residing in middle-class, primarily White communities (Clark 1991; Krysan and Farley 2002; Wilson and Hammer 2001).
4. Although not the focus of the present discussion, so-called "development strategies" take an entirely different approach to providing opportunity for low-income families residing in impoverished areas, by instating policies to return jobs to central cities (Hughes 1995).
5. A tertiary issue worth mentioning is that of program take-up. Due to the relatively low percentage of selected families that actually chose to move in the Gautreaux and MTO programs (20 percent and 47-60 percent, respectively), the samples may not be entirely representative of public housing residents. Although families were compared on a number of baseline characteristics based on treatment or program status, there may be unmeasured variables for which families that chose to move differ from families that forfeited their placement. In the Yonkers project, however, only 11 families selected to participate opted not to move; these families were similar in terms of background and demographic characteristics to the families that moved. Thus, unlike Yonkers, it could be argued that Gautreaux and MTO families who participated in the programs are a select group of public housing residents, a potentially more advantaged, "creamed" subsample of the population.

Rebecca C. Fauth is an advanced doctoral student in *Developmental Psychology* at Columbia University. She earned a B.A. in *Psychology and Anthropology* from the College of the Holy Cross in 1997, an M.S. in *Applied Statistics* from Teachers College, Columbia University in 2002, and an M.Phil. in *Developmental Psychology* from Columbia University in 2003. She also has a *Research Fellowship* at the

National Center for Children and Families, Teachers College, Columbia University (<http://nccf.tc.columbia.edu>). Her primary research interests are contextual influences, neighborhoods in particular, on child and family well-being.

References

Aber, J. Lawrence, et al. (1997). "Development in Context: Implications for Studying Neighborhood Effects." In Brooks-Gunn, Jeanne, et al., eds. *Neighborhood Poverty: Vol. 1. Context and Consequences for Children*. New York, NY: Russell Sage Foundation, 44-61.

Acevedo-Garcia, Dolores, et al. (2003). "Future Directions in Residential Segregation and Health Research: A Multilevel Approach." *American Journal of Public Health* 93(2): 215-221.

Ackerman, Brian P., et al. (1999a). "Contextual Risk, Caregiver Emotionality, and the Problem Behaviors of Six- and Seven-Year-Old Children from Economically Disadvantaged Families." *Child Development* 70(6): 1415-1427.

Ackerman, Brian P., et al. (1999b). "Family Instability and the Problem Behaviors of Children from Economically Disadvantaged Families." *Developmental Psychobiology* 35(1): 258-268.

Adam, Emma K. and P. Lindsay Chase-Lansdale (2002). "Home Sweet Home(S): Parental Separations, Residential Moves, and Adjustment Problems in Low-Income Adolescent Girls." *Developmental Psychology* 38(5): 792-805.

Ainsworth, James W. (2002). "Why Does It Take a Village? The Mediation of Neighborhood Effects on Educational Achievement." *Social Forces* 81(1): 117-152.

Alexander, Karl L., Doris R. Entwisle and Susan L. Dauber (1996). "Children in Motion: School Transfers and Elementary School Performance." *The Journal of Educational Research* 90(1): 3-12.

Allard, Scott W., Richard M. Tolman and Daniel Rosen (2003). "Proximity to Service Providers and Service Utilization among Welfare Recipients: The Interaction of Place and Race." *Journal of Policy Analysis and Management* 22(4): 599-613.

Allport, Gordon W. (1954). *The Nature of Prejudice*. Boston: The Beacon Press.

Aneshensel, Carol S. and Clea A. Sucoff (1996). "The Neighborhood Context of Adolescent Mental Health." *Journal of Health and Social Behavior* 37: 293-310.

Astone, Nan M. and Sara S. McLanahan (1994). "Family Structure, Residential Mobility, and School Drop Out: A Research Note." *Demography* 31: 575-584.

Atzaba-Poria, Naama, Alison Pike and Kirby Deater-Deckard (2004). "Do Risk Factors for Problem Behaviour Act in a Cumulative Manner? An Examination of Ethnic Minority and Majority Children through an Ecological Perspective." *Journal of Child Psychology and Psychiatry* 45(4): 707-718.

Belkin, Lisa (1999). *Show Me a Hero: A Tale of Murder, Suicide, Race, and Redemption*. Boston: Little, Brown, and Company.

Benson, Gerald P., et al. (1979). "Mobility in Sixth Graders as Related to Achievement, Adjustment, and Socioeconomic Status." *Psychology in the Schools* 16(3): 444-447.

Boardman, Jason D., et al. (2001). "Neighborhood Disadvantage, Stress, and Drug Use among Adults." *Journal of Health and Social Behavior* 42(June): 151-165.

Boardman, Jason D. and Stephanie A. Robert (2000). "Neighborhood Socioeconomic Status and Perceptions of Self-Efficacy." *Sociological Perspectives* 43(1): 117-136.

Braddock, Jomills Henry II (1980). "The Perpetuation of Segregation across Levels of Education: A Behavioral Assessment of the Contact-Hypothesis." *Sociology of Education* 53(July): 178-186.

Bradley, Robert H. (1995). "Environment and Parenting." In Bornstein, Marc H., ed. *Handbook of Parenting, Vol. 2: Biology and Ecology of Parenting*. Mahwah, NJ: Lawrence Erlbaum, 235-261.

Briggs, Xavier de Souza (1998). "Brown Kids in White Suburbs: Housing Mobility and the Many Faces of Social Capital." *Housing Policy Debate* 9(1): 177-221.

Briggs, Xavier de Souza (2003). "Housing Opportunity, Desegregation Strategy, and Policy Research." *Journal of Policy Analysis and Management* 22(2): 201-206.

Briggs, Xavier de Souza, Joe T. Darden and Angela Aidala (1999). "In the Wake of Desegregation: Early Impacts of Scattered-Site Public Housing on Neighborhoods in Yonkers, New York, NY." *Journal of the American Planning Association* 65: 27-49.

Brody, Gene H., et al. (2001). "The Influence of Neighborhood Disadvantage, Collective Socialization, and Parenting on African American Children's Affiliation with Deviant Peers." *Child Development* 72(4): 1231-1246.

Bronfenbrenner, Urie (1979). "Contexts of Child Rearing: Problems and Prospects." *American Psychologist* 34: 844-850.

