

# Does Moving to Better Neighborhoods Lead to Better Schooling Opportunities? Parental School Choice in an Experimental Housing Voucher Program

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**Background:** *Previous research has demonstrated that children growing up in poor communities have limited access to high-performing schools, while more affluent neighborhoods tend to have higher-ranking schools and more opportunities for after-school programs and activities. Therefore, many researchers and policy makers expected not only that the families moving to low-poverty neighborhoods with the Moving to Opportunity (MTO) program would gain access to zone schools with more resources but also that mothers would be more likely to meet middle-class parents who could provide information about academic programs and teachers, leading them to choose some of these new higher-quality-zone schools. However, research evaluating the effects of the MTO program on child outcomes 4-7 years after program moves found that while the schools attended by the MTO children were less poor and had higher average test scores than their original neighborhood schools, the differences were small: Before moving with the program, MTO children attended schools ranked at the 15th percentile statewide on average; 4-7 years after the move, they were attending schools that ranked at the 24th percentile on average.*

**Purpose:** *The fact that the residential changes brought about by the MTO experiment did not translate into much larger gains in school academic quality provides the impetus for our study. In other words, we explore why the experiment did not lead to the school changes that researchers and policy makers expected. With survey, census, and school-level data, we examine where families moved with the MTO program and how these moves related to changes in school characteristics, and how parents considered schooling options.*

**Setting:** *Although the MTO experiment took place in five cities (New York, Boston, Los Angeles, Chicago, and Baltimore), we use data from the Baltimore site only.*

**Population:** *The sample in our study includes the low-income mothers and children who participated in the Baltimore site of the MTO housing voucher experiment. Ninety-seven percent of the families were headed by single black women. The median number of children was two, and average household income was extremely low, at \$6,750. Over 60% received Aid to Families with Dependent Children (AFDC) as their primary source of income (at program entry in 1994), over 77% of household heads were unemployed, and 40% of the women had no high school degree or GED.*

**Program:** *The Moving to Opportunity program gave public housing residents in extremely poor neighborhoods in Baltimore, New York, Chicago, Los Angeles, and Boston a chance to apply for the program and move between 1994 and 1998. Families were randomly assigned into one of three groups: an experimental group that received housing counseling and a special voucher that could only be used in census tracts with 1990 poverty rates of less than 10%; a second treatment group, the Section 8 group, that received a regular voucher with no geographic restrictions on where they could move; and a control group that received no voucher through MTO, although they could continue to reside in their public housing units or apply for other housing subsidies (usually a regular Section 8 voucher). The program did not provide assistance with transportation costs, job searches, or local school information after the family relocated.*

**Research Design:** *We use survey data, census data, school-level data, and interviews from the Baltimore site of a randomized field trial of a housing voucher program. We present a mixed-methods case study of one site of the experiment to understand why the children of families who participated in the Baltimore MTO program did not experience larger gains in schooling opportunity.*

**Conclusions:** *Our article demonstrates that in order to discover whether social programs will be effective, we need to understand how the conditions of life for poor families facilitate or constrain their ability to engage new structural opportunities. The described case examples demonstrate why we need to integrate policies and interventions that target schooling in conjunction with housing, mental health services, and employment assistance. Future programs should train mobility counselors to inform parents about the new schooling choices in the area, help them weigh the pros and cons of changing their children's schools, and explain some of the important elements of academic programs and how they could help their children's educational achievement. Counselors could also assuage parents' fears about transferring their children to new schools by making sure that receiving schools have information about the children and that little instruction time is lost in the transition between schools.*

*Note: The opinions expressed here are those of the authors and do not necessarily reflect the position of the US Department of Housing and Urban Development.*

Over the last 20 years, researchers have demonstrated that families and children who reside in neighborhoods characterized by concentrated poverty and racial segregation experience diminished life outcomes (Wilson 1996; Massey and Denton 1993; Brooks-Gunn, Duncan, and Aber 1997; Sampson, Morenoff, and Gannon-Rowley 2002). In particular, the educational attainment of African American children in poor neigh-

neighborhoods lags far behind that of their white counterparts in other communities (Crane 1991; Jencks and Phillips 1998). This achievement gap is largely explained by differences in family resources, but it is also associated with the differences in school quality and neighborhood characteristics between white and black students (Jencks and Phillips 1998; Brooks-Gunn et al. 1993; Card and Rothstein 2007). Neighborhoods, schools, and poverty are inextricably linked: Because most children attend zoned neighborhood schools, and poor minority families rarely move out of impoverished communities, they generally cannot send their children to high-quality schools (South and Crowder 1997; Massey and Denton 1993). Unlike middle-class families, who often exercise school choice through residential choice (Hoxby 2003; Barrow 2002), the options of poor families are limited by the higher cost of housing in affluent areas.

Theoretically, then, one way to improve school opportunities for poor children is to help their families move to less segregated and more economically advantaged neighborhoods. More affluent communities have higher-performing schools, safer public spaces, more educationally engaged peers, and allow parents access to networks with more information about school quality, teachers, and academic programs (cf. Leventhal and Brooks-Gunn 2000; Mayer and Jencks 1989). Motivated by previous research on neighborhoods and children's outcomes, the Department of Housing and Urban Development (HUD) conducted a randomized experiment between 1994 and 1998 that gave several thousand public housing families such a chance to relocate to higher-resource communities through the Moving to Opportunity (MTO) experiment. Unlike the regular housing voucher program, MTO experimental families received housing counseling, housing search assistance, and a voucher to move to low-poverty communities. To examine whether the new neighborhood (rather than individual characteristics) led to any improvements, a control group of families who did not receive the low-poverty voucher was also followed with the program. Previous research suggested that such a program would increase schooling opportunities and academic achievement for the low-poverty "experimental" group compared with the control group (Brooks-Gunn et al. 1993; Kaufman and Rosenbaum 1992).

However, 4–7 years after families moved with MTO, an evaluation of the experiment found that while some children did experience improvements in academic achievement, on average, the educational outcomes of children who moved to low-poverty communities were not significantly better than those of the children whose families did not relocate with the MTO voucher (Orr et al. 2003; Sanbonmatsu et al. 2006). In addition,

while the schools that experimental-group children attended were less poor and had slightly higher test scores, they were quite similar to their original schools (Orr et al. 2003; Sanbonmatsu et al. 2006). So, a puzzle remains: Why didn't school quality increase *more* after moves to less poor communities, as predicted by previous research? In this mixed-methods article, we used experimental data and interviews with mothers participating in the Baltimore site of the MTO experiment to explain why new housing opportunities did not translate into major changes in educational environments for most of their children.

We do not conduct a formal experimental analysis of the educational outcomes, which has been done in other articles (cf. Sanbonmatsu et al. 2006).<sup>1</sup> Instead, we explore *why the children of families who participated in the Baltimore MTO program did not experience larger gains in schooling opportunity*. In other words, we explore why the experiment did not lead to the school changes that researchers and policy makers expected. With survey, census, and school-level data, we examine where families moved with the MTO program and how these moves related to changes in school characteristics. Through our interviews, we explore how families made decisions about where children should go to school, and the conditions that made it difficult for the housing program to translate into better educational outcomes. We contribute to the literature on educational stratification, neighborhoods, and social policy by using multiple data sources from a randomized experiment to examine how low-income mothers approach housing and schooling opportunity, and how life in poverty interacts with participation in a social program.

## BACKGROUND

Schooling opportunities for disadvantaged minority children are limited by the residential racial segregation and concentrated poverty in many U.S. cities. Rivkin (1994) emphasizes that residential segregation has severely limited school desegregation efforts and that students need to be able to move across district boundaries to reduce racial isolation. Massey and Denton (1993) note that the organization of public schools around geographic catchment areas reinforces the concentration of poverty and race. Reardon, Yun, and Eitle (2000) have recently shown that most metropolitan area school segregation is due to differences between districts, primarily racial differences in residential patterns between cities and suburbs. According to Wilson (1996), the geographic segregation of young people in poor city neighborhoods matters because it fosters a culture of joblessness and "ghetto behaviors," which affects how youth interpret the opportunity structure and the relevance of schooling.

Legal decisions like *Bradley v Milliken* (1974) have exacerbated the problem by protecting suburban areas from being considered part of metropolitan-wide school desegregation remedies. Orfield and Eaton (1996) review decades of school desegregation court cases and note that over time, the issue of housing segregation has been considered to be of a “different” and separate nature from school segregation. They explain that even when the links between subsidized housing and school segregation became obvious to HUD, the chance for this connection to affect policy was cut short:

By the end of the Carter administration, the impact of the housing policies on school segregation had become clear to HUD officials. In its final days, the administration . . . issued a regulation requiring that housing decisions be taken in light of the implications for school segregation. This regulation was rescinded in the first days of the Reagan administration and was never put into operation. (Orfield and Eaton 1996, p. 312)

These developments all but guaranteed that housing would not be deemed relevant for decisions about remedying school segregation. This is unfortunate since many scholars contend that the segregation of urban school systems rests on a foundation of segregated housing and that as a result, *Brown* was ill-equipped from the beginning to solve the problem of racial isolation in public schools (Orfield and Eaton 1996; Ascher and Branch-Smith 2005).

Despite the disconnect between housing and education in the school desegregation cases, fair housing litigation produced greater success in providing families with access to neighborhoods and schooling opportunities in metropolitan areas. In 1976, fair housing lawyers convinced the Supreme Court that public housing families in Chicago had been denied opportunities to live in more integrated communities and that HUD and Chicago’s Housing Authority were responsible (see Polikoff 2006 and Rubinowitz and Rosenbaum 2000 for overviews of the *Gautreaux* case). As a result, low-income black families who were in Chicago’s public housing projects became eligible to receive vouchers to relocate to neighborhoods that were 30% African American or less. Between 1976 and 1990, over 7,000 families moved across the Chicago metro area; about half moved to mostly white suburbs, and half moved to non-public housing city neighborhoods. Families did not choose their new housing units; they were placed in new neighborhoods by housing counselors (working with landlords and real estate agents) on the basis of their position on a waiting list, like a random-draw lottery.<sup>2</sup> Families moved to many differ-

ent neighborhoods, allowing comparisons of outcomes between families who moved to mostly white suburbs and families who moved to non-public housing city neighborhoods. This unprecedented case allowed researchers to examine how changes in housing opportunities translated into improvements in family and child well-being (DeLuca et al. 2010).

Almost two decades later, mothers who moved to less segregated, more affluent areas with the Gautreaux program were more likely to still live in such communities, were less likely to be on welfare, were more likely to be employed, and earned slightly more than those who relocated to less advantaged communities (DeLuca and Rosenbaum 2003; Mendenhall, DeLuca, and Duncan 2006). Early Gautreaux results also showed that children who moved to the suburbs went to much more rigorous schools, received higher grades, and were more likely to attend college (Rubinowitz and Rosenbaum 2000; Kaufman and Rosenbaum 1992). Almost 90% of the children who moved to suburban communities were attending schools that were performing at or above national levels, in stark contrast to their original inner-city schools. Mothers reported that their children were getting needed assistance in the new schools and that they were benefiting from the more challenging academic courses in the suburban areas (Rubinowitz and Rosenbaum 2000; Kaufman and Rosenbaum 1992). These results suggested that neighborhood change could improve schooling opportunities and educational outcomes despite initial disruptions in social ties, family routine, or schooling adjustments.