Bronfenbrenner, Urie (1989). "Ecological Systems Theory." In Vasta, R., ed. *Annals of Child Development--Six Theories of Child Development: Revised Formulations and Current Issues*. Greenwich, CT: JAI Press, 187-250.

Brooks-Gunn, Jeanne and Greg J. Duncan (1997). "The Effects of Poverty on Children." *The Future of Children* 7: 55-71.

Brooks-Gunn, Jeanne, Greg J. Duncan and J. Lawrence Aber, eds. (1997). *Neighborhood Poverty: Vol. 1: Context and Consequences for Children*. New York: Russell Sage Foundation.

Brooks-Gunn, Jeanne, et al. (1993). "Do Neighborhoods Influence Child and Adolescent Development?" *American Journal of Sociology* 99: 353-395.

Brooks-Gunn, Jeanne, et al. (1995). "Toward an Understanding of the Effects of Poverty Upon Children." In Fitzgerald, H. E., et al., eds. *Children of Poverty: Research, Health, and Policy Issues* 23. New York: Garland Publishing, 3-41.

Brooks-Gunn, Jeanne, et al. (1998). "Health Care Use of 3 Year-Old Low Birthweight Premature Children: Effects of Family and Neighborhood Poverty." *Journal of Pediatrics* 132: 971-975.

Brown, Anita C. and Dennis K. Orthner (1990). "Relocation and Personal Well-Being among Early Adolescents." *Journal of Early Adolescence* 10(3): 366-381.

Buka, Stephen L., et al. (2001). "Youth Exposure to Violence: Prevalence, Risks, and Consequences." *American Journal of Orthopsychiatry* 71(3): 298-310.

Bursik, Robert J. (1988). "Social Disorganization and Theories of Crime and Delinquency: Problems and Prospects." *Criminology* 26: 515-552.

Caldwell, Bettye M. and Robert H. Bradley (1984). *Home Observation for Measurement of the Environment*. Little Rock, AR: University of Arkansas.

Carr, W., L. Zeitel and K. Weiss (1992). "Variations in Asthma Hospitalizations and Deaths in New York City." *American Journal of Public Health* 82(1): 59-65.

Catsambis, Sophia and Andrew A. Beveridge (2001). "Does Neighborhood Matter? Family, Neighborhood, and School Influences on Eight-Grade Mathematics Achievement." *Sociological Focus* 34(4): 435-457.

Center for Budget and Policy Priorities (2003). *Introduction to the Housing Voucher Program*. Washington, DC: Author.

Chase-Lansdale, P. Lindsay, et al. (1997). "Neighborhood and Family Influences on the Intellectual and Behavioral Competence of Preschool and Early School-Age Children." In Brooks-Gunn, Jeanne, et al., eds. *Neighborhood Poverty: Vol. 1: Context and Consequences for Children*. New York: Russell Sage Foundation, 79-118.

Clark, W. A. V. (1991). "Residential Preferences and Neighborhood Racial Segregation: A Test of the Schelling Segregation Model." *Demography* 28(1): 1-19.

Coleman, James S. (1988). "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94: 95-120.

Crain, Robert L. and Rita E. Mahard (1983). "The Effect of Research Methodology on Desegregation-Achievement Studies: A Meta-Analysis." *American Journal of Sociology* 88(5): 839-854.

Crane, Jonathan (1991). "The Epidemic Theory of Ghettos and Neighborhood Effects on Dropping out and Teenage Childbearing." *American Journal of Sociology* 96: 1226-1259.

Crowder, Kyle D. (2000). "The Racial Context of White Mobility: An Individual-Level Assessment of the White Flight Hypothesis." *Social Science Research* 29(2): 223-257.

Crowder, Kyle D. (2001). "Racial Stratification in the Actuation of Mobility Expectations: Microlevel Impacts of Racially Restrictive Housing Markets." *Social Forces* 79(4): 1377-1396.

Cubbin, C., F. B. LeClere and G. S. Smith (2000). "Socioeconomic Status and Injury Mortality: Individual and Neighborhood Determinants." *Journal of Epidemiology and Community Health* 54(7): 517-524.

Dawkins, Marvin P. (1994). "Long Term Effects of School Desegregation on African Americans: Evidence from the National Survey of Black Americans." *Negro Educational Review* 45(1): 4-15.

DeLuca, Stefanie and James E. Rosenbaum (2003). "If Low-Income Blacks Are Given a Chance to Live in White Neighborhoods, Will They Stay? Examining Mobility Patterns in a Quasi-Experimental Program with Administrative Data." *Housing Policy Debate* 14(3): 305-345.

Devine, Deborah, J., et al. (2002). *Housing Choice Voucher Location Patterns: Implications for Participants and Neighborhood Welfare*. Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research, Division of Program Mentoring and Research.

DeWit, David J., David R. Offord and Kathy Braun (1998). *The Relationship between Geographic Relocation and Childhood Problem Behaviour*. W-98-17E. Hull, Quebec, Canada: Applied Research Branch, Strategic Policy, Human Resources Development Canada.

Diez Roux, A. V., et al. (2001). "Neighborhood of Residence and Incidence of Coronary Heart Disease." *The New England Journal of Medicine* 345: 99-106.

Duncan, Greg J., et al. (2003). *Empathy or Antipathy? The Consequences of Racially and Socially Diverse Peers on Attitudes and Behaviors*. Annual meetings of the American Economic Association, Atlanta, GA.

Duncan, Greg J. and Jeanne Brooks-Gunn, eds. (1997). *Consequences of Growing up Poor*. New York: Russell Sage Foundation.

Duncan, Greg J., et al. (1998). "How Much Does Childhood Poverty Affect the Life Chances of Children?" *American Sociological Review* 63: 406-423.

Duncan, Susan C., et al. (2002). "A Multilevel Contextual Model of Family Conflict and Deviance." *Journal of Psychopathology and Behavioral Assessment* 24(3): 169-175.

Dunifon, Rachel, Greg J. Duncan and Jeanne Brooks-Gunn (2001). *As Ye Clean, So Shall Ye Glean: Some Impacts of "Non-Cognitive" Characteristics within and across Generations*. American Economics Association, January, New Orleans, LA.

Dunn, Jeffrey R. (2002). "Housing and Inequalities in Health: A Study of Socioeconomic Dimensions of Housing and Self Reported Health from a Survey of Vancouver Residents." *Journal of Epidemiology and Community Health* 56: 671-681.