As a result of the Gautreaux program, HUD wanted to carry out a more comprehensive and rigorous study of the effects of offering families housing vouchers to live in more advantaged areas.<sup>3</sup> The Moving to Opportunity program was authorized and funded by Congress in 1992 (Goering and Feins 2003). The program gave public housing residents in extremely poor neighborhoods in Baltimore, New York, Chicago, Los Angeles, and Boston a chance to apply for the program and move between 1994 and 1998. Families were randomly assigned into one of three groups: an experimental group that received housing counseling and a special voucher that could only be used in census tracts with 1990 poverty rates of less than 10% (unlike the Gautreaux program, there was no racial restriction); a second treatment group, the Section 8 group, that received a regular voucher with no geographic restrictions on where they could move; and a control group that received no voucher through MTO, although they could continue to reside in their public housing units or apply for other housing subsidies (usually a regular Section 8 voucher).

About 4,600 families were part of the MTO program, and over 1,700 were randomly assigned to the group offered the low-poverty vouchers. A little over half of these families used the vouchers to successfully “lease up” in a low poverty neighborhood.<sup>4</sup> Nonprofit agencies provided the housing counseling in partnership with public housing authorities, which administered the vouchers. Although families were given housing counseling, they chose their own housing units within allowable census tracts. In Baltimore, counselors provided a series of workshops to help families manage their budgets, search for housing, and learn how to present themselves favorably to potential landlords. They also assisted the search process by running neighborhood tours so that the families could see communities and homes in the outlying counties (Feins, McInnis, and Popkin 1997). While counselors did try to help families with nonhousing issues before the move (such as credit problems, employment, and depression), they did not provide assistance with transportation costs, job searches, or local school information after the family relocated.

Early research on the MTO program had shown that the moves to less poor neighborhoods led to improvements in children’s test scores and school behaviors (Ludwig, Ladd, and Duncan 2001). However, a follow-up study that looked at child outcomes 4–7 years after program moves found no educational benefits for those youth in the experimental group (Orr et al. 2003; Sanbonmatsu et al. 2006). While the schools attended by the MTO children had higher average test scores than their original neighborhood schools (across all five sites), the differences were small. Before moving with the program, MTO children attended schools ranked at the 15th percentile statewide; 4–7 years after the move, they were attending schools that ranked at the 24th percentile (Sanbonmatsu et al. 2006). After the move, youth were attending schools with about 10% fewer minority peers and almost 13% fewer students eligible for the federal lunch program (Sanbonmatsu et al. 2006). In fact, at the time of the follow-up study, most of the children whose families had relocated to low-poverty communities were attending schools in their original city school district (Orr et al. 2003). Logic and previous research suggest that the children of MTO families should have experienced better educational outcomes in part because they should have attended much higher-performing schools in their new communities.

The fact that the MTO residential changes did not translate into much larger gains in school academic quality provides the impetus for our current study. We use surveys, maps, and interview data from families who participated in the Baltimore site of the MTO experiment to examine why the schools of experimental movers were so similar to the ones they left behind. We do not analyze individual test score differences for the



MTO children or formally conduct analyses within the experimental design, but rather explore how parents and their children make decisions about where to go to school in the context of new residential opportunities. To guide and motivate our analyses of these data, we rely on previous studies of neighborhoods, parental involvement in schooling, and school choice programs.

## PREVIOUS RESEARCH

### HOW DOES HOUSING OPPORTUNITY LEAD TO SCHOOLING OPPORTUNITY?

Previous research has demonstrated that families and children growing up in poor communities have limited access to jobs and high-performing schools, and these families are also socially isolated from people who can help them learn about such resources (Wilson 1996; Massey and Denton 1993; Briggs 2005). More affluent neighborhoods tend to have more working adults, better-educated adults, higher-ranking schools, and more opportunities for after-school programs and activities (Mayer and Jencks 1989). Therefore, we would expect not only that some of the families moving to low-poverty neighborhoods with MTO would gain access to zone schools with more resources but also that mothers might be more likely to meet middle-class parents who could provide information about academic programs and teachers that they would not normally acquire through their social networks, thus affecting their school choices (Lareau 1987).

Additional research suggests that neighborhood conditions affect parenting styles and child-rearing strategies. Parents in high-crime neighborhoods often monitor their children more closely and spend a great deal of time worrying about their children's safety (Furstenberg et al. 1999; Kling et al. 2004). Moving to safer neighborhoods might allow some of the MTO mothers more freedom to pursue other investments, such as learning more about local schools and programs or interacting with neighbors who can help them figure out the local school system. We also know that the children who moved to suburban areas with the Gautreaux program enjoyed schools that were much more academically rigorous as a result of their moves (Kaufman and Rosenbaum 1992). As we analyzed our relocation survey data, we looked at how neighborhood change was connected to school changes; as we analyzed our interviews with the MTO mothers, we looked for discussions linking their choice of neighborhood with schooling decisions, either through access to new information sources or simply through their ability to send their child to the local zone school.



## CLASS AND PARENTAL INVOLVEMENT IN SCHOOLING

Another relevant line of research examines how social class affects the way parents engage schooling. Ethnographic work has shown that while all parents value schooling, working-class and poor parents approach their children's schooling in different ways than middle-class parents with higher levels of resources do. For example, Lareau found that when working-class parents interacted with teachers, they often asked questions about nonacademic issues, like lunch and bus schedules, while middle-class parents focused heavily on evaluations of their children's academic progress (Lareau 1987, 1989). As compared with middle-class parents, working-class parents were also less familiar with the curriculum, were more likely to learn about school from their children (as opposed to conversations with teachers), and had narrow social ties that rarely included professionals (while middle-class parents often had wider networks that included some teachers) (Lareau 1987, 1989; Horvat, Weininger, and Lareau 2003). Poor parents are also less likely to "activate" their capital by contacting school personnel when they find teachers to be inappropriate, while more affluent parents readily mobilize their networks to influence which classes their children take and with which teachers (Horvat, Weininger, and Lareau 2003; Lareau and Horvat 1999).

Based on this work, we might expect that many of the MTO parents would be hesitant to actively seek out new educational opportunities, especially in more affluent communities. We might also expect that MTO parents, who have had little experience with high-quality schools, would be less aggressive about schooling opportunities because they have limited information and lack high expectations for schooling possibilities. They might not seek out new schools at all and instead allow their children to stay in their original schools even if those environments are low performing. However, it is also possible that new social ties with networks of middle-class families could facilitate school choices if neighbors or coworkers provide mothers with information that makes them more confident about engaging schools in their new communities. As we read through our interviews, we looked for conversations about how comfortable families felt with schools in their new neighborhoods, how they chose their children's schools, and how they engaged their local schools (such as in interactions with teachers or principals).

## SCHOOL CHOICE PROGRAMS

The research on school choice also guided our analyses, since school choice is often part of the decision to move to a new community.

Researchers have uncovered a variety of ways in which choice behaviors are shaped by social factors. For example, the social networks of low-income families do not provide them with the kinds of details or contacts that could help them understand choice options, locate better schools, or take advantage of choice programs (Horvat, Weininger, and Lareau 2003; Schneider et al. 2000; Neild 2005). Minority and low-income parents are also less likely to evaluate school quality based on academic resources or test scores (Saporito and Lareau 1999; Henig 1995; Teske and Schneider 2001). Research examining the school choice decisions of minority families finds that cultural orientation, parents' educational background, and neighborhood context are all factors that determine whether parents engage in school choice programs at all (Lauen 2007; Wells and Crain 1997; Wells 1996; Bulman 2004). Archbald (2004) points out that there are serious flaws in the assumptions behind models of school choice if there is little interest among poor families, or if they are simply unaware of choice options.

Based on parental involvement and school choice research, we might assume that many of the MTO parents would not choose new schools or seek out choice programs because of limited information or a lack of comfort in such settings. Based on the neighborhood effects research, we might expect the opposite—that parents will come into contact with new opportunities and information because of their move to low-poverty neighborhoods. What is interesting about MTO is that parents *already* made a choice at one level: the choice to move neighborhoods. Therefore, we might expect that because the parents who participated in MTO were motivated to sign up for the housing voucher program, they were also motivated to seek out new schooling opportunities. However, as we detail in the next section, the connection between schooling and housing opportunities is a complex one for poor families, one that is conditioned by resources, culture, and other life events.

## DATA AND METHODS

We use data from the Interim Impacts Evaluation of the Baltimore site of the MTO housing experiment described previously, as well as data from administrative sources, census data, and in-depth interview data.<sup>5</sup> We use data from Baltimore so that we can incorporate interviews that our research team conducted in that site.<sup>6</sup> As in all five cities, the MTO families in Baltimore were poor and mostly female headed. Ninety-seven percent of the families were headed by single black women. The median number of children was two, and average household income was extremely low, at \$6,750. Over 60% received Aid to Families with

Dependent Children (AFDC) as their primary source of income (at program entry in 1994), over 77% percent of household heads were unemployed, and 40% of the women had no high school degree or GED.

For the quantitative analyses and map in this article, we use data from 249 children whose families participated in the Baltimore site of the Interim Impacts Evaluation survey. These are children whose parents either moved with the experimental low-poverty voucher or were in the control group, and who were of school age (at least 6 years old) when families first signed up for the MTO program.<sup>7</sup> There are five status groups for the MTO experiment: control-group families, experimental movers, experimental nonmovers, Section 8 movers, and Section 8 nonmovers.<sup>8</sup> We only compare moves and school changes between the control-group families and the families who moved with the experimental vouchers because it is between these two groups that the biggest differences between neighborhood and schooling options were expected. It is important to clarify that the MTO vouchers were housing vouchers only; the families did not receive any school vouchers or assistance with the cost of private school options in their new communities.

The Interim survey contains information about the families from the year that they signed up for the program (referred to here as the “baseline”) through 2001, when the data were collected. This is a time frame of 4–7 years, depending on when families were randomly assigned to one of the three groups. These data contain the location of families’ neighborhoods at baseline and their address after the MTO relocation, as well as complete schooling histories, which allows us to link the trajectory of schools attended with the residential trajectory.<sup>9</sup> To characterize and map schools and assess the change in school quality after MTO participation, we linked all the reported schools to the National Center for Education Statistics ID numbers and used the Department of Education’s Common Core of Data to gather information on school enrollment numbers, racial composition, and the number of students eligible for free or reduced lunch. We use the National School-Level State Assessment Score Database to obtain exam rank scores. These indicate the average percentile rank on state math and reading assessments from 1994 through 1998 for each school attended by the child (range is 0–100). These years reflect the performance of schools at the time that MTO families were first moving from their baseline neighborhoods.

To characterize and map the neighborhoods of MTO families, we used data from the 2000 Decennial Census. In particular, to create the percent African American variables, we used estimates for the number of non-Hispanic black individuals in the census tract. For poverty rate, we used the percent of individuals living below poverty in a census tract.<sup>10</sup> To link

schooling opportunity directly to residential location, we matched the census block groups where experimental-mover families relocated to the school catchment zone for that neighborhood. We then compared the actual school a child attended following the family's move with the zone that school the child could have attended.<sup>11</sup>

Our qualitative sample is based on a stratified random subsample of 149 families across the three program groups in Baltimore.<sup>12</sup> For the current analyses, we supplement the quantitative data by focusing on the 55 interviews that were conducted with control-group families and the 35 interviews that were conducted with families who received experimental vouchers and successfully relocated. Between July 2003 and June 2004, the first author conducted several dozen of these interviews as part of a fieldwork team. Heads of household participated in an in-depth interview that lasted between 3 and 5 hours.