Durkin, M. S., et al. (1994). "Low-Income Neighborhoods and the Risk of Severe Pediatric Injury: A Small-Area Analysis in Northern Manhattan." *American Journal of Public Health* 84(4): 587-592.

Earls, Felton, Jacqueline McGuire and Sharon Shay (1994). "Evaluating a Community Intervention to Reduce the Risk of Child Abuse: Methodological Strategies in Conducting Neighborhood Surveys." *Child Abuse and Neglect* 18: 473-485.

Eckenrode, John, et al. (1995). "Mobility as a Mediator of the Effects of Child Maltreatment on Academic Performance." *Child Development* 66: 1130-1142.

Elder, Glen H., et al. (1995). "Inner-City Parents under Economic Pressure: Perspectives on the Strategies of Parenting." *Journal of Marriage and the Family* 57: 771-784.

Ellen, Ingrid Gould, Tod Mijanovich and Keri-Nicole Dillman (2001). "Neighborhood Effects on Health: Exploring the Links and Assessing the Evidence." *Journal of Urban Affairs* 23(3-4): 391-408.

Elliott, Delbert S., et al. (1996). "The Effects of Neighborhood Disadvantage on Adolescent Development." *Journal of Research in Crime and Delinquency* 33: 389-426.

Emerson, Michael O., Rachel Tolbert Kimbro and George Yancey (2002). "Contact Theory Extended: The Effects of Prior Racial Contact on Current Social Ties." *Social Science Quarterly* 83(3): 745-761.

Evans, Gary W. (2001). "Environmental Stress and Health." In Baum, Andrew, et al., eds. *Handbook of Health Psychology*. Mahwah, NJ: Lawrence Erlbaum, 365-385.

Evans, Gary W. (2003). "A Multimethodological Analysis of Cumulative Risk and Allostatic Load among Rural Children." *Developmental Psychology* 39(5): 924-933.

Evans, Gary W. and Kimberly English (2002). "The Environment of Poverty: Multiple Stressor Exposure, Psychophysiological Stress, and Socioemotional Adjustment." *Child Development* 73(4): 1238-1248.

Evans, Gary W. and Elyse Kantrowitz (2002). "Socioeconomic Status and Health: The Potential Role of Environmental Risk Exposure." *Annual Review of Public Health* 23: 303-331.

Evans, Gary W., Heidi Saltzman and Jana L. Cooperman (2001). "Housing Quality and Children's Socioemotional Health." *Environment and Behavior* 33(3): 389-399.

Evans, Gary W., Nancy M. Wells and Annie Moch (in press). "Housing and Mental Health: A Review of the Evidence and a Methodological and Conceptual Critique." *Journal of Social Issues*.

Family Housing Fund. (2001). *Kids Mobility Project Report*. Minneapolis, MN. <http://www.fhfund.org/research/kids.htm>.

Fauth, Rebecca C., Tama Leventhal and Jeanne Brooks-Gunn (2004). *Early Impacts of Moving from Poor to Middle-Class Neighborhoods on Low-Income Youth*. Manuscript submitted for publication.

Fauth, Rebecca C., Tama Leventhal and Jeanne Brooks-Gunn (in press). "Short-Term Effects of Moving from Public Housing in Poor to Middle-Class Neighborhoods on Low-Income, Minority Adults' Outcomes." *Social Science and Medicine*.

Feins, Judith D. (2003). "A Cross-Site Analysis of MTO's Locational Impacts." In Goering, John and Judith D. Feins, eds. *Choosing a Better Life? Evaluating the Moving to Opportunity Social Experiment*. Washington, DC: The Urban Institute Press.

Felner, Robert D., Judith Primavera and Ana M. Cauce (1981). "The Impact of School Transitions: A Focus for Preventative Efforts." *American Journal of Community Psychology* 9(4): 449-459.

Fitzpatrick, Kevin M. (1993). "Exposure to Violence and Presence of Depression among Low-Income, African American Youth." *Journal of Consulting and Clinical Psychology* 61: 528-531.

Ford, W. Scott (1973). "Interracial Public Housing in a Border City: Another Look at the Contact Hypothesis." *American Journal of Sociology* 78(4): 1426-1447.

Frey, William H. (1994). "Minority Suburbanization and Continued "White Flight" in U.S. Metropolitan Areas: Assessing Findings from the 1990 Census." *Research in Community Sociology* 4: 15-42.

Fuller, Bruce, et al. (1997). *An Unfair Head Start: California Families Face Gaps in Preschool and Child Care Availability*. Berkeley, CA: Berkeley-Stanford PACE Center, Yale University, and the California Child Care Resource and Referral Network: Growing Up in Poverty Project.

Galster, George (2002). "An Economic Efficiency Analysis of Deconcentrating Poverty Populations." *Journal of Housing Economics* 11: 303-329.

Galster, George (in press). "Investigating Behavioral Impacts of Poor Neighborhoods: Towards New Data and Analytic Strategies." *Housing Studies*.

Galster, George, Peter Tatian and Kathryn Pettit (in press). "Supportive Housing and Neighborhood Property Value Externalities." *Land Economics*.

Goebel, Barbara L. (1981). "Mobile Children: An American Tragedy?" *Psychological Reports* 48: 15-18.

Goering, John (2003). "Place-Based Poverty, Social Experimentation, and Child Outcomes: A Report of Mixed Effects." *Children, Youth, and Environments* 13(2).

Goering, John and Judith D. Feins, eds. (2003). *Choosing a Better Life? Evaluating the Moving to Opportunity Social Experiment*. Washington, DC: Urban Institute Press.

Goering, John, et al. (1999). *Moving to Opportunity for Fair Housing Demonstration Program: Current Status and Initial Findings*. Washington, DC: U.S. Department of Housing and Urban Development, September.

Goetz, Edward G. (2003). *Clearing the Way: Deconcentrating the Poor in Urban America*. Washington, DC: Urban Institute Press.

Goldsmith, Harold F., Charles E. Holzer and Ronald W. Manderscheid (1998). "Neighborhood Characteristics and Mental Illness." *Evaluation and Program Planning* 21: 211-225.