It is important to repeat that we are not analyzing these data within an experimental design, but rather using the experimental and control groups as ways to compare changes in neighborhood and school location. Other researchers have already done a comprehensive experimental analysis of the school quality and test score changes for the MTO participants (Sanbonmatsu et al. 2006). Instead, we present a mixed methods case study of one site of the experiment to understand *why the children of families who participated in the Baltimore MTO program did not experience larger gains in schooling opportunity*. To do this, we use multiple approaches. First, we use census data to examine the kinds of residential changes made by the Baltimore MTO families. Second, we use the school data to examine the relative changes in school quality that accompanied the residential changes, specifically for the experimental movers as compared with the control group. Third, we use maps and school catchment data to explore the patterns of moves and school changes across the Baltimore region.<sup>13</sup>

Last, we use the interviews conducted with mothers from the Baltimore MTO site to supplement our findings from the survey data. To examine how MTO parents negotiate schooling choices and their ideas about school quality, we coded statements that described school transfers, past schooling history, decisions about moving and schooling, and information that mothers used to place their children in zone schools or other schools (see the appendix). While we compare the schooling decisions of mothers who were in the experimental group (and moved with a low-poverty voucher) with mothers from the control group (who did not receive vouchers or assistance from the MTO program), we do not distinguish between the groups in most analyses for several reasons: Control-group families were also making school changes because of HOPE VI

demolition-induced moves, and experimental movers had made subsequent moves on their own since their initial relocation with MTO.<sup>14</sup> Therefore, we use control group *and* experimental group interviews to highlight more general school decision-making processes among the MTO families.

Before we discuss the research results, it is important to provide some background context for the MTO site we focus on in this article: Baltimore, Maryland. A once-thriving industrial and port city, Baltimore's population has declined almost 30% since 1970, to just over 650,000 people in 2000. The white population of the city has declined steadily since 1960, while the size of the black population has remained relatively constant since 1970. Today, almost two-thirds of the city is African American, and despite the movement of black families westward into Baltimore County and northeast within the city, the metropolitan area remains highly segregated.<sup>15</sup> Most of the families who participated in the Baltimore MTO study were residents of the largest of the city's high-rise public housing projects, which were built in neighborhoods immediately east and west of downtown. Beginning in 1995, many of these buildings were torn down as part of Baltimore's participation in the federal HOPE VI housing redevelopment. By the time of the MTO Interim survey, all the high-rise housing projects in the city had been demolished, along with a number of low-rise units. In their place, a mix of subsidized low-rise units and market-rate townhomes have been built. This development had serious implications for the implementation of the experiment and comparisons of the outcomes for the experimental versus control-group families; the demolitions caused over two-thirds of the MTO control families to move to new neighborhoods, although many relocated to other high-poverty areas in the city (Feins and Shroder 2005).

In the 2005–2006 school year, Baltimore public schools served almost 86,000 students. While many elementary and middle schools in Baltimore still base their enrollments on residential location, the city has increasingly explored alternative and charter school options. Currently the city has more than 30 charter schools or alternative education programs across all grade levels, although many of these have opened in the years since the data reported here were collected. At the high school level, the city maintains a number of schools without entrance criteria (including both comprehensive and career-oriented academies) as well as five academically focused schools and five career and technical education academies that have entrance criteria.

To give some additional context, Figures 1–3 provide a simple comparison of the kinds of schools where MTO families had originally enrolled their children, and the kinds of schools they could choose once they relo-

cated with their low-poverty voucher. Figures 1 and 2 show how Baltimore city schools compare demographically to the surrounding counties (Baltimore, Howard, Anne Arundel, Harford, and Carroll), where MTO experimental families could choose to use their voucher. The light grey bars in Figures 1 and 2 show that almost three-quarters of the schools in Baltimore city are more than 80% African American, and over two-thirds of the city schools contain a majority (more than 60%) of free-lunch-eligible students. In comparison, the county schools that surround Baltimore city show strikingly different distributions. The dark grey bars in Figures 1 and 2 indicate that well over half of the schools in the suburban counties have fewer than 20% African American students and that over 70% of the schools have less than 20% of their students eligible for free or reduced lunch. Figure 3 compares Baltimore city with the surrounding counties on one measure of school quality: the percent of the student body scoring at least “satisfactory” on state reading exams.<sup>16</sup> The differences are striking: Compared with Baltimore city, where 42% of the schools rank below the 10th percentile and almost 90% rank below the 25th percentile, almost 70% of the schools in the surrounding counties rank above the 50th percentile, and about 36% rank above the 75th percentile.

Figure 1. School racial composition: Percentage of African American students in the school

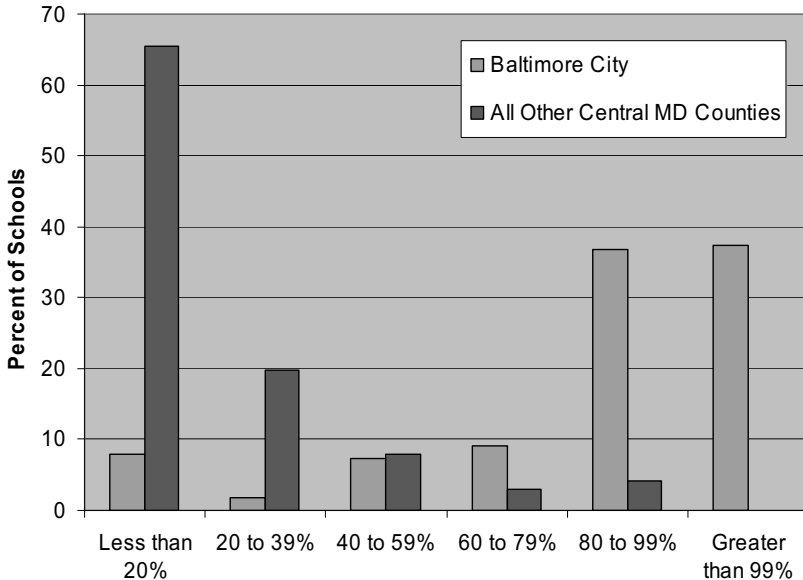


Figure 2. School free-lunch-eligible composition: Percentage of free-lunch-eligible students in the school

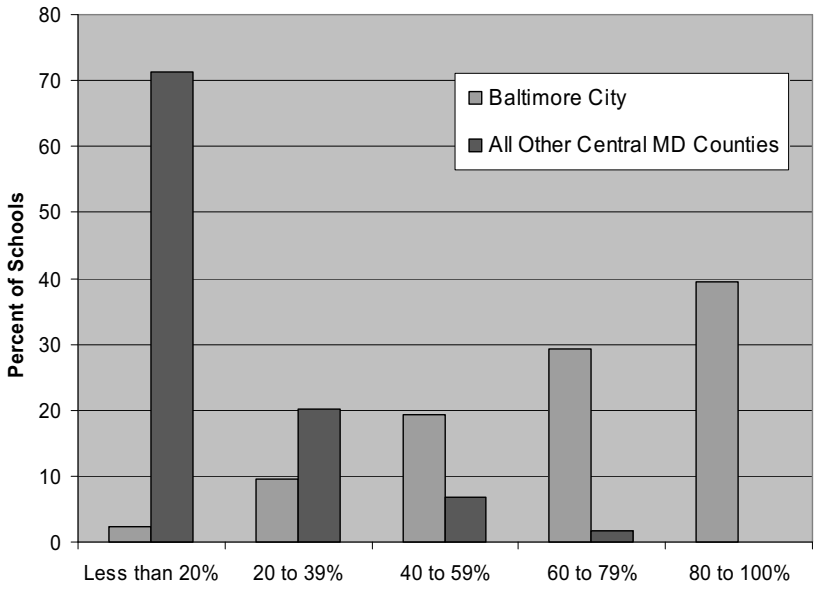
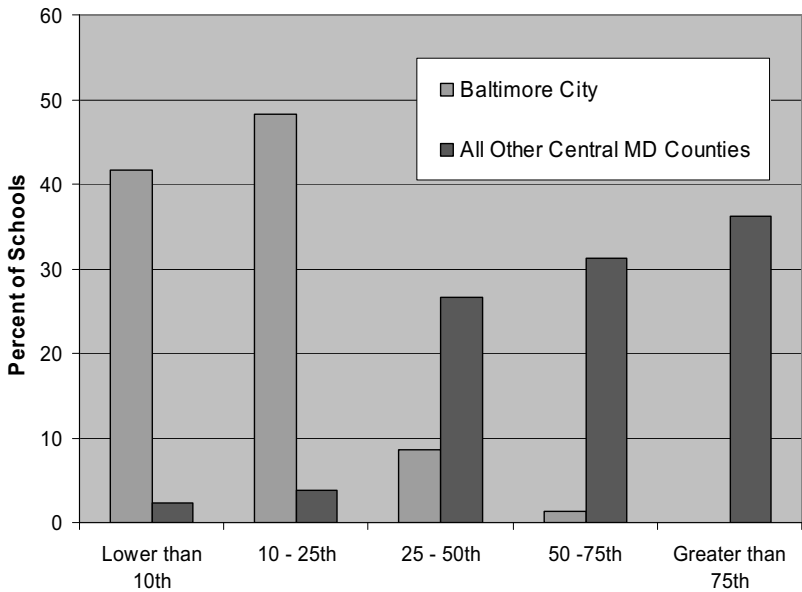


Figure 3. Reading exam percentile rank of school





Overall, the figures suggest that there were many opportunities for the MTO children to attend more affluent, less segregated, and higher-performing schools if their parents moved to a neighborhood in one of the surrounding counties. Given the striking differences in school characteristics between the city schools and schools in the suburban counties, did the MTO families actually move to more affluent areas? The following section explores the residential changes that accompanied families' participation in the MTO program.

## RESULTS

### NEIGHBORHOOD CHARACTERISTICS

When families signed up for the chance to get a voucher through MTO, they were living in poor, hypersegregated neighborhoods. Most families were clustered in East and West Baltimore, where many of the original public housing developments stood. Between 1994 and 1998, many of these families used their MTO housing vouchers to move out of these areas of concentrated poverty to less poor neighborhoods. Many of these neighborhoods were still in Baltimore city, although there were a number of moves into the outlying counties (see the stars in Map 1). Table 1 shows the change in the poverty level and racial makeup of the census tracts that families experienced as a result of this move, with the changes experienced by experimental movers and controls broken out separately. From the table, we can see that experimental movers moved to neighborhoods that were, on average, less segregated than their original areas and with a poverty rate that was more than 30% lower (44.6% vs. 11.2%)<sup>17</sup>. These data suggest that families who used their MTO vouchers did relocate to significantly less poor areas than control families.