Gonzales, Nancy A., et al. (1996). "Family, Peer, and Neighborhood Influences on Academic Achievement among African-American Adolescents: One-Year Prospective Effects." *American Journal of Community Psychology* 24: 365-387.

Gordon, Rachel A., et al. (2003). "Family and Neighborhood Income: Additive and Multiplicative Associations with Youths' Well-Being." *Social Science Research* 32: 191-219.

Gorman-Smith, D. and Patrick Tolan (1998). "The Role of Exposure to Community Violence and Developmental Problems among Inner-City Youth." *Developmental Psychopathology* 10: 101-116.

Gorman-Smith, D., Patrick Tolan and D. B. Henry (2000). "A Developmental-Ecological Model of the Relation of Family Functioning to Patterns of Delinquency." *Journal of Quantitative Criminology* 16(2): 169-198.

Granovetter, Mark (1973). "The Strength of Weak Ties." *American Journal of Sociology* 78: 1360-1380.

Greenberg, Mark T., et al. (1999). "Predicting Developmental Outcomes at School Entry Using a Multiple-Risk Model: Four American Communities." *Developmental Psychology* 35: 403-417.

Hagan, John, Ross MacMillan and Blair Wheaton (1996). "New Kid in Town: Social Capital and the Life Course Effects of Family Migration on Children." *American Sociological Review* 61(368-385).

Halpern-Felsher, B., et al. (1997). "Neighborhood and Family Factors Predicting Educational Risk and Attainment in African American and White Children and Adolescents." In Brooks-Gunn, Jeanne, et al., eds. *Neighborhood Poverty: Vol. 1: Context and Consequences for Children*. New York, NY: Russell Sage Foundation, 146-173.

Haveman, Robert, Barbara Wolfe and James Spaulding (1991). "Child Events and Circumstances Influencing High School Completion." *Demography* 28(1): 133-158.

Hendershott, Anne B. (1989). "Residential Mobility, Social Support, and Adolescent Self-Concept." *Adolescence* 24(93): 217-232.

Hill, Nancy E. and Mindy A. Herman-Stahl (2002). "Neighborhood Safety and Social Involvement: Associations with Parenting Behaviors and Depressive Symptoms among African American and Euro-American Mothers." *Journal of Family Psychology* 16(2): 209-219.

Hughes, Mark Alan (1995). "A Mobility Strategy for Improving Opportunity." *Housing Policy Debate* 6(1): 271-297.

Ingersoll, Gary M., James P. Scamman and Wayne D. Eckerling (1989).

"Geographic Mobility and Student Achievement in an Urban Setting." *Educational Evaluation and Policy Analysis* 11(2): 143-149.

Jackson, Aurora P., et al. (2000). "Single Mothers in Low-Wage Jobs: Financial Strain, Parenting, and Preschoolers' Outcomes." *Child Development* 71(5): 1409-1423.

Jargowsky, Paul A. (1997). *Poverty and Place: Ghettos, Barrios, and the American City*. New York: Russell Sage Foundation.

Jargowsky, Paul A. (2003). *Stunning Progress, Hidden Problems: The Dramatic Decline of Concentrated Poverty in the 1990s*. Washington, D.C.: The Brookings Institution.

Jencks, Christopher and Susan Mayer (1990). "The Social Consequences of Growing up in a Poor Neighborhood." In Lynn, L. and M. McGeary, eds. *Inner-City Poverty in the United States*. Washington, DC: National Academy Press, 111-186.

Johnson, Roger A. and Arnold H. Linblad (1991). "Effect of Mobility on Academic Performance of Sixth Grade Students." *Perceptual and Motor Skills* 72: 547-552.

Joint Center for Housing Studies of Harvard University (2003). *The State of the Nation's Housing: 2003*. Cambridge, MA: Author.

Kahlmeier, S., et al. (2001). "Perceived Environmental Housing Quality and Wellbeing of Movers." *Journal of Epidemiology and Community Health* 55: 708-715.

Katz, Lawrence F., Jeffrey R. Kling and Jeffrey B. Liebman (2001). "Moving to Opportunity in Boston: Early Results of a Randomized Mobility Experiment." *Quarterly Journal of Economics* 116: 607-654.

Kaufman, Julie E. and James Rosenbaum (1992). "The Education and Employment of Low-Income Black Youth in White Suburbs." *Educational Evaluation and Policy Analysis* 14(3): 229-240.

Keels, Micere, et al. (2003). *Fifteen Years Later: Can Residential Mobility Programs Provide a Permanent Escape from Neighborhood Segregation, Crime, and Poverty?* Unpublished manuscript: Northwestern University.

Klebanov, Pamela K., Jeanne Brooks-Gunn and Greg J.J. Duncan (1994). "Does Neighborhood and Family Poverty Affect Mothers' Parenting, Mental Health, and Social Support?" *Journal of Marriage and the Family* 56: 441-455.

Kohen, Daphna, et al. (2002). "Neighborhood Income and Physical and Social Disorder in Canada: Associations with Young Children's Competencies." *Child Development* 73(6): 1844-1860.

Korenman, Sanders, Jane E. Miller and John E. Sjaastad (1995). "Long-Term Poverty and Child Development in the United States: Results from the NLSY." *Children and Youth Services Review* 17: 127-155.

Kornhauser, Ruth Rosner (1978). *Social Sources of Delinquency*. Chicago, IL: University of Chicago Press.

Kowaleski-Jones, Lori (2000). "Staying out of Trouble: Community Resources and Problem Behavior among High-Risk Adolescents." *Journal of Marriage and the Family* 62: 449-464.

Kroger, Jane E. (1980). "Residential Mobility and Self Concept in Adolescence." *Adolescence* 15(60): 967-977.

Krysan, Maria (2002). "Whites Who Say They'd Flee: Who Are They and Why Would They Leave?" *Demography* 39(4): 675-696.

Krysan, Maria and Reynolds Farley (2002). "The Residential Preference of Blacks: Do They Explain Persistent Segregation?" *Social Forces* 80(3): 937-980.

Kupersmidt, Janis B., et al. (1995). "Childhood Aggression and Peer Relations in the Context of Family and Neighborhood Factors." *Child Development* 66(2): 360-375.

Lacey, Colin and Dudley Blane (1979). "Geographic Mobility and School Attainment: The Confounding Variables." *Educational Research* 21(3): 200-206.

Leventhal, Tama and Jeanne Brooks-Gunn (2000). "The Neighborhoods They Live In: Effects of Neighborhood Residence upon Child and Adolescent Outcomes." *Psychological Bulletin* 126: 309-337.

Leventhal, Tama and Jeanne Brooks-Gunn (2003). "Moving to Opportunity: An Experimental Study of Neighborhood Effects on Mental Health." *American Journal of Public Health* 93(9): 1576-1582.

Leventhal, Tama and Jeanne Brooks-Gunn (in press). "A Randomized Study of Neighborhood Effects on Low-Income Children's Educational Outcomes." *Developmental Psychology*.

Logan, John (2004). *Resegregation in American Public Schools? Not in the 1990s*. Albany, NY: Lewis Mumford Center for Comparative Urban and Regional Research, University at Albany, April.

Long, Larry (1992). "International Perspectives on the Residential Mobility of America's Children." *Journal of Marriage and the Family* 54: 861-869.

Lovejoy, M. Christina, et al. (2000). "Maternal Depression and Parenting Behavior: A Meta-Analytic Review." *Clinical Psychology Review* 20(5): 561-592.

Ludwig, Jens, Greg J. Duncan and Paul Hirschfield (2001). "Urban Poverty and Juvenile Crime: Evidence from a Randomized Housing-Mobility Experiment." *Quarterly Journal of Economics* 116: 665-679.

Ludwig, Jens, Helen Ladd and Greg J. Duncan (2001). "Urban Poverty and Educational Outcomes." In Gale, W. G. and J. R. Pack, eds. *Brookings-Wharton Papers on Urban Affairs 2001*. Washington, DC: Brookings Institution Press, 147-201.

Malmstrom, Marianne, SvenErik Johansson and Jan Sundquist (2001). "A Hierarchical Analysis of Long-Term Illness and Mortality in Socially Deprived Areas." *Social Science and Medicine* 53(3): 265-275.

Margolin, Gayla and Elana B. Gordis (2000). "The Effects of Family and Community Violence on Children." *Annual Review of Psychology* 51: 445-479.

Martinez, Pedro and John E. Richters (1993). "The NIMH Community Violence Project II: Children's Distress Symptoms Associated with Violence Exposure." *Psychiatry* 56: 22-35.

Massey, Douglas S. (1990). "American Apartheid: Segregation and the Making of the Underclass." *American Journal of Sociology* 96: 329-358.

Massey, Douglas S. (1996). "The Age of Extremes: Concentrated Affluence and Poverty in the Twenty-First Century." *Demography* 33: 395-412.

Massey, Douglas S. and Nancy A. Denton (1993). *American Apartheid: Segregation and the Making of the Underclass*. Cambridge: Harvard University Press.

Massey, Douglas S. and M. L. Eggers (1990). "The Ecology of Inequality: Minorities and the Concentration of Poverty, 1970-1980." *American Journal of Sociology* 95: 1153-1188.

Massey, Douglas S. and Shawn M. Kanaiaupuni (1993). "Public Housing and the Concentration of Poverty." *Social Science Quarterly* 74: 109-122.

Massey, Douglas S., Gretchen A. Condran and Nancy A. Denton (1987). "The Effect of Residential Segregation on Black Social and Economic Well-Being." *Social Forces* 66(1): 29-56.

McLeod, Jane D. and K. Edwards (1995). "Contextual Determinants of Children's Responses to Poverty." *Social Forces* 73: 1487-1516.

Miller, Randi L. (1990). "Beyond Contact Theory: The Impact of Community Affluence on Integration Efforts in Five Suburban High Schools." *Youth and Society* 22(1): 12-34.

Molnar, Beth E., et al. (2003). "A Multilevel Study of Neighborhoods and Parent-to-Child Physical Aggression: Results from the Project on Human Development in Chicago Neighborhoods." *Child Maltreatment* 8(2): 84-97.

Moody, James (2001). "Race, School Integration, and Friendship Segregation in America." *American Journal of Sociology* 107(3): 679-716.

Mundy, Peter, et al. (1989). "Residential Instability in Adolescent Inpatients." *Journal of the American Academy of Adolescent and Child Psychiatry* 28(2): 176-181.

Nelson, Perry S., Jane M. Simoni and Howard S. Adelman (1996). "Mobility and School Functioning in the Early Grades." *The Journal of Educational Research* 89(6): 365-369.

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

Newman, Sandra J. (2001). "Housing Attributes and Serious Mental Illness: Implications for Research and Practice." *Psychiatric Services* 52(10): 1309-1317.

Norford, Bradley C. and Frederic J. Medway (2002). "Adolescents' Mobility Histories and Present Social Adjustment." *Psychology in the Schools* 39(1): 51-62.

Northridge, Mary E., et al. (1999). "Diesel Exhaust Exposure among Adolescents in Harlem: A Community-Driven Study." *American Journal of Public Health* 89(7): 998-1002.

O'Donnell, Deborah A., Mary E. Schwab-Stone and Adaline Z. Muyeed (2002). "Multidimensional Resilience in Urban Children Exposed to Community Violence." *Child Development* 73(4): 1265-1282.

O'Neil, Robin, Ross D. Parke and David J. McDowell (2001). "Objective and Subjective Features of Children's Neighborhoods: Relations to Parental Regulatory Strategies and Children's Social Competence." *Applied Developmental Psychology* 22: 135-155.

Orr, Larry, et al. (2003). *Moving to Opportunity for Fair Housing Demonstration Interim Impacts Evaluation*, September.
<http://www.huduser.org/publications/fairhsg/mtofinal.html>.

Osofsky, Joy D. (1999). "The Impact of Violence on Children." *The Future of Children* 9(3): 33-49.

Pettigrew, Thomas F. (1998). "Intergroup Contact Theory." *American Review of Psychology* 49: 65-85.

Phillips, Meredith, et al. (1998). "Family Background, Parenting Practices, and the Black-White Test Score Gap." In Jencks, Christopher and Meredith Phillips, eds. *The Black-White Test Score Gap*. Washington, D.C.: Brookings Institution Press, 103-145.

Pinderhughes, Ellen E., et al. (2001). "Parenting in Context: Impact of Neighborhood Poverty, Residential Stability, Public Services, Social Networks, and Danger on Parental Behaviors." *Journal of Marriage and the Family* 63(4): 941-953.