**Table 1. Characteristics of Baseline and First-Move Neighborhoods**

	Baseline Neighborhood	First-Move Neighborhood	N <sup>a</sup>
Mean Percent African American			
Experimental movers	76.3	57.8***	79
Controls	76.4	83.0	102
Mean Percent Below Poverty			
Experimental movers	44.6	11.2***	79
Controls	45.4	33.9***	102

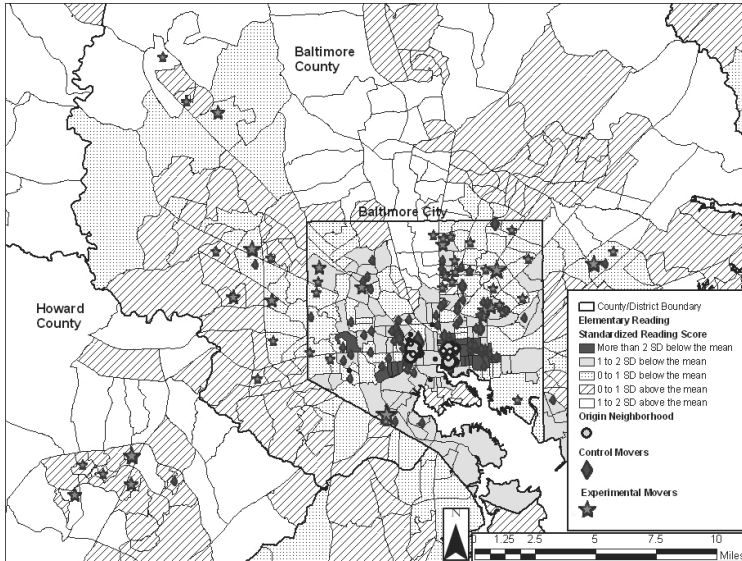
*Note.* Percent African American and percent below poverty were calculated using the 2000 census.

<sup>a</sup> There were 194 families (with a child aged 6 or older at baseline) in this analysis, but two controls were missing baseline census tract location, and 11 controls never moved from their origin address ( $n = 181$  families).

Means significantly different between neighborhoods.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

**Map 1. Origin and First-Move Neighborhood for Experimental Movers and Controls: Elementary Reading Scores Background, Baltimore City and Nearby Counties**



NOTE: Address markers are scaled by number of families in the block-group. Larger symbols represent larger numbers of families. At Origin neighborhood, the largest symbol represents 25 families, and the smallest 1 family. For Control movers, the largest symbol represents 8 families, and the smallest 1 family. For Experimental movers, the largest symbol represents 5 families and the smallest 1 family. SOURCE: U.S. Department of Housing and Urban Development and Kirwan Institute.

The average change in neighborhood racial composition shown in Table 1 (the average percent African American was 76.3% in baseline tracts vs. 57.8% in tracts where families moved) masks some of the geographical variation. With a few exceptions, the moves did not result in families relocating to areas with much lower concentrations of African Americans (additional maps available from authors). Unlike the earlier Gautreaux program, which was in large part the motivation for MTO, the vouchers did not have a racial criterion; as a result, families did not relocate to significantly less segregated communities (cf. DeLuca et al. 2010).

The diamonds in Map 1 show the first moves that control-group families made. Recall that the control-group families did not receive any voucher or assistance from the MTO program but could have acquired vouchers on their own and moved for other reasons. As noted earlier, Baltimore city had been awarded HOPE VI demolition and development grants to tear down high-rise public housing projects and rebuild the areas as mixed-income communities. All MTO families would have been making decisions about housing at the peak of these demolitions (between 1995 and 2001), and many of the control-group families were

forced to move out of their homes, for better and for worse. As one mother explains,

So bad you know when my oldest son—when he was a kid, he saw this drug dealer on the corner and he said, “I want to be just like that when I get older.” I said oh it’s time to go. If they wouldn’t have done that demolition, I was going to move anyway cause I just couldn’t take it anymore. You know it was so much—it was a way of living but I knew there was something better you know. There had to be something better.

Many of the MTO families were originally living in one of the five projects that were demolished during the time between baseline and interim follow-up, so the high rate of mobility among the control group is not surprising. Although there was considerable movement from original neighborhoods, almost all the control-group families relocated to highly segregated, poor areas (although collectively, they did experience a reduction in neighborhood poverty rate of a little over 10%; see Table 1). This finding is in line with most research on the mobility patterns of low-income minority families and families receiving regular housing vouchers (South and Crowder 1997; Cronin and Rasmussen 1981). The data show that there are large differences in the moves that families made with the low-poverty vouchers with respect to poverty rates and, to some extent, geographic area.<sup>18</sup> However, not many families used their vouchers to move to the outlying county areas. Next, we present analyses linking the residential moves of the MTO families to the schooling transitions made by their children.

## SCHOOL CHARACTERISTICS

Table 2 compares the schools that children were attending when families signed up for the MTO program (their “baseline” school) with the next school that the children attended after random assignment. For experimental movers, this would be the school change that occurs after using a housing voucher in a low-poverty neighborhood; for the controls, it would be the first new school attended in the course of natural events.<sup>19</sup> The second school attended by students in both of these groups was significantly different from the baseline school. Experimental-mover children attended schools that were, on average, slightly less segregated and had more than 20% fewer students eligible for free lunches than the schools they were attending at baseline. On average, these schools performed somewhat better on state reading and math exams, ranking in

the 27th and 25th percentile, respectively, as compared with schools that ranked in the 14th percentile at baseline. The first school transfers for control families resulted in schools that were very similar racially but somewhat less disadvantaged, with free lunch eligible rates that were 12% lower than at baseline. These schools also performed marginally (but significantly) better on state math and reading exams, although on average, they still ranked below the 15th percentile in the state. On the whole, despite moving to lower-poverty neighborhoods, the children of experimental-group families did not attend schools that were much less segregated or that performed appreciably higher on assessment tests.<sup>20</sup>

**Table 2. Baseline and First-Move School Characteristics**

	School		N <sup>a</sup>
	Baseline School	Next School Attended	
<b>Experimental Mover</b>			
% African American students	87.6	74.5***	88
% Free-lunch-eligible students	76.7	53.5***	88
Reading rank <sup>b</sup>	14.4	26.5***	81
Math rank <sup>b</sup>	14.1	24.7***	81
<b>Control</b>			
% African American students	93.9	88.3*	136
% Free-lunch-eligible students	83.3	70.6***	127
Reading rank <sup>b</sup>	9.3	14.9**	114
Math rank <sup>b</sup>	10.3	14.5*	114

<sup>a</sup> While the total number sample for this analysis was 249, missing data for school ID reduced this number to 225 (89 exp. mover and 136 control students). Including private schools, we accessed racial composition data for both schools attended by all but 1 student (an experimental mover). The private school database did not include free lunch eligible data, reducing the number of students we could compare on this variable. We were also unable to locate exam scores for some schools, usually because the exams were not given in high school.

<sup>b</sup> Average reading and math percentile rank in state exams, 1994–1998, third, fifth, and eighth grade. Means significantly different between schools.

\* $p < .05$ . \*\* $p < .01$ . \*\*\*  $p < .001$ .

Source: National Center for Education Statistics Common Core of Data (CCD) for Percent African-American and free lunch breakdowns; National Longitudinal School-Level State Assessment Score Database for percentile ranks.

When we mapped the geographic distribution of the first school change that accompanied the first residential change after random assignment, we found two patterns for the schools attended by experimental children (maps available from authors). First, the new schools that children were attending often appeared to be geographically close to the neighborhood where the family moved after receiving the MTO

voucher. However, a second pattern suggested that despite moves to less poor neighborhoods, many children still “remained behind,” attending schools in the inner city. While some children in control families attended schools outside of their original communities, most of these schools were still in high-poverty neighborhoods.

Although the schools were not as different as one would expect given the county school options shown in Figures 1–3, some experimental movers did experience large changes in school characteristics and quality. Table 3 shows detailed distributions for the school characteristics of experimental-mover children. All distributions at baseline are significantly different from the comparison distribution of the next school attended. Across all three measures, there are differences in the tails of the distributions between baseline and next school, which suggests that some children did experience very different school environments from those at baseline. The first section of Table 3 shows that despite only a 10% change in the mean percent African American between baseline and first-move school, more than twice as many students attended schools that were less than 40% African American, and fewer students attended schools that were almost 100% African American. Perhaps the most striking change can be seen in the second section of Table 3, which shows that the number of experimental-mover students attending high-poverty schools (schools with more than 80% of the student body eligible for free lunch) fell from almost 70% of all students at baseline to under 16% of all students after the first school transfer. While about one-third of these students were still attending schools with 61–80% of the student body eligible for free lunch, a number also moved to low-poverty schools.

When looking at test scores, it is clear that the mean comparisons also hide the fact that a number of children attended schools with much higher test scores after the move with MTO. At baseline, about 7% of the children were attending schools at or above the 50th percentile on the statewide exams. After moving, that number increased to 17% for both math and reading. At the bottom end of the distribution, there was a large reduction (over 35%) in the number of youth attending schools below the 10th reading score percentile, and a greater than 15% reduction in the number of students attending schools below the 10th math score percentile. Unfortunately, however, these improvements do not reflect the experience of most of the MTO children.

The quantitative results suggest that both the experimental and control families exercised some degree of school choice for their children. Many MTO experimental movers changed neighborhoods and their children changed schools, and many control families also sent their children to other city schools and some county schools. Some MTO families did not

Table 3. School Characteristics of Experimental Movers' Schools

School	Baseline School	Next School Attended
Percent African American Students		
More than 99%	43.2	25.0
81–99%	39.8	34.1
61–80%	3.4	10.2
41–60%	4.6	8.0
21–40%	8.0	17.1
Less than 20%	1.1	5.7
Total	100.0	100.0
<i>Mean percent African American</i>	87.6	74.5
N <sup>b</sup>	88	88
Percent Free Lunch Eligible Students		
81–100%	68.2	15.9
61–80%	11.4	27.3
41–60%	5.7	27.3
21–40%	13.6	10.2
Less than 20%	1.1	19.3
Total	100.0	100.0
<i>Mean percent free lunch eligible</i>	76.7	53.5
N <sup>b</sup>	88	88
Reading Exam Rank <sup>a</sup>		
Greater than 75th percentile	2.5	13.6
Between 50th and 75th percentile	4.9	3.7
Between 25th and 50th percentile	6.2	13.6
Between 10th and 25th percentile	24.7	43.2
Lower than 10th percentile	61.7	25.9
Total	100.0	100.0
<i>Mean percentile rank</i>	14.4	26.5
N <sup>b</sup>	81	81
Math Exam Rank <sup>a</sup>		
Greater than 75th percentile	2.5	11.1
Between 50th and 75th percentile	4.9	6.2
Between 25th and 50th percentile	6.2	12.4
Between 10th and 25th percentile	34.6	34.6
Lower than 10th percentile	51.9	35.8
Total	100.0	100.0
<i>Mean percentile rank</i>	14.1	24.7
N <sup>b</sup>	81	81

<sup>a</sup> Percentile rank of school on state exams, third, fifth, and eighth grade, 1994–1998.

<sup>b</sup> There were 102 eligible students for this analysis, but missing data for either baseline or next school reduced this number to 89. We were unable to find racial composition or free-lunch-eligible composition data for one of these schools. We were also unable to locate exam scores for some schools, usually because the exams in reading and math were not given in high school.

Source: National Center for Education Statistics Common Core of Data (CCD) for Percent African-American and free lunch breakdowns; National Longitudinal School-Level State Assessment Score Database for percentile ranks.

connect their residential move to a school change for their children, resulting in a handful of children from experimental families attending inner-city schools even after the families had moved away from the neighborhood. It also appears that the school changes made by MTO experimental-mover families led to larger changes in the SES of the student body than in academic quality. All these findings might help explain why individual children's educational outcomes were not significantly different between the control and experimental families (Sanbonmatsu et al. 2006). However, another question still remains: Why weren't the schools attended by children from MTO experimental mover families *more* different? Figures 1–3 suggest very large average differences in the quality of the county schools where MTO families could have sent their children, yet the results in Tables 2 and 3 are not as striking. We explore this in more detail in the next section.

### LINKING HOUSING OPPORTUNITY TO SCHOOL QUALITY

Looking back at Table 1, we can see that a large part of the answer has to do with the neighborhoods where MTO families moved. Most families did not relocate to the least segregated, lowest-poverty communities. In additional analyses, we found that while families could theoretically move to any of 378 census tracts in the central Maryland area with poverty rates below 10% (347, or 92%, had African American concentrations of less than 50%), families actually moved to 46 different tracts. In fact, only 22 of these tracts were still low poverty by the 2000 census, and only 22 had racial compositions that were less than 50% African American. The remaining 24 tracts were experiencing increases in poverty between 1990 and 2000, and many were segregated; 21 were more than 70% African American, and 12 were more than 80% African American. Further, of the tracts that families actually moved to, only 9 were in Howard, Anne Arundel, or Harford County—the areas with the highest test scores.

What did these more limited residential changes mean for access to school quality? After all, some MTO families did move to suburban counties outside the city, and, on average, it appears that these counties have schools with very low poverty rates, much lower levels of minority concentration, and much higher test scores (see Figures 1–3). In order to explore the residential–school link more closely, we matched the MTO family's block group location to the school catchment zone for that community to calculate the “potential” school opportunity based on where they moved. These analyses show that the neighborhoods where MTO families moved put them in zone schools that look much different from Figures 1–3. For example, while the average reading exam scores across



the central Maryland counties are close to the 60th percentile (with Howard at the 75th percentile), the zone schools in the census tracts to which MTO families moved are *at the 33<sup>rd</sup> percentile*. Map 1 shows this striking pattern more clearly; we see that almost no MTO families moved to census tracts with highest average school test scores, measured at one to two standard deviations above the mean for the state (stars represent moves made by experimental families). Rather, we see mostly moves to tracts where the zone schools performed within one standard deviation above or below the state mean.

The neighborhoods that families moved to also tended to have more segregated and poor student bodies than Figures 1 and 2 would suggest is likely. While the average African American concentration in the zone schools across the other counties ranges from 2% to 26%, the zone schools in the areas where MTO families moved *averaged about 70% African American students*. In addition, while the MTO families moved to communities with much lower poverty rates, the zone schools in these communities averaged about 45% free and reduced lunch students. These analyses suggest that the most important reason that housing opportunity did not translate into a larger increase in school quality is that the families did not relocate to the communities with the highest-performing schools. Their residential choice in large part determined their school choice.

However, this was not the case for all Baltimore MTO families. While many experimental youth were attending schools outside the city that seemed to track the new residential locations, many children were attending schools in the central city of Baltimore. To examine these patterns more closely, we matched the zone schools that children should have been attending based on their addresses to where they were actually going to school. We found that for the experimental movers' children, slightly fewer than half ( $n = 46$ ) were attending zone schools (most of these in the city or Baltimore County). However, slightly more children ( $n = 54$ ) were attending a nonzone school. Twenty-seven of these children were still living in Baltimore city but attending other nonzone city schools; two "city mover" families were sending their children to county schools. Ten families who had moved out to the county were sending their children to city schools, and one family who had moved to Baltimore County sent their child to a school in Howard County.

While we describe these decisions around residential selection as "choices" made by the MTO families, it is more accurate to describe the process as one of choosing among constrained alternatives. While MTO families certainly had some preferences about where they wanted to live (among allowable census tracts), they were also limited by structural

forces. Landlords in some communities would not allow housing vouchers, while others advertised with banners on their apartments that read “Section 8 Vouchers Accepted.” Neighborhoods also varied in terms of zoning for multifamily dwellings and rental properties, affecting the supply of affordable housing. We carried out additional analyses of rental market tightness to illustrate this point.<sup>21</sup> In central Maryland, the overall vacancy rate was 5.7% (a common marker of a tight rental market is a 6% or lower vacancy rate). The vacancy rate in low-poverty (less than 10% poor) tracts was lower, at 4.6% (in low poverty majority-black tracts, it was slightly higher at 5.4%). In central Maryland, the average tract was 34% renter-occupied housing. In low-poverty tracts, this dropped to 22.8% (22.1% in low-poverty majority-white tracts and 30.5% in low-poverty majority-black tracts).

We also compared the vacancy rate by math and reading test scores of neighborhood elementary schools (test scores are for 2004, vacancy rate for 2000). The vacancy rate in school zones with students scoring below average in math and reading was over 7%, while the vacancy rate in school zones with above-average scores in math and reading was 4.4%. Similarly, high-scoring school zones were about 25% renter occupied, while low-scoring school zones were about 45% renter occupied. Taken together, this suggests that families faced greater barriers to lease-up in neighborhoods with higher-performing schools than in neighborhoods with low-performing schools. They also negotiated a rental market that was tighter in low-poverty white neighborhoods than in low-poverty black neighborhoods, which might help to explain why more families ended up in segregated neighborhoods.

Overall, although residential location determined a great deal of the variation in school characteristics for the MTO children, we see that there were some secondary schooling decisions being made that were independent of decisions about where to live. The numbers do not give much insight into why the residential choices of MTO parents were not driven by school quality to a greater degree, or why, when they did make choices to send their children to different schools, the schools were so similar to children’s original schools. We turn to the in-depth interviews with parents and caregivers to explore how the MTO families think about schooling in their children’s lives, to understand the school choice logic they employ, and to situate their residential and school choices within the constraints and context of poor family life.

## HOUSING, PARENTING, AND SCHOOL CHOICE DECISIONS

Before we turn to the social and structural processes that made improve-

ments in schooling opportunities difficult, we want to highlight some of the experiences that reflect the less common but larger gains made in the educational environments of some of the MTO children. As Table 3 shows, it is a mistake to assume that some parents did not actively seek better schooling for their children, or that the MTO intervention mattered little in the lives of those who participated in the program. A number of mothers saw residential mobility, coupled with school mobility, as a critical strategy to improve their children's well-being. They were desperate to remove their children from the violent conditions of some of the city schools. Coochie<sup>22</sup> tells one of the fieldworkers about her decision to switch schools for her daughter:

R: I specifically sent Sheela to Cartwright. I did not want her to go to Langley Court [zone school].

I: And why didn't you want her to go to Langley Court?

R: Um, it's a bad school. My girlfriend's son got kilt up there. I went up there and the school looks dirty . . . I had to lie and use their grandmother address to have them to go to a good school. I didn't want them to go to Langley because all the children there was fighting and stuff, so I didn't let my kids go there. I let them go to Humphrey.

Barbara, a 41-year-old mother of five, moved out of Baltimore city to the county, where she was pleased that the schools had so much more to offer: "drama class, singing, girls' basketball, volleyball . . . when the kid is not occupied, they gonna be out there doing whatever." She felt that if she didn't get her daughter out of the city school system, "she wasn't gonna make it." It was a common sentiment that children would not "survive" in the city schools, and this fear drove some of the experimental movers to participate in the program.

Another woman used her MTO voucher to move out of the tangle of her substance-abusing family and the threats of public housing into a peaceful, more racially integrated and opportunity-rich area in northeast Baltimore. She works a part-time job as a crossing guard for her daughter's school. Jacquelyn's eyes lit up when she reflected on her MTO move:

Oh, yeah, I was so happy. I couldn't wait. . . . When she showed me the house, I said, oh, my goodness, it was like fate. . . . It had a real big kitchen, I never had a kitchen that big. I looked at it and all, and I went home, boy, that week I could hardly sleep. I was packing my stuff. The landlord asked me, when can you

move in. I said, I'll be in by Christmas. . . . You talking about somebody happy, that was the best Christmas present.

As a result of moving to this neighborhood, her 14-year-old daughter is able to attend one of the best schools in Baltimore and receive high-quality special education services. When her daughter was growing up in the city, she had trouble with asthma and had arrested speech development. After the move, she enjoyed a higher quality of life:

She used to have trouble with her asthma all the time when we was living on the West Side, and once we moved over to Thornton, in that area, I didn't have any trouble with her asthma. I didn't know at the time when I moved that she was going to one of the best schools in Baltimore City. I said, oh, my goodness, I didn't know that.

The relocations also led to other positive changes, such as improvements in mothers' mental health and a sense of well-being (Kling et al. 2004). One example illustrates the profound relief and joy that some mothers experienced and how improvements in neighborhood quality could change a life. Peaches, an experimental mover, describes her experience looking for a unit with a housing counselor:

When we would drive around, I was just like this is so different. This is so beautiful, the trees, the grass, and living in that part of Baltimore where I was from there wasn't much grass, trees, blue-birds . . . if I had not had that opportunity to go into the MTO program, I would not have known what it would have been like to live in a house in a positive environment . . . but MTO gave me the opportunity to see how middle-class people live. It just made me want that.

#### RESISTANCE TO SCHOOL MOBILITY, POOR INFORMATION, AND LOW EXPECTATIONS

Unfortunately, as our quantitative analyses show, these success stories were not as common among the MTO families as policy makers had anticipated. In this section, we highlight three aspects of mothers' relationships to schools that help explain why the use of MTO vouchers did not lead to greater changes in the types of schools that children attended. These three features that emerged from the interviews are: resistance to school mobility, lack of information about schools, and low expectations

for their children's schools.

One reason that school change did not always accompany MTO moves is that some mothers felt that a school transfer would be disruptive and traumatic, taking children away from friends and familiar places (about 33% of all mothers mention this). Miss Black, a control group mother, explains,

I can't keep pulling them from school to school. You know, let them be, leave them alone you know, let them go to school you know. We have to make a way for ourself, you know. They have to go to school. I'm not going to keep doing it I can't keep doing it. You know, moving them from house to house because I don't like this house or I don't like that house, I don't want to keep doing it. . . . What am I going to do keep dragging them out of school letting them catch the bus. I'm not going to do it to my child. I love my babies to death.

Lisa, an experimental mover, explains that while she found a unit in a safer suburban area through MTO, she chose another unit in the city. Her daughter had attended the same school since prekindergarten, and she didn't want her to be far from her extended family:

I considered the whole thing mostly when they wanted me to move out in Columbia really far out and I was like I wanted something that was accessible to my family, to my church, you know my support system so this is like right in the heart of all of that. I also wanted something that was affordable, close to the school where my daughter wouldn't have to travel to get to school and like I stated she has been there from pre-k on up to eighth grade.

In other cases, parents seemed to lack critical information necessary for school choice decisions (about 38% of the experimental mothers and 49% of the control mothers). Faye, a control-group mother from the former Lexington Terrace homes, didn't understand that her son's school had been taken over for low scores and discipline problems:

I: Okay, and so how did you decide to send him to that school? Is that the neighborhood school?