Pittman, Joe F. and Gary L. Bowen (1994). "Adolescents on the Move: Adjustment to Family Relocation." *Youth and Society* 26(1): 69-91.

Popkin, Susan J., et al. (2003). "Obstacles to Desegregating Public Housing: Lessons Learned from Implementing Eight Consent Decrees." *Journal of Policy Analysis and Management* 22(2): 179-199.

Prelow, Hazel M. and Alexandra Loukas (2003). "The Role of Resource, Protective, and Risk Factors on Academic Achievement-Related Outcomes of Economically Disadvantaged Latino Youth." *Journal of Community Psychology* 31(5): 513-529.

Pribesh, Shana and Douglas B. Downey (1999). "Why Are Residential and School Moves Associated with Poor School Performance?" *Demography* 36: 521-534.

Proctor, Bernadette D. and Joseph Dalaker (2003). *Poverty in the United States: 2002*. U.S. Census Bureau, Current Population Reports, P60-222. Washington, DC: U.S. Government Printing Office. September.

Quane, James M. and Bruce H. Rankin (1998). "Neighborhood Poverty, Family Characteristics, and Commitment to Mainstream Goals: The Case of African American Adolescents in Inner City." *Journal of Family Issues* 19(6): 769-794.

Quillian, Lincoln and Mary E. Campbell (2003). "Beyond Black and White: The Present and Future of Multiracial Friendship Segregation." *American Sociological Review* 68(4): 540-566.

Rainwater, Lee and Timothy M. Smeeding (2004). *Poor Kids in a Rich Country: America's Children in Comparative Perspective*. New York, NY: Russell Sage.

Rankin, Bruce H. and James M. Quane (2000). "Neighborhood Poverty and the Social Isolation of Inner-City African American Families." *Social Forces* 79: 139-164.

Rankin, Bruce H. and James M. Quane (2002). "Social Contexts and Urban Adolescent Outcomes: The Interrelated Effects of Neighborhoods, Families, and Peers on African-American Youth." *Social Problems* 49(1): 79-100.

Reingold, David A., Gregg G. Van Ryzin and Michelle Ronda (2001). "Does Urban Public Housing Diminish the Social Capital and Labor Force Activity of Its Tenants?" *Journal of Policy Analysis and Management* 20(3): 485-504.

Richters, John E. and Pedro Martinez (1993). "The NIMH Community Violence Project: I. Children as Victims of and Witnesses to Violence." *Psychiatry* 56: 7-21.

Rivkin, Steven G. (2000). "School Desegregation, Academic Attainment, and Earnings." *Journal of Human Resources* 35(2): 333-346.

Rosenbaum, James E. (1995). "Changing the Geography of Opportunity by Expanding Residential Choice: Lessons from the Gautreaux Program." *Housing Policy Debate* 6(1): 231-269.

Rosenbaum, James E. and Susan J. Popkin (1991). "Employment and Earnings of Low-Income Blacks Who Move to Middle-Class Suburbs." In Jencks, Christopher and P. Peterson, eds. *The Urban Underclass*. Washington, DC: Brookings Institution, 342-356.

Rosenbaum, James E., Marilyn J. Kuliecke and Leonard S. Rubinowitz (1988). "White Suburban Schools' Responses to Low-Income Black Children: Sources of Successes and Problems." *Urban Review* 20: 28-41.

Rosenbaum, James E., et al. (1991). "Social Integration of Low-Income Black Adults in Middle-Class White Suburbs." *Social Problems* 38(4): 448-461.

Ross, Catherine E. (2000). "Neighborhood Disadvantage and Adult Depression." *Journal of Health and Social Behavior* 41: 177-187.

Ross, Catherine E. and John Mirowsky (2001). "Neighborhood Disadvantage, Disorder, and Health." *Journal of Health and Social Behavior* 42: 258-276.

Rubinowitz, Leonard S. and James E. Rosenbaum (2000). *Crossing the Class and Color Lines: From Public Housing to White Suburbia*. Chicago, IL: University of Chicago Press.

Rumberger, Russell W. and Katherine A. Larson (1998). "Student Mobility and the Increased Risk of High School Dropout." *American Journal of Education* 107: 1-35.

Sampson, Robert J. (1992). "Family Management and Child Development: Insights from Social Disorganization Theory." In McCord, J., ed. *Facts, Frameworks, and Forecasts: Advances in Criminological Theory* 3. New Brunswick, NJ: Transaction Books, 63-93.

Sampson, Robert J. (1997). "Collective Regulation of Adolescent Misbehavior: Validation Results from Eighty Chicago Neighborhoods." *Journal of Adolescent Research* 12: 227-244.

Sampson, Robert J. and W. Byron Groves (1989). "Community Structure and Crime: Testing Social-Disorganization Theory." *American Journal of Sociology* 94: 774-780.

Sampson, Robert J. and John H. Laub (1994). "Urban Poverty and the Family Context of Delinquency: A New Look at Structure and Process in a Classic Study." *Child Development* 65: 523-540.

Sampson, Robert J., Jefferey Morenoff and Felton Earls (1999). "Beyond Social Capital: Spatial Dynamics of Collective Efficacy for Children." *American Sociological Review* 64: 633-660.

Sampson, Robert J. and Jeffrey Morenoff (1997). "Ecological Perspectives on the Neighborhood Context of Urban Poverty: Past and Present." In Brooks-Gunn, Jeanne, et al., eds. *Neighborhood Poverty: Policy Implications in Studying Neighborhoods 2*. New York: Russell Sage Foundation, 1-22.

Sampson, Robert J., Stephen W. Raudenbush and Felton Earls (1997). "Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy." *Science* 277: 918-924.

Scanlon, Edward and Kevin Devine (2001). "Residential Mobility and Youth Well-Being: Research, Policy, and Practice Issues." *Journal of Sociology and Social Welfare* 28(1): 119-138.

Schill, Michael H. and Susan M. Wachter (2001). "Principles to Guide Housing Policy at the Beginning of the Millennium." *Cityscape: A Journal of Policy Development and Research* 5(2): 5-19.

Schwab-Stone, Mary E., et al. (1995). "No Safe Haven: A Study of Violence Exposure in an Urban Community." *Journal of the American Academy of Child and Adolescent Psychiatry* 34: 1343-1352.

Schwab-Stone, Mary E., et al. (1999). "No Safe Haven II: The Effects of Violence Exposure on Urban Youth." *Journal of the American Academy of Child and Adolescent Psychiatry* 38: 359-367.

Scott, Richard R. and James M. McPartland (1982). "Desegregation as National Policy: Correlates of Racial Attitudes." *American Educational Research Journal* 19(3): 397-414.

Shaw, Clifford R. and Henry D. McKay (1942). *Juvenile Delinquency and Urban Areas*. Chicago, IL: University of Chicago Press.

Simmons, Roberta G., et al. (1987). "The Impact of Cumulative Change in Early Adolescence." *Child Development* 58: 1220-1234.

Simons, Ronald L., et al. (1996). "Parents and Peer Group as Mediators of the Effect of Community Structure on Adolescent Behavior." *American Journal of Community Psychology* 24: 145-171.

Simpson, Gloria A. and Mary Glenn Fowler (1994). "Geographic Mobility and Children's Emotional/Behavioral Adjustment and School Functioning." *American Academy of Pediatrics* 93: 303-309.

South, Scott J. and Kyle D. Crowder (1997). "Escaping Distressed Neighborhoods: Individual, Community, and Metropolitan Influences." *American Journal of Sociology* 102(4): 1040-1084.

South, Scott J. and Kyle D. Crowder (1998a). "Avenues and Barriers to Residential Mobility among Single Mothers." *Journal of Marriage and the Family* 60: 866-877.

South, Scott J. and Kyle D. Crowder (1998b). "Leaving the 'Hood: Residential Mobility between Black, White, and Integrated Neighborhoods." *American Sociological Review* 63: 17-26.

South, Scott J., Kyle D. Crowder and Katherine Trent (1988). "Children's Residential Mobility and Neighborhood Environment Following Parental Divorce and Remarriage." *Social Forces* 77(2): 667-693.

South, Scott J. and Glenn D. Deane (1993). "Race and Residential Mobility: Individual Determinants and Structural Constraints." *Social Forces* 72(1): 147-167.

Spengler, Jack D., et al. (2002). *Housing Characteristics and Children's Respiratory Health*. Indoor Air Conference, Monterey, CA, July.

St. John, Nancy H. (1975). *School Desegregation: Outcomes for Children*. New York, NY: John Wiley and Sons.

Stack, Steven (1994). "The Effect of Geographic Mobility on Premarital Sex." *Journal of Marriage and the Family* 56: 204-208.

Stegman, Michael A., Walter R. Davis and Roberto Quercia (2003). *The Earned Income Tax Credit as an Instrument of Housing Policy*. Washington, D.C.: The Brookings Institution.

Stoneman, Zolinda, et al. (1999). "Effects of Residential Instability on Head Start Children and Their Relationships with Older Siblings: Influences of Child Emotionality and Conflict between Family Caregivers." *Child Development* 70(5): 1246-1262.

Straits, Bruce C. (1987). "Residence, Migration, and School Progress." *Sociology of Education* 60(January): 34-43.

Swanson, Christopher B. and Barbara Schneider (1999). "Students on the Move: Residential Mobility and Educational Mobility in American's Schools." *Sociology of Education* 72(January): 54-67.

Temple, Judy A. and Arthur J. Reynolds (1999). "School Mobility and Achievement: Longitudinal Findings from an Urban Cohort." *Journal of School Psychology* 37(4): 355-377.

Tucker, C. Jack, Jonathan Marx and Larry Long (1998). "'Moving on': Residential Mobility and Children's School Lives." *Sociology of Education* 71: 111-129.

Turley, Ruth N. Lopez (2003). "When Do Neighborhoods Matter? The Role of Race and Neighborhood Peers." *Social Science Research* 32: 61-79.

Turner, Margery Austin, Susan J. Popkin and Mary Cunningham (2000). *Section 8 Mobility and Neighborhood Health: Emerging Issues and Policy Challenges*. Washington, D.C.: The Urban Institute.

U.S. Department of Health and Human Services (1999). *Trends in the Well-Being of America's Children and Youth 1999*. Washington, D.C.: Author.

Vernberg, Eric M. (1990). "Experiences with Peers Following Relocation during Early Adolescence." *American Journal of Orthopsychiatry* 60(3): 466-472.

Wellman, Barry and Scot Wortley (1990). "Different Strokes from Different Folks: Community Ties and Social Support." *American Journal of Sociology* 96(3): 558-588.

Wells, Amy Stuart (1995). "Reexamining Social Science Research on School Desegregation: Long- Versus Short-Term Effects." *Teachers College Record* 96(4): 691-706.

Wells, Amy Stuart and Robert L. Crain (1994). "Perpetuation Theory and the Long-Term Effects of School Desegregation." *Review of Educational Research* 64(4): 531-555.

Wells, Amy Stuart and Robert L. Crain (1997). *Stepping over the Color Line: African-American Students in White Suburban Schools*. New Haven, CT: Yale University Press.

Wheaton, Blair and Philippa Clarke (2003). "Space Meets Time: Integrating Temporal and Contextual Influences on Mental Health in Early Adulthood." *American Sociological Review* 68(5): 680-706.

Whitfield, Keith E. and Sebrina A. Wiggins (2003). "The Impact of Desegregation on Cognition among Older African Americans." *Journal of Black Psychology* 29(3): 275-291.

Williams, David R. and Chiquita Collins (2001). "Racial Residential Segregation: A Fundamental Cause of Racial Disparities in Health." *Public Health Reports* 116: 404-416.

Williams, Trina R., et al. (2002). "Friends, Family, and Neighborhood: Understanding Academic Outcomes of African American Youth." *Urban Education* 37(3): 408-431.

Wilson, Franklin D. and Roger B. Hammer (2001). "Ethnic Residential Segregation and Its Consequences." In Bobo, Lawrence, et al., eds. *Urban Inequality in the United States: Evidence from Four Cities*. New York: Russell Sage Foundation, 272-303.

Wilson, William Julius (1987). *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago, IL: University of Chicago Press.

Wilson, William Julius (1996). *When Work Disappears: The World of the New Urban Poor*. New York: Alfred J. Knopf.

Wood, David, et al. (1993). "Impact of Family Relocation on Children's Growth, Development, School Function, and Behavior." *Journal of the American Medical Association* 270(11): 1334-1338.