R: Yes, he went there once before when we was living out there.

R: He [came home one day and] said he [it] was owned by the state.

I: Why was Dalton owned by the state?

R: I don't know; I'm not sure.

I: Were there any other schools you were considering putting him in?

R: No.

I: Okay, do you think that Dalton is a good school?

R: Yes.

In a discouraging case, Wendy, who was pursuing her GED, mistakes a scholarship to one of Baltimore's most elite schools for a loan and thinks that an investment at such an early age doesn't make sense. Wendy had previously sent her children to Catholic school but thought that they didn't learn enough "social skills" there, so she sent them back to public school in the county:

I always thought that the Catholic schools were more advanced in academics but this school I didn't find it that way. . . April had passed the test for Queen of Angels and but they wanted me to take a scholarship out for 10 thousand dollars. I think that was in the first grade and I was like first grade no so that school was too expensive. But she was able to pass their test and their test is hard so . . . I really feel with the education part that April she can get by with just her present [school].

Parents often relied on close friends and relatives for information or guidance about good schools. Unfortunately, many of the members of these families' networks were similar to them and also had little access to schools that would help them "get ahead" (Horvat, Weininger, and Lareau 2003; Briggs 1998). Often, the schools they learned about from other friends and family members were safer schools in the county, but they were not always more academically rigorous.

Another reason that MTO families didn't switch their children's schools lies in their low expectations for what schools should offer and accomplish. Mothers often became passive and complacent in the face of obdurate school bureaucracies and persistent problems. About 46% of the mothers who moved with the voucher expressed low expectations, while over 60% of the control mothers felt this way. Several mothers talked about the high levels of fighting, violence, and truancy in their children's schools but still had children in the same school for years. Many mothers were satisfied to wait it out or accept teachers they didn't like. In what Lareau and Horvat (1999) call "moments of exclusion," many reported that their requests for new teachers or new transfers went unheard. For example, Candy voices concerns about safety in her son's

school; nonetheless, she will wait to find out whether the persistently violent school will close in the fall.

R: The only thing that Terry disliked about the school, there was always riots, they always started fires. . . . My concern was my child's safety . . . it's beginning to run into a pattern with the school catching on fire. You have children from other schools that's coming into this school starting fights and stuff. It's just you all need to pay attention to that as far as we need more security.

I2: So how did the administration address these things?

R: They never got back to me, so hopefully when Terry go back to school in September, maybe they came to something over the summer, you know, and set something up for September for the children.

Patricia had been desperate to get her kids away from the death and rat bites that were a weekly occurrence in her old housing project. Although she used a regular voucher to move to southwest Baltimore, her son still experienced violence at this school. She gives a detailed example of how some parents wait to act because previous interactions with the school were not effective:

R: It's really nothin good that I can say about the school, it's nothin good. Actually I'm getting ready to pull, probably by the time they go back to school I'm pulling him out of there. It's a bad school.

I: So like next year you're trying to pull him out?

R: Yes, in this month right here, when they go back, you know, after this little snowstorm, when they go back to school I'm getting him transferred. I can't deal with that school no more . . . he's been there since the sixth. And every year it's something. So far right now I really don't wanna speak it out but I haven't really had a problem *this* year. I think it was either the sixth grade or the seventh grade, one boy put his hair on fire and burned a braid. The seventh grade one boy threatened to kill him, you know, it was terrible. Threatened to kill him over a soda, cause Robby brought a soda and the boy wanted to drink his soda, and Robby told him no.

She mentions that she will get her son transferred within the month, although he has been in the middle school for two years already and has



experienced multiple attacks. Unfortunately, Robby was two grade levels ahead before he started this middle school; now his grades have dropped, and he received three failing marks that semester.

Louise, who was living in the Murphy Homes housing project when she signed up for MTO, also viewed her daughter's school as dangerous and chaotic and saw the solution in greater security guards:

R: Well I didn't like it because I had walked past there one day and the kids was so loud. And this was on the top floor and the teacher was screaming at them and they just didn't have no control.

I: Did you hear this on the outside of the school?

R: Yes. I was like oh my God what is going on in this school? I am not sending my child there . . . but then the security beefed up around there and I said okay they getting it together. So it's kind of mild now. Them kids that was coming out of there was like they was like wow. Fights and it was like there was no control in the school. Oh it was terrible.

Such minimal expectations guided mothers' communication and involvement with the school. Many mothers were happy if teachers simply called home, even if only to communicate about behavior problems, and regardless of whether things ever got better. As one mother stated,

I've got a couple letters from the teachers. As a matter of fact, I have even gotten a couple of calls from the teachers concerning my son in reference to his behavior and his work habits and everything. And by the conversation, I can tell that they were pretty much concerned with his learning. So right there I said, okay, this is a pretty good school if I can have a teacher call me and tell me he has some concerns about my child.

#### "IF YOU'RE WILLIN' TO LEARN, YOU GONNA LEARN": PARENTING AND SCHOOL ENGAGEMENT

While financial constraints, low expectations, and poor information create barriers to better schools among low-income families, prior research suggests that parenting practices and values also play a large role. Lareau (1989, 2003) talks about a general disengagement with educational institutions among working-class and poor families. Similar patterns are seen among MTO families; many parents take a hands-off approach to their children's schooling. Peaches, a 36-year-old experimental mover and

mother of three, worries about her teenage son getting into drugs and not doing well academically, but she doesn't know much about his school:

I really didn't spend much time this year to school other than I got the packet and I went up there three times to talk to the counselor but I don't know a whole great deal about the school. . . . But I'm quite sure they have a lot of things set up for the kids because it's a well-organized school, well structured.

Parents often expressed the opinion that individual school characteristics mattered little for learning relative to what the child contributed through hard work and a "good attitude." Repeatedly, parents like Tisha, an experimental mover and 32-year-old mother of two, explained that despite how awful their children's schools were, it was up to the child to "get what she needs":

That school is crazy. I have to pray for her, it's like I send my child to hell every day and then I expect her to get good grades and learn. But like I said, it's up to the individual 'cause she could separate herself from that and she could get what she needs. And she could keep going or she could fall into that crowd to which she's a follower and she'll mess herself up.

Several other parents echoed similar sentiments. Kim, a control mother who has lived in public housing on Baltimore's West Side for 13 years, has an optimistic attitude about what children can accomplish: "I just don't care for that school much, but like I say, it all depends on how the children make it. If you go up there and you're willing to learn, then you're gonna learn. If you ain't willin to do nothin, then you're gonna do nothin."

Wendy lives in rehabilitated HOPE VI housing in West Baltimore. One of her children was very bright and got into a private school on scholarship, while another child was involved in drug dealing. Still, she viewed both their futures in the same manner: "They'll be okay and they can be successful, and you know sometimes it doesn't matter what you do with your kids, it's up to the kids so. But they're fine I think."

Similarly, Tisha dismisses private schooling in light of what children contribute to their own education:

I: Did you ever think about sending him to another school?

R: Mmm, not really. . . . It's, see a lot of parents think if they, if I send my child to a private school, you know, he would learn

better. Well, you can send a hard head to a private school and it's not gonna make a bit of difference. You can send a good child to what you might think a not so good school and as long as they focus and pay attention, it'll benefit them.

Some parents discount the special education diagnoses that schools assign their children, claiming that it has more to do with child's motivation or personality. Candy, a control mother of two who also had custody of one of her sister's children, told us:

Mm, hmm, she has a learning disability, so *they* say. Tisha don't have a learning disability, Tisha learn what she wants to learn. That's her problem. If she feel as though it's not important, she's not gonna take it in. . . . You won't get nothin out of her. You got to like kiss her backside in order to make her do the work. But like I tell her, she ain't hurtin them, you only hurting yourself. I said by 18 you better have it together.

Although the MTO parents clearly care about their children's well-being, many of the parents we talked to emphasized the independence of their children, a finding consistent with what Lareau (2003) attributes to a child-rearing logic she calls "the accomplishment of natural growth." In fact, we found that 67% of all the mothers in our interviews indicated such beliefs. Wells (1996) finds a similar pattern in her study of St. Louis schoolchildren, whose parents demonstrate the philosophy that "If you're going to learn something, you do your best anywhere you go" (p. 34).

## DECOUPLING SCHOOL CHOICE AND SCHOOL QUALITY

While some parents were less active about schooling options, others made decisions about schooling that had little or nothing to do with academic quality. During interviews we asked, "What makes a good school? Do you think your child's school is a good school? Why?" When answering, few parents focused on high school graduation rates, rigorous courses, and college preparation—very much the concerns of middle-class parents (Lareau 1989, 2003). For many poor families, limited finances means that choices about where to live involve proximity to transportation, family members, and mom's jobs, with schools sometimes coming after that. We refer to this as "decoupling" the school choice process from considerations of school quality. For almost 70% of the mothers in our sample, what makes a good school has less do with

academics and more to do with proximity to work, uniforms, and whether teachers care about children.

Fatima, who moved to a middle-class suburb northwest of the city, picked the area based on proximity to transportation, with schools as a secondary consideration.

I: How did you find out about this place when you came?

R: I looked at the Internet for the schools *after* [italics added] I came to the area. I knew where the subway was, right down the street here. So here it was convenient for me to still catch the bus to work. So that's why I picked here.

Jane has been working in a stable job with the same employer for over 10 years. She used her babysitter's address to continue to send her son to a city school because it was closer to work:

Actually he started going to the school because Marcus was already going to school down there, he was going to a babysitter down there and it was right across the street from the babysitter. We had moved out of public housing but the babysitter was still next door, we was able to use her address. And then after a while, I said look miss, I don't live there anymore. She was like oh okay well I understand, I explained to her, so she just let him stay there. I just told her how convenient it was for me to get him from work and everything.

Even parents who understood that there were some school choices still didn't take school change as seriously other issues, including transportation concerns. Karen, who has worked her way up the ladder at the Marriott hotel, opted not to send her child to a new school. She explained,

If your child goes to a school that's—how do they put it? That it didn't do too well at certain times or whatever, you can choose the school for your child to go to that did better. That's—you know I guess it's doing better than the school that they currently go to or was going to . . . I work and her father works—he leaves out to go to work so early in the morning and I have to leave out so early in the morning. It's like neither one of us would be able to take her to school, so that's why I was like she's going to go to the school she's going to which is just as much of a school. It's

not a great school but I always tell them, you can make it cause the education is there. It's really what you try to get out of school, you know what I mean?

Cheryl, a working mother who wants to return to the apartment she initially rented in the county through MTO, gave a positive evaluation of one of her son's schools even though it had none of the necessary assistance he was receiving at a previous school for learning disabilities:

I: When he was living out on the northside, how were the schools out there?

R: The schools was nice, he loved the schools. He liked the bus ride to and from, I mean it was really nice, it was really nice.

I: Did they have any kinds of after-school activities out there?

R: No.

I: Was he getting tutoring or anything like that, any extra help?

R: No.

Even when parents did take academic considerations into account, they sought a sense of comfort and a welcoming atmosphere rather than academic rigor. Parents wanted to feel comfortable in their child's school or that the teachers really cared for the children. Amy, a grandmother who moved her grandchildren with an MTO voucher, talked about one teacher:

He had a great teacher last year, Miss Worth. She'd always say to each child, no matter if they were bad or good, "My Little Miracle! You're my Miracle! I want you to do better tomorrow." She'd hugged each child as they pass by her. That's great! You don't fine many teachers, not even parents that can do that!

Some parents simply wanted to be allowed to visit or be given "some general idea that you know, my child is in this school somewhere here." Many mothers positively evaluated some of the nonacademic aspects of their children's schools, such as uniforms and discipline. Several mentioned that they liked the public schools that required children to wear uniforms—the schools that make children "wear their shirts tucked in, that's good." Others were explicit about how important discipline was but expressed little about the broader issues of academics.

## SCHOOLING IN THE CONTEXT OF CHAOS

The experiences described above reflect a feature of what many scholars of urban poverty know to be a constant of life for urban poor families: instability. Research itself is subject to the chaos and unpredictability of life in the inner city. In the course of our fieldwork, sometimes we couldn't locate respondents for months, if at all. Often, we did interviews at McDonald's because respondents were embarrassed by their housing; sometimes interviews were conducted on the floor because there was no furniture. Recording interviews was complicated by the noise of many different people coming in and going out of a house. Children often stayed with more than one family member, and we conducted multiple interviews to accommodate these instabilities. While a full discussion of these dynamics is beyond the scope of this article, it is important to demonstrate how these characteristics of poor life interact with the changes provided by the MTO program. It is jarring how frequently severe substance use and death entered into already disrupted young lives. Parents were in and out of jail, work, rehab, and abusive relationships.

One respondent used an MTO voucher to move to the county with both her children and her sister's children after her sister succumbed to drug addiction. She eventually became overwhelmed with the responsibility and her own health problems and turned the children over to protective services (they are now split across three homes). It was unfortunate, since there was a brief time when the children felt safer than they did in the housing projects. She recounted that "they felt like they could kind of have more fun, because I was afraid to let them out much when we lived at Flag [housing project]. You never know when somebody start shooting."

Renee, a mother of two, has been the victim of domestic violence in several relationships, and one led her to lose the MTO unit. She had moved with MTO from the housing projects to a safer, more integrated neighborhood in Baltimore County. However, in a fit of rage, her husband kicked the door in, and the landlord kicked the family out. That jolt landed her back in the city, in an apartment in a poor area of West Baltimore, and then to four more residences in the subsequent 2 years. Her daughter, a motivated, bright young woman who did homework for hours each night, was referred by a teacher to try a private school with financial aid options. Still, Renee left the decision up to her daughter, who preferred to stay in a city public school.

Work schedules are another source of chaos. Late-night shifts and long commute times on public transportation meant that a number of mothers had to be at work when children were getting ready for school. With

many mothers unable to rely on a second parent (many fathers were incarcerated or otherwise uninvolved), scheduling and transportation issues were much more salient than those faced by their middle-class counterparts. Ironically, one coping mechanism for mothers' work schedules is the shuffling of children from one house to another as a way of securing more stable schooling. Many caregivers were grandmothers whose grandchildren lived with them during the school week while their mother worked.

In one family, three children lived in their mother's apartment in the county so that two of them could go to higher-quality schools. Unfortunately, their mother Michelle's need to commute to Philadelphia every day for work meant that the kids were unattended most of the time. When one of the children started skipping school, her mother explained how her job schedule interfered with her ability to negotiate the school bureaucracy:

So when I left in the mornings where I thought she was getting on the bus, going to school, she wasn't. . . . She had already missed 14 days from school, and they sent a letter taking me to court . . . 'cause you know, they try hold the parents responsible when the kids miss school. And in the county, they do not play around with that. If she missed [any more] time from school, first I would have to, no matter if I had a job or whatever, come and sit in school with her every day, that was the first step. Then if she still missed time, then I would go to jail.

The situation was partially resolved when Michelle transferred her daughter to a different county school. Unfortunately, she also lost her job and has been living doubled up in her mother's neighborhood, which has such a dense drug trade that the fieldworkers had to wade through drug deals to get to the front door.

A number of families experienced the death of a mother—one was a murder in a city park, and others were health related. In the aftermath, aunts and grandmothers take up the responsibility of raising these children, and this sometimes led to problems finding apartments large enough for all the children. One grandmother and aunt share the responsibility of raising the teenage son who lost his mother to a drug-related murder; he spends half his week in the county and half in the city, traveling by public transportation. After multiple school changes and house arrest, he stopped going to school and started selling drugs. As of the interview, he hadn't been in school in over 5 months, and he refuses to take medication for an attention disorder.



Another very common theme among the MTO families was the disruptive effect of landlord troubles. Often, landlords who accepted Section 8 certificates for a family's first lease-up sold their places, forcing families to move quickly and leading to subsequent school changes. In at least two cases, landlords became suspicious of MTO families. One went so far as to follow a mother to her job one day, thinking that she should not be receiving a voucher if she was employed. After this embarrassing situation, the respondent contacted the MTO counselor to help her break the lease; she landed in back in a poor neighborhood in southwest Baltimore. That development was going to be torn down, so she moved again and set in motion a period of instability over the next few years that involved four more moves and countless school changes for the children. In these examples, it is clear that the context of decision-making among inner-city minority families and the serious challenges of their lives moderate the link between neighborhood moves and educational enhancement in ways that are hard to measure with survey data.<sup>23</sup>

## DISCUSSION

On the surface, it seems obvious that moving out of public housing into low-poverty communities should have a profound and positive effect on the lives of families and the educational prospects of their children. For many of the MTO families, it did. For example, 4–7 years later, mothers who moved to low-poverty communities were significantly less depressed, felt safer, and were more satisfied with their housing than before participating in MTO (Orr et al. 2003). However, the patterns of school and neighborhood mobility we uncovered in Baltimore reveal a great deal of variation in how families respond to housing policies. While some families acted as policy makers expected, translating residential mobility into improved schooling opportunities for their children, additional factors contributed to how poor families made decisions in the face of changing opportunity. While escaping inner-city poverty is an essential step toward family and child well-being, it is critical to understand how this process interacts with the challenges of life in poverty to prevent some of the new opportunities provided by the MTO program from leading to better schools and academic performance. In this article, we combined survey, census, and school data to explore the relationship between housing and schooling opportunities. We also used interviews to describe the decision-making processes of, and the challenges of daily life faced by, these low-income mothers to explain why MTO didn't have a broader effect on their children's schooling options.

We found that while a number of experimental families did use MTO

vouchers to move their children out of poorly performing schools, most did not. Our quantitative findings reveal that in large part, this was because the MTO moves were not relocations to the most opportunity-rich communities with the highest-performing schools. The interviews revealed that although the vouchers helped families move to low-poverty communities, other processes narrowed residential choices (cf. Rosenblatt and DeLuca, 2010). For example, families were priced out of communities in some of the outlying counties; their vouchers paid for most of the rent, but with the high rents plus utilities, some areas were too expensive. Families also had difficulty finding landlords who would accept housing vouchers, and as a result, many leased up in areas that were experiencing a decline of economic and social conditions. While families received help to look for apartments, they did most of the searching and arranged the unit visits on their own. Housing counselors reported that many families were reluctant to venture out very far past the city boundary, preferring closer communities that they had heard of, with easier access to their jobs, their families, and transportation (cf. Comey, Briggs, and Weismann 2008 for detailed analyses of the moves and rental market experiences of the MTO families). Therefore, even with the assistance of housing subsidies, negotiating opportunities for residential change is still a challenge for low-income parents.

While housing choices precluded access to many high-performing, affluent schools, we also found that there were other social processes and family dynamics at play. Some parents chose not to transfer their children because they thought it was too disruptive and that it would be hard for their children to be away from familiar faces. Other parents emphasized that what their children “put into school” was more important than where they went to school. Such positions seem counterintuitive, considering how low performing and dangerous many of their original neighborhood schools were. However, these families have never really had experiences with safe, high-resource schools or the information that many middle-class parents use in making choices about their children’s teachers or classes. Their emphasis on the importance of children’s individual efforts makes sense if they have not seen much improvement in schools over their lifetimes.

Although some MTO parents did not actively pursue school choice, many did make schooling decisions. In the aggregate, children in experimental families moved to schools that were less segregated and had fewer poor peers than their old schools. However, the majority of these students went to new schools that ranked in the lowest quartile in statewide exams. The data revealed that some parents sent their children to schools back in the city, or schools in the county that were not

academically rigorous. Our interviews show that one reason that school changes did not translate into better academic environments is the decoupling of school quality from school choice. When MTO parents were asked what they looked for in a “good school,” many didn’t consider academic rigor to be as important as a welcoming atmosphere, uniforms, or security guards. MTO parents also made decisions about schooling on the basis of considerations that are primary to poor families, such as proximity to transportation, employment, and social support networks. Schools were also sometimes an afterthought to a sudden move, especially for families forced to leave housing projects slated for demolition.

The interviews also provided some wider context for these school choice decisions among the MTO participants. Many social policies assume that low-income parents might approach opportunity the same way that middle-class families do, and that the main problem is money. But poor families are not just wealthy families without a bankbook. The conditions of daily life for some of these families produce a unique set of adjustments to extreme financial constraints, health problems, and disruptive work schedules; schooling is not always on the top of the list. Instead, murder, crippling drug addiction, diabetes, and depression take center stage in the lives of families we interviewed. While most MTO parents emphasized the importance of school and wanted better things for their children, good intentions and hopes were also thrown off course by the instability and chaos that comes from needy extended family members, the nature of low-wage work, and the unpredictability of landlord practices.

## CONCLUSION

Why does it matter whether MTO helped children gain access to the less segregated and higher-performing schools in the larger Baltimore metropolitan area? Evidence from school desegregation research suggests that black student achievement appears to be enhanced in integrated environments, especially in earlier grades and especially in studies using longitudinal data or experimental designs (St. John 1975; Crain and Mahard 1983; Cook et al. 1984). Researchers have recently used sophisticated methods with observational data to show that the characteristics of middle-class schools—such as higher teacher quality, smaller classrooms, and other resources—independently influence student achievement (Card and Krueger 1992; Jencks and Phillips 1998; Nye, Hedges, and Konstantopoulos 1999; Clotfelter, Ladd, and Vigdor 2007; Rivkin, Hanushek, and Kain 2005). Recent work by Hanushek and Rivkin (2006) also finds that attendance at segregated schools partly explains the black-

white achievement gap. One way to provide access to these more integrated and higher-quality schools is to provide opportunities to live in neighborhoods where these schools exist. This was a large part of the success of the Gautreaux program and part of the promise of the MTO program.

However, since the release of the report that showed no educational improvement for the children of the MTO experimental families, critics have been quick to question the relevance of housing policies and neighborhood context for improving educational performance (e.g., Mathews 2007; Jacobs 2007). The scientific legitimacy of MTO's design as a randomized experiment hastened these opinions and conclusions. Certainly, experimental evaluations of policy interventions can provide valuable causal estimates and effect sizes, but we are left not knowing how a program ("treatment") did or did not produce improvements. This can lead to the conclusion that some policy approaches are *ineffective* when they are really a necessary but *insufficient* part of the solution to the problems that poor families face.