Zaslow, Martha J. and C. A. Eldred, eds. (1998). *Parenting Behavior in a Sample of Young Mothers in Poverty: Results of the New Chance Observational Study*. New York: Manpower Demonstration Research Corporation.

Zubrinisky Charles, Camille (2003). "The Dynamics of Racial Residential Segregation." *Annual Review of Sociology* 29: 167-207.

Appendix

Gautreaux Program: Study Designs and Samples

The first study, commenced in 1982, had two waves, a three-year study and a ten-year follow-up (years of studies are based on averages) focusing on 114 mothers and one randomly selected child between the ages of 6- to 16-years who had attended both inner-city and suburban schools. Although 61 of the children actually participated, most of the child data were based on maternal-report. As a comparison group, 48 city movers were recruited. In 1989, an average of ten years following original moves, a follow-up study was conducted with 58 percent ($n = 107$) of the original families ($n = 68$ suburban movers, $n = 39$ city movers). Due to

the small subsample of city movers, an additional ten similar city families were recruited. Seventy-eight percent of suburban movers remained in the suburbs at the time of the follow-up.

The second study, which began in 1988, approximately six years after selected respondents originally moved, was based on a random sample of 342 participating families ($n = 230$ suburban movers, $n = 112$ city movers) and focused primarily on adults' economic outcomes; 67 percent of families selected participated. In-depth interviews were conducted with 95 ($n = 52$ suburban movers, $n = 43$ city movers) respondents in their homes.

In both studies, the two groups (suburban and city movers) were similar on a number of relevant background characteristics including maternal education, household composition, and child age and gender. Additionally, suburban movers resided at their current address slightly longer than city movers (Rosenbaum 1995; Rubinowitz and Rosenbaum 2000). In general, suburban movers originally relocated to primarily middle-class, White neighborhoods and the city movers selected for the studies relocated to neighborhoods not unlike those from which they came.

Families in both the three-year and six-year studies were interviewed in their homes by Black women. Interviews focused on residents' perceptions of and their experiences in their new neighborhoods including harassment and discrimination, as well as questions on children's education. Results were obtained from qualitative records, descriptive statistics, and regression analyses controlling for a standard set of background characteristics (Rosenbaum et al. 1991).

The Yonkers (NY) Project: Study Design and Sample

Two hundred families in public housing and on the wait list for public housing residing in Southwest Yonkers were selected via lottery to move to the new public housing ("movers"); 189 families relocated. The 11 families selected who opted not to move did not significantly differ from the families who moved within the program on any major demographic characteristics. The analytic sample consisted of 173 mover families, excluding White participants ($n = 16$), since they were not the target of the court order.

An in-place control group of demographically similar residents who remained in Southwest Yonkers ("stayers") was recruited via network sampling, in which movers were asked to name a maximum of five demographically similar families currently residing in Southwest Yonkers who had expressed interest in relocating. Secondly, families that had been on the public housing wait list who replaced mover families in the old public housing units were also recruited. All but 36 of the 402 families recruited using the two strategies were screened to determine their public housing eligibility according to the Yonkers Housing Authority's guidelines. Forty percent ($n = 148$) of the 366 families that completed the screener interview would have been eligible for the housing lottery had they applied; three-quarters were public housing residents. All but three of these families were interviewed. Nearly half (46 percent, $n = 66$; "lottery losers") of the eligible, participating families had,

in fact, entered the lottery and lost, and the remaining 54 percent ($n = 79$; "other stayers") of the participants who met the criteria elicited through the screening process never applied to the housing lottery regardless of their eligibility. Thus, approximately half of the control group is randomized ("lottery losers"). Univariate comparisons between movers and the two stayer subsamples revealed that the "other stayers" were somewhat more disadvantaged than the randomized groups ("movers" and "lottery losers"). The final stayer sample consists of 142 residents of Southwest Yonkers, omitting the three non-minority families from analyses.

Of the 315 families ($n = 173$ movers and $n = 142$ stayers) included in the analytic sample, 261 8- to 18-year old youth ($n = 147$ movers and $n = 114$ stayers) from 167 of the 315 families (83 percent of families with eligible youth, 53 percent of total families interviewed) completed interviews. Movers and stayers were fairly similar in terms of background demographic characteristics.

The Yonkers (NY) Project commenced between 1994 and 1995, approximately two years ($M = 22.07$ months; $SD = 12.77$; range = .75 months to 36 months) after mover families relocated. Structured interviews focusing on a range of outcomes, which took approximately two hours, were administered to families by trained graduate students within participants' homes. Multiple regression analyses controlling for background and demographic characteristics were utilized to assess differences between movers and stayers on relevant outcomes.

MTO Demonstration: Study Designs and Samples

This paper reviewed short-term (approximately three-year) impact evaluations for three of the MTO project sites, namely Baltimore, Boston, and New York City. First, the Baltimore MTO follow-up study utilized city administrative data and state standardized achievement test scores to examine educational outcomes from over 1,200 primarily Black and Latino children between the ages of 5 and 12 years from 638 families (Ludwig, Ladd and Duncan 2001). An additional study, smaller in scope, was conducted with 336 adolescents who were 11 to 16 years of age when their families were randomly assigned MTO placement, and examined prevalence of crime and delinquency among teenagers from the three treatment groups using juvenile arrest records (Ludwig, Duncan and Hirschfield 2001). The Boston study focused on 612 6- to 15-year old children from 540 participating families using administrative school data and telephone interviews conducted with primary caregivers (Katz, Kling and Liebman 2001). Finally, data from the New York City evaluation, which used data from in-home interviews with primary caregivers and up to two children under the age of 18 years, spawned two studies; the first focused on 512 Black and Latino children aged 8 to 18 years (Leventhal and Brooks-Gunn 2003) and the second examined 588 Black and Latino 6- to 16-year olds (Leventhal and Brooks-Gunn in press). Each of the studies listed above utilized instrumental variable analyses and multiple regression analyses to determine treatment effects.

The interim evaluation, which took place approximately six years following the implementation of the demonstration included approximately 4,300 families from

the five U.S. cities that participated in the original random assignment process (92 percent of the full MTO sample). Up to two randomly selected 5- to 19-year old children from each household were also recruited for this evaluation, which focused on outcomes including economic factors, adult and child physical and mental health and delinquency, and children's educational achievement.