Our article demonstrates that in order to discover whether social programs will be effective, we need to understand how the conditions of life for poor families facilitate or constrain their ability to engage new structural opportunities. Previous research led policy makers to assume that the opportunity for neighborhood change provided by MTO could sufficiently promote families' escape from poverty and improve children's educational opportunities. While neighborhood change could be a necessary condition to protect children and improve their schooling, it is not always enough in light of the deep tangle of issues that characterize the lives of most of the MTO families. The families participating in social programs like MTO have often been living in poverty for generations and have needs that exist beyond those that the vouchers are meant to remedy.

The case examples described demonstrate why we need to integrate policies and interventions that target schooling in conjunction with housing, mental health services, and employment assistance. In addition, MTO did not provide employment support, transportation help, or educational assistance; it was a housing-only program. Ensuring that parents are employed and that children are attending high-quality schools may require coupling housing opportunities with supports tailored to individual families' needs. For example, the innovative Thompson housing mobility program in Baltimore has extensive multipartner efforts in place to help connect poor families to employment and education resources in their new communities (like Gautreaux, Thompson is the result of a fair housing lawsuit) (DeLuca and Rosenblatt 2010).

As our analyses suggest, the lack of information and the demands of parenting among the poor can clash with the theory behind social policy. If parents do not view themselves as effective agents in their children's schooling, it is hard to expect that new housing opportunities will translate into educational benefits for their children. If parents do not realize that the schools they send their children to are extremely low performing, or if they do not understand how schooling opportunities differ by neighborhood, they are unlikely to take an active stance to change the situation. Future programs should train mobility counselors to inform parents about the new schooling choices in the area, help them weigh the pros and cons of changing their children's schools, and explain some of the important elements of academic programs and how they could help their children's educational achievement. Counselors could also assuage parents' fears about transferring their children to new schools by making sure that receiving schools have information about the children and that little instruction time is lost in the transition between schools.

Part of the solution certainly lies in information enrichment and housing assistance, but some of these problems are a function of deeper structural inequalities that plague our cities and poor minority families. Years of failed urban school reform efforts, limited housing opportunities, and concentrated residential poverty only exacerbate the passive orientations that low-income families have toward schooling. Our findings underscore the need to consider both housing and education policy together for viable remedies that will lead to improved outcomes for children.

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### *Notes*

1. Implicit in theories of neighborhood effects is the idea that children's educational performance will improve if they attend a school with more high-SES students and fewer minority students. We did not link school quality with individual test scores in this article, so we did not include a discussion of this issue, which is the subject of great debate (see Coleman et al. 1966; Card and Kruger 1992; Jencks 1972; Coleman, Hoffer, and Kilgore 1982; Hanushek, Cain, and Rivkin 2002).

2. Research that tries to estimate “neighborhood effects” often compares the outcomes of children from families living in poor neighborhoods with those of families living in nonpoor neighborhoods. Unfortunately, these comparisons suffer from the “selection problem,” or the fact that the characteristics of families that lead them to choose neighborhoods also affect children’s outcomes. This makes it hard to know whether neighborhoods matter more than parents’ or children’s traits. Quasi-experimental and randomized experimental designs like those used in Gautreaux and the MTO program, respectively, allow for stronger causal inference because voucher allocation or random assignment breaks the link between family characteristics and initial neighborhood selection.

3. While Gautreaux’s design was unique because housing counselors paired families with new units in the suburbs according to their position on a waiting list, there was no control group, and random assignment was not a component in the allocation of vouchers; HUD wanted to provide a more rigorous test of neighborhood effects by executing a program with an experimental design across a wider number of metropolitan areas (DeLuca et al. 2010).

4. “Lease up” refers to the process of renting an apartment in a private-market unit. The regular housing choice voucher program lease-up rates are close to 69% nationally (Finkel and Buron 2001). The MTO lease-up rate was lower, reflecting the difficulty of finding affordable units in low-poverty areas.

5. We use the Baltimore MTO sample only; therefore, our results may not generalize to the other MTO cities. For details on the analyses that pool the data for all five cities, see the Interim Impacts Evaluation report (Orr et al. 2003).

6. For information about the qualitative work done in three of the other cities (New York, Boston, and Los Angeles) see <http://www.urban.org/projects/mto.cfm>.

7. We did not use data from all Baltimore MTO families because not all families were sampled in the Interim report. Initially, there were 636 families (953 children) in the Baltimore MTO site, but a sample of only 544 families (808 children) participated in the Interim survey. We have less information on the 92 families who did not participate in the Interim survey, but a comparison of basic demographics (gender, race, ethnicity) and status group (control, experimental mover, and so on) revealed no significant differences between those families and the ones who were part of the Interim survey. Of the 808 children in the Interim study, 470 (from 361 families) were old enough to be in school when families signed up for the MTO program (at least 6 years old). Of these children, 102 moved with MTO vouchers, and 147 were in the control group. These 249 children (from 181 families) are the focus of our analyses. The remaining children (221) were either in families who received a low-poverty voucher but did not move, or families who received a Section 8 voucher. We detail our reasons for not using data from these two groups in Note 8.

8. Some families who received low-poverty vouchers had difficulty finding and moving into a new apartment; we refer to these families as “experimental nonmovers.” There was also a Section 8 group whose members received vouchers but were not required to relocate to a nonpoor community. As with the experimental vouchers, there were some Section 8 group families who did not relocate; we refer to these families as “Section 8 nonmovers.” While many Section 8 families did move to less poor communities on their own, we do not include the Section 8 group since they were free to use their voucher anywhere and were less likely to tell us much about the process of moving to low-poverty communities and schools. See Orr et al (2003) for detailed analyses of outcomes for the Section 8 group.

9. Residential trajectories were gathered from a variety of sources, including the non-profits that assisted in the lease-up process, public housing agencies, and, later, rounds of canvassing for data collection. Schooling trajectories are gathered from parental self-report.

Parents were asked to name each school their children attended, how many years the children attended the school, and what grades those years corresponded to (third grade, eighth grade, and so on).

10. For confidentiality, we mapped schools to census tract centroids and mapped addresses to block group centroids.

11. We focus on experimental movers because it was expected that this group would have the greatest change in housing opportunity. We determined the zone school based on either the child's age or the type of school (elementary, middle school, or high school) that the child was attending following the family's move. This analysis includes 100 children from 78 families (we excluded 1 family with 2 children because of missing address data). This is higher than that in Tables 2 and 3, which only include children with both a baseline school and a next school.

12. The targeted random sample for the qualitative study was 149 families. The total number of mothers interviewed was 124, with 15 primary caregivers (PCGs) added when a parent lost custody or died (bringing the total number interviewed to 139). Ten of these supplemented an interview, and five replaced parent interviews. Our sample includes all control (55) and all experimental mover mothers (35) interviewed ( $N = 90$ ). We also draw on five PCG interviews, but these are not different households; so, our sample size is 90 households but 95 interviews total.

13. The previous evaluation report did not disaggregate data by city, and we wanted to understand the patterns of moves and school changes specifically for Baltimore so that we could incorporate the qualitative data. We also wanted to examine the order of school changes as they related to the first moves made by the Baltimore MTO families. Previous research analyzed schooling location for children 4–7 years after random assignment, and so it was difficult to know whether the schooling locations recorded at that time were connected to the decisions made around the move.

14. The interviews were collected in 2003–2004, anywhere between 6 and 10 years after families signed up for MTO. For some cases, the interviews pertain to the original MTO move, but others reflect later schooling decisions.

15. As of 2000, The black-white dissimilarity index was 71.2 for the city and 67.9 for the PMSA. Source: Mumford Center (<http://mumford.albany.edu/census/WholePop/CitySegdata/2404000City.htm>).

16. Exams refer to the performance of all schools on the Maryland School Performance Assessment Program (MSPAP) reading tests given to third, fifth, and eighth graders from 1994 through 1998. Students' raw (scale) test scores are converted to 1 of 5 levels. Level 3 or higher scores are categorized as satisfactory (Maryland State Department of Education 1995). Data source: The National Longitudinal School-Level State Assessment Score Database.

17. Table 1 shows that experimental movers moved to neighborhoods with an average poverty rate that was higher than the 10% cutoff mandated by the targeted vouchers. This reflects our use of 2000 census data to describe the neighborhood change, while the vouchers were based on poverty rates from the 1990 census. Many experimental movers leased up in areas that were nonpoor in the 1990s but quickly declining by 2000 (Orr et al. 2003).

18. The first moves for the experimental nonmovers look almost exactly like those of the control-group families.

19. On average, experimental-mover families moved less than 1 year after receiving the voucher, which suggests that the next school attended by MTO experimental mover children would have been after the family's move. In analyses not shown, we employed a day count method to verify that the next school attended followed the family's first move. This method limited the number of students we could use for analyses but allowed us to verify



that the next school a student attended followed the family's move. Results of these analyses were very similar to those reported here.

20. The school characteristics of experimental and control group students are significantly different ( $p < .05$ ), both at baseline and after the first school transfer, for each measure reported in Table 2.

21. We measured the tightness of the rental market in central Maryland using the 2000 census formula for rental vacancy rate. This is computed by dividing the number of vacant units "for rent" by the sum of renter-occupied units and vacant units that are "for rent," and then multiplying by 100.

22. Respondents are referred to by the pseudonym they chose prior to being interviewed. The authors changed the names of children, streets, and schools to maintain confidentiality.

23. In fact, almost 60% of the women who signed up for MTO listed safety issues as the most important reason for wanting to move, and about 30% listed better housing as the main motivation. Only 9.5% of the women listed "better schools" as the most important reason for wanting a voucher, which indicates how the psychological and material concerns of life in these violent neighborhoods make it hard to focus on other issues.

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## APPENDIX

### Qualitative Data Procedures and Methodology

The interview guides were 30 pages in length and covered the following topical modules: residential history, current residence, social networks

(head), education (head), employment history (head), school and behaviors (focal child aged 9–14; focal youth age 14–19), plans for moving again, health, mental health, plans for the future, and hopes for children. Between 2004 and 2005, research interns at Princeton University transcribed and coded all the interviews we conducted. Using Microsoft Access to organize our qualitative data, we focused on a subset of macro-fields related to child schooling and neighborhood moves. We then recoded the data according to the following subcodes, based on our research questions:

(SCHOPTIONS)

Knowledge of schooling options in area; if mom talks about the various options and choices available in the neighborhood or area, or some quality differences among them

(SCHQUAL)

School quality judgments; if mom talks about the good or bad characteristics of the school child attends, or in relation to thinking about sending the child somewhere else

(SCHMTO)

Connection of school choice to neighborhood/MTO move; whether mom thinks about school options as connected to residential mobility, a reason to move, a reason she moved with MTO, etc.

(SCHDEV)

Importance of school to child development/behavior; whether mom makes connections or alludes to the role that schools play in shaping children's behaviors, skills, future

(SCHNET)

Social networks and schooling opportunities; whether mom mentions that she sent her child to a school based on a recommendation from family or associate; whether a community member recommended child for a school; whether a social work/teacher/neighbor went out of the way to recommend that a bright child attend a private school/magnet school

(SCHPOL)

Information about transfer/school choice policies; whether mom mentions being aware of how to actually go about requesting a school transfer or exercising school choice options; administrative information, talking to teachers or principals

## (SCHREAS)

Reasons for picking schools; this is different from the school quality measure in that there might be a child-specific or family-specific reason why a school was chosen, net of quality concerns

